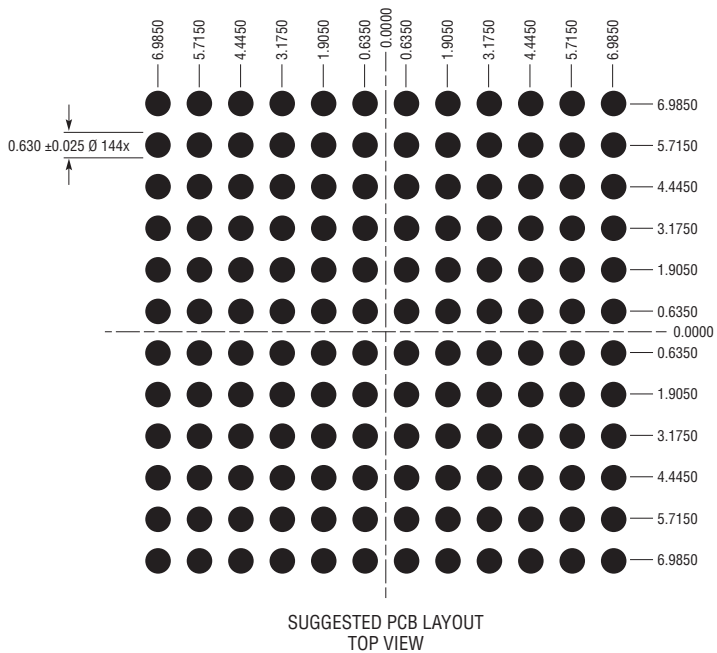
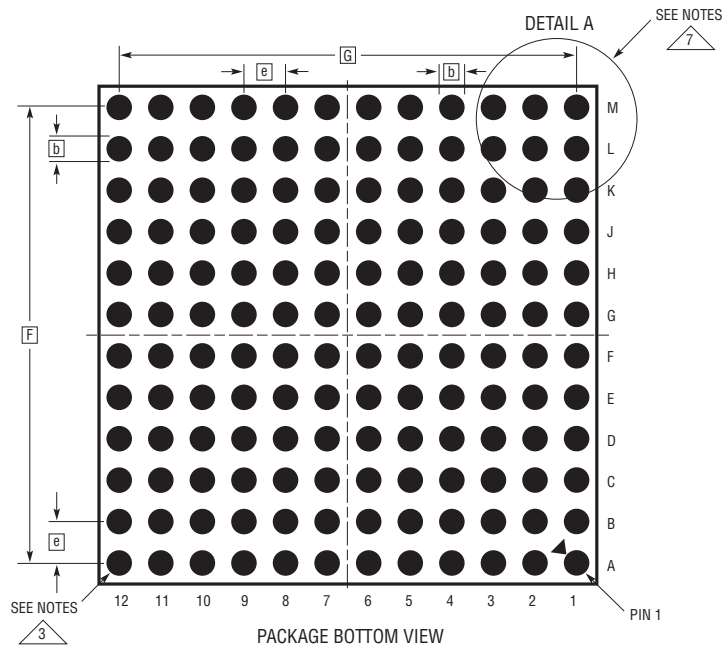
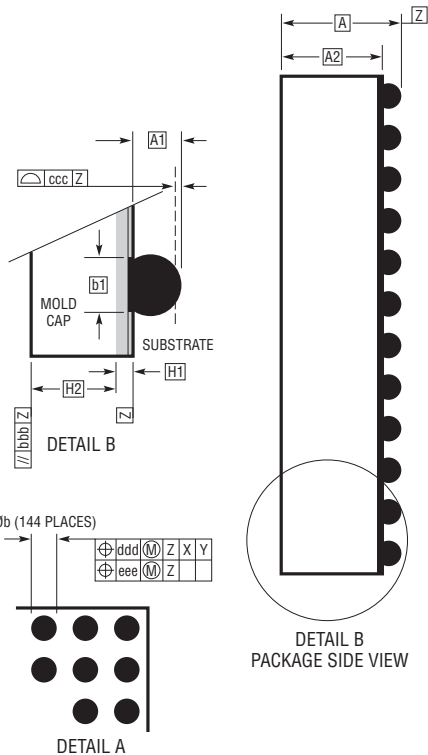
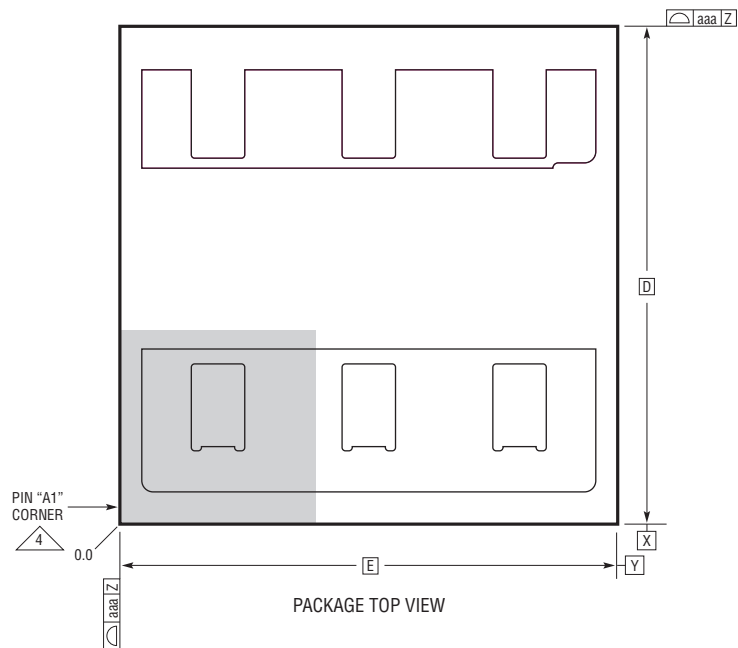


**BGA Package**  
**144-Lead (15mm × 15mm × 5.01mm)**  
 (Reference LTC DWG # 05-08-1908 Rev A)



DIMENSIONS				
SYMBOL	MIN	NOM	MAX	NOTES
A	4.81	5.01	5.21	
A1	0.50	0.60	0.70	BALL HT
A2	4.31	4.41	4.51	
b	0.60	0.75	0.90	BALL DIMENSION
b1	0.60	0.63	0.66	PAD DIMENSION
D		15.00		
E		15.00		
e		1.27		
F		13.97		
G		13.97		
H1	0.36	0.41	0.46	SUBSTRATE THK
H2	3.95	4.00	4.05	MOLD CAP HT
aaa			0.15	
bbb			0.10	
ccc			0.20	
ddd			0.30	
eee			0.15	

TOTAL NUMBER OF BALLS: 144

- NOTES:
- DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994
  - ALL DIMENSIONS ARE IN MILLIMETERS
  - BALL DESIGNATION PER JESD MS-028 AND JEP95
  - DETAILS OF PIN #1 IDENTIFIER ARE OPTIONAL, BUT MUST BE LOCATED WITHIN THE ZONE INDICATED. THE PIN #1 IDENTIFIER MAY BE EITHER A MOLD OR MARKED FEATURE
  - PRIMARY DATUM -Z- IS SEATING PLANE
  - SOLDER BALL COMPOSITION CAN BE 96.5% Sn/3.0% Ag/0.5% Cu OR Sn Pb EUTECTIC
  - PACKAGE ROW AND COLUMN LABELING MAY VARY AMONG  $\mu$ Module PRODUCTS. REVIEW EACH PACKAGE LAYOUT CAREFULLY

