



17.5 Intel Material Declaration Data Sheets

The Material Declaration Data Sheets (MDDS) contained in this chapter are based upon the format established by the Electronic Industries Alliance (EIA), The European Information and Communication Technology Association (EICTA) and the Japan Green Procurement Survey Standardization Initiative (JGPSSI). This format is published as the Joint Industry Guide for Material Composition Declaration and can be found at: <http://www.eia.org/resources/2003-09-19.10.pdf>

Most of the data sheets contained in this chapter are based on third-party analytical testing of the product specified in footnote #2 of each MDDS. If a product is not specified in footnote #2, the data listed in that MDDS are based on engineering estimates. Data sheets are organized by representative package types which cover the range of similar products. Since multiple products may be covered by a data sheet, data are reported in parts per million (ppm). Mass of the product is provided. Mass of individual materials can be calculated by the user as needed.

MDDSs for other package families will be added to this chapter as they become available. In addition, existing MDDSs will be updated periodically as additional data becomes available. Users of MDDS are responsible for consulting this chapter regularly to ensure they are using the most recent MDDS version.

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May 2006

To whom it may concern:

Intel manufactures a wide range of products, from microprocessors, through embedded controllers, up to complete OEM systems. A large number of subassemblies and components are purchased from other manufacturers. Intel goes to great lengths to make sure all our products meet applicable legal requirements, and we continually monitor changes in those requirements. We have surveyed our products, and to the best of our knowledge, Intel products are in compliance with all applicable national and international laws and regulations, including those that may restrict the materials content of certain products.

Intel is frequently asked by its customer base about the presence of certain materials in its products. To the best of our knowledge, the following materials are not present in Intel products and are restricted by Intel's Environmental Product Content Specification for Suppliers and Outsourced Manufacturers (<http://supplier.intel.com/ehs/environmental.htm>):

- Asbestos
- Certain Azo Colorants
- Cadmium compounds (except as a plastic stabilizer where content must be < 100 ppm)
- Mercury compounds
- Ozone Depleting Substances (ODS)
- Polybrominated biphenyls and their ethers (PBB, PBDE)
- Polychlorinated biphenyls and terphenyls (PCB, PCT)
- Polychlorinated naphthalenes
- Short-chained chlorinated paraffins
- Tributyl tin (TBT) and Triphenyl tin (TPT)
- Tributyl tin oxide (TBTO)
- Hexavalent chromium

The information provided regarding the material content of our products is true and correct to the best of our knowledge and Intel has systems and due diligence processes in place to determine the content of our products and ensure compliance with all applicable laws and regulations. Furthermore, where Intel has identified products as RoHS compliant in the attached Material Declaration Data Sheets (MDDS), Intel defines RoHS compliance as Lead and other banned materials in the EU RoHS directive are either (1) below all applicable substance thresholds as proposed by the EU or (2) an approved exemption applies. (Note: RoHS implementing details are not fully defined and may change.)

Sincerely,

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	Processor Number	Speed	FSB	Cache	Commit Object	MM#	RoHS Compliant	Boxed Processor MDDs	Link to the MDDs
Intel® Celeron® processor	n/a	1.8 GHz	400 MHz	256 KB	BX80532RC1800B	863423	N	n/a	
						867092	N	n/a	
	n/a	2.0 GHz	400 MHz	256 KB	BX80532RC2000B	852175	N	n/a	
						852183	N	n/a	
	n/a	2.4 GHz	400 MHz	256 KB	BX80532RC2400B	859735	N	n/a	
	n/a	2.5 GHz	400 MHz	256 KB	BX80532RC2500B	854307	N	n/a	
Intel® Celeron® D processor	310	2.13 GHz	533 MHz	256 KB	BX80546RE2130C	874311	N	n/a	
						874307	Y	721, 742, 766	MddsDoc 721
						878053	N	n/a	
	315	2.26 GHz	533 MHz	256 KB	BX80546RE2267C	873162	Y	721, 742, 766	MddsDoc 721
						877970	Y	721, 742, 766	MddsDoc 721
						868818	N	n/a	
	320	2.40 GHz	533 MHz	256 KB	BX80546RE2400C	868126	N	n/a	
						873165	Y	721, 742, 766	MddsDoc 721
Intel® Celeron® D processor	325	2.53 GHz	533 MHz	256 KB	BX80546RE2533C	873166	Y	721, 742, 766	MddsDoc 721
						868128	N	n/a	
	330	2.67 GHz	533 MHz	256 KB	BX80546RE2667C	868129	N	n/a	
						873170	Y	721, 742, 766	MddsDoc 721
	335	2.80 GHz	533 MHz	256 KB	BX80546RE2800C	868131	N	n/a	
						873171	Y	721, 742, 766	MddsDoc 721
	340	2.93 GHz	533 MHz	256 KB	BX80546RE2933C	868132	N	n/a	
						873174	Y	721, 742, 766	MddsDoc 721
Intel® Celeron® D processor	345	3.06 GHz	533 MHz	256 KB	BX80546RE3066C	868133	N	n/a	
						873173	Y	721, 742, 766	MddsDoc 721
	350	3.20 GHz	533 MHz	256 KB	BX80546RE3200C	868820	N	n/a	
						873175	Y	721, 742, 766	MddsDoc 721
	352	3.20 GHz	533 MHz	512 KB	BX80552352	879372	Y	871,874,875	MddsDoc 871
						879371	Y	871,874,875	MddsDoc 871
Intel® Celeron® D processor	325J	2.53 GHz	533 MHz	256 KB	BX80547RE2533C	866286	N	n/a	
						871660	N	n/a	
						875345	Y	722, 743, 767	MddsDoc 722
	330J	2.67 GHz	533 MHz	256 KB	BX80547RE2667C	866287	N	n/a	
						871661	N	n/a	
	331	2.67 GHz	533 MHz	256 KB	BX80547RE2667CN	875355	Y	722, 743, 767	MddsDoc 722
						883001	Y	722, 743, 767	MddsDoc 722
	335J	2.80 GHz	533 MHz	256 KB	BX80547RE2800C	866288	N	n/a	
	336	2.80 GHz	533 MHz	256 KB	BX80547RE2800CN	871663	N	n/a	
	336	2.80 GHz	533 MHz	256 KB	BX80547RE2800CN	875352	Y	722, 743, 767	MddsDoc 722
						883003	Y	722, 743, 767	MddsDoc 722
	340J	2.93 GHz	533 MHz	256 KB	BX80547RE2933C	866291	N	n/a	
	341	2.93 GHz	533 MHz	256 KB	BX80547RE2933CN	871666	N	n/a	
						875351	Y	722, 743, 767	MddsDoc 722
	345J	3.06 GHz	533 MHz	256 KB	BX80547RE3066C	866289	N	n/a	
						871668	N	n/a	
						875354	Y	722, 743, 767	MddsDoc 722
	346	3.06 GHz	533 MHz	256 KB	BX80547RE3066CN	883005	Y	722, 743, 767	MddsDoc 722
	351	3.2 GHz	533 MHz	256 KB	BX80547RE3200CN	871670	N	n/a	

					875356	Y	722, 743, 767	MddsDoc 722	
					883004	Y	722, 743, 767	MddsDoc 722	
355	3.33 GHz	533 MHz	256 KB	BX80547RE3330CN	875357	Y	722, 743, 767	MddsDoc 722	
					883401	Y	722, 743, 767	MddsDoc 722	
Intel® Pentium® 4 processor	631	3.0 GHz	800 MHz	2 MB	BX80552631	877345	Y	723, 748, 768	MddsDoc 723
						879160	Y	723, 748, 768	MddsDoc 723
						879364	Y	723, 748, 768	MddsDoc 723
	641	3.20 GHz	800 MHz	2 MB	BX80552641	877344	Y	723, 748, 768	MddsDoc 723
						879159	Y	723, 748, 768	MddsDoc 723
						879363	Y	723, 748, 768	MddsDoc 723
	651	3.40 GHz	800 MHz	2 MB	BX80552651	877343	Y	723, 748, 768	MddsDoc 723
						879161	Y	723, 748, 768	MddsDoc 723
						879365	Y	723, 748, 768	MddsDoc 723
	661	3.60 GHz	800 MHz	2 MB	BX80552661	877318	Y	723, 748, 768	MddsDoc 723
						879158	Y	723, 748, 768	MddsDoc 723
						879362	Y	723, 748, 768	MddsDoc 723
Intel® Pentium® 4 processor (BTX Type 2)	631	3.0 GHz	800 MHz	2 MB	BX80552631T2	879173	Y	724	MddsDoc 724
						879130	Y	724	MddsDoc 724
	641	3.20 GHz	800 MHz	2 MB	BX80552641T2	879172	Y	724	MddsDoc 724
						879369	Y	724	MddsDoc 724
	651	3.40 GHz	800 MHz	2 MB	BX80552651T2	879171	Y	724	MddsDoc 724
						879367	Y	724	MddsDoc 724
	661	3.60 GHz	800 MHz	2 MB	BX80552661T2	879170	Y	724	MddsDoc 724
						879368	Y	724	MddsDoc 724
Intel® Pentium® 4 processor	n/a	2.26 GHz	533 MHz	512 KB	BX80532PE2266D	850340	N	n/a	
						865663	N	n/a	
	n/a	2.8 GHz	533 MHz	512 KB	BX80532PE2800D	850335	N	n/a	
						879368	Y	876,877,878	MddsDoc 876
Intel® Pentium® 4 processor		2.40 GHz	533 MHz	1 MB	BX80546PE2400E	868042	N	n/a	
						873415	Y	876,877,878	MddsDoc 876
		2.80 GHz	533 MHz	1 MB	BX80546PE2800E	858652	N	n/a	
						861581	N	n/a	
		2.80 GHz	800 MHz	1 MB	BX80546PG2800E	868043	N	n/a	
						873308	Y	876,877,878	MddsDoc 876
		3.0 GHz	800 MHz	1 MB	BX80546PG3000E	873414	Y	876,877,878	MddsDoc 876
						873307	Y	876,877,878	MddsDoc 876
		3.2 GHz	800 MHz	1 MB	BX80546PG3200E	861556	N	n/a	
						873306	Y	876,877,878	MddsDoc 876
		3.40 GHz	800 MHz	1 MB	BX80546PG3400E	858683	N	n/a	
						861586	N	n/a	
Intel® Pentium® processor Extreme Edition	n/a	3.2 GHz	800 MHz	1 MB	BX80532PG3200F	868017	N	n/a	
						873309	Y	876,877,878	MddsDoc 876
	n/a	3.73 GHz	1066 MHz	2 MB	BX80547PH3733F	861587	N	n/a	
						873310	Y	876,877,878	MddsDoc 876
						877778	Y	725,749,770	MddsDoc 725
Intel® Core™ 2 Extreme processor	X6800	2.93 GHz	1066 MHz	2 x 2 MB	BX80557X6800	876596	Y	728, 753	MddsDoc 728
						878912	Y	728, 753	MddsDoc 728
						884552			
						884552			
Intel® Pentium® 4 processor		2.66 GHz	533 MHz	1 MB	BX80547PE2667EN	872643	N	n/a	
						874330	Y	740,741,769	MddsDoc 740
		2.66 GHz	533 MHz	1 MB	BX80547PEP266EN	881582	Y	740,741,769	MddsDoc 740
						882982	Y	740,741,769	MddsDoc 740

	2.80 GHz	533 MHz	1 MB	BX80547PE2800EN	875437	Y	740,741,769	MddsDoc 740
	2.80 GHz	533 MHz	1 MB	BX80547PE2800EN	875440	N	n/a	
	2.80 GHz	533 MHz	1 MB	BX80547PEP2800EN	881583	Y	740,741,769	MddsDoc 740
					882981	Y	740,741,769	MddsDoc 740
Intel® Pentium® 4 processor	3.06 GHz	533 MHz	1 MB	BX80547PE3066E	882073	Y	740,741,769	MddsDoc 740
					881515	Y	740,741,769	MddsDoc 740
Intel® Pentium® 4 processor (BTX Type 1)	630	3.0 GHz	800 MHz	2 MB	BX80547PG3000F	869547	N	n/a
	630	3.0 GHz	800 MHz	2 MB	BX80547PG3000F	875854	Y	740,741,769
	640	3.20 GHz	800 MHz	2 MB	BX80547PG3200F	869534	N	n/a
	640	3.20 GHz	800 MHz	2 MB	BX80547PG3200F	875856	Y	740,741,769
	650	3.40 GHz	800 MHz	2 MB	BX80547PG3400F	869533	N	n/a
	650	3.40 GHz	800 MHz	2 MB	BX80547PG3400F	875851	Y	740,741,769
	660	3.60 GHz	800 MHz	2 MB	BX80547PG3600F	869530	N	n/a
	660	3.60 GHz	800 MHz	2 MB	BX80547PG3600F	875855	Y	725,749,770
	670	3.80 GHz	800 MHz	2 MB	BX80547PG3800F	871076	N	n/a
	670	3.80 GHz	800 MHz	2 MB	BX80547PG3800F	875852	Y	725,749,770
Intel® Pentium® 4 processor	531	3.0 GHz	800 MHz	1 MB	BX80547PG300EKT	872673	N	n/a
	551	3.40 GHz	800 MHz	1 MB	BX80547PG340EKT	872651	N	n/a
	561	3.60 GHz	800 MHz	1 MB	BX80547PG360EKT	872652	N	n/a
	630	3.0 GHz	800 MHz	2 MB	BX80547PG3000FT	870314	N	n/a
	630	3.0 GHz	800 MHz	2 MB	BX80547PG3000FT	875861	Y	726,750
	640	3.20 GHz	800 MHz	2 MB	BX80547PG3200FT	870313	N	n/a
	640	3.20 GHz	800 MHz	2 MB	BX80547PG3200FT	875860	Y	726,750
	650	3.40 GHz	800 MHz	2 MB	BX80547PG3400FT	870312	N	n/a
	650	3.40 GHz	800 MHz	2 MB	BX80547PG3400FT	875859	Y	726,750
	660	3.60 GHz	800 MHz	2 MB	BX80547PG3600FT	870311	N	n/a
	660	3.60 GHz	800 MHz	2 MB	BX80547PG3600FT	875858	Y	751
	670	3.80 GHz	800 MHz	2 MB	BX80547PG3800FT	871586	N	n/a
	670	3.80 GHz	800 MHz	2 MB	BX80547PG3800FT	875857	Y	751
Intel® Pentium® 4 processor (BTX Type 2)	521	2.80 GHz	800 MHz	1 MB	BX80547PG2800EK	872438	N	n/a
						874342	N	n/a
	521	2.80 GHz	800 MHz	1 MB	BX80547PG2800EK	881585	Y	740,741,769
	531	3.0 GHz	800 MHz	1 MB	BX80547PG3000EK	874343	Y	740,741,769
						872649	N	n/a
						884631	Y	740,741,769
	531J	3.0 GHz	800 MHz	1 MB	BX80547PG3000EJ	866896	N	n/a
	541	3.20 GHz	800 MHz	1 MB	BX80547PG3200EK	874347	Y	740,741,769
						872650	N	n/a
						884630	Y	740,741,769
	551	3.40 GHz	800 MHz	1 MB	BX80547PG3400EK	874344	Y	740,741,769
						872646	N	n/a
	561	3.60 GHz	800 MHz	1 MB	BX80547PG3600EK	872647	N	n/a
	571	3.80 GHz	800 MHz	1 MB	BX80547PG3800EK	872648	N	n/a
Intel® Pentium® D processor	920	2.80 GHz	800 MHz	2 x 2 MB	BX80553920	876602	Y	727,752,771
						878915	Y	727,752,771
	920	2.80 GHz	800 MHz	2 x 2 MB	BX80553920T	876605	Y	729,754
						878921	Y	729,754
	920	2.80 GHz	800 MHz	2 x 2 MB	BX80553920T2	877516	Y	731
						878922	Y	731
	930	3.0 GHz	800 MHz	2 x 2 MB	BX80553930	876603	Y	727,752,771
						878916	Y	727,752,771
	930	3.0 GHz	800 MHz	2 x 2 MB	BX80553930T	876604	Y	729,754
						878920	Y	729,754
Intel® Pentium® D processor (BTX Type 1)	930	3.0 GHz	800 MHz	2 x 2 MB	BX80553930T2	877515	Y	731
						878919	Y	731
	940	3.20 GHz	800 MHz	2 x 2 MB	BX80553940	876600	Y	728,753

					878544		728,753	MddsDoc 728	
940 (BTX Type 1)	3.20 GHz	800 MHz	2 x 2 MB	BX80553940T	876601	N	n/a		
					878918		729,754	MddsDoc 729	
950	3.40 GHz	800 MHz	2 x 2 MB	BX80553950	876598	Y	728,753	MddsDoc 728	
					878913		728,753	MddsDoc 728	
950 (BTX Type 1)	3.40 GHz	800 MHz	2 x 2 MB	BX80553950T	876599	Y	729,754	MddsDoc 729	
					878917		729,754	MddsDoc 729	
Intel® Pentium® D processor	805	2.66 GHz	533 MHz	2 x 1 MB	BX80551PE2666FN	879857	Y	733,755,772	MddsDoc 733
	820	2.80 GHz	800 MHz	2 x 1 MB	BX80551PG2800FN	871057	Y	733,755,772	MddsDoc 733
						871067	Y	733,755,772	MddsDoc 733
	820	2.80 GHz	800 MHz	2 x 1 MB	BX80551PG2800FT	871059	Y	737,764	MddsDoc 737
						871381	Y	737,764	MddsDoc 737
	820	2.80 GHz	800 MHz	2 x 1 MB	BX80551PG280FT2	877543	Y	738	MddsDoc 738
	830	3.0 GHz	800 MHz	2 x 1 MB	BX80551PG3000FN	871053	Y	735,763	MddsDoc 763
						871065	Y	735,763	MddsDoc 763
	830	3.0 GHz	800 MHz	2 x 1 MB	BX80551PG3000FT	871056	Y	879	MddsDoc 879
						871380	Y	879	MddsDoc 879
	840	3.20 GHz	800 MHz	2 x 1 MB	BX80551PG3200FN	871050	Y	735,763	MddsDoc 763
						871062	Y	735,763	MddsDoc 763
840	3.20 GHz	800 MHz	2 x 1 MB	BX80551PG3200FT	871051	Y	879	MddsDoc 879	
					871376	Y	879	MddsDoc 879	
840	3.20 GHz	800 MHz	2 x 1 MB	BX80551PGH3200F	871377	Y	735,763	MddsDoc 763	
Intel® Celeron® M processor	350	1.30 GHz	400 MHz	1 MB	BXM80536NC1300E	865626	Y	744	MddsDoc 744
	350J	1.30 GHz	400 MHz	1 MB	BX80536NC1300EJ	868603	Y	744	MddsDoc 744
						874335	Y	744	MddsDoc 744
	360	1.40 GHz	400 MHz	1 MB	BXM80536NC1400E	865628	Y	744	MddsDoc 744
	360J	1.40GHz	400 MHz	1 MB	BX80536NC1400EJ	868602	Y	744	MddsDoc 744
						874328	Y	744	MddsDoc 744
	370	1.50 GHz	400 MHz	1 MB	BX80536NC1500EJ	868601	Y	744	MddsDoc 744
						874326	Y	744	MddsDoc 744
380	1.60 GHz	400 MHz	1 MB	BX80536NC1600EJ	874325	Y	744	MddsDoc 744	
390	1.70 GHz	400 MHz	1 MB	BX80536NC1700EJ	874315	Y	744	MddsDoc 744	
Intel® Pentium® M processor	725	1.60A GHz	400 MHz	2 MB	BXM80536GC1600F	862967	Y	744	MddsDoc 744
	735	1.70A GHz	400 MHz	2 MB	BXM80536GC1700F	861842	Y	744	MddsDoc 744
	745	1.80 GHz	400 MHz	2 MB	BXM80536GC1800F	861841	Y	744	MddsDoc 744
	755	2.0 GHz	400 MHz	2 MB	BXM80536GC2000F	861860	Y	744	MddsDoc 744
	765	2.10 GHz	400 MHz	2 MB	BXM80536GC2100F	865680	Y	744	MddsDoc 744
Intel® Pentium® M processor	730	1.60B GHz	533 MHz	2 MB	BX80536GE1600FJ	868609	Y	744	MddsDoc 744
	740	1.73 GHz	533 MHz	2 MB	BX80536GE1733FJ	868608	Y	744	MddsDoc 744
	750	1.86 GHz	533 MHz	2 MB	BX80536GE1866FJ	868607	Y	744	MddsDoc 744
	760	2.0A GHz	533 MHz	2 MB	BX80536GE2000FJ	868606	Y	744	MddsDoc 744
	770	2.13 GHz	533 MHz	2 MB	BX80536GE2133FJ	868605	Y	744	MddsDoc 744
	780	2.26 GHz	533 MHz	2 MB	BX80536GE2266FJ	868604	Y	744	MddsDoc 744
Intel® Celeron® M processor	410	1.46 GHz	533 MHz	1 MB	BX80538410	882667	Y	745	MddsDoc 745
	420	1.60 GHz	533 MHz	1 MB	BX80538420	880418	Y	745	MddsDoc 745
	430	1.73 GHz	533 MHz	1 MB	BX80538430	880419	Y	745	MddsDoc 745
Intel® Core™ Solo processor	T1300	1.66 GHz	667 MHz	2 MB	BX80538T1300	878614	Y	745	MddsDoc 745
	T1400	1.83 GHz	667 MHz	2 MB	BX80538T1400	882674	Y	745	MddsDoc 745
Intel® Core™ Duo processor	T2300	1.66 GHz	667 MHz	2 MB	BX80539T2300	878612	Y	745	MddsDoc 745
	T2300E	1.66 GHz	667 MHz	2 MB	BX80539T2300E	882668	Y	745	MddsDoc 745
	T2400	1.83 GHz	667 MHz	2 MB	BX80539T2400	878611	Y	745	MddsDoc 745
	T2500	2.0 GHz	667 MHz	2 MB	BX80539T2500	878609	Y	745	MddsDoc 745
	T2600	2.16 GHz	667 MHz	2 MB	BX80539T2600	878571	Y	745	MddsDoc 745
	T2700	2.33 GHz	667 MHz	2 MB	BX80539T2700	882980	Y	745	MddsDoc 745
Intel® Core™ 2 Duo processor	E6700	2.67 GHz	1066 MHz	2 x 2 MB	BX805576700	884979	Y		
	E6600	2.4 GHz	1066 MHz	2 x 2 MB	BX805576600	884980	Y		

E6400	2.13 GHz	1066 MHz	2 x 2 MB	BX805576400	884981	Y		
E6300	1.86 GHz	1066 MHz	2 x 2 MB	BX805576300	884982	Y		
E6300 (BTX)	1.86 GHz	1066 MHz	2 x 2 MB	BX805576300T2	884983	Y		
Dual-Core Intel® Xeon® processor	5160	3.0 GHz	1333 MHz	4 MB	BX805565160A	884515	Y	
					BX805565160P	884516	Y	
	5150	2.66 GHz	1333 MHz	4 MB	BX805565150A	884530	Y	
					BX805565150P	884532	Y	
	5140	2.33 GHz	1333 MHz	4 MB	BX805565140A	884533	Y	
					BX805565140P	884529	Y	
	5130	2.0 GHz	1333 MHz	4 MB	BX805565130A	884534	Y	
					BX805565130P	884531	Y	
	5120	1.86 GHz	1066 MHz	4 MB	BX805565120A	884536	Y	
					BX805565120P	884537	Y	
	5110	1.60 GHz	1066 MHz	4 MB	BX805565110A	884538	Y	
					BX805565110P	884539	Y	
Dual-Core Intel® Xeon® processor LV	5080	3.73 GHz	1066 MHz	2 x 2 MB	BX805555080A	879279	Y	
					BX805555080P	879730	Y	
	5060	3.2 GHz	1066 MHz	2 x 2 MB	BX805555060A	879733	Y	
					BX805555060P	879740	Y	
	5050	3.0 GHz	667 MHz	2 x 2 MB	BX805555050A	879824	Y	
					BX805555050P	879755	Y	
	5030	2.66 GHz	667 MHz	2 x 2 MB	BX805555030A	879757	Y	
					BX805555030P	879758	Y	
	5148	2.33 GHz	1333 MHz	2 x 2 MB	BX805565148A	884507	Y	
					BX805565148P	884510	Y	
Intel® Xeon® processor MP		3.16 GHz	667 MHz	1 MB	BX80546KF3160E	870069	N	
					BX80546KF3160E	875509	Y	
		3.66 GHz	667 MHz	1 MB	BX80546KF3660E	870075	N	
					BX80546KF3660E	875510	Y	
Intel® Xeon® processor MP		2.0 GHz	400 MHz	1 MB	BX80532KC2000E	855003	N	
		2.50 GHz	400 MHz	1 MB	BX80532KC2500E	855004	N	
		2.20 GHz	400 MHz	2 MB	BX80532KC2200F	857558	N	
		2.70 GHz	400 MHz	2 MB	BX80532KC2700F	857562	N	
		2.80 GHz	400 MHz	2 MB	BX80532KC2800F	855005	N	
		3.0 GHz	400 MHz	4 MB	BX80532KC3000H	857561	N	
Intel® Xeon® processor		2.80 GHz	800 MHz	2 MB	BX80546KG2800FA	867572	N	n/a
						873399	Y	739, 774
		2.80 GHz	800 MHz	2 MB	BX80546KG2800FP	873438	N	n/a
						867573	N	n/a
		3.0 GHz	800 MHz	2 MB	BX80546KG2800FU	873435	Y	779
						867559	N	n/a
		2.80 GHz	800 MHz	2 MB		873396	Y	739, 774
						867568	N	n/a
		3.0 GHz	800 MHz	2 MB	BX80546JG3000FA	867574	N	n/a
						8676787	Y	739, 774
		3.0 GHz	800 MHz	2 MB		867568	N	n/a
					BX80546KG3000FA	867559	N	n/a
		3.0 GHz	800 MHz	2 MB		867561	N	n/a
						873433	Y	779
		3.0 GHz	800 MHz	2 MB	BX80546JG3000FU	873396	Y	739, 774
						867592	N	n/a
		3.0 GHz	800 MHz	2 MB		867569	N	n/a
		3.0 GHz	800 MHz	2 MB	BX80546KG3000FU	867561	N	n/a
						867562	N	n/a
		3.0 GHz	800 MHz	2 MB		873441	Y	775, 776
					BX80546KG3200FA	867559	N	n/a
		3.0 GHz	800 MHz	2 MB		867558	N	n/a
						867551	N	n/a
		3.0 GHz	800 MHz	2 MB		873397	Y	739, 774
								MddsDoc 739

	3.20 GHz	800 MHz	2 MB	BX80546KG3200FP	867556	N	n/a	
	3.20 GHz	800 MHz	2 MB	BX80546KG3200FU	867555	N	n/a	
	3.20 GHz	800 MHz	2 MB	BX80546KG3200FU	867560	N	n/a	
					873434	Y	779	MddsDoc 779
	3.0 GHz	800 MHz	2 MB	BX80546KG3200FP	867565	N	n/a	
					873436	Y	775, 776	MddsDoc 775
	3.0 GHz	800 MHz	2 MB	BX80546KG3400FA	867550	N	n/a	
					867545	N	n/a	
					873398	Y	739, 774	MddsDoc 739
	3.0 GHz	800 MHz	2 MB	BX80546KG3400FU	867552	N	n/a	
					867547	N	n/a	
					873432	Y	779	MddsDoc 779
	3.0 GHz	800 MHz	2 MB	BX80546KG3400FP	867554	N	n/a	
					867549	N	n/a	
					873440	Y	775, 776	MddsDoc 775
	3.0 GHz	800 MHz	2 MB	BX80546KG3600FA	867544	N	n/a	
					867540	N	n/a	
					873394	Y	739, 774	MddsDoc 739
	3.0 GHz	800 MHz	2 MB	BX80546KG3600FU	867546	N	n/a	
					867542	N	n/a	
					873431	Y	779	MddsDoc 779
	3.0 GHz	800 MHz	2 MB	BX80546KG3600FP	867548	N	n/a	
					867543	N	n/a	
					873437	Y	775, 776	MddsDoc 775
	3.80 GHz	800 MHz	2 MB	BX80546KG3800FA	867529	N	n/a	
					873395	Y	739, 774	MddsDoc 739
	3.0 GHz	800 MHz	2 MB	BX80546KG3800FU	867533	N	n/a	
					873430	Y	779	MddsDoc 779
	3.0 GHz	800 MHz	2 MB	BX80546KG3800FP	867534	N	n/a	
					873439	Y	775, 776	MddsDoc 775
Intel® Xeon® processor	2.80 GHz	800 MHz	1 MB	BX80546KG2800EA	861133	N	n/a	
					861112	N	n/a	
					864775	N	n/a	
					874125	Y		
					865824	N	n/a	
	2.80 GHz	800 MHz	1 MB	BX80546KG2800EU	861135	N	n/a	
					861115	N	n/a	
					864792	N	n/a	
					865829	N	n/a	
					874130	Y		
	2.80 GHz	800 MHz	1 MB	BX80546KG2800EP	861134	N	n/a	
					861114	N	n/a	
					864789	N	n/a	
					874126	Y		
					865827	N	n/a	
	3.0 GHz	800 MHz	1 MB	BX80546KG3000EA	861136	N	n/a	
					861116	N	n/a	
					874129	Y		
					865681	N	n/a	
					865831	N	n/a	
	3.0 GHz	800 MHz	1 MB	BX80546KG3000EU	861138	N	n/a	
					861118	N	n/a	
					865700	N	n/a	
					874131	Y		
					865835	N	n/a	
	3.0 GHz	800 MHz	1 MB	BX80546KG3000EP	861137	N	n/a	

					861117	N	n/a		
					865682	N	n/a		
					874132	Y			
					865833	N	n/a		
	3.20 GHz	800 MHz	1 MB	BX80546KG3200EA	861139	N	n/a		
					861119	N	n/a		
					865704	N	n/a		
					874134	Y			
					865837	N	n/a		
	3.20 GHz	800 MHz	1 MB	BX80546KG3200EU	861141	N	n/a		
					861121	N	n/a		
					865709	N	n/a		
					874137	Y			
					865839	N	n/a		
	3.20 GHz	800 MHz	1 MB	BX80546KG3200EP	861140	N	n/a		
					861120	N	n/a		
					865706	N	n/a		
					874133	Y			
					865838	N	n/a		
	3.40 GHz	800 MHz	1 MB	BX80546KG3400EA	861142	N	n/a		
					861122	N	n/a		
					865736	N	n/a		
					874135	Y			
					865841	N	n/a		
	3.40 GHz	800 MHz	1 MB	BX80546KG3400EU	861144	N	n/a		
					861124	N	n/a		
					865738	N	n/a		
					874136	Y			
					865842	N	n/a		
	3.40 GHz	800 MHz	1 MB	BX80546KG3400EP	861143	N	n/a		
					861123	N	n/a		
					865737	N	n/a		
					874139	Y			
					865840	N	n/a		
	3.60 GHz	800 MHz	1 MB	BX80546KG3600EA	865740	N	n/a		
					874140	Y			
					865843	N	n/a		
					865742	N	n/a		
					874141	Y			
	3.60 GHz	800 MHz	1 MB	BX80546KG3600EU	865845	N	n/a		
					865739	N	n/a		
					874138	Y			
					865844	N			
Intel® Xeon® processor MP	7020	2.66 GHz	667 MHz	2 x 1 MB	BX80560KF2660F	875907	Y	787	MddsDoc 787
	7040	3.0 GHz	667 MHz	2 x 2 MB	BX80560KF3000H	875922	Y	787	MddsDoc 787
	7030	2.80 GHz	800 MHz	2 x 1 MB	BX80560KG2800F	875920	Y	787	MddsDoc 787
	7041	3.0 GHz	800 MHz	2 x 2 MB	BX80560KG3000H	876025	Y	787	MddsDoc 787
Intel® Xeon® processor		2.80 GHz	800 MHz	2 x 2 MB	BX80551KG2800HA	876026	Y	765, 781	MddsDoc 765
		2.80 GHz	800 MHz	2 x 2 MB	BX80551KG2800HP	876028	Y	783, 786	MddsDoc 783
		2.80 GHz	800 MHz	2 x 2 MB	BX80551KG2800HU	876027	Y	785	MddsDoc 785
Intel® Xeon® processor MP		2.83 GHz	667 MHz	4 MB	BX80546KF2833H	870300	N		
		3.0 GHz	667 MHz	8 MB	BX80546KF3000M	870151	N		
		3.33GHz	667 MHz	8 MB	BX80546KF3333M	870153	N		
Intel® Xeon® processor		2.40 GHz	533 MHz	1 MB	BX80532KE2400E	859259	N	n/a	
						858920	N	n/a	
		2.40 GHz	533 MHz	1 MB	BX80532KE2400EU	859265	N	n/a	

					858919	N	n/a	
	2.80 GHz	533 MHz	1 MB	BX80532KE2800E	859264	N	n/a	
					858918	N	n/a	
	2.80 GHz	533 MHz	1 MB	BX80532KE2800EU	859266	N	n/a	
					858915	N	n/a	
	3.06 GHz	533 MHz	1 MB	BX80532KE3066E	854964	N	n/a	
					854411	N	n/a	
	3.06 GHz	533 MHz	1 MB	BX80532KE3066EU	855690	N	n/a	
					854412	N	n/a	
	3.20 GHz	533 MHz	1 MB	BX80532KE3200E	855692	N	n/a	
					854413	N	n/a	
	3.20 GHz	533 MHz	1 MB	BX80532KE3200EU	855691	N	n/a	
					854414	N	n/a	
	3.20 GHz	533 MHz	2 MB	BX80532KE3200F	858927	N	n/a	
	3.20 GHz	533 MHz	2 MB	BX80532KE3200FU	858928	N	n/a	
	2.40 GHz	533 MHz	512 KB	BX80532KE2400D	854968	N	n/a	
					854957	N	n/a	
					854405	N	n/a	
	2.40 GHz	533 MHz	512 KB	BX80532KE2400DU	854969	N	n/a	
					854958	N	n/a	
	2.66 GHz	533 MHz	512 KB	BX80532KE2667D	854971	N	n/a	
	2.66 GHz	533 MHz	512 KB	BX80532KE2667DU	854972	N	n/a	
	2.80 GHz	533 MHz	512 KB	BX80532KE2800D	854973	N	n/a	
					854961	N	n/a	
	2.80 GHz	533 MHz	512 KB	BX80532KE2800DU	854976	N	n/a	
					854963	N	n/a	
	3.06 GHz	533 MHz	512 KB	BX80532KE3066D	854977	N	n/a	
	3.06 GHz	533 MHz	512 KB	BX80532KE3066DU	860354	N	n/a	
Intel® Xeon® processor LV	1.66 GHz	667 MHz	2 MB	BX80539KF16672M	881982	Y	747	MddsDoc 747
	2.0 GHz	667 MHz	2 MB	BX80539KF20002M	881981	Y	747	MddsDoc 747
Intel® Itanium® 2 processor LV	1.30 GHz	400 MHz	3 MB	BX80543JC1300G	875045	N		
				BX80543JC1300GD	875049	N		



Material Declaration Data Sheet

Boxed Prescott ICP Skt-N (SDJ)
BX80546RExxxxC
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 469.70
Manufacturer: Intel Corporation
Revision Date: 6/20/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Electronic Components	530000
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Electronic Components	850000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	uFCPGA2-J: Resin Parts (Frame, insulator, etc.)	4700
Brominated Flame Retardant	Flame retardant	uFCPGA2-J: Resin Parts (Frame, insulator, etc.)	1800
Brominated Flame Retardant	Flame retardant	Prescott: Epoxy encapsulation material	4730
Nickel	Electronic and Mechanical components and materials	Prescott: Substrate / SLI	8050

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80546RExxxxC. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.

2. This data sheet is based on the product specified and other packages are assumed to be similar.

3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.

4. Material mass can be estimated by multiplying concentration (ppm) by product weight.

5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Prescott ICP Skt-T (SDJ)
BX80547RExxxxC
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 411.90
Manufacturer: Intel Corporation
Revision Date: 6/20/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

- * The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.
- * The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.
- * The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Electronic components	530000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Electronic components	850000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-F: Resin parts (Frame, insulator, etc.)	3300
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Resin parts (Frame, insulator, etc.)	12000
Brominated Flame Retardant	Flame retardant	Prescott Skt-T: Epoxy encapsulation material/Subst	1870
Nickel	Electronic and Mechanical components and materials	Prescott Skt-T: Substrate	12000

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80547RExxxxC. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.

2. This data sheet is based on the product specified and other packages are assumed to be similar.

3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.

4. Material mass can be estimated by multiplying concentration (ppm) by product weight.

5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed CedarMill ATX (SDJ)
BX80556x1
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 512.40
Manufacturer: Intel Corporation
Revision Date: 6/20/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

- * The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.
- * The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.
- * The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Electronic Components	530000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Electronic Components	850000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-A: Resin Parts (Frame, Insulator, etc.)	2700
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Resin Parts (Frame, Insulator, etc.)	9400
Brominated Flame Retardant	Flame retardant	Cedar Mill	2130
Nickel	Electronic and Mechanical components and materials	Cedar Mill	7710

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80556x1. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

INTEL ACCEPTS NO DUTY TO UPDATE THIS MDDS OR TO NOTIFY USERS OF THIS MDDS OF UPDATES OR CHANGES TO THIS MDDS. INTEL SHALL NOT BE LIABLE FOR ANY DAMAGES, DIRECT OR INDIRECT, CONSEQUENTIAL OR OTHERWISE, SUFFERED BY USERS OR THIRD PARTIES AS A RESULT OF THE USERS RELIANCE ON INFORMATION IN THIS MDDS THAT HAS BEEN UPDATED OR CHANGED.



Material Declaration Data Sheet

Boxed CedarMill BTX (Type 2)
BX80556x1T2
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 857.40
Manufacturer: Intel Corporation
Revision Date: 6/20/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-K: Electronic Components	530000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-K: Electronic Components	850000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-K: Resin Parts (Frame, Insulator, etc.)	9500
Brominated Flame Retardant	Flame retardant	FCLGA4-K: Resin Parts (Frame, Insulator, etc.)	37000
Brominated Flame Retardant	Flame retardant	Cedar Mill:	2130
Nickel	Electronic and Mechanical components and materials	Cedar Mill:	7710

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80556x1T2. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Prescott Skt-T EE (SDJ)
BX80547Pxxxxxx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 511.90
Manufacturer: Intel Corporation
Revision Date: 6/20/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

- * The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.
- * The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.
- * The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Electronic Components	530000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Electronic Components	850000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-A: Resin Parts (Frame, Insulator, etc.)	2700
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Resin Parts (Frame, Insulator, etc.)	9400
Brominated Flame Retardant	Flame retardant	Prescott: Epoxy encapsulation material/Substrate	1870
Nickel	Electronic and Mechanical components and materials	Prescott: Substrate	12000

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80547Pxxxxxx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Prescott Skt-T BTX Type-1 MS (SDJ)
BX80547PGxxxxT
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 991.90
Manufacturer: Intel Corporation
Revision Date: 6/21/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Electronic components	530000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Electronic components	850000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Bearing house	32000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-G: Resin parts (Frame, insulator, etc.)	10000
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Resin parts (Frame, insulator, etc.)	39000
Brominated Flame Retardant	Flame retardant	Prescott Skt-T: Epoxy encapsulation material/Subst	1870
Nickel	Electronic and Mechanical components and materials	Prescott Skt-T: Substrate	12000

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80547PGxxxxT. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.

2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Presler ATX 05A (SDJ)
BX805539xx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 512.40
Manufacturer: Intel Corporation
Revision Date: 6/20/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Electronic Components	530000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Electronic Components	850000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-A: Resin Parts (Frame, Insulator, etc.)	2700
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Resin Parts (Frame, Insulator, etc.)	9400
Brominated Flame Retardant	Flame retardant	Presler:	2130
Nickel	Electronic and Mechanical components and materials	Presler:	7710

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX805539xx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Presler ATX 05B (SDJ)
BX805539xx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 597.40
Manufacturer: Intel Corporation
Revision Date: 6/20/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-D: Electronic Components	530000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-D: Electronic Components	850000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-D: Resin parts (Frame, Insulator, etc.)	2200
Brominated Flame Retardant	Flame retardant	FCLGA4-D: Resin parts (Frame, Insulator, etc.)	8300
Brominated Flame Retardant	Flame retardant	Presler:	2130
Nickel	Electronic and Mechanical components and materials	Presler:	7710

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX805539xx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
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Material Declaration Data Sheet

Boxed Presler BTX Type-1 (SDJ)
BX805539xxT
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 992.40
Manufacturer: Intel Corporation
Revision Date: 6/20/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Electronic components	530000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Electronic components	850000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Bearing house	32000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-G: Resin parts (Frame, insulator, etc.)	10000
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Resin parts (Frame, insulator, etc.)	39000
Brominated Flame Retardant	Flame retardant	Presler:	2130
Nickel	Electronic and Mechanical components and materials	Presler:	7710

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX805539xxT. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.

2. This data sheet is based on the product specified and other packages are assumed to be similar.

3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.

4. Material mass can be estimated by multiplying concentration (ppm) by product weight.

5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

INTEL ACCEPTS NO DUTY TO UPDATE THIS MDDS OR TO NOTIFY USERS OF THIS MDDS OF UPDATES OR CHANGES TO THIS MDDS. INTEL SHALL NOT BE LIABLE FOR ANY DAMAGES, DIRECT OR INDIRECT, CONSEQUENTIAL OR OTHERWISE, SUFFERED BY USERS OR THIRD PARTIES AS A RESULT OF THE USERS RELIANCE ON INFORMATION IN THIS MDDS THAT HAS BEEN UPDATED OR CHANGED.



Material Declaration Data Sheet

Boxed Presler BTX Type-2 (SDJ)
BX805539xxT2
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 857.40
Manufacturer: Intel Corporation
Revision Date: 6/20/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-K: Electronic Components	530000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-K: Electronic Components	850000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-K: Resin Parts (Frame, Insulator, etc.)	9500
Brominated Flame Retardant	Flame retardant	FCLGA4-K: Resin Parts (Frame, Insulator, etc.)	37000
Brominated Flame Retardant	Flame retardant	Presler:	2130
Nickel	Electronic and Mechanical components and materials	Presler:	7710

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX805539xxT2. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.

2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Smithfield ATX 05A (SDJ)
BX80551Pxxxxxx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 512.40
Manufacturer: Intel Corporation
Revision Date: 6/20/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Smithfield: FLI	2010
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Electronic Components	530000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Electronic Components	850000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-A: Resin Parts (Frame, Insulator, etc.)	2700
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Resin Parts (Frame, Insulator, etc.)	9400
Brominated Flame Retardant	Flame retardant	Smithfield: Epoxy encapsulation material/Substrate	15300
Nickel	Electronic and Mechanical components and materials	Smithfield: Substrate	20900

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80551Pxxxxxx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Smithfield ATX 05A (SDJ)
BX80551Pxxxxxx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 512.40
Manufacturer: Intel Corporation
Revision Date: 6/20/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Smithfield: FLI	2010
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Electronic Components	530000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Electronic Components	850000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-A: Resin Parts (Frame, Insulator, etc.)	2700
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Resin Parts (Frame, Insulator, etc.)	9400
Brominated Flame Retardant	Flame retardant	Smithfield: Epoxy encapsulation material/Substrate	15300
Nickel	Electronic and Mechanical components and materials	Smithfield: Substrate	20900

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80551Pxxxxxx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Smithfield BTX Type-1 (SDJ)
BX80551PxxxxxxT
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 991.90
Manufacturer: Intel Corporation
Revision Date: 6/20/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Smithfield: FLI	2010
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Electronic components	530000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Electronic components	850000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Bearing house	32000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-G: Resin parts (Frame, insulator, etc.)	10000
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Resin parts (Frame, insulator, etc.)	39000
Brominated Flame Retardant	Flame retardant	Smithfield: Epoxy encapsulation material/Substrate	15300
Nickel	Electronic and Mechanical components and materials	Smithfield: Substrate	20900

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80551PxxxxxT. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Smithfield BTX Type-2 (SDJ)
BX80551PxxxxT2
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 856.90
Manufacturer: Intel Corporation
Revision Date: 6/20/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Smithfield: FLI	2010
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-K: Electronic Components	530000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-K: Electronic Components	850000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-K: Resin Parts (Frame, Insulator, etc.)	9500
Brominated Flame Retardant	Flame retardant	FCLGA4-K: Resin Parts (Frame, Insulator, etc.)	37000
Brominated Flame Retardant	Flame retardant	Smithfield: Epoxy encapsulation material/Substrate	15300
Nickel	Electronic and Mechanical components and materials	Smithfield: Substrate	20900

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80551PxxxxxT2. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Irwindale Active (NDJ)
BX80546KGxxxxFA
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 1017.50
Manufacturer: Intel Corporation
Revision Date: 6/21/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Bearing housing	25000
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Diode	925000
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Zener diode	251400
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Drive IC	881000
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Resistor	6500
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Resistor	31900
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Resistor	4000
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Resistor	41400
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Transistor	925000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	uFCPGA4-A: Insulator (lower)	100000
Antimony	Flame retardant	uFCPGA4-A: Impeller	58000
Antimony	Flame retardant	uFCPGA4-A: Housing	58000
Antimony	Flame retardant	uFCPGA4-A: Diode	8500
Antimony	Flame retardant	uFCPGA4-A: Diode	5700
Antimony	Flame retardant	uFCPGA4-A: Hall element	12000
Antimony	Flame retardant	uFCPGA4-A: Drive IC	5100
Antimony	Flame retardant	uFCPGA4-A: Drive IC	13100
Antimony	Flame retardant	uFCPGA4-A: Drive IC	12500
Antimony	Flame retardant	uFCPGA4-A: Connector	7693
Antimony	Flame retardant	uFCPGA4-A: Transistor	5400
Antimony	Flame retardant	uFCPGA4-A: Transistor	8800
Antimony	Flame retardant	uFCPGA4-A: Transistor	6600
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Insulator (lower)	100000
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Impeller	100000
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Housing	100000
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Diode	29900
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Diode	14400
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Hall element	8000
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Drive IC	5100
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Drive IC	13100
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: PCB	150000
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Transistor	17500
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Transistor	8800
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Transistor	20800
Brominated Flame Retardant	Flame retardant	Irwindale: Epoxy encapsulation material	5810
Nickel	Electronic and Mechanical components and materials	Irwindale: Substrate / SLI	5620
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Capacitor	12800
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Capacitor	42000
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Capacitor	65000

Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Zener diode	200000
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Resistor	35900
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Shaft	1900
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Ball bearing (outer ring)	90000
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Ball bearing (inner ring)	90000
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Ball bearing (ball)	40000
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Ball bearing (board)	89900
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Coil Spring	84100
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Spacer	94500
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Screw	96200

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80546KGxxxxFA. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

INTEL ACCEPTS NO DUTY TO UPDATE THIS MDDS OR TO NOTIFY USERS OF THIS MDDS OF UPDATES OR CHANGES TO THIS MDDS. INTEL SHALL NOT BE LIABLE FOR ANY DAMAGES, DIRECT OR INDIRECT, CONSEQUENTIAL OR OTHERWISE, SUFFERED BY USERS OR THIRD PARTIES AS A RESULT OF THE USERS RELIANCE ON INFORMATION IN THIS MDDS THAT HAS BEEN UPDATED OR CHANGED.



Material Declaration Data Sheet

Boxed Prescott Skt-T (SDJ)
BX80547Pxxxxxx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 411.90
Manufacturer: Intel Corporation
Revision Date: 6/20/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

- * The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.
- * The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.
- * The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Electronic components	530000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Electronic components	850000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-F: Resin parts (Frame, insulator, etc.)	3300
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Resin parts (Frame, insulator, etc.)	12000
Brominated Flame Retardant	Flame retardant	Prescott Skt-T: Epoxy encapsulation material/Subst	1870
Nickel	Electronic and Mechanical components and materials	Prescott Skt-T: Substrate	12000

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80547Pxxxxxx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.

2. This data sheet is based on the product specified and other packages are assumed to be similar.

3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.

4. Material mass can be estimated by multiplying concentration (ppm) by product weight.

5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Prescott Skt-T (NDJ)
BX80547Pxxxxxx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 356.90
Manufacturer: Intel Corporation
Revision Date: 6/23/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Bearing housing	25000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Diode	9000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Drive IC	5000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Zener diode	251400
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Resistor	31900

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Nickel	Electronic and Mechanical components and materials	Prescott: Substrate	12000

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80547Pxxxxx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Prescott ICP Skt-N (NDJ)
BX80546RExxxxC
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 459.70
Manufacturer: Intel Corporation
Revision Date: 6/21/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Prescott: Epoxy encapsulation material	4730
Lead/Lead Compounds	Electronic Components and Materials	Prescott: Substrate / SLI	8050
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Bearing housing	25000
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Diode	925000
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Zener diode	251400
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Drive IC	881000
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Resistor	7300
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Resistor	1900
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Resistor	42400

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	uFCPGA2-J: Insulator (Lower)	100000
Antimony	Flame retardant	uFCPGA2-J: Impeller	58000
Antimony	Flame retardant	uFCPGA2-J: Housing	58000
Antimony	Flame retardant	uFCPGA2-J: Diode	5700
Antimony	Flame retardant	uFCPGA2-J: Hall element	12000
Antimony	Flame retardant	uFCPGA2-J: Drive IC	13100
Bismuth	Main Material	uFCPGA2-J: Thermistor	6980
Brominated Flame Retardant	Flame retardant	uFCPGA2-J: Insulator (Lower)	100000
Brominated Flame Retardant	Flame retardant	uFCPGA2-J: Impeller	100000
Brominated Flame Retardant	Flame retardant	uFCPGA2-J: Housing	100000
Brominated Flame Retardant	Flame retardant	uFCPGA2-J: Diode	14400
Brominated Flame Retardant	Flame retardant	uFCPGA2-J: Hall element	8000
Brominated Flame Retardant	Flame retardant	uFCPGA2-J: Drive IC	13100
Brominated Flame Retardant	Flame retardant	uFCPGA2-J: PCB	23000
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Ball bearing (outer ring)	20000
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Ball bearing (inner ring):	20000
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Ball bearing (ball):	40000
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Ball bearing (board):	91500
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Coil spring	84100
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Shaft	1900
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Capacitor	29000
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Capacitor	65000
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Zener diode	200000
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Resistor	35900
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Resistor	23100

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80546RExxxxC. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.

2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Prescott ICP Skt-T (NDJ)
BX80547RExxxxC
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 356.90
Manufacturer: Intel Corporation
Revision Date: 6/21/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Bearing housing	25000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Diode	9000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Drive IC	5000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Zener diode	251400
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Resistor	31900
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Resistor	41400

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-F: Insulator (Lower)	100000
Antimony	Flame retardant	FCLGA4-F: Impeller	58000
Antimony	Flame retardant	FCLGA4-F: Housing	58000
Antimony	Flame retardant	FCLGA4-F: Diode	8500
Antimony	Flame retardant	FCLGA4-F: Diode	5700
Antimony	Flame retardant	FCLGA4-F: Hall element	12000
Antimony	Flame retardant	FCLGA4-F: Drive IC	5100
Antimony	Flame retardant	FCLGA4-F: Connector	6900
Antimony	Flame retardant	FCLGA4-F: Transistor	6600
Bismuth	Main Material	FCLGA4-F: Thermistor	6980
Brominated Flame Retardant	Flame retardant	Prescott: Epoxy encapsulation material/Substrate	1870
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Insulator (Lower)	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Impeller	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Housing	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Diode	29900
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Diode	14400
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Hall element	8000
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Drive IC	5100
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Drive IC	13100
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Transistor	20800
Brominated Flame Retardant	Flame retardant	FCLGA4-F: PCB	90000
Nickel	Electronic and Mechanical components and materials	Prescott: Substrate	12000
Nickel	Electronic and Mechanical components and materials	FCLGA4-F: Capacitor	29000
Nickel	Electronic and Mechanical components and materials	FCLGA4-F: Capacitor	65000
Nickel	Electronic and Mechanical components and materials	FCLGA4-F: Zener diode	200000
Nickel	Electronic and Mechanical components and materials	FCLGA4-F: Resistor	35900
Nickel	Electronic and Mechanical components and materials	FCLGA4-F: Resistor	29100
Nickel	Electronic and Mechanical components and materials	FCLGA4-F: Shaft	1900
Nickel	Electronic and Mechanical components and materials	FCLGA4-F: Ball Bearing	40000
Nickel	Electronic and Mechanical components and materials	FCLGA4-F: Ball FCLGA4-F: Bearing (FCLGA4-F: Board)	89900
Nickel	Electronic and Mechanical components and materials	FCLGA4-F: Coil Spring	84100

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80547RExxxxC. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.

2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

INTEL ACCEPTS NO DUTY TO UPDATE THIS MDDS OR TO NOTIFY USERS OF THIS MDDS OF UPDATES OR CHANGES TO THIS MDDS. INTEL SHALL NOT BE LIABLE FOR ANY DAMAGES, DIRECT OR INDIRECT, CONSEQUENTIAL OR OTHERWISE, SUFFERED BY USERS OR THIRD PARTIES AS A RESULT OF THE USERS RELIANCE ON INFORMATION IN THIS MDDS THAT HAS BEEN UPDATED OR CHANGED.



Material Declaration Data Sheet

Boxed Dothan processors
BX80536xxxxxxxxx,
BXM80536xxxxxxxx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 4.80
Manufacturer: Intel Corporation
Revision Date: 6/20/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

- * Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)
- * Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Dothan: FLI	3160

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	Dothan: solder	1380
Brominated Flame Retardant	Flame retardant	Dothan: Epoxy encapsulation	12800
Nickel	Electronic and Mechanical components and materials	Dothan: Substrate/SLI	15500

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80536xxxxxxxx, BXM80536xxxxxxxx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Yonah processor

BX80538xxx,

BX80538Txxxx,

BX80539Tx

Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 6.40

Manufacturer: Intel Corporation

Revision Date: 6/20/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds			

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Brominated Flame Retardant	Flame retardant	Yonah	16900
Nickel	Electronic and Mechanical components and materials	Yonah	17100

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80538xxx, BX80538Txxxx, BX80539Tx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Sossaman
BX80539KFxxxxxx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 6.30
Manufacturer: Intel Corporation
Revision Date: 6/20/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds			

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	Sossaman:	1410
Brominated Flame Retardant	Flame retardant	Sossaman:	5200
Nickel	Electronic and Mechanical components and materials	Sossaman:	14100

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80539KFxxxxx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed CedarMill ATX (NDJ)
BX80556x1
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 472.40
Manufacturer: Intel Corporation
Revision Date: 6/21/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Bearing housing	25000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Diode	925000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: IC	880000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Zener diode	251400
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Resistor	7300
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Resistor	31900
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Resistor	41400

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
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Arsenic/Arsenic Compounds
Beryllium/Beryllium Compounds

Brominated Flame Retardants
Nickel/Nickel Compounds

Selenium/Selenium Compounds
Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-A: Housing	58000
Antimony	Flame retardant	FCLGA4-A: Insulator (lower)	100000
Antimony	Flame retardant	FCLGA4-A: Connector	6900
Antimony	Flame retardant	FCLGA4-A: Impeller	58000
Antimony	Flame retardant	FCLGA4-A: Diode	8500
Antimony	Flame retardant	FCLGA4-A: Diode	5700
Antimony	Flame retardant	FCLGA4-A: Hall Element	12000
Antimony	Flame retardant	FCLGA4-A: IC	5100
Antimony	Flame retardant	FCLGA4-A: IC	13100
Antimony	Flame retardant	FCLGA4-A: Transistor	6600
Bismuth	Main Material	FCLGA4-A: Thermistor	6980
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Housing	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Insulator (lower)	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Impeller	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: PCB	90000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Diode	29900
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Diode	14400
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Hall element	8000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: IC	5100
Brominated Flame Retardant	Flame retardant	FCLGA4-A: IC	13100
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Transistor	20800
Brominated Flame Retardant	Flame retardant	Cedar Mill	2130
Nickel	Electronic and Mechanical components and materials	Cedar Mill	7710
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Ball bearing (outer ring)	90000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Ball bearing (inner ring)	90000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Ball bearing (ball)	40000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Ball bearing (board)	89900
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Coil spring	84100
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Shaft	1900
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Capacitor	29000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Capacitor	65000

Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Zener diode	200000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Resistor	35900
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Resistor	29100

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80556x1. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.

2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Prescott Skt-T EE (NDJ)
BX80547Pxxxxxx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 471.90
Manufacturer: Intel Corporation
Revision Date: 6/21/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Bearing housing	25000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Diode	925000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: IC	880000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Zener diode	251400
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Resistor	7300
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Resistor	31900
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Resistor	41400

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
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If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-A: Housing	58000
Antimony	Flame retardant	FCLGA4-A: Insulator (lower)	100000
Antimony	Flame retardant	FCLGA4-A: Connector	6900
Antimony	Flame retardant	FCLGA4-A: Impeller	58000
Antimony	Flame retardant	FCLGA4-A: Diode	8500
Antimony	Flame retardant	FCLGA4-A: Diode	5700
Antimony	Flame retardant	FCLGA4-A: Hall Element	12000
Antimony	Flame retardant	FCLGA4-A: IC	5100
Antimony	Flame retardant	FCLGA4-A: IC	13100
Antimony	Flame retardant	FCLGA4-A: Transistor	6600
Bismuth	Main Material	FCLGA4-A: Thermistor	6980
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Housing	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Insulator (lower)	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Impeller	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: PCB	90000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Diode	29900
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Diode	14400
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Hall element	8000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: IC	5100
Brominated Flame Retardant	Flame retardant	FCLGA4-A: IC	13100
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Transistor	20800
Brominated Flame Retardant	Flame retardant	Prescott: Epoxy encapsulation material/Substrate	1870
Nickel	Electronic and Mechanical components and materials	Prescott: Substrate	12000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Ball bearing (outer ring)	90000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Ball bearing (inner ring)	90000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Ball bearing (ball)	40000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Ball bearing (board)	89900
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Coil spring	84100
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Shaft	1900
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Capacitor	29000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Capacitor	65000

Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Zener diode	200000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Resistor	35900
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Resistor	29100

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80547Pxxxxxx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.

2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

INTEL ACCEPTS NO DUTY TO UPDATE THIS MDDS OR TO NOTIFY USERS OF THIS MDDS OF UPDATES OR CHANGES TO THIS MDDS. INTEL SHALL NOT BE LIABLE FOR ANY DAMAGES, DIRECT OR INDIRECT, CONSEQUENTIAL OR OTHERWISE, SUFFERED BY USERS OR THIRD PARTIES AS A RESULT OF THE USERS' RELIANCE ON INFORMATION IN THIS MDDS THAT HAS BEEN UPDATED OR CHANGED.



Material Declaration Data Sheet

Boxed Prescott Skt-T BTX Type-1 MS (NDJ)
BX80547PGxxxxT
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 196.10
Manufacturer: Intel Corporation
Revision Date: 6/21/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Bearing housing	25000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Diode	935000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Zener diode	251400
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Drive IC	881000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Resistor	7300
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Resistor	31900
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Resistor	41400
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Transistor	925000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-G: Insulator (lower)	100000
Antimony	Flame retardant	FCLGA4-G: Impeller	100000
Antimony	Flame retardant	FCLGA4-G: Housing	100000
Antimony	Flame retardant	FCLGA4-G: Diode	8500
Antimony	Flame retardant	FCLGA4-G: Diode	5700
Antimony	Flame retardant	FCLGA4-G: Hall element	12000
Antimony	Flame retardant	FCLGA4-G: Drive IC	5100
Antimony	Flame retardant	FCLGA4-G: Drive IC	13100
Antimony	Flame retardant	FCLGA4-G: Drive IC	5900
Antimony	Flame retardant	FCLGA4-G: Transistor	5400
Antimony	Flame retardant	FCLGA4-G: Transistor	8800
Antimony	Flame retardant	FCLGA4-G: Transistor	6600
Bismuth	Main Material	FCLGA4-G: Thermistor	6980
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Insulator (lower)	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Impeller	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Housing	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Diode	29900
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Diode	14400
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Hall element	8000
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Drive IC	5100
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Drive IC	13100
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Drive IC	12500
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Transistor	17500
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Transistor	8800
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Transistor	20800
Brominated Flame Retardant	Flame retardant	FCLGA4-G: PCB	90000
Brominated Flame Retardant	Flame retardant	Prescott: Epoxy encapsulation material/Substrate	1870
Nickel	Electronic and Mechanical components and materials	Prescott: Substrate	12000
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Capacitor	29000
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Capacitor	65000

Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Zener diode	200000
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Resistor	35900
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Resistor	29100
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Shaft	1900
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Ball bearing (outer ring)	90000
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Ball bearing (inner ring)	90000
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Ball bearing (ball)	40000
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Ball bearing (board)	89900

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80547PGxxxxT. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.

2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

INTEL ACCEPTS NO DUTY TO UPDATE THIS MDDS OR TO NOTIFY USERS OF THIS MDDS OF UPDATES OR CHANGES TO THIS MDDS. INTEL SHALL NOT BE LIABLE FOR ANY DAMAGES, DIRECT OR INDIRECT, CONSEQUENTIAL OR OTHERWISE, SUFFERED BY USERS OR THIRD PARTIES AS A RESULT OF THE USERS RELIANCE ON INFORMATION IN THIS MDDS THAT HAS BEEN UPDATED OR CHANGED.



Material Declaration Data Sheet

Boxed Prescott Skt-T BTX Type-1 Performance (NDJ)
BX80547PGxxxxT
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 911.90
Manufacturer: Intel Corporation
Revision Date: 6/21/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-H: Bearing Housing	25000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-H: Diode	935000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-H: Drive IC	881000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-H: Transistor	925000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-H: Zener diode	251400
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-H: Resistor	3900
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-H: Resistor	4000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-H: Resistor	41400
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-H: Resistor	9600

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-H: Housing	50000
Antimony	Flame retardant	FCLGA4-H: Impeller	50000
Antimony	Flame retardant	FCLGA4-H: Diode	8500
Antimony	Flame retardant	FCLGA4-H: Diode	5700
Antimony	Flame retardant	FCLGA4-H: Hall element	7800
Antimony	Flame retardant	FCLGA4-H: Drive IC	5500
Antimony	Flame retardant	FCLGA4-H: Drive IC	13100
Antimony	Flame retardant	FCLGA4-H: Drive IC	6000
Antimony	Flame retardant	FCLGA4-H: Transistor	5400
Antimony	Flame retardant	FCLGA4-H: Transistor	8800
Antimony	Flame retardant	FCLGA4-H: Transistor	6600
Antimony	Flame retardant	FCLGA4-H: Insulator (lower)	100000
Antimony	Flame retardant	FCLGA4-H: Connector	6900
Bismuth	Main Material	FCLGA4-H: Thermistor	6900
Brominated Flame Retardant	Flame retardant	FCLGA4-H: Housing	150000
Brominated Flame Retardant	Flame retardant	FCLGA4-H: PCB	90000
Brominated Flame Retardant	Flame retardant	FCLGA4-H: Diode	29900
Brominated Flame Retardant	Flame retardant	FCLGA4-H: Diode	14400
Brominated Flame Retardant	Flame retardant	FCLGA4-H: Hall element	12300
Brominated Flame Retardant	Flame retardant	FCLGA4-H: Drive IC	8200
Brominated Flame Retardant	Flame retardant	FCLGA4-H: Drive IC	13100
Brominated Flame Retardant	Flame retardant	FCLGA4-H: Drive IC	12500
Brominated Flame Retardant	Flame retardant	FCLGA4-H: Transistor	17500
Brominated Flame Retardant	Flame retardant	FCLGA4-H: Transistor	8800
Brominated Flame Retardant	Flame retardant	FCLGA4-H: Transistor	20800
Brominated Flame Retardant	Flame retardant	Prescott Skt-T: Epoxy encapsulation material/Subst	1870
Nickel	Electronic and Mechanical components and materials	Prescott Skt-T: Substrate	12000
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Shaft	4400
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Coil Spring	84100
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Capacitor	42000

Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Capacitor	62000
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Capacitor	27000
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Zener diode	200000
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Resistor	36100
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Resistor	29100
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Ball bearing (outer ring)	90000
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Ball bearing (outer ring)	90000
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Ball bearing (ball)	40000
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Ball bearing (board)	89900

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80547PGxxxxT. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

INTEL ACCEPTS NO DUTY TO UPDATE THIS MDDS OR TO NOTIFY USERS OF THIS MDDS OF UPDATES OR CHANGES TO THIS MDDS. INTEL SHALL NOT BE LIABLE FOR ANY DAMAGES, DIRECT OR INDIRECT, CONSEQUENTIAL OR OTHERWISE, SUFFERED BY USERS OR THIRD PARTIES AS A RESULT OF THE USERS RELIANCE ON INFORMATION IN THIS MDDS THAT HAS BEEN UPDATED OR CHANGED.



Material Declaration Data Sheet

Boxed Presler ATX 05A (NDJ)
BX805539xx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 472.40
Manufacturer: Intel Corporation
Revision Date: 6/21/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Bearing housing	25000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Diode	925000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: IC	880000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Zener diode	251400
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Resistor	7300
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Resistor	31900
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Resistor	41400

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
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Arsenic/Arsenic Compounds
Beryllium/Beryllium Compounds

Brominated Flame Retardants
Nickel/Nickel Compounds

Selenium/Selenium Compounds
Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-A: Housing	58000
Antimony	Flame retardant	FCLGA4-A: Insulator (lower)	100000
Antimony	Flame retardant	FCLGA4-A: Connector	6900
Antimony	Flame retardant	FCLGA4-A: Impeller	58000
Antimony	Flame retardant	FCLGA4-A: Diode	8500
Antimony	Flame retardant	FCLGA4-A: Diode	5700
Antimony	Flame retardant	FCLGA4-A: Hall Element	12000
Antimony	Flame retardant	FCLGA4-A: IC	5100
Antimony	Flame retardant	FCLGA4-A: IC	13100
Antimony	Flame retardant	FCLGA4-A: Transistor	6600
Bismuth	Main Material	FCLGA4-A: Thermistor	6980
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Housing	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Insulator (lower)	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Impeller	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: PCB	90000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Diode	29900
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Diode	14400
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Hall element	8000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: IC	5100
Brominated Flame Retardant	Flame retardant	FCLGA4-A: IC	13100
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Transistor	20800
Brominated Flame Retardant	Flame retardant	Presler:	2130
Nickel	Electronic and Mechanical components and materials	Presler:	7710
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Ball bearing (outer ring)	90000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Ball bearing (inner ring)	90000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Ball bearing (ball)	40000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Ball bearing (board)	89900
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Coil spring	84100
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Shaft	1900
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Capacitor	29000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Capacitor	65000

Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Zener diode	200000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Resistor	35900
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Resistor	29100

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX805539xx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.

2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

INTEL ACCEPTS NO DUTY TO UPDATE THIS MDDS OR TO NOTIFY USERS OF THIS MDDS OF UPDATES OR CHANGES TO THIS MDDS. INTEL SHALL NOT BE LIABLE FOR ANY DAMAGES, DIRECT OR INDIRECT, CONSEQUENTIAL OR OTHERWISE, SUFFERED BY USERS OR THIRD PARTIES AS A RESULT OF THE USERS' RELIANCE ON INFORMATION IN THIS MDDS THAT HAS BEEN UPDATED OR CHANGED.



Material Declaration Data Sheet

Boxed Presler ATX 05B (NDJ)
BX805539xx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 597.40
Manufacturer: Intel Corporation
Revision Date: 6/21/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds			

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony		FCLGA4-D: Housing	58000
Antimony		FCLGA4-D: Insulator (lower)	100000
Antimony		FCLGA4-D: Connector	6900
Antimony		FCLGA4-D: Impeller	58000
Antimony		FCLGA4-D: Diode	8500
Antimony		FCLGA4-D: Diode	5700
Antimony		FCLGA4-D: Drive IC	5100
Antimony		FCLGA4-D: Drive IC	13100
Antimony		FCLGA4-D: Hall element	12000
Antimony		FCLGA4-D: Transistor	6600
Bismuth		FCLGA4-D: Thermistor	6980
Brominated Flame Retardant		FCLGA4-D: Housing	100000
Brominated Flame Retardant		FCLGA4-D: Insulator (lower)	100000
Brominated Flame Retardant		FCLGA4-D: PCB	90000
Brominated Flame Retardant		FCLGA4-D: Impeller	100000
Brominated Flame Retardant		FCLGA4-D: Diode	29900
Brominated Flame Retardant		FCLGA4-D: Diode	14400
Brominated Flame Retardant		FCLGA4-D: Drive IC	5100
Brominated Flame Retardant		FCLGA4-D: Hall element	8000
Brominated Flame Retardant		FCLGA4-D: Transistor	20800
Brominated Flame Retardant		Presler:	2130
Nickel		Presler:	7710
Nickel		FCLGA4-D: Capacitor	29000
Nickel		FCLGA4-D: Capacitor	65000
Nickel		FCLGA4-D: Zener diode	200000
Nickel		FCLGA4-D: Resistor	35900
Nickel		FCLGA4-D: Resistor	29100
Nickel		FCLGA4-D: Shaft	1900
Nickel		FCLGA4-D: Ball bearing (outer ring)	90000
Nickel		FCLGA4-D: Ball bearing (inner ring)	90000
Nickel		FCLGA4-D: Ball bearing (ball)	40000
Nickel		FCLGA4-D: Ball bearing (board)	89900
Nickel		FCLGA4-D: Coil spring	84100

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX805539xx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

INTEL ACCEPTS NO DUTY TO UPDATE THIS MDDS OR TO NOTIFY USERS OF THIS MDDS OF UPDATES OR CHANGES TO THIS MDDS. INTEL SHALL NOT BE LIABLE FOR ANY DAMAGES, DIRECT OR INDIRECT, CONSEQUENTIAL OR OTHERWISE, SUFFERED BY USERS OR THIRD PARTIES AS A RESULT OF THE USERS RELIANCE ON INFORMATION IN THIS MDDS THAT HAS BEEN UPDATED OR CHANGED.



Material Declaration Data Sheet

Boxed Presler BTX Type-1 (NDJ)
BX805539xxT
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 196.60
Manufacturer: Intel Corporation
Revision Date: 6/22/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Bearing housing	25000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Diode	9000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Drive IC	5000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Zener diode	251400
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Resistor	31900
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Resistor	41400

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-G: Insulator (lower)	100000
Antimony	Flame retardant	FCLGA4-G: Impeller	58000
Antimony	Flame retardant	FCLGA4-G: Housing	58000
Antimony	Flame retardant	FCLGA4-G: Diode	8500
Antimony	Flame retardant	FCLGA4-G: Diode	5700
Antimony	Flame retardant	FCLGA4-G: Hall element	12000
Antimony	Flame retardant	FCLGA4-G: Drive IC	5100
Antimony	Flame retardant	FCLGA4-G: Connector	6900
Antimony	Flame retardant	FCLGA4-G: Transistor	6600
Bismuth	Main Material	FCLGA4-G: Thermistor	6980
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Insulator (lower)	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Impeller	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Housing	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Diode	29900
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Diode	14400
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Hall element	8000
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Drive IC	5100
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Drive IC	13100
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Transistor	20800
Brominated Flame Retardant	Flame retardant	FCLGA4-G: PCB	90000
Brominated Flame Retardant	Flame retardant	Presler:	2130
Nickel	Electronic and Mechanical components and materials	Presler:	7710
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Capacitor	29000
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Capacitor	65000
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Zener diode	200000
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Resistor	35900
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Resistor	29100
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Shaft	1900
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Ball bearing (ball)	40000
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Ball bearing (board)	89900
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Coil Spring	84100

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX805539xxT. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Smithfield ATX 05A (NDJ)
BX80551Pxxxxxx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 471.90
Manufacturer: Intel Corporation
Revision Date: 6/22/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Smithfield: FLI	2010
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Bearing housing	25000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Diode	925000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: IC	880000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Zener diode	251400
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Resistor	7300
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Resistor	31900
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Resistor	41400

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-A: Housing	58000
Antimony	Flame retardant	FCLGA4-A: Insulator (lower)	100000
Antimony	Flame retardant	FCLGA4-A: Connector	6900
Antimony	Flame retardant	FCLGA4-A: Impeller	58000
Antimony	Flame retardant	FCLGA4-A: Diode	8500
Antimony	Flame retardant	FCLGA4-A: Diode	5700
Antimony	Flame retardant	FCLGA4-A: Hall Element	12000
Antimony	Flame retardant	FCLGA4-A: IC	5100
Antimony	Flame retardant	FCLGA4-A: IC	13100
Antimony	Flame retardant	FCLGA4-A: Transistor	6600
Bismuth	Main Material	FCLGA4-A: Thermistor	6980
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Housing	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Insulator (lower)	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Impeller	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: PCB	90000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Diode	29900
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Diode	14400
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Hall element	8000
Brominated Flame Retardant	Flame retardant	FCLGA4-A: IC	5100
Brominated Flame Retardant	Flame retardant	FCLGA4-A: IC	13100
Brominated Flame Retardant	Flame retardant	FCLGA4-A: Transistor	20800
Brominated Flame Retardant	Flame retardant	Smithfield: Epoxy encapsulation material/Substrate	15300
Nickel	Electronic and Mechanical components and materials	Smithfield: Substrate	20900
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Ball bearing (outer ring)	90000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Ball bearing (inner ring)	90000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Ball bearing (ball)	40000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Ball bearing (board)	89900
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Coil spring	84100
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Shaft	1900

Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Capacitor	29000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Capacitor	65000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Zener diode	200000
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Resistor	35900
Nickel	Electronic and Mechanical components and materials	FCLGA4-A: Resistor	29100

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80551Pxxxxxx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Smithfield ATX 05B (NDJ)
BX80551Pxxxxxx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 546.90
Manufacturer: Intel Corporation
Revision Date: 6/22/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Smithfield: FLI	2010
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-D: Bearing housing	25000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-D: Diode	925000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-D: Drive IC	881000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-D: Zener diode	251400
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-D: Resistor	7300
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-D: Resistor	31900
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-D: Resistor	41400

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-D: Housing	58000
Antimony	Flame retardant	FCLGA4-D: Insulator (lower)	100000
Antimony	Flame retardant	FCLGA4-D: Connector	6900
Antimony	Flame retardant	FCLGA4-D: Impeller	58000
Antimony	Flame retardant	FCLGA4-D: Diode	8500
Antimony	Flame retardant	FCLGA4-D: Diode	5700
Antimony	Flame retardant	FCLGA4-D: Drive IC	5100
Antimony	Flame retardant	FCLGA4-D: Drive IC	13100
Antimony	Flame retardant	FCLGA4-D: Hall element	12000
Antimony	Flame retardant	FCLGA4-D: Transistor	6600
Bismuth	Main Material	FCLGA4-D: Thermistor	6980
Brominated Flame Retardant	Flame retardant	FCLGA4-D: Housing	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-D: Insulator (lower)	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-D: PCB	90000
Brominated Flame Retardant	Flame retardant	FCLGA4-D: Impeller	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-D: Diode	29900
Brominated Flame Retardant	Flame retardant	FCLGA4-D: Diode	14400
Brominated Flame Retardant	Flame retardant	FCLGA4-D: Drive IC	5100
Brominated Flame Retardant	Flame retardant	FCLGA4-D: Hall element	8000
Brominated Flame Retardant	Flame retardant	FCLGA4-D: Transistor	20800
Brominated Flame Retardant	Flame retardant	Smithfield: Epoxy encapsulation material/Substrate	15300
Nickel	Electronic and Mechanical components and materials	Smithfield: Substrate	20900
Nickel	Electronic and Mechanical components and materials	FCLGA4-D: Capacitor	29000
Nickel	Electronic and Mechanical components and materials	FCLGA4-D: Capacitor	65000
Nickel	Electronic and Mechanical components and materials	FCLGA4-D: Zener diode	200000
Nickel	Electronic and Mechanical components and materials	FCLGA4-D: Resistor	35900
Nickel	Electronic and Mechanical components and materials	FCLGA4-D: Resistor	29100
Nickel	Electronic and Mechanical components and materials	FCLGA4-D: Shaft	1900
Nickel	Electronic and Mechanical components and materials	FCLGA4-D: Ball bearing (outer ring)	90000
Nickel	Electronic and Mechanical components and materials	FCLGA4-D: Ball bearing (inner ring)	90000
Nickel	Electronic and Mechanical components and materials	FCLGA4-D: Ball bearing (ball)	40000
Nickel	Electronic and Mechanical components and materials	FCLGA4-D: Ball bearing (board)	89900
Nickel	Electronic and Mechanical components and materials	FCLGA4-D: Coil spring	84100

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80551Pxxxxxx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

INTEL ACCEPTS NO DUTY TO UPDATE THIS MDDS OR TO NOTIFY USERS OF THIS MDDS OF UPDATES OR CHANGES TO THIS MDDS. INTEL SHALL NOT BE LIABLE FOR ANY DAMAGES, DIRECT OR INDIRECT, CONSEQUENTIAL OR OTHERWISE, SUFFERED BY USERS OR THIRD PARTIES AS A RESULT OF THE USERS' RELIANCE ON INFORMATION IN THIS MDDS THAT HAS BEEN UPDATED OR CHANGED.



Material Declaration Data Sheet

Boxed Smithfield BTX Type-1 (NDJ)
BX80551PxxxxxxT
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 196.10
Manufacturer: Intel Corporation
Revision Date: 6/22/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Smithfield: FLI	2010
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Bearing housing	25000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Diode	9000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Drive IC	5000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Zener diode	251400
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Resistor	31900
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-G: Resistor	41400

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
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Arsenic/Arsenic Compounds
Beryllium/Beryllium Compounds

Brominated Flame Retardants
Nickel/Nickel Compounds

Selenium/Selenium Compounds
Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-G: Insulator (lower)	100000
Antimony	Flame retardant	FCLGA4-G: Impeller	58000
Antimony	Flame retardant	FCLGA4-G: Housing	58000
Antimony	Flame retardant	FCLGA4-G: Diode	8500
Antimony	Flame retardant	FCLGA4-G: Diode	5700
Antimony	Flame retardant	FCLGA4-G: Hall element	12000
Antimony	Flame retardant	FCLGA4-G: Drive IC	5100
Antimony	Flame retardant	FCLGA4-G: Connector	6900
Antimony	Flame retardant	FCLGA4-G: Transistor	6600
Bismuth	Main Material	FCLGA4-G: Thermistor	6980
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Insulator (lower)	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Impeller	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Housing	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Diode	29900
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Diode	14400
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Hall element	8000
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Drive IC	5100
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Drive IC	13100
Brominated Flame Retardant	Flame retardant	FCLGA4-G: Transistor	20800
Brominated Flame Retardant	Flame retardant	FCLGA4-G: PCB	90000
Brominated Flame Retardant	Flame retardant	Smithfield: Epoxy encapsulation material/Substrate	15300
Nickel	Electronic and Mechanical components and materials	Smithfield: Substrate	20900
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Capacitor	29000
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Capacitor	65000
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Zener diode	200000
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Resistor	35900
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Resistor	29100
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Shaft	1900
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Ball bearing (ball)	40000
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Ball bearing (board)	89900
Nickel	Electronic and Mechanical components and materials	FCLGA4-G: Coil Spring	84100

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80551PxxxxxT. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Paxville-DP Active (NDJ)
BX80551KG2800HA
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 1030.50
Manufacturer: Intel Corporation
Revision Date: 6/22/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Paxville-DP: FLI	1320
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Bearing housing	25000
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Diode	925000
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Zener diode	251400
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Drive IC	881000
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Resistor	6500
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Resistor	31900
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Resistor	4000
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Resistor	41400
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Transistor	925000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	uFCPGA4-A: Insulator (lower)	100000
Antimony	Flame retardant	uFCPGA4-A: Impeller	58000
Antimony	Flame retardant	uFCPGA4-A: Housing	58000
Antimony	Flame retardant	uFCPGA4-A: Diode	8500
Antimony	Flame retardant	uFCPGA4-A: Diode	5700
Antimony	Flame retardant	uFCPGA4-A: Hall element	12000
Antimony	Flame retardant	uFCPGA4-A: Drive IC	5100
Antimony	Flame retardant	uFCPGA4-A: Drive IC	13100
Antimony	Flame retardant	uFCPGA4-A: Drive IC	12500
Antimony	Flame retardant	uFCPGA4-A: Connector	7693
Antimony	Flame retardant	uFCPGA4-A: Transistor	5400
Antimony	Flame retardant	uFCPGA4-A: Transistor	8800
Antimony	Flame retardant	uFCPGA4-A: Transistor	6600
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Insulator (lower)	100000
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Impeller	100000
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Housing	100000
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Diode	29900
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Diode	14400
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Hall element	8000

Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Drive IC	5100
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Drive IC	13100
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: PCB	150000
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Transistor	17500
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Transistor	8800
Brominated Flame Retardant	Flame retardant	uFCPGA4-A: Transistor	20800
Brominated Flame Retardant	Flame retardant	Paxville-DP: Epoxy encapsulation material	10400
Nickel	Electronic and Mechanical components and materials	Paxville-DP: Substrate / SLI	5250
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Capacitor	12800
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Capacitor	42000
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Capacitor	65000
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Zener diode	200000
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Resistor	35900
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Shaft	1900
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Ball bearing (outer ring)	90000
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Ball bearing (inner ring)	90000
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Ball bearing (ball)	40000
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Ball bearing (board)	89900
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Coil Spring	84100
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Spacer	94500
Nickel	Electronic and Mechanical components and materials	uFCPGA4-A: Screw	96200

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80551KG2800HA. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

INTEL ACCEPTS NO DUTY TO UPDATE THIS MDDS OR TO NOTIFY USERS OF THIS MDDS OF UPDATES OR CHANGES TO THIS MDDS. INTEL SHALL NOT BE LIABLE FOR ANY DAMAGES, DIRECT OR INDIRECT, CONSEQUENTIAL OR OTHERWISE, SUFFERED BY USERS OR THIRD PARTIES AS A RESULT OF THE USERS RELIANCE ON INFORMATION IN THIS MDDS THAT HAS BEEN UPDATED OR CHANGED.



Material Declaration Data Sheet

Boxed Prescott ICP Skt-N (FJJ)
BX80546RExxxxC
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 469.70
Manufacturer: Intel Corporation
Revision Date: 6/22/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in optical and filter glass.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in electronic ceramic parts (e.g. piezoelectronic devices).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Prescott: Epoxy encapsulation material	4730
Lead/Lead Compounds	Electronic Components and Materials	Prescott: Substrate / SLI	8050
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Capacitor (Ceramic Body), CA-1	83971
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Diode (Glass Tube), DI-3	530000
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Diode (Die Solder), DI-4	906000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80546RExxxC. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Prescott ICP Skt-T (FJJ)
BX80547RExxxxC
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 376.70
Manufacturer: Intel Corporation
Revision Date: 6/22/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in optical and filter glass.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in electronic ceramic parts (e.g. piezoelectric devices).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds			

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-F: Fan	1876
Nickel	Electronic and Mechanical components and materials	Prescott Skt-T: Substrate	12000

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80547RExxxxC. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed CedarMill ATX (FJJ)
BX80556x1
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 484.40
Manufacturer: Intel Corporation
Revision Date: 6/22/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in optical and filter glass.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in electronic ceramic parts (e.g. piezoelectronic devices).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Resistor (RK73B)	1272561
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Capacitor (C0805E 105 M025T)	105654
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Capacitor (C0805E 474 M025T)	105654
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Diode	906000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Nickel	Electronic and Mechanical components and materials	Cedar Mill:	7710

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80556x1. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

INTEL ACCEPTS NO DUTY TO UPDATE THIS MDDS OR TO NOTIFY USERS OF THIS MDDS OF UPDATES OR CHANGES TO THIS MDDS. INTEL SHALL NOT BE LIABLE FOR ANY DAMAGES, DIRECT OR INDIRECT, CONSEQUENTIAL OR OTHERWISE, SUFFERED BY USERS OR THIRD PARTIES AS A RESULT OF THE USERS RELIANCE ON INFORMATION IN THIS MDDS THAT HAS BEEN UPDATED OR CHANGED.



Material Declaration Data Sheet

Boxed Prescott Skt-T (FJJ)
BX80547Pxxxxxx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 376.70
Manufacturer: Intel Corporation
Revision Date: 6/22/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in optical and filter glass.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in electronic ceramic parts (e.g. piezoelectric devices).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds			

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-F: Fan	1876
Nickel	Electronic and Mechanical components and materials	Prescott Skt-T: Substrate	12000

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80547Pxxxxx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
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Material Declaration Data Sheet

Boxed Prescott Skt-T EE (FJJ)
BX80547Pxxxxxx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 483.90
Manufacturer: Intel Corporation
Revision Date: 6/22/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in optical and filter glass.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in electronic ceramic parts (e.g. piezoelectronic devices).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Resistor (RK73B)	1272561
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Capacitor (C0805E 105 M025T)	105654
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Capacitor (C0805E 474 M025T)	105654
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Diode	906000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Nickel	Electronic and Mechanical components and materials	Prescott: Substrate	12000

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80547Pxxxxxx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
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Material Declaration Data Sheet

Boxed Presler ATX 05A (FJJ)
BX805539xx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 484.40
Manufacturer: Intel Corporation
Revision Date: 6/22/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in optical and filter glass.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in electronic ceramic parts (e.g. piezoelectronic devices).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Resistor (RK73B)	1272561
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Capacitor (C0805E 105 M025T)	105654
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Capacitor (C0805E 474 M025T)	105654
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Diode	906000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Nickel	Electronic and Mechanical components and materials	Presler:	7710

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX805539xx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
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Material Declaration Data Sheet

Boxed Smithfield ATX 05A (FJJ)
BX80551Pxxxxxx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 483.90
Manufacturer: Intel Corporation
Revision Date: 6/22/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in optical and filter glass.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in electronic ceramic parts (e.g. piezoelectronic devices).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Smithfield: FLI	2010
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Resistor (RK73B)	1272561
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Capacitor (C0805E 105 M025T)	105654
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Capacitor (C0805E 474 M025T)	105654
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-A: Diode	906000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Nickel	Electronic and Mechanical components and materials	Smithfield: Substrate	20900

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80551Pxxxxxx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
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Material Declaration Data Sheet

Boxed Irwindale Active (FJJ)
BX80546KGxxxxFA
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 962.50
Manufacturer: Intel Corporation
Revision Date: 6/23/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in optical and filter glass.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in electronic ceramic parts (e.g. piezoelectronic devices).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

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Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Fan	989971

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Brominated Flame Retardant	Flame retardant	Irwindale: Epoxy encapsulation material	5810
Nickel	Electronic and Mechanical components and materials	Irwindale: Substrate / SLI	5620

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80546KGxxxxFA. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.

2. This data sheet is based on the product specified and other packages are assumed to be similar.

3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.

4. Material mass can be estimated by multiplying concentration (ppm) by product weight.

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Material Declaration Data Sheet

Boxed Irwindale 2U Passive (FJJ)
BX80546KGxxxxFP,
BX80546JG3000FP
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 1062.50
Manufacturer: Intel Corporation
Revision Date: 6/23/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

- * Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)
- * Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds			

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Brominated Flame Retardant	Flame retardant	Irwindale: Epoxy encapsulation material	5810
Nickel	Electronic and Mechanical components and materials	Irwindale: Substrate / SLI	5620

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80546KGxxxxFP, BX80546JG3000FP. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Irwindale 2U Passive (FRJ)
BX80546KGxxxxFP,
BX80546JG3000FP
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 982.50
Manufacturer: Intel Corporation
Revision Date: 6/23/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

- * Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)
- * Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds			

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Brominated Flame Retardant	Flame retardant	Irwindale: Epoxy encapsulation material	5810
Nickel	Electronic and Mechanical components and materials	Irwindale: Substrate / SLI	5620

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80546KGxxxxFP, BX80546JG3000FP. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Irwindale 1U Passive
BX80546KGxxxxFU,
BX80546JG3000FU
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 597.50
Manufacturer: Intel Corporation
Revision Date: 6/23/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

- * Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)
- * Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds			

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Brominated Flame Retardant	Flame retardant	Irwindale: Epoxy encapsulation material	5810
Nickel	Electronic and Mechanical components and materials	Irwindale: Substrate / SLI	5620

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80546KGxxxxFU, BX80546JG3000FU. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Paxville-DP Active (FJJ)
BX80551KG2800HA
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 975.50
Manufacturer: Intel Corporation
Revision Date: 6/23/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in optical and filter glass.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in electronic ceramic parts (e.g. piezoelectronic devices).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Paxville-DP: FLI	1320
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA4-A: Fan	989971

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Brominated Flame Retardant	Flame retardant	Paxville-DP: Epoxy encapsulation material	10400
Nickel	Electronic and Mechanical components and materials	Paxville-DP: Substrate / SLI	5250

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80551KG2800HA. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.

2. This data sheet is based on the product specified and other packages are assumed to be similar.

3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.

4. Material mass can be estimated by multiplying concentration (ppm) by product weight.

5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Paxville-DP 2U Passive (FJJ)
BX80551KG2800HP
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 1075.50
Manufacturer: Intel Corporation
Revision Date: 6/23/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Paxville-DP: FLI	1320

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Brominated Flame Retardant	Flame retardant	Paxville-DP: Epoxy encapsulation material	10400
Nickel	Electronic and Mechanical components and materials	Paxville-DP: Substrate / SLI	5250

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80551KG2800HP. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Paxville-DP 1U Passive
BX80551KG2800HU
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 610.50
Manufacturer: Intel Corporation
Revision Date: 6/23/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Paxville-DP: FLI	1320

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Brominated Flame Retardant	Flame retardant	Paxville-DP: Epoxy encapsulation material	10400
Nickel	Electronic and Mechanical components and materials	Paxville-DP: Substrate / SLI	5250

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80551KG2800HU. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Paxville-DP 2U Passive (FRJ)
BX80551KG2800HP
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 995.50
Manufacturer: Intel Corporation
Revision Date: 6/23/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Paxville-DP: FLI	1320

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Brominated Flame Retardant	Flame retardant	Paxville-DP: Epoxy encapsulation material	10400
Nickel	Electronic and Mechanical components and materials	Paxville-DP: Substrate / SLI	5250

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80551KG2800HP. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

INTEL ACCEPTS NO DUTY TO UPDATE THIS MDDS OR TO NOTIFY USERS OF THIS MDDS OF UPDATES OR CHANGES TO THIS MDDS. INTEL SHALL NOT BE LIABLE FOR ANY DAMAGES, DIRECT OR INDIRECT, CONSEQUENTIAL OR OTHERWISE, SUFFERED BY USERS OR THIRD PARTIES AS A RESULT OF THE USERS' RELIANCE ON INFORMATION IN THIS MDDS THAT HAS BEEN UPDATED OR CHANGED.



Material Declaration Data Sheet

Boxed Paxville-MP
BX80560Kxxxxxx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 570.60
Manufacturer: Intel Corporation
Revision Date: 6/23/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Paxville-MP: FLI	1400

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Brominated Flame Retardant	Flame retardant	Paxville-MP: Epoxy Encapsulation material	3470
Nickel	Electronic and Mechanical components and materials	Paxville-MP: Substrate/FLI	9790

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80560Kxxxxx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

INTEL ACCEPTS NO DUTY TO UPDATE THIS MDDS OR TO NOTIFY USERS OF THIS MDDS OF UPDATES OR CHANGES TO THIS MDDS. INTEL SHALL NOT BE LIABLE FOR ANY DAMAGES, DIRECT OR INDIRECT, CONSEQUENTIAL OR OTHERWISE, SUFFERED BY USERS OR THIRD PARTIES AS A RESULT OF THE USERS RELIANCE ON INFORMATION IN THIS MDDS THAT HAS BEEN UPDATED OR CHANGED.



Material Declaration Data Sheet

Boxed Dempsey Active (NDJ)
BX805550x0A
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 742.50
Manufacturer: Intel Corporation
Revision Date: 6/23/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	LGA771-A: Diode	925000
Lead/Lead Compounds	Electronic Components and Materials	LGA771-A: Diode	935000
Lead/Lead Compounds	Electronic Components and Materials	LGA771-A: Transistor	880000
Lead/Lead Compounds	Electronic Components and Materials	LGA771-A: Resistor	3900
Lead/Lead Compounds	Electronic Components and Materials	LGA771-A: Resistor	41400
Lead/Lead Compounds	Electronic Components and Materials	LGA771-A: Resistor	9600

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	LGA771-A: Housing	58000
Antimony	Flame retardant	LGA771-A: Diode	5700
Antimony	Flame retardant	LGA771-A: Hall element	6700
Antimony	Flame retardant	LGA771-A: Drive IC	20200
Antimony	Flame retardant	LGA771-A: Zener diode	15000
Antimony	Flame retardant	LGA771-A: Transistor	5400
Antimony	Flame retardant	LGA771-A: Transistor	6700
Antimony	Flame retardant	LGA771-A: Transistor	11800
Antimony	Flame retardant	LGA771-A: Transistor	7300
Antimony	Flame retardant	LGA771-A: Connector	7693
Antimony	Flame retardant	LGA771-A: Insulator (lower)	50000
Antimony	Flame retardant	LGA771-A: Impeller	58000
Bismuth	Main Material	LGA771-A: Thermistor	6900
Brominated Flame Retardant	Flame retardant	LGA771-A: Housing	100000
Brominated Flame Retardant	Flame retardant	LGA771-A: PCB	150000
Brominated Flame Retardant	Flame retardant	LGA771-A: Diode	14400
Brominated Flame Retardant	Flame retardant	LGA771-A: Hall element	10300
Brominated Flame Retardant	Flame retardant	LGA771-A: Zener diode	85000
Brominated Flame Retardant	Flame retardant	LGA771-A: Transistor	17500
Brominated Flame Retardant	Flame retardant	LGA771-A: Transistor	21200
Brominated Flame Retardant	Flame retardant	LGA771-A: Transistor	11200
Brominated Flame Retardant	Flame retardant	LGA771-A: Transistor	7300
Brominated Flame Retardant	Flame retardant	LGA771-A: Insulator (lower)	150000
Brominated Flame Retardant	Flame retardant	LGA771-A: Impeller	100000
Brominated Flame Retardant	Flame retardant	Dempsey	2020
Nickel	Electronic and Mechanical components and materials	Dempsey	4190
Nickel	Electronic and Mechanical components and materials	LGA771-A: Capacitor	23000
Nickel	Electronic and Mechanical components and materials	LGA771-A: Zener diode	33000
Nickel	Electronic and Mechanical components and materials	LGA771-A: Resistor	36100
Nickel	Electronic and Mechanical components and materials	LGA771-A: Resistor	29100
Nickel	Electronic and Mechanical components and materials	LGA771-A: Ball bearing (outer ring)	90000
Nickel	Electronic and Mechanical components and materials	LGA771-A: Ball bearing (inner ring)	90000
Nickel	Electronic and Mechanical components and materials	LGA771-A: Ball bearing (LGA771-A: Ball)	40000

Nickel	Electronic and Mechanical components and materials	LGA771-A: Ball bearing (board)	89900
Nickel	Electronic and Mechanical components and materials	LGA771-A: Coil Spring	84100
Nickel	Electronic and Mechanical components and materials	LGA771-A: Heat sink (spacer)	91800
Nickel	Electronic and Mechanical components and materials	LGA771-A: Heat sink (screw)	96000
Nickel	Electronic and Mechanical components and materials	LGA771-A: Heat sink (coil spring)	84400
Nickel	Electronic and Mechanical components and materials	LGA771-A: Heat sink (screw)	96000

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX805550x0A. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Dempsey Passive (FJJ)
BX805550x0P
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 1062.50
Manufacturer: Intel Corporation
Revision Date: 6/23/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds			

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Brominated Flame Retardant	Flame retardant	Dempsey	2020
Nickel	Electronic and Mechanical components and materials	Dempsey	4190

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX805550x0P. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Dempsey Passive (FRJ)
BX805550x0P
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 982.50
Manufacturer: Intel Corporation
Revision Date: 6/23/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds			

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Brominated Flame Retardant	Flame retardant	Dempsey	2020
Nickel	Electronic and Mechanical components and materials	Dempsey	4190

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX805550x0P. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed CedarMill ICP (SDJ)
BX805523xx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 411.90
Manufacturer: Intel Corporation
Revision Date: 6/29/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Electronic components	530000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Electronic components	850000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-F: Resin parts (Frame, insulator, etc.)	3300
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Resin parts (Frame, insulator, etc.)	12000
Brominated Flame Retardant	Flame retardant	Cedar Mill	2130
Nickel	Electronic and Mechanical components and materials	Cedar Mill	7710

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX805523xx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed CedarMill ICP (NDJ)
BX805523xx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 356.90
Manufacturer: Intel Corporation
Revision Date: 6/29/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Bearing housing	25000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Diode	9000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Drive IC	5000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Zener diode	251400
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Resistor	31900
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-F: Resistor	41400

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-F: Insulator (Lower)	100000
Antimony	Flame retardant	FCLGA4-F: Impeller	58000
Antimony	Flame retardant	FCLGA4-F: Housing	58000
Antimony	Flame retardant	FCLGA4-F: Diode	8500
Antimony	Flame retardant	FCLGA4-F: Diode	5700
Antimony	Flame retardant	FCLGA4-F: Hall element	12000
Antimony	Flame retardant	FCLGA4-F: Drive IC	5100
Antimony	Flame retardant	FCLGA4-F: Connector	6900
Antimony	Flame retardant	FCLGA4-F: Transistor	6600
Bismuth	Main Material	FCLGA4-F: Thermistor	6980
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Insulator (Lower)	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Impeller	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Housing	100000
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Diode	29900
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Diode	14400
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Hall element	8000
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Drive IC	5100
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Drive IC	13100
Brominated Flame Retardant	Flame retardant	FCLGA4-F: Transistor	20800
Brominated Flame Retardant	Flame retardant	FCLGA4-F: PCB	90000
Brominated Flame Retardant	Flame retardant	Cedar Mill:	2130
Nickel	Electronic and Mechanical components and materials	Cedar Mill:	7710
Nickel	Electronic and Mechanical components and materials	FCLGA4-F: Capacitor	29000
Nickel	Electronic and Mechanical components and materials	FCLGA4-F: Capacitor	65000
Nickel	Electronic and Mechanical components and materials	FCLGA4-F: Zener diode	200000
Nickel	Electronic and Mechanical components and materials	FCLGA4-F: Resistor	35900
Nickel	Electronic and Mechanical components and materials	FCLGA4-F: Resistor	29100
Nickel	Electronic and Mechanical components and materials	FCLGA4-F: Shaft	1900
Nickel	Electronic and Mechanical components and materials	FCLGA4-F: Ball Bearing	40000
Nickel	Electronic and Mechanical components and materials	FCLGA4-F: Ball FCLGA4-F: Bearing (FCLGA4-F: Board)	89900
Nickel	Electronic and Mechanical components and materials	FCLGA4-F: Coil Spring	84100

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX805523xx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

INTEL ACCEPTS NO DUTY TO UPDATE THIS MDDS OR TO NOTIFY USERS OF THIS MDDS OF UPDATES OR CHANGES TO THIS MDDS. INTEL SHALL NOT BE LIABLE FOR ANY DAMAGES, DIRECT OR INDIRECT, CONSEQUENTIAL OR OTHERWISE, SUFFERED BY USERS OR THIRD PARTIES AS A RESULT OF THE USERS' RELIANCE ON INFORMATION IN THIS MDDS THAT HAS BEEN UPDATED OR CHANGED.



Material Declaration Data Sheet

Boxed CedarMill ICP (FJJ)
BX805523xx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 376.70
Manufacturer: Intel Corporation
Revision Date: 6/29/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in optical and filter glass.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in electronic ceramic parts (e.g. piezoelectronic devices).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds			

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-F: Fan	1876
Brominated Flame Retardant	Flame retardant	Cedar Mill:	2130
Nickel	Electronic and Mechanical components and materials	Cedar Mill:	7710

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX805523xx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.

2. This data sheet is based on the product specified and other packages are assumed to be similar.

3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.

4. Material mass can be estimated by multiplying concentration (ppm) by product weight.

5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Prescott Skt-N (SDJ)
BX80546Pxxxxxx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 469.70
Manufacturer: Intel Corporation
Revision Date: 6/29/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

- * The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.
- * The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.
- * The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Electronic Components	530000
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Electronic Components	850000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	uFCPGA2-J: Resin Parts (Frame, insulator, etc.)	4700
Brominated Flame Retardant	Flame retardant	uFCPGA2-J: Resin Parts (Frame, insulator, etc.)	1800
Brominated Flame Retardant	Flame retardant	Prescott: Epoxy encapsulation material	4730
Nickel	Electronic and Mechanical components and materials	Prescott: Substrate / SLI	8050

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80546Pxxxxxx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.

2. This data sheet is based on the product specified and other packages are assumed to be similar.

3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.

4. Material mass can be estimated by multiplying concentration (ppm) by product weight.

5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Prescott Skt-N (NDJ)
BX80546Pxxxxxx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 459.70
Manufacturer: Intel Corporation
Revision Date: 6/29/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Prescott: Epoxy encapsulation material	4730
Lead/Lead Compounds	Electronic Components and Materials	Prescott: Substrate / SLI	8050
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Bearing housing	25000
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Diode	925000
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Zener diode	251400
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Drive IC	881000
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Resistor	7300
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Resistor	1900
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Resistor	42400

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	uFCPGA2-J: Insulator (Lower)	100000
Antimony	Flame retardant	uFCPGA2-J: Impeller	58000
Antimony	Flame retardant	uFCPGA2-J: Housing	58000
Antimony	Flame retardant	uFCPGA2-J: Diode	5700
Antimony	Flame retardant	uFCPGA2-J: Hall element	12000
Antimony	Flame retardant	uFCPGA2-J: Drive IC	13100
Bismuth	Main Material	uFCPGA2-J: Thermistor	6980
Brominated Flame Retardant	Flame retardant	uFCPGA2-J: Insulator (Lower)	100000
Brominated Flame Retardant	Flame retardant	uFCPGA2-J: Impeller	100000
Brominated Flame Retardant	Flame retardant	uFCPGA2-J: Housing	100000
Brominated Flame Retardant	Flame retardant	uFCPGA2-J: Diode	14400
Brominated Flame Retardant	Flame retardant	uFCPGA2-J: Hall element	8000
Brominated Flame Retardant	Flame retardant	uFCPGA2-J: Drive IC	13100
Brominated Flame Retardant	Flame retardant	uFCPGA2-J: PCB	23000
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Ball bearing (outer ring)	20000
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Ball bearing (inner ring):	20000
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Ball bearing (ball):	40000
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Ball bearing (board):	91500
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Coil spring	84100
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Shaft	1900
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Capacitor	29000
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Capacitor	65000
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Zener diode	200000
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Resistor	35900
Nickel	Electronic and Mechanical components and materials	uFCPGA2-J: Resistor	23100

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80546Pxxxxxx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.

2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Prescott Skt-N (FJJ)
BX80546Pxxxxxx
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 469.70
Manufacturer: Intel Corporation
Revision Date: 6/29/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in optical and filter glass.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in electronic ceramic parts (e.g. piezoelectric devices).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Prescott: Epoxy encapsulation material	4730
Lead/Lead Compounds	Electronic Components and Materials	Prescott: Substrate / SLI	8050
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Capacitor (Ceramic Body), CA-1	83971
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Diode (Glass Tube), DI-3	530000
Lead/Lead Compounds	Electronic Components and Materials	uFCPGA2-J: Diode (Die Solder), DI-4	906000

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80546Pxxxxx. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.

2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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Material Declaration Data Sheet

Boxed Smithfield BTX Type-1 Performance (NDJ)
BX80551PGxxxxFT
Pb Free Product: Yes-Second Level Interconnect

Product Weight (grams): 911.90
Manufacturer: Intel Corporation
Revision Date: 6/29/2006

Restrictions on Hazardous Substances (RoHS) Compliance

RoHS Definition

* Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

* Quantity limit of 0.01% by mass (100 PPM) of homogeneous material for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as defined by the EU or (2) an approved exemption applies. (Note: RoHS implementation details are not fully defined and may change.)

RoHS Declaration

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead as an alloying element in copper containing up to 4% lead by weight.

* The part does not contain RoHS restricted substances per the definition above except lead, which is used under the following exemption: Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury / Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium / Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

If this product contains lead (Pb) above the threshold limit of 1000 ppm, the concentration, location and use for this product are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electronic Components and Materials	Smithfield: FLI	2010
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-H: Bearing Housing	25000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-H: Diode	935000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-H: Drive IC	881000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-H: Transistor	925000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-H: Zener diode	251400
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-H: Resistor	3900
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-H: Resistor	4000
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-H: Resistor	41400
Lead/Lead Compounds	Electronic Components and Materials	FCLGA4-H: Resistor	9600

LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Phthalates
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Vinyl Chloride Polymer (PVC)

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	FCLGA4-H: Connector	6900
Antimony	Flame retardant	FCLGA4-H: Housing	50000
Antimony	Flame retardant	FCLGA4-H: Impeller	50000
Antimony	Flame retardant	FCLGA4-H: Diode	8500
Antimony	Flame retardant	FCLGA4-H: Diode	5700
Antimony	Flame retardant	FCLGA4-H: Hall element	7800
Antimony	Flame retardant	FCLGA4-H: Drive IC	5500
Antimony	Flame retardant	FCLGA4-H: Drive IC	13100
Antimony	Flame retardant	FCLGA4-H: Drive IC	6000
Antimony	Flame retardant	FCLGA4-H: Transistor	5400
Antimony	Flame retardant	FCLGA4-H: Transistor	8800
Antimony	Flame retardant	FCLGA4-H: Transistor	6600
Antimony	Flame retardant	FCLGA4-H: Insulator (lower)	100000
Bismuth	Main Material	FCLGA4-H: Thermistor	6900
Brominated Flame Retardant	Flame retardant	FCLGA4-H: Housing	150000
Brominated Flame Retardant	Flame retardant	FCLGA4-H: PCB	90000
Brominated Flame Retardant	Flame retardant	FCLGA4-H: Diode	29900
Brominated Flame Retardant	Flame retardant	FCLGA4-H: Diode	14400
Brominated Flame Retardant	Flame retardant	FCLGA4-H: Hall element	12300

Brominated Flame Retardant	Flame retardant	FCLGA4-H: Drive IC	8200
Brominated Flame Retardant	Flame retardant	FCLGA4-H: Drive IC	13100
Brominated Flame Retardant	Flame retardant	FCLGA4-H: Drive IC	12500
Brominated Flame Retardant	Flame retardant	FCLGA4-H: Transistor	17500
Brominated Flame Retardant	Flame retardant	FCLGA4-H: Transistor	8800
Brominated Flame Retardant	Flame retardant	FCLGA4-H: Transistor	20800
Brominated Flame Retardant	Flame retardant	Smithfield: Epoxy encapsulation material/Substrate	15300
Nickel	Electronic and Mechanical components and materials	Smithfield: Substrate	20900
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Shaft	4400
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Coil Spring	84100
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Capacitor	42000
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Capacitor	62000
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Capacitor	27000
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Zener diode	200000
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Resistor	36100
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Resistor	29100
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Ball bearing (outer ring)	90000
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Ball bearing (outer ring)	90000
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Ball bearing (ball)	40000
Nickel	Electronic and Mechanical components and materials	FCLGA4-H: Ball bearing (board)	89900

COMMENTS

1. The information on materials and substances listed above is based on the following package: Item Market Name BX80551PGxxxxFT. Material content listed at the product level are based on analytical testing intended to validate Intel's RoHS Compliance Systems. Material content listed for individual components are engineering model approximations based on supplier data and/or analytical testing. Results may vary due to differences in production and /or sensitivities of the methods and tools used for analytical testing and modeling. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
2. This data sheet is based on the product specified and other packages are assumed to be similar.
3. Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
4. Material mass can be estimated by multiplying concentration (ppm) by product weight.
5. The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc), epoxy resin and other non-metal materials.

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