

Dedicated Pin	100-Pin TQFP	144-Pin TQFP	256-Pin FineLine BGA
INPUT/GCLK1	87	125	D9
INPUT/GCLRn	89	127	E8
INPUT/OE1	88	126	E9
INPUT/OE2/GCLK2	90	128	D8
TDI (1)	4	4	D4
TMS (1)	15	20	J6
TCK (1)	62	89	J11
TDO (1)	73	104	D13
GNDINT	38, 86	52, 57, 124, 129	A8, C9, G9, K8, P9
GNDIO	11, 26, 33, 43, 53, 59, 65, 74, 78, 95	3, 13, 17, 26, 33, 59, 64, 77, 85, 94, 105, 114, 135	A3, B10, C2, D14, E14, F6, G10, H8, J9, K7, L11, M2, M3, M14, P3, P6, P10, R2, R3, R10, T1, T8, T15
VCCINT (3.3 V Only)	39, 91	51, 58, 123, 130	B9, C8, G8, K9, P8
VCCIO (2.5 V or 3.3 V)	3, 18, 34, 51, 66, 82	24, 50, 73, 76, 95, 115, 144	B3, B5, C14, E15, F11, G3, G7, G15, H9, J8, K10, L3, L6, M15, P14, T2, T3
No Connect (N.C.)	–	1, 2, 12, 19, 34, 35, 36, 43, 46, 47, 48, 49, 66, 75, 90, 103, 108, 120, 121, 122	A1, A2, A4, A5, A6, A7, A9, A10, A11, A12, A13, A14, A15, A16, B1, B2, B4, B6, B7, B8, B11, B12, B13, B14, B 15, B16, C1, C3, C4, C6, C11, C13, C15, C16, D1, D2, D3, D15, D16, E1, E2, E3, E16, F1, F2, F15, F16, G1, G2, G14, G16, H1, H2, H15, H16, J1, J2, J15, J16, K1, 2, K3, K14, K15, K16, L1, L2, L15, L16, M1, M16, N1, N2, N3, N14, N15, N16, P1, P2, P4, P12, P13, P15, P16, R1, R4, R5, R6, R7, R8, R9, R11, R12, R13, R14, R15, R16, T4, T5, T6, T7, T9, T10, T11, T12, T13, T14, T16
Total User I/O Pins (2)	80	96	98

LAB	MC	100-Pin TQFP	144-Pin TQFP	256-Pin FineLine BGA
A	1	2	143	F4
A	2	–	–	–
A	3	1	142	E4
A	4	–	141	C5
A	5	100	140	E5
A	6	99	139	D5
A	7	–	–	–
A	8	98	138	D6
A	9	97	137	E6
A	10	–	–	–
A	11	96	136	D7
A	12	–	134	C7
A	13	94	133	E7
A	14	93	132	F7
A	15	–	–	–
A	16	92	131	F8
B	17	14	18	J7
B	18	–	–	–
B	19	13	16	H5
B	20	–	15	H3
B	21	12	14	H4
B	22	10	11	H6
B	23	–	–	–
B	24	9	10	H7
B	25	8	9	G5
B	26	–	–	–
B	27	7	8	G4
B	28	–	7	F3
B	29	6	6	G6
B	30	5	5	F5
B	31	–	–	–
B	32	4 (1)	4 (1)	D4 (1)
C	33	25	32	N4
C	34	–	–	–
C	35	24	31	M4
C	36	–	30	–
C	37	23	29	L4
C	38	22	28	L5
C	39	–	–	–
C	40	21	27	K5
C	41	20	–	K4
C	42	–	–	–
C	43	19	25	K6
C	44	–	23	J3
C	45	17	22	J5
C	46	16	21	J4
C	47	–	–	–
C	48	15 (1)	20 (1)	J6 (1)
D	49	37	56	N8

LAB	MC	100-Pin TQFP	144-Pin TQFP	256-Pin FineLine BGA
D	50	–	–	-
D	51	36	55	M8
D	52	–	54	P7
D	53	35	53	L8
D	54	–	45	N7
D	55	–	–	-
D	56	32	44	M7
D	57	31	42	L7
D	58	–	–	-
D	59	30	41	M6
D	60	–	40	P5
D	61	29	39	N6
D	62	28	38	M5
D	63	–	–	-
D	64	27	37	N5
E	65	40	60	N9
E	66	–	–	-
E	67	41	61	M9
E	68	–	62	-
E	69	42	63	L9
E	70	44	65	N10
E	71	–	–	-
E	72	45	67	M10
E	73	46	68	L10
E	74	–	–	-
E	75	47	69	M11
E	76	–	70	P11
E	77	48	71	N11
E	78	49	72	N12
E	79	–	–	-
E	80	50	74	N13
F	81	52	–	M13
F	82	–	–	-
F	83	–	78	L13
F	84	–	79	L14
F	85	54	80	L12
F	86	55	81	M12
F	87	–	–	-
F	88	56	82	K12
F	89	57	83	K13
F	90	–	–	-
F	91	58	84	K11
F	92	–	86	J14
F	93	60	87	J12
F	94	61	88	J13
F	95	–	–	-
F	96	62 (1)	89 (1)	J11 (1)
G	97	63	91	J10
G	98	–	–	-

LAB	MC	100-Pin TQFP	144-Pin TQFP	256-Pin FineLine BGA
G	99	64	92	H12
G	100	–	93	H14
G	101	–	–	H13
G	102	67	96	H11
G	103	–	–	-
G	104	68	97	H10
G	105	69	98	G12
G	106	–	–	-
G	107	70	99	G13
G	108	–	100	F14
G	109	71	101	G11
G	110	72	102	F12
G	111	–	–	-
G	112	73 (1)	104 (1)	D13 (1)
H	113	75	106	F13
H	114	–	–	-
H	115	76	107	E13
H	116	–	109	C12
H	117	77	110	E12
H	118	–	111	D12
H	119	–	–	-
H	120	79	112	D11
H	121	80	113	E11
H	122	–	–	-
H	123	81	–	D10
H	124	–	116	C10
H	125	83	117	E10
H	126	84	118	F10
H	127	–	–	-
H	128	85	119	F9

Notes:

- (1) This pin may function as either a JTAG port or a user I/O pin. When the device is configured to use the JTAG ports for in-system programming, this pin is not available as a user I/O pin.
- (2) The user I/O pin count includes dedicated input pins and all I/O pins.

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