

Table 1 shows all the pins for the 44-pin PLCC, 44-pin TQFP, 48-pin VTQFP, and 49-pin Ultra FineLine BGA™, 100-pin TQFP, and 100-pin FineLine BGA packages.

| Dedicated Pin | 44-pin PLCC | 44-pin TQFP | 48-pin VTQFP | 49-pin Ultra FineLine BGA | 100-pin TQFP | 100-pin FineLine BGA |
|------------------------------|-------------|-------------|--------------|---------------------------|--|--|
| INPUT/GCLK1 | 43 | 37 | 41 | A5 | 87 | A6 |
| INPUT/GCLRΝ | 1 | 39 | 43 | A3 | 89 | B5 |
| INPUT/OE1 | 44 | 38 | 42 | A4 | 88 | B6 |
| INPUT/OE2/GLCK2 | 2 | 40 | 44 | B4 | 90 | A5 |
| TDI (1) | 7 | 1 | 2 | B1 | 4 | A1 |
| TMS (1) | 13 | 7 | 8 | F1 | 15 | F3 |
| TCK (1) | 32 | 26 | 29 | F7 | 62 | F8 |
| TDO (1) | 38 | 32 | 35 | B7 | 73 | A10 |
| VREFA (2) | 11 | 5 | 6 | D1 | 12 | F1 |
| VREFB (2) | 31 | 25 | 28 | E7 | 60 | E8 |
| GNDINT | 22, 42 | 16, 36 | 18, 40 | B5, F4 | 38, 86 | D6, G5 |
| GNDIO | 10, 30 | 4, 24 | 5, 27 | C2, E6 | 11, 26, 43, 59, 74, 95 | C3, D7, E5, F6, G4, H8 |
| VCCINT (2.5 V) | 3, 23 | 17, 41 | 19, 45 | B3, E4 | 39, 91 | D5, G6 |
| VCCIO1 (1.8 V, 2.5 V, 3.3 V) | 15 | 9 | 10 | E2 | 3, 18, 34 | D4, F5, H3 |
| VCCIO2 (1.8 V, 2.5 V, 3.3 V) | 35 | 29 | 32 | C6 | 51, 66, 82 | C8, E6, G7 |
| No Connect | - | - | - | - | 1, 2, 5, 7, 22, 24, 27, 28, 49, 50, 53, 55, 70, 72, 77, 78 | B1, B10, C1, C9, C10, D8, E3, E4, H1, H9, H10, J1, J2, J10, K1, K9 |
| Total User I/O Pins (3) | 36 | 36 | 40 | 41 | 68 | 68 |

Table 2 shows all the pins for the 44-pin PLCC, 44-pin TQFP, 48-pin VTQFP, and 49-pin Ultra FineLine BGA™ packages.

| LAB | MC# | 44-pin PLCC | 44-pin TQFP | 48-pin VTQFP | 49-pin Ultra FineLine BGA | GNDIO Group | VCCIO Group | I/O Bank |
|-----|-----|-------------|-------------|--------------|---------------------------|-------------|-------------|----------|
| A | 1 | 12 | 6 | 7 | D2 | B (200 mA) | A (100 mA) | 1 |
| | 2 | - | - | - | - | - | - | 1 |
| | 3 | 11 (2) | 5 (2) | 6 (2) | D1 (2) | B (200 mA) | A (100 mA) | 1 |
| | 4 | 9 | 3 | 4 | D4 | A (200 mA) | A (100 mA) | 1 |
| | 5 | 8 | 2 | 3 | C1 | A (200 mA) | A (100 mA) | 1 |
| | 6 | - | - | - | - | - | - | 1 |
| | 7 | - | - | - | - | - | - | 1 |
| | 8 | 7 (1) | 1 (1) | 2 (1) | B1 (1) | A (200 mA) | A (100 mA) | 1 |
| | 9 | - | - | 1 | B2 | A (200 mA) | A (100 mA) | 1 |
| | 10 | - | - | - | - | - | - | 1 |
| | 11 | 6 | 44 | 48 | A1 | A (200 mA) | A (100 mA) | 1 |
| | 12 | - | - | - | - | - | - | 1 |
| | 13 | - | - | - | - | - | - | 1 |
| | 14 | 5 | 43 | 47 | A2 | A (200 mA) | A (100 mA) | 1 |
| | 15 | - | - | - | - | - | - | 1 |
| | 16 | 4 | 42 | 46 | C3 | A (200 mA) | A (100 mA) | 1 |
| B | 17 | 21 | 15 | 17 | G4 | B (200 mA) | B (100 mA) | 1 |
| | 18 | - | - | - | E3 | B (200 mA) | B (200 mA) | 1 |
| | 19 | 20 | 14 | 16 | G3 | B (200 mA) | B (100 mA) | 1 |
| | 20 | 19 | 13 | 15 | F3 | B (200 mA) | B (100 mA) | 1 |
| | 21 | 18 | 12 | 14 | G2 | B (200 mA) | B (100 mA) | 1 |
| | 22 | - | - | 13 | G1 | B (200 mA) | B (100 mA) | 1 |
| | 23 | - | - | - | - | - | - | 1 |
| | 24 | 17 | 11 | 12 | F2 | B (200 mA) | B (100 mA) | 1 |
| | 25 | 16 | 10 | 11 | D3 | B (200 mA) | B (100 mA) | 1 |
| | 26 | - | - | - | - | - | - | 1 |
| | 27 | - | - | - | - | - | - | 1 |
| | 28 | - | - | - | - | - | - | 1 |
| | 29 | - | - | - | - | - | - | 1 |
| | 30 | 14 | 8 | 9 | E1 | B (200 mA) | A (100 mA) | 1 |
| | 31 | - | - | - | - | - | - | 1 |
| | 32 | 13 (1) | 7 (1) | 8 (1) | F1 (1) | B (200 mA) | A (100 mA) | 1 |

| Table 2: EPM7064B I/O Pins & Associated I/O Standard Groups | | | | | | | | | |
|--|------------|------------------------|------------------------|-------------------------|--|------------------------|------------------------|-----------------|---|
| LAB | MC# | 44-pin PLCC | 44-pin TQFP | 48-pin VTQFP | 49-pin Ultra FineLine BGA | GNDIO Group | VCCIO Group | I/O Bank | |
| C | 33 | 24 | 18 | 20 | E5 | B (200 mA) | C (100 mA) | 2 | |
| | 34 | - | - | - | - | - | - | 2 | |
| | 35 | 25 | 19 | 21 | G5 | B (200 mA) | C (100 mA) | 2 | |
| | 36 | 26 | 20 | 22 | F5 | B (200 mA) | C (100 mA) | 2 | |
| | 37 | 27 | 21 | 23 | G6 | B (200 mA) | C (100 mA) | 2 | |
| | 38 | - | - | - | - | - | - | 2 | |
| | 39 | - | - | 24 | G7 | B (200 mA) | C (100 mA) | 2 | |
| | 40 | 28 | 22 | 25 | F6 | B (200 mA) | C (100 mA) | 2 | |
| | 41 | 29 | 23 | 26 | D5 | B (200 mA) | C (100 mA) | 2 | |
| | 42 | - | - | - | - | - | - | 2 | |
| | 43 | - | - | - | - | - | - | 2 | |
| | 44 | - | - | - | - | - | - | 2 | |
| | 45 | - | - | - | - | - | - | 2 | |
| | 46 | 31 (2) | 25 (2) | 28 (2) | E7 (2) | A (200 mA) | C (100 mA) | 2 | |
| | 47 | - | - | - | - | - | - | 2 | |
| | 48 | 32 (1) | 26 (1) | 29 (1) | F7 (1) | A (200 mA) | C (100 mA) | 2 | |
| | D | 49 | 33 | 27 | 30 | D7 | A (200 mA) | C (100 mA) | 2 |
| | | 50 | - | - | - | - | - | - | 2 |
| 51 | | 34 | 28 | 31 | D6 | A (200 mA) | C (100 mA) | 2 | |
| 52 | | 36 | 30 | 33 | C7 | A (200 mA) | D (100 mA) | 2 | |
| 53 | | 37 | 31 | 34 | B6 | A (200 mA) | D (100 mA) | 2 | |
| 54 | | - | - | - | - | - | - | 2 | |
| 55 | | - | - | - | - | - | - | 2 | |
| 56 | | 38 (1) | 32 (1) | 35 (1) | B7 (1) | A (200 mA) | D (100 mA) | 2 | |
| 57 | | 39 | 33 | 36 | A7 | A (200 mA) | D (100 mA) | 2 | |
| 58 | | - | - | - | - | - | - | 2 | |
| 59 | | - | - | 37 | A6 | A (200 mA) | D (100 mA) | 2 | |
| 60 | | - | - | - | - | - | - | 2 | |
| 61 | | - | - | - | - | - | - | 2 | |
| 62 | | 40 | 34 | 38 | C5 | A (200 mA) | D (100 mA) | 2 | |
| 63 | | - | - | - | - | - | - | 2 | |
| 64 | | 41 | 35 | 39 | C4 | A (200 mA) | D (100 mA) | 2 | |

Table 3 shows all the pins for the 100-pin TQFP and 100-pin FineLine BGA packages, as well as the associated standard groups.

| Table 3. EPM7064B I/O Pins and Associated IO Standard Groups | | | | | | |
|--|-----|--------------|----------------------|-------------|-------------|----------|
| LAB | MC# | 100-pin TQFP | 100-pin FineLine BGA | GNDIO Group | VCCIO Group | I/O Bank |
| A | 1 | 14 | F4 | C | B | 1 |
| | 2 | 13 | E2 | C | B | 1 |
| | 3 | 12 (2) | E1 | C | B | 1 |
| | 4 | 10 | D2 | B | B | 1 |
| | 5 | 9 | D1 | B | B | 1 |
| | 6 | 8 | D3 | B | B | 1 |
| | 7 | 6 | C2 | B | B | 1 |
| | 8 | 4 (1) | A1 (1) | B | B | 1 |
| | 9 | 100 | B2 | B | A | 1 |
| | 10 | 99 | A2 | B | A | 1 |
| | 11 | 98 | A3 | B | A | 1 |
| | 12 | 97 | B3 | B | A | 1 |
| | 13 | 96 | A4 | B | A | 1 |
| | 14 | 94 | B4 | A | A | 1 |
| | 15 | 93 | C4 | A | A | 1 |
| | 16 | 92 | C5 | A | A | 1 |
| B | 17 | 37 | K5 | D | D | 1 |
| | 18 | 36 | J5 | D | D | 1 |
| | 19 | 35 | H5 | D | D | 1 |
| | 20 | 33 | K4 | D | C | 1 |
| | 21 | 32 | J4 | D | C | 1 |
| | 22 | 31 | H4 | D | C | 1 |
| | 23 | 30 | J3 | D | C | 1 |
| | 24 | 29 | K3 | D | C | 1 |
| | 25 | 25 | K2 | C | C | 1 |
| | 26 | 23 | H2 | C | C | 1 |
| | 27 | 21 | G2 | C | C | 1 |
| | 28 | 20 | G1 | C | C | 1 |
| | 29 | 19 | G3 | C | C | 1 |
| | 30 | 17 | F2 | C | B | 1 |
| | 31 | 16 | F1 (2) | C | B | 1 |
| | 32 | 15 (1) | F3 (1) | C | B | 1 |
| C | 33 | 40 | K6 | D | E | 2 |
| | 34 | 41 | J6 | D | E | 2 |
| | 35 | 42 | H6 | D | E | 2 |
| | 36 | 44 | K7 | E | E | 2 |
| | 37 | 45 | J7 | E | E | 2 |
| | 38 | 46 | H7 | E | E | 2 |
| | 39 | 47 | J8 | E | E | 2 |
| | 40 | 48 | K8 | E | E | 2 |
| | 41 | 52 | K10 | E | F | 2 |
| | 42 | 54 | J9 | E | F | 2 |
| | 43 | 56 | G9 | E | F | 2 |
| | 44 | 57 | G10 | E | F | 2 |
| | 45 | 58 | G8 | E | F | 2 |
| | 46 | 60 (2) | F9 | F | F | 2 |
| | 47 | 61 | F10 | F | F | 2 |
| | 48 | 62 (1) | F8 (1) | F | F | 2 |

| Table 3. EPM7064B I/O Pins and Associated IO Standard Groups | | | | | | |
|--|-----|-----------------|-------------------------|----------------|----------------|----------|
| LAB | MC# | 100-pin TQFP | 100-pin FineLine BGA | GNDIO Group | VCCIO Group | I/O Bank |
| D | 49 | 63 | F7 | F | F | 2 |
| | 50 | 64 | E9 | F | F | 2 |
| | 51 | 65 | E10 | F | F | 2 |
| | 52 | 67 | E8 (2) | F | G | 2 |
| | 53 | 68 | E7 | F | G | 2 |
| | 54 | 69 | D9 | F | G | 2 |
| | 55 | 71 | D10 | F | G | 2 |
| | 56 | 73 (1) | A10 (1) | F | G | 2 |
| | 57 | 75 | B9 | A | G | 2 |
| | 58 | 76 | A9 | A | G | 2 |
| | 59 | 79 | A8 | A | G | 2 |
| | 60 | 80 | B8 | A | G | 2 |
| | 61 | 81 | A7 | A | G | 2 |
| | 62 | 83 | B7 | A | H | 2 |
| | 63 | 84 | C7 | A | H | 2 |
| | 64 | 85 | C6 | A | H | 2 |

Notes to Tables 1 Through 3:

(1) This pin may function as either a JTAG port or a user I/O pin. If 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) This pin may function as either a VREF pin or a user I/O pin. If this pin is programmed to be a VREF pin for using the advanced I/O standards, then this pin is not available as a user I/O pin.

(3) The user I/O pin count includes dedicated input pins and all I/O pins.