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Understanding Embedded - Microprocessors

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Applications of Embedded - Microprocessors

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Module height (typical)	2.23 mm
Module height (minimum)	2.00 mm
Solder balls	62 Sn/36 Pb/2 Ag (ZQ package) 96.5 Sn/3.5Ag (VR package)
Ball diameter (typical)	0.60 mm

18.2 Mechanical Dimensions for the MPC8343EA PBGA

Figure 36 shows the mechanical dimensions and bottom surface nomenclature for the MPC8343EA, 620-PBGA package.

Notes:
1. All dimensions are in millimeters.
2. Dimensioning and tolerancing per ASME Y14. 5M-1994.
3. Maximum solder ball diameter measured parallel to datum A.
4. Datum A, the seating plane, is determined by the spherical crowns of the solder balls.

Figure 36. Mechanical Dimensions and Bottom Surface Nomenclature for the MPC8343EA PBGA

However, while $\overline{\text{HRESET}}$ is asserted, these pins are treated as inputs, and the value on these pins is latched when $\overline{\text{PORESET}}$ deasserts. Then the input receiver is disabled and the I/O circuit takes on its normal function. Careful board layout with stubless connections to these pull-up/pull-down resistors coupled with the large value of the pull-up/pull-down resistor should minimize the distortion of signal quality or speed for the output pins.

21.7 Pull-Up Resistor Requirements

The MPC8343EA requires high resistance pull-up resistors (10 kΩ is recommended) on open-drain pins, including I^2C pins, and IPIC interrupt pins.

For more information on required pull-up resistors and the connections required for the JTAG interface, refer to application note AN2213, "PowerQUICC Design Checklist."

22 Ordering Information

This section presents ordering information for the devices discussed in this document, and it shows an example of how the parts are marked.

NOTE

The information in this document is accurate for revision 3.x silicon and later (in other words, for orderable part numbers ending in A or B). For information on revision 1.1 silicon and earlier versions, see the MPC8343E PowerQUICC II Pro Integrated Host Processor Hardware Specifications (Document Order No. MPC8343EEC).

22.1 Part Numbers Fully Addressed by This Document

Table 62 shows an analysis of the Freescale part numbering nomenclature for the MPC8343EA. The individual part numbers correspond to maximum processor core frequency. Each part number also contains a revision code that refers to the die mask revision number. For available frequency configuration