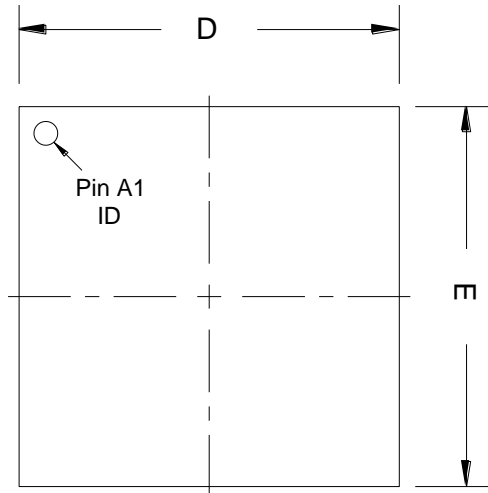
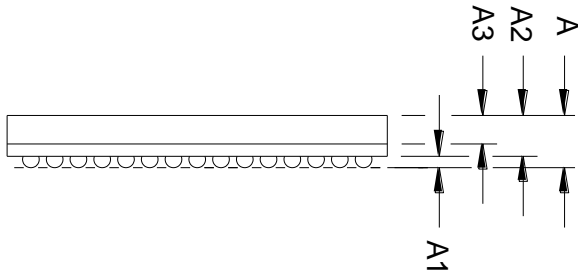
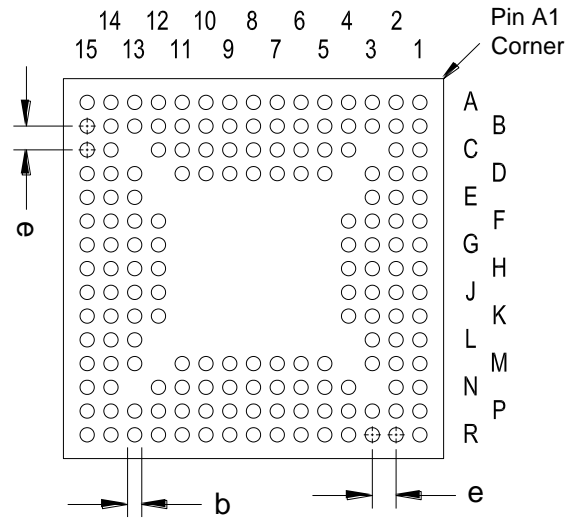


164-Pin Micro FineLine Ball-Grid Array (MBGA) - Wire Bond - A:1.20

- All dimensions and tolerances conform to ASME Y14.5M – 1994.
- Controlling dimension is in millimeters.
- Pin A1 may be indicated by an ID dot, or a special feature, in its proximity on package surface.

Package Information	
Description	Specification
Ordering Code Reference	M
Package Acronym	MBGA
Substrate Material	BT
Solder ball composition	Regular: 63Sn:37Pb (Typ.) Pb-free: Sn:3Ag:0.5Cu (Typ.)
JEDEC Outline Reference	MO-195 Variation: AE
Lead Coplanarity	0.003 inch (0.08 mm)
Weight	0.18 g (Typ.)
Moisture Sensitivity Level	Printed on moisture barrier bag

Package Outline Dimension Table			
Symbol	Millimeters		
	Min.	Nom.	Max.
A	0.90	1.05	1.20
A1	0.15	0.20	0.25
A2	0.65	0.85	1.05
A3	0.55	0.60	0.65
D	8.00 BSC		
E	8.00 BSC		
b	0.25	0.30	0.35
e	0.50 BSC		

Package OutlineTOP VIEWBOTTOM VIEW

Document Revision History

Table 1 shows the revision history for this document.

Table 1. Document Revision History

Date	Version	Changes
June 2011	1.0	Initial release



101 Innovation Drive
San Jose, CA 95134
www.altera.com

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