

Pin Name (1)	599-Pin PGA	600-Pin BGA	672-Pin FineLine BGA
MSEL0 (2)	F6	F5	W6
MSEL1 (2)	C3	C1	Y6
nSTATUS (2)	E43	D32	AA21
nCONFIG (2)	B4	D4	V9
DCLK (2)	BE5	AP1	G7
CONF_DONE (2)	BC43	AM32	H20
INIT_DONE (3)	AM40	AE32	M21
nCE (2)	BB6	AN2	G6
nCEO (2)	BF44	AP35	G21
nWS (4)	BB40	AR29	G19
nRS (4)	BA37	AM28	H19
nCS (4)	AY38	AL29	F21
CS (4)	BA39	AN29	F20
RDYnBUSY (4)	AW47	AG35	M19
CLKUSR (4)	AY42	AM34	J20
DATA7 (4)	BD14	AM13	G10
DATA6 (4)	BA17	AR12	J9
DATA5 (4)	BB16	AN12	F9
DATA4 (4)	BF12	AP11	G9
DATA3 (4)	BG11	AM11	H8
DATA2 (4)	BG9	AR10	F7
DATA1 (4)	BF10	AN10	G8
DATA0 (2), (5)	BC5	AM4	F6
TDI (2)	BF4	AN1	H7
TDO (2)	BB42	AN34	H21
TCK (2)	BE43	AL31	G20
TMS (2)	F42	C35	W20
TRST (2)	B46	C34	Y21
Dedicated Inputs	B24, C25, BG25, BG23	C18, D18, AM18, AN18	Y13, U14, G14, K13
Dedicated Clock Pins	BF24, A25	AL18, E18	T13, F14
GCLK1 (6)	–	E18	T13
Lock (7)	–	A23	W17
DEV_CLRn (3)	BE23	AR17	J13
DEV_OE (3)	BC25	AR19	H14
VCCINT (2.5 V)	A3, A45, C1, C11, C19, C29, C37, C47, E5, G25, L3, L45, W3, W45, AJ3, AJ45, AU3, AU45, BE1, BE11, BE19, BE29, BE37, BE47, BG3, BG45	A11, A19, B1, D24, E2, F31, F35, H1, K32, M2, N34, P5, T35, U3, V32, Y2, AA33, AB5, AD35, AE4, AF32, AG5, AK31, AK35, AL3, AP24, AR11, AR18	E13, E17, H2, H25, K16, L10, L12, L14, L17, M2, M25, N11, N12, N15, P12, P15, P16, R14, T2, T10, T12, T17, T25, U16, Y7, AA23, AB10, AC14
VCCIO (2.5 or 3.3 V)	D24, E9, E15, E21, E27, E33, E39, G7, G41, J5, J43, R5, R43, AA5, AA43, AD4, AD44, AG5, AG43, AN5, AN43, AW5, AW43, BA7, BA41, BC9, BC15, BC21, BC27, BC33, BC39, BD24	C8, E12, C15, A20, C23, A27, AM26, AR23, AM19, AN15, AL12, AN8, C2, C3, C4, D5, E5, C33, C32, D31, E31, AL5, AM5, AN4, AN3, AM31, AN32, AN33, AP34	C8, C15, D7, G3, J3, J17, K11, K22, L13, L15, M11, M13, M16, M22, N16, P11, R5, R11, R13, R16, R22, T15, U3, U11, V5, V17, V24, Y2, Y24, AA26, AD15
VCC_CKCLK (8)	–	B18	T14

Pin Name (1)	599-Pin PGA	600-Pin BGA	672-Pin FineLine BGA
GNDINT	A47, B2, C13, C21, C27, C35, C45, D4, G23, N3, N45, AA3, AA45, AG3, AG45, AR3, AR45, BD44, BE3, BE13, BE21, BE27, BE35, BE45, BG1, BG47	A1, A2, A3, A4, A5, A31, A32, A33, A34, A35, B2, B3, B4, B5, B6, B31, B32, B33, B34, B35, C5, C6, D6, E6, C30, C31, D30, E30, AL6, AL30, AM6, AM30, AN5, AN6, AN30, AN31, AN35, AP2, AP3, AP4, AP5, AP6, AP30, AP31, AP32, AP33, AR1, AR2, AR3, AR4, AR5, AR30, AR31, AR32, AR33, AR34, AR35	A2, A25, B2, B25, C3, C10, C24, D3, D4, D19, D23, D24, E4, E23, G23, J5, J23, K4, K10, K17, L11, L16, L22, M5, M12, M14, M15, N13, N14, P13, P14, P22, R12, R15, T11, T16, U10, U17, U24, V3, Y5, AA22, AB3, AB4, AB5, AB23, AB24, AC3, AC8, AC24, AD13, AD18, AE2, AE25, AF2, AF25
GNDIO	E7, E13, E19, E29, E35, E41, F24, G5, G43, H40, N5, N43, W5, W43, AD6, AD42, AJ5, AJ43, AR5, AR43, AY8, AY40, BA5, BA43, BB24, BC7, BC13, BC19, BC29, BC35, BC41	–	–
GND_CKCLK (8)	–	A18	AA13
No Connect (N.C.)	–	–	A4, A5, A6, A10, A11, A12, A13, A14, A15, A16, A17, A18, A19, A20, A21, A22, A23, A24, B4, B5, B6, B7, B8, B9, B10, B11, B12, B13, B16, B19, B20, B21, B22, B23, B24, C1, AE4, AE5, AE6, AE7, AE8, AE9, AE10, AE11, AE12, AE14, AE15, AE16, AE17, AE19, AE20, AE21, AE22, AE23, AF4, AF5, AF6, AF7, AF8, AF9, AF10, AF12, AF13, AF14, AF15, AF16, AF18, AF20, AF21, AF23, AF24
Total User I/O Pins (9)	470	470	470

Notes:

- (1) All pins that are not listed are user I/O pins.
- (2) This pin is a dedicated pin; it is not available as a user I/O pin.
- (3) This pin can be used as a user I/O pin if it is not used for its device-wide or configuration function.
- (4) This pin can be used as a user I/O pin after configuration.
- (5) This pin is tri-stated in user mode.
- (6) This pin drives the ClockLock and ClockBoost circuitry.
- (7) This pin shows the status of the ClockLock and ClockBoost circuitry. When the ClockLock and ClockBoost circuitry is locked to the incoming clock and generates an internal clock, LOCK is driven high. LOCK remains high if a periodic clock stops clocking. The LOCK function is optional; if the LOCK output is not used, this pin is a user I/O pin.
- (8) This pin is the power or ground for the ClockLock and ClockBoost circuitry. To ensure noise resistance, the power and ground supply to the Clock Lock and Clock Boost circuitry should be isolated from the power and ground to the rest of the device. If the ClockLock or ClockBoost circuitry is not used, this power or ground pin should be connected to VCCINT or GNDINT, respectively.
- (9) The user I/O pin count includes dedicated inputs, dedicated clock inputs, and all I/O pins.

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