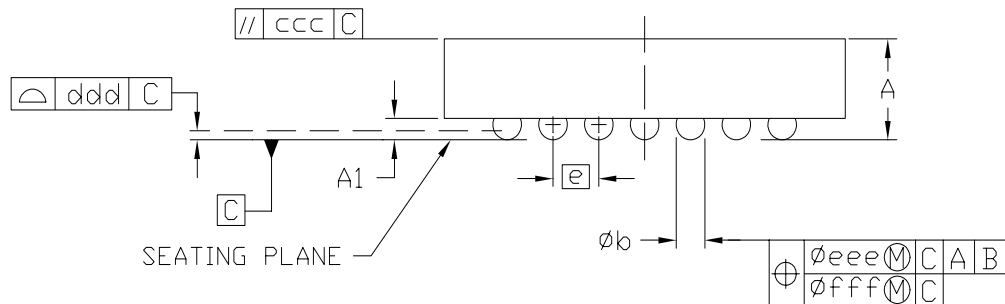
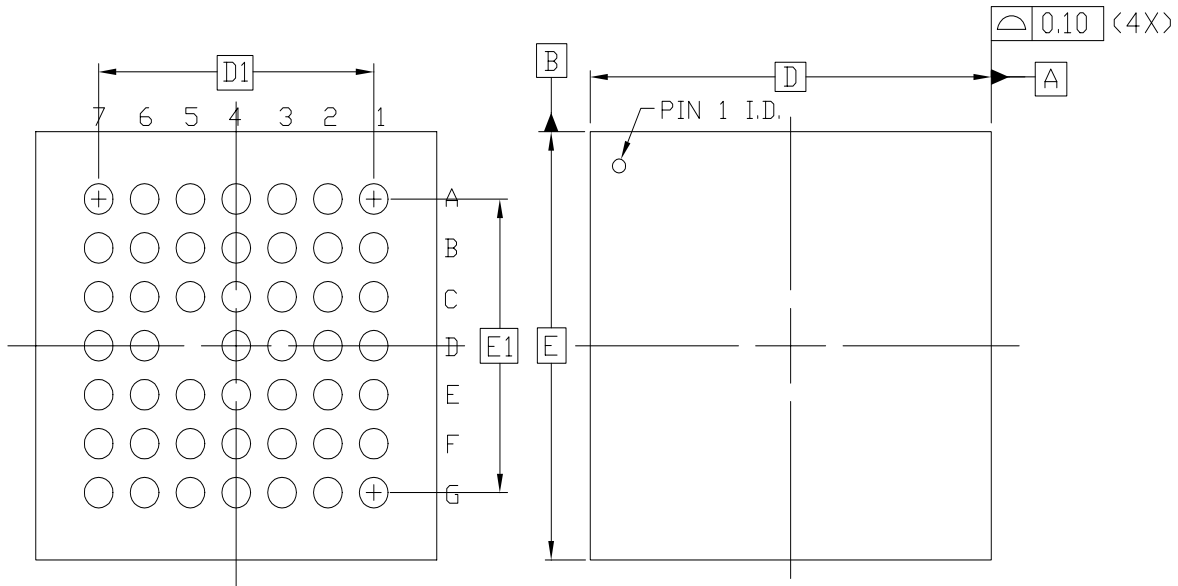


BOTTOM VIEW

TOP VIEW



CS48 - 63/37 (Sn/Pb) Solder Bal  
CSG48 - Sn/Ag/Cu Solder Balls

SYMBOL	MILLIMETERS		
	MIN.	NOM.	MAX.
A	1.30	<i>h</i>	1.80
A <sub>1</sub>	0.35	0.40	0.45
D/E	7.00 BSC		
D <sub>1</sub> /E <sub>1</sub>	4.80 BSC		
e	0.80 BSC		
øb	0.45	0.50	0.55
ccc	<i>h</i>	<i>h</i>	0.10
ddd	<i>h</i>	<i>h</i>	0.10
eee	<i>h</i>	<i>h</i>	0.15
fff	<i>h</i>	<i>h</i>	0.08
M	7		

## NOTES:

1. ALL DIMENSIONING AND TOLERANCING CONFORM TO ANSI Y14.5M-1994
2. SYMBOL "M" IS THE PIN MATRIX SIZE.

## 48-BALL CHIP SCALE BGA, 0.80MM PITCH (CS48/CSG48)