

Pin Name (1)	240-Pin PQFP (2)	356-Pin FineLine BGA	484-Pin FineLine BGA	600-Pin BGA	672-Pin FineLine BGA
MSEL0 (3)	124	D4	U4	F5	W6
MSEL1 (3)	123	D3	V4	C1	Y6
nSTATUS (3)	60	D24	W19	D32	AA21
nCONFIG (3)	121	D2	T7	D4	V9
DCLK (3)	179	AC5	E5	AP1	G7
CONF_DONE (3)	2	AC24	F18	AM32	H20
INIT_DONE (4)	26	T24	K19	AE32	M21
nCE (3)	178	AC2	E4	AN2	G6
nCEO (3)	3	AC22	E19	AP35	G21
nWS (5)	238	AE24	E17	AR29	G19
nRS (5)	236	AE23	F17	AM28	H19
nCS (5)	240	AD24	D19	AL29	F21
CS (5)	239	AD23	D18	AN29	F20
RDYnBUSY (5)	23	U22	K17	AG35	M19
CLKUSR (5)	11	AA24	G18	AM34	J20
DATA7 (5)	190	AF4	E8	AM13	G10
DATA6 (5)	188	AD8	G7	AR12	J9
DATA5 (5)	186	AE5	D7	AN12	F9
DATA4 (5)	185	AD6	E7	AP11	G9
DATA3 (5)	183	AF2	F6	AM11	H8
DATA2 (5)	182	AD5	D5	AR10	F7
DATA1 (5)	181	AD4	E6	AN10	G8
DATA0 (3), (6)	180	AD3	D4	AM4	F6
TDI (3)	177	AC3	F5	AN1	H7
TDO (3)	4	AC23	F19	AN34	H21
TCK (3)	1	AD25	E18	AL31	G20
TMS (3)	58	D22	U18	C35	W20
TRST (3)	59	D23	V19	C34	Y21
Dedicated Inputs	90, 92, 210, 212	A13, B14, AF14, AE13	E12, H11, R12, V11	C18, D18, AM18, AN18	Y13, U14, G14, K13
Dedicated Clock Pins	91, 211	A14, AF13	D12, P11	AL18, E18	T13, F14
GCLK1 (7)	91	A14	P11	E18	T13
Lock (8)	73	C18	U15	A23	W17
DEV_CLRn (4)	209	AD13	G11	AR17	J13
DEV_OE (4)	213	AE14	F12	AR19	H14
VCCINT (2.5 V)	5, 20, 27, 47, 76, 96, 122, 130, 150, 159, 170	A1, A26, C26, D5, F1, H22, J1, M26, N1, T26, U5, AA1, AD26, AF1, AF26	C11, C15, H14, J8, J10, J12, J15, L9, L10, L13, M10, M13, M14, N12, P8, P10, P15, R14, V5, W21, Y8, AA12	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)	16, 37, 57, 77, 112, 140, 160, 189, 205, 224	A7, A23, B4, C15, D25, F4, H24, K5, M23, P2, T25, V2, W22, AB1, AC25, AD18, AF3, AF7, AF16	A6, A13, B5, E1, G1, G15, H9, H20, J11, J13, K9, K11, K14, K20, L14, M9, N3, N9, N11, N14, N20, P13, R1, R9, T3, T15, T22, V22, AB13	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

Pin Name (1)	240-Pin PQFP (2)	356-Pin FineLine BGA	484-Pin FineLine BGA	600-Pin BGA	672-Pin FineLine BGA
VCC_CKCLK (9)	89	C14	P12	B18	T14
GNDINT (11)	10, 22, 32, 42, 52, 69, 85, 104, 125, 135, 145, 155, 165, 176, 197, 216, 232	A2, A10, A20, B1, B22, B25, B26, C2, C9, C13, C25, H23, J26, K1, M1, N26, R1, R26, T1, U26, W1, AD2, AD14, AD20, AE1, AE2, AE7, AE25, AE26, AF11, AF19, AF25	A1, A8, A22, B1, B2, B17, B21, B22, C2, C21, E21, G3, G21, H2, H8, H15, J9, J14, J20, K3, K10, K12, K13, L11, L12, M11, M12, M20, N10, N13, P9, P14, R8, R15, R22, T1, V3, W20, Y1, Y2, Y3, Y21, Y22, AA1, AA6, AA22, AB11, AB16	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	–	–	–	–	–
GND_CKCLK (9)	93	B13	W11	A18	AA13
No Connect (N.C.)	–	–	–	D3, D35, E1, F34, G2, H5, J3, J4, J32, K1, L4, L31, M3, N1, N33, N35, P4, P33, R2, R32, T4, U5, U34, V3, V34, W1, W31, W35, Y31, AA2, AA34, AB1, AB31, AB34, AB35, AC31, AC34, AE33, AE35, AF1, AG3, AH2, AJ32, AK2, AK32, AL33	A3, A4, A5, A6, A8, A9, A10, A11, A12, A13, A14, A15, A16, A17, A18, A19, A20, A21, A22, A23, A24, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12, B13, B14, B16, B19, B20, B21, B22, B23, B24, B26, C1, C25, C26, D1, D2, D25, D26, E1, E25, E26, F1, F25, G25, G26, H1, J1, J25, J26, K26, L2, L25, N2, P1, P2, R1, R26, T1, U1, U25, V1, V26, W1, Y26, AA1, AA2, AA25, AB2, AB25, AB26, AC1, AC2, AC25, AC26, AD2, AD26, AE1, AE3, AE4, AE5, AE6, AE7, AE8, AE9, AE10, AE11, AE12, AE14, AE15, AE16, AE17, AE19, AE20, AE21, AE22, AE23, AE24, AE26, AF3, AF4, AF5, AF6, AF7, AF8, AF9, AF10, AF11, AF12, AF13, AF14, AF15, AF16, AF17, AF18, AF20, AF21, AF23, AF24
Total User I/O Pins (10)	189	274	369	424	413

Notes:

- (1) All pins that are not listed are user I/O pins.
- (2) EPF10K50E, EPF10K100E, and EPF10K100B devices are pin-compatible with EPF10K130E devices in the same package if pins 20, 76, and 159 are connected to VCCINT. The MAX+PLUS II software performs this function automatically when future migration is set.
- (3) This pin is a dedicated pin; it is not available as a user I/O pin.
- (4) This pin can be used as a user I/O pin if it is not used for its device-wide or configuration function.
- (5) This pin can be used as a user I/O pin after configuration.
- (6) This pin is tri-stated in user mode.
- (7) This pin drives the ClockLock and ClockBoost circuitry.
- (8) 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.
- (9) 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.
- (10) The user I/O pin count includes dedicated inputs, dedicated clock inputs, and all I/O pins.
- (11) The Quartus II software lists some GNDINT pins as GND. The MAX+PLUS II software lists all of these pins (GNDIO, GNDINT, and GND pins) as GND pins. All of these pins can be connected to a single GND plane.

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