

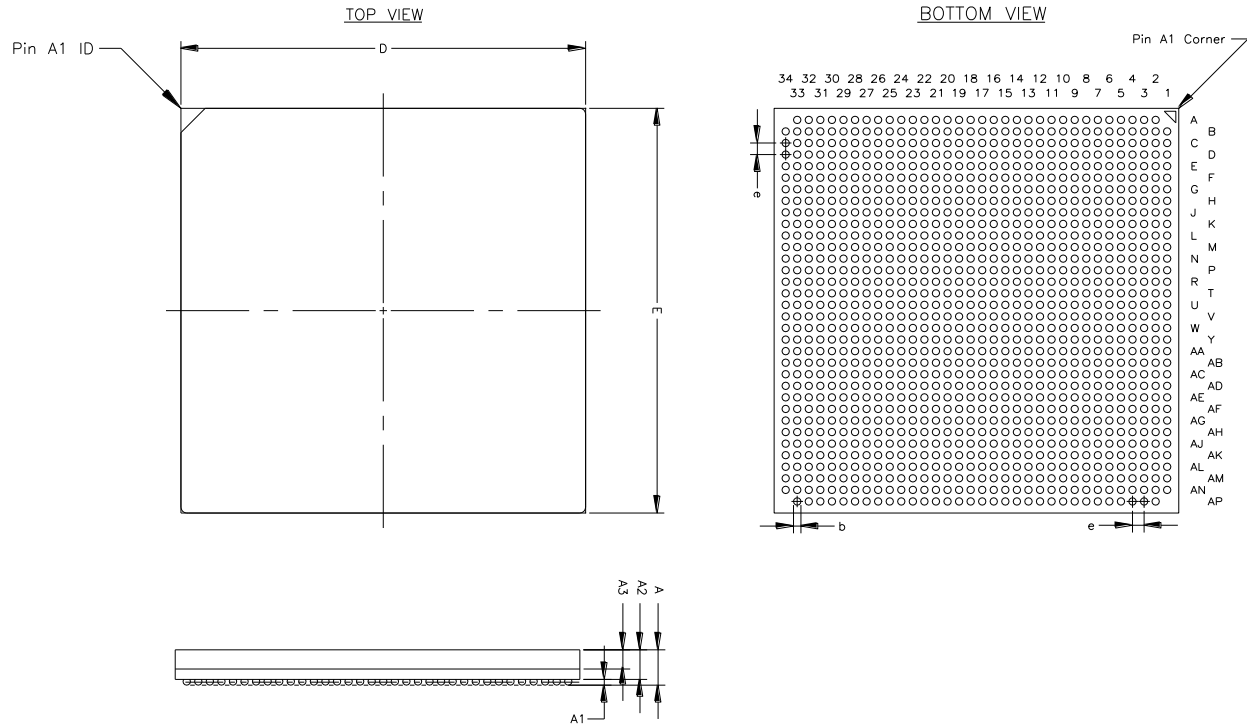
## 1152-Pin FineLine Ball-Grid Array (FBGA) - Flip Chip - Flat Top Single-Piece Lid - A:3.50

- 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	F
Package Acronym	FBGA
Substrate Material	BT
Solder ball composition	Regular: 63Sn:37Pb (Typ.) Pb-free: Sn:3Ag:0.5Cu (Typ.)
JEDEC Outline Reference	MS-034 Variation: AAR-1
Lead Coplanarity	0.008 inch (0.20 mm)
Weight	14.9 g (Typ.)
Moisture Sensitivity Level	Printed on moisture barrier bag

Package Outline Dimension Table			
Symbol	Millimeters		
	Min.	Nom.	Max.
A	3.10	3.30	3.50
A1	0.40	0.50	0.60
A2	2.50	2.80	3.10
A3	1.40	1.45	1.50
D	35.00 BSC		
E	35.00 BSC		
b	0.50	0.60	0.70
e	1.00 BSC		

**Package Outline**



## Document Revision History

Table 1 shows the revision history for this document.

Table 1. Document Revision History

Date	Version	Changes
May 2014	1.0	Initial Release
February 2014	2.0	Update package weight in the package information table.



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