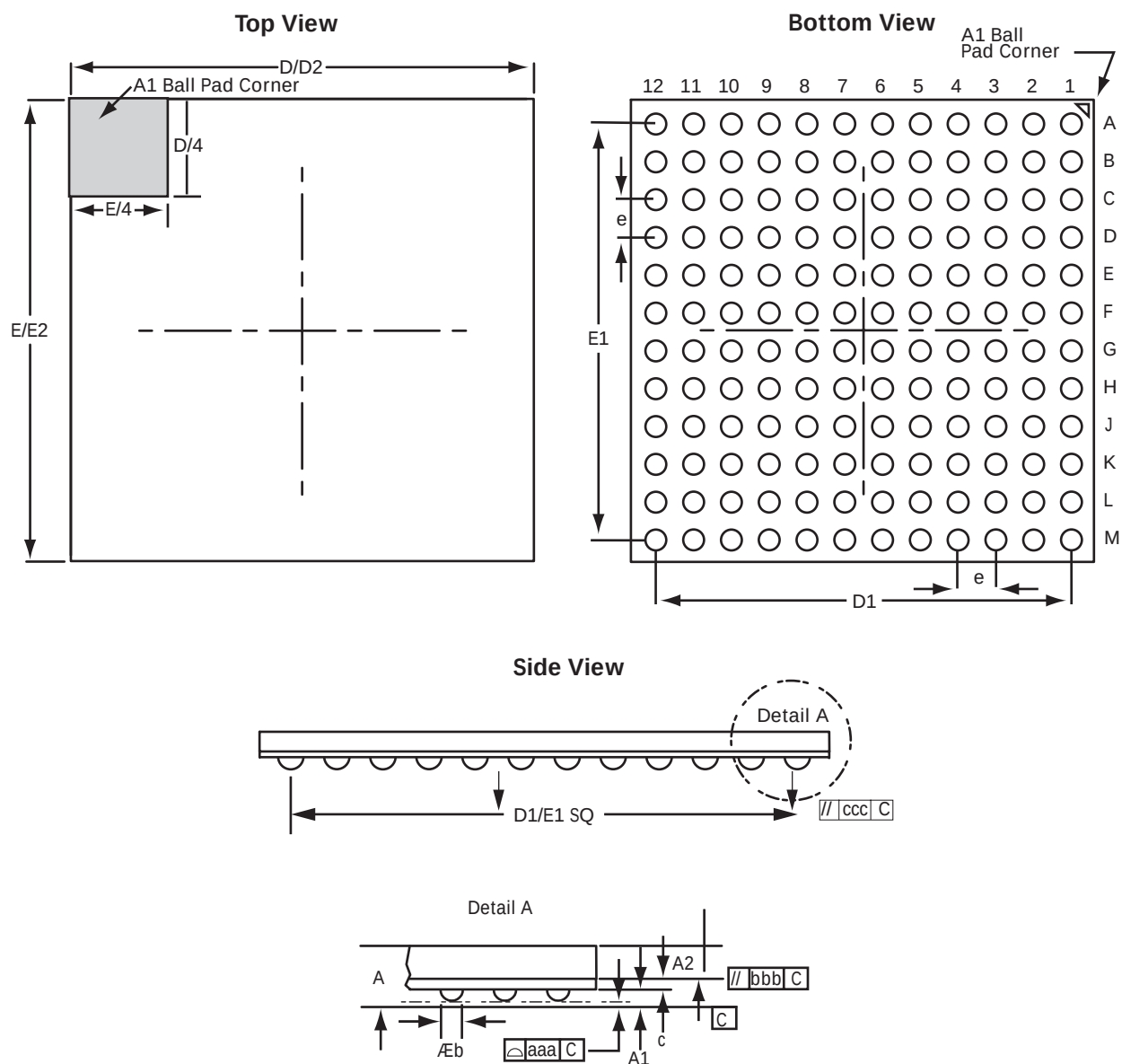


Fine Pitch Plastic Ball Grid Array

144-Pin FG



Fine Pitch Plastic Ball Grid Array Dimensions

	FBGA 144 MO-192 VAR AAD1			FBGA 256 (page 38) MO-192 VAR AAF1			FBGA 256 (page 39) MS-034 VAR AAF-1			FBGA 324 MS-034 VAR AAG-1			FBGA 484 (page 42) MS-034 VAR AAL-1		
Dimension	Min.	Nom.	Max.	Min.	Nom.	Max.	Min.	Nom.	Max.	Min.	Nom.	Max.	Min.	Nom.	Max.
A	1.35	1.45	1.55	1.35	1.60	1.70	1.55	1.76	1.97	1.48	1.63	1.78	2.02	2.23	2.44
A1	0.35	0.40	0.45	0.25	0.40	–	0.30	0.40	0.50	0.33	0.38	0.43	0.40	0.50	0.60
A2	0.65	0.70	0.75	0.65	0.70	0.75	0.75	0.80	0.85	0.65	0.70	0.75	1.12	1.17	1.22
aaa	0.12			0.12			0.20			0.20			0.20		
b	0.45	0.50	0.55	0.45	0.50	0.55	0.40	0.50	0.60	0.49	0.54	0.59	0.50	0.63	0.70
bbb	0.25			0.25			0.25			0.25			0.25		
c	–	0.35	–	0.25	0.50	1.10	0.50	0.56	0.62	0.50	0.55	0.60	0.50	0.56	0.62
ccc	0.35			0.35			0.35			0.35			0.35		
D	12.80	13.00	13.20	16.80	17.00	17.20	16.80	17.00	17.20	18.80	19.00	19.20	26.80	27.00	27.20
D1	11.00 BSC			15.00 BSC			15.00 BSC			17.00 BSC			21.00 BSC		
D2	12.80	13.00	13.20	16.80	17.00	17.20	14.80	15.00	15.20	18.80	19.00	19.20	19.45	19.50	20.20
E	12.80	13.00	13.20	16.80	17.00	17.20	16.80	17.00	17.20	18.80	19.00	19.20	26.80	27.00	27.20
E1	11.00 BSC			15.00 BSC			15.00 BSC			17.00 BSC			21.00 BSC		
E2	12.80	13.00	13.20	16.80	17.00	17.20		15.00	15.70	18.80	19.00	19.20	19.45	19.50	20.20
e	1.00 typ.			1.00 typ.			1.00 typ.			1.00 typ.			1.00 typ.		

Note:

1. All dimensions are in millimeters.
2. BSC—Basic Spacing between Centers.