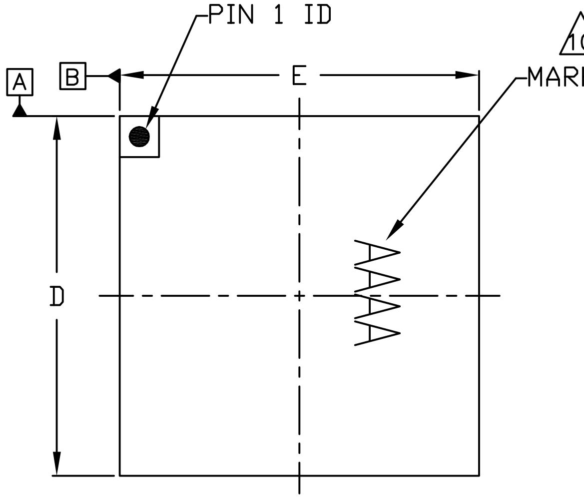
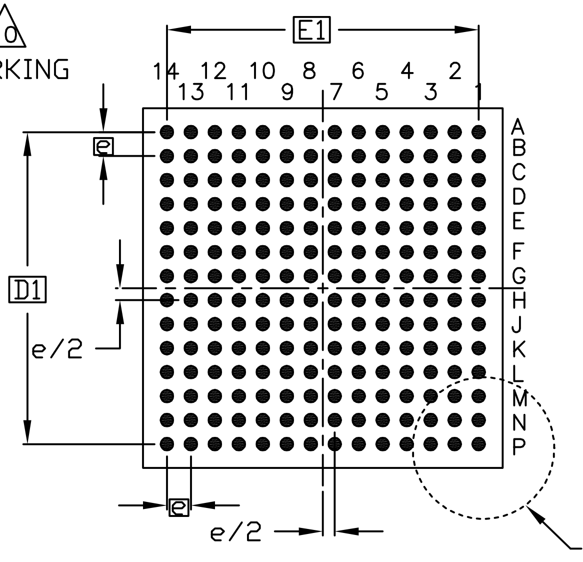
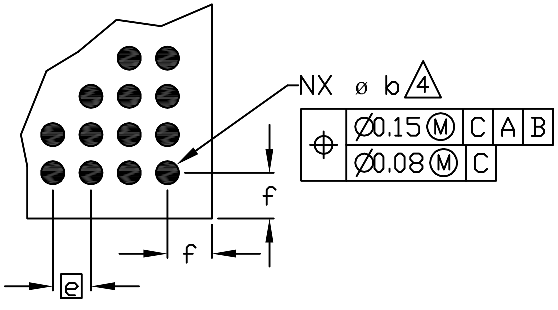


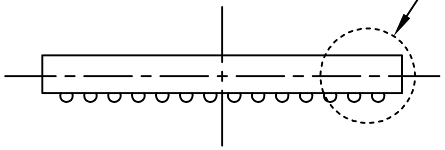
TOP VIEW



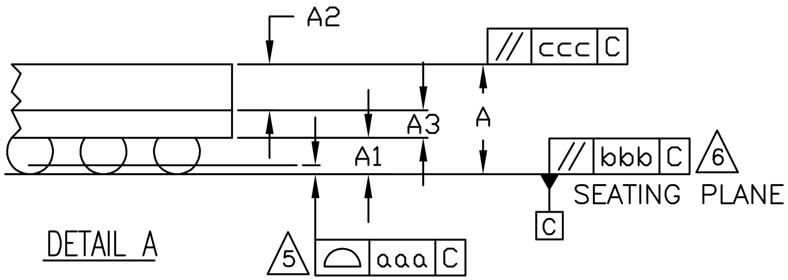
BOTTOM VIEW



DETAIL B



SIDE VIEW



DETAIL A

DIMENSIONAL REFERENCES			
REF.	MIN.	NOM.	MAX.
A	1.11	1.23	1.36
A1	0.25	0.33	0.40
A2	0.50	0.54	0.60
A3	0.36 REF		
D	11.90	12.00	12.10
D1	10.40 REF		
E	11.90	12.00	12.10
E1	10.40 REF		
b	0.40	0.45	0.50
aaa	--	0.12	--
bbb	--	0.10	--
ccc	--	0.10	--
e	0.80 BSC.		
f	0.80 REF.		
M	14		
N	196		
PKG CODE	X19622-1		

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. 'e' REPRESENTS THE BASIC SOLDER BALL GRID PITCH.
3. 'M' REPRESENTS THE BASIC SOLDER BALL MATRIX SIZE AND SYMBOL 'N' IS THE NUMBER OF BALLS AFTER DEPOPULATING.
4. 'b' IS MEASURABLE AT THE MAXIMUM SOLDER BALL DIAMETER AFTER REFLOW PARALLEL TO PRIMARY DATUM -C-.
5. DIMENSION 'aaa' IS MEASURED PARALLEL TO PRIMARY DATUM -C-.
6. PRIMARY DATUM -C- AND SEATING PLANE ARE DEFINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS.
7. PACKAGE SURFACE SHALL BE MATTE FINISH.
8. SUBSTRATE MATERIAL BASE IS BT RESIN.
9. DIMENSIONING AND TOLERANCING PER ASME Y14.5M 1994.
10. MARKING IS FOR PACKAGE ORIENTATION REFERENCE ONLY.
11. DRAWING CONFORMS TO JEDEC MO-205.
12. MATERIAL MUST COMPLY WITH BANNED AND RESTRICTED SUBSTANCES SPEC #10-0131.
13. ALL DIMENSIONS APPLY TO BOTH LEADED (-) AND PbFREE (+) PKG. CODES.

-DRAWING NOT TO SCALE-

MAXIM

TITLE:
PACKAGE OUTLINE, 196L CSBGA
12x12x1.23 mm, 0.8mm PITCH

APPROVAL	DOCUMENT CONTROL NO.	REV.	
	21-0484	B	1/1