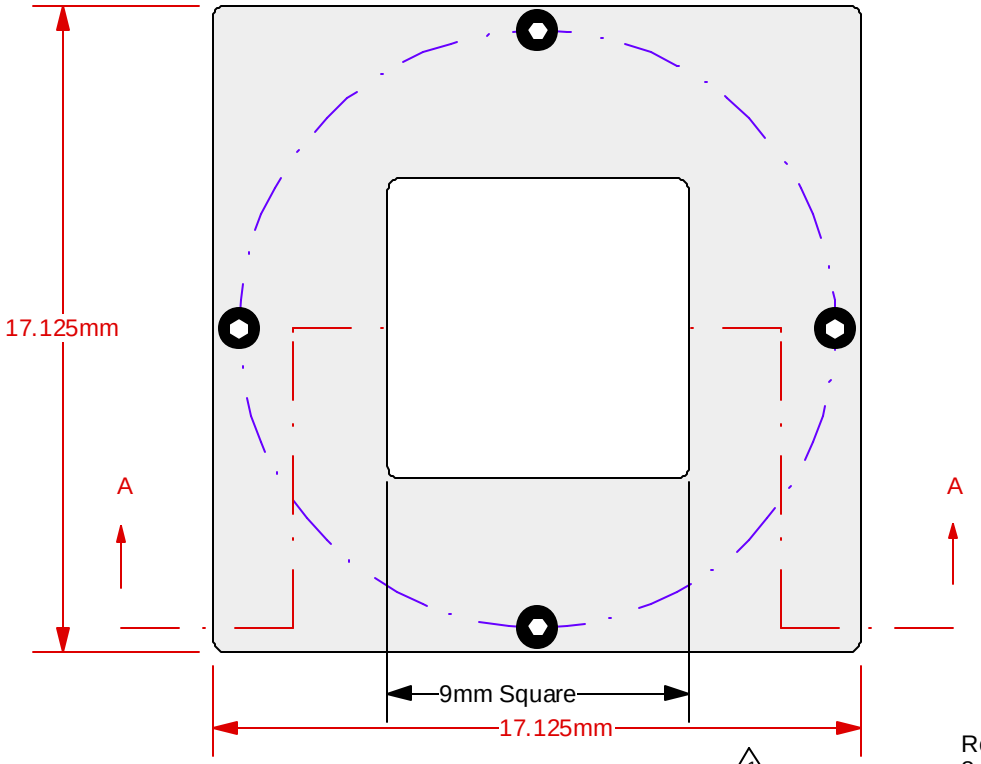
GHz BGA Socket - Epoxy mount, solderless

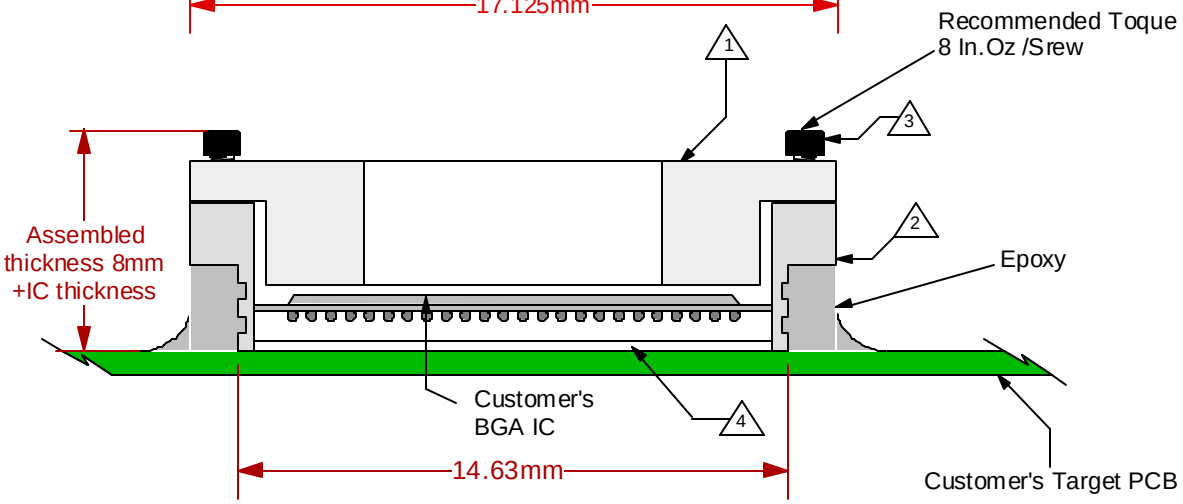
Top View



Features

- Directly mounts to target PCB (needs epoxy) .
- High speed, reliable Elastomer connection
- Minimum real estate required
- Compression plate distributes forces evenly
- Easily removable socket lid

1	Socket Lid/ Compression Plate: Black anodized Aluminum. Thickness = 2.5mm.
2	Socket base: Black anodized Aluminum. Thickness = 5mm.
3	Socket lid screw: Socket head cap, Alloy steel with black oxide finish, 0-80 fine thread , 4.76mm long.
4	Elastomer: 20 micron dia gold plated brass filaments arranged symmetrically in a silicone rubber (63.5 degree angle). Thickness = 0.5mm.



Note: Alignment guide for positioning socket base to target PCB will be supplied.

SG-BGA-6216 Drawing	Status: Released	Scale: ——	Rev: B
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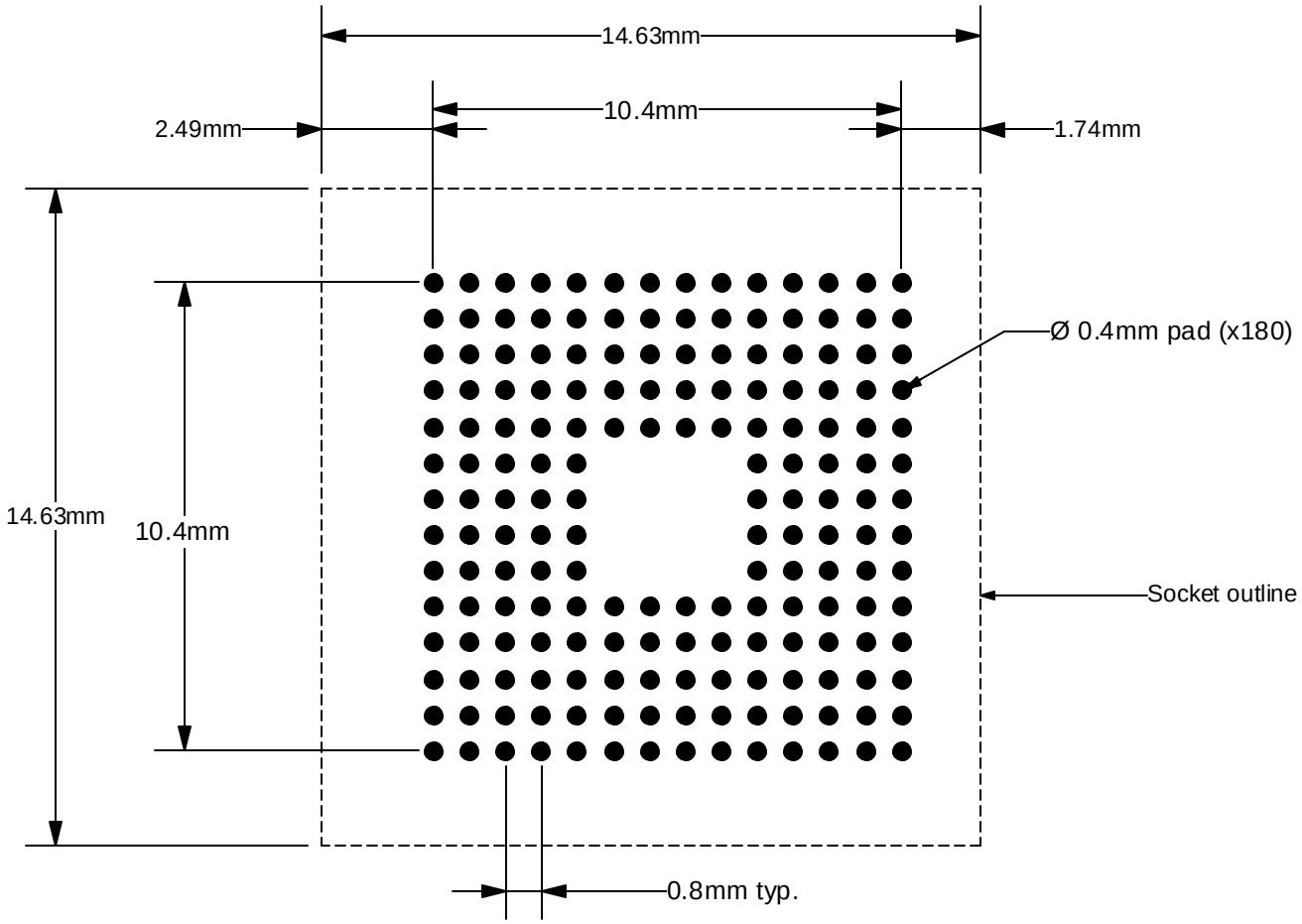
	File: SG-BGA-6216 Dwg		Modified: 06/03/08

All tolerances: ±0.125mm (unless stated otherwise). Materials and specifications are subject to change without notice.

Recommended PCB Layout
Top View



Target PCB Recommendations
Total thickness: 1.6mm min.
Plating: Gold or Solder finish
PCB Pad height: Same or higher than solder mask

Recommended PCB Layout Tolerances: ±0.025mm [±0.001"] unless stated otherwise.

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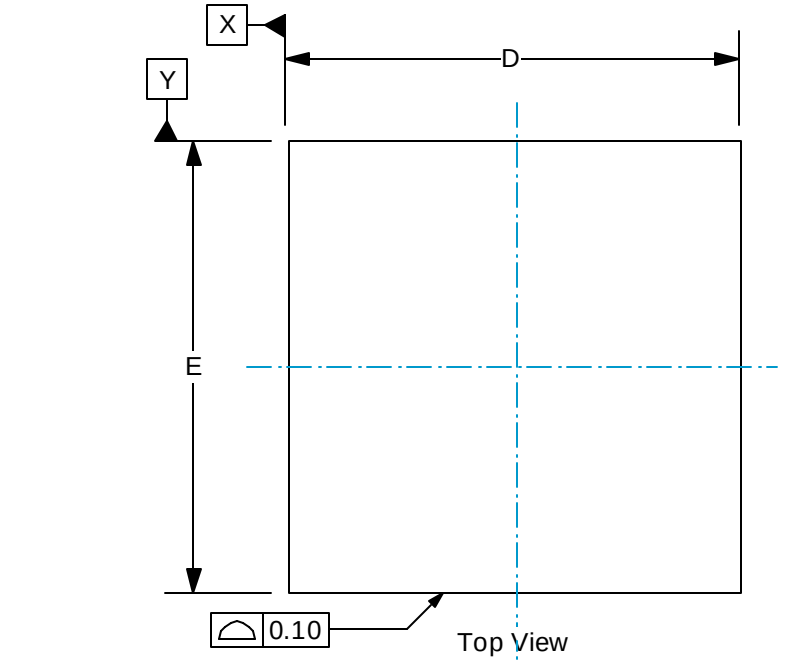
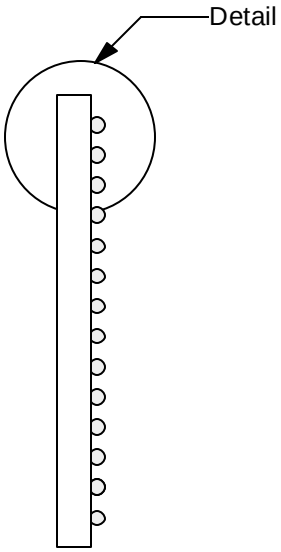
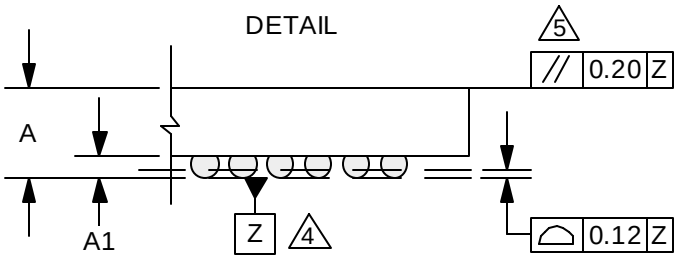
Compatible BGA Spec.

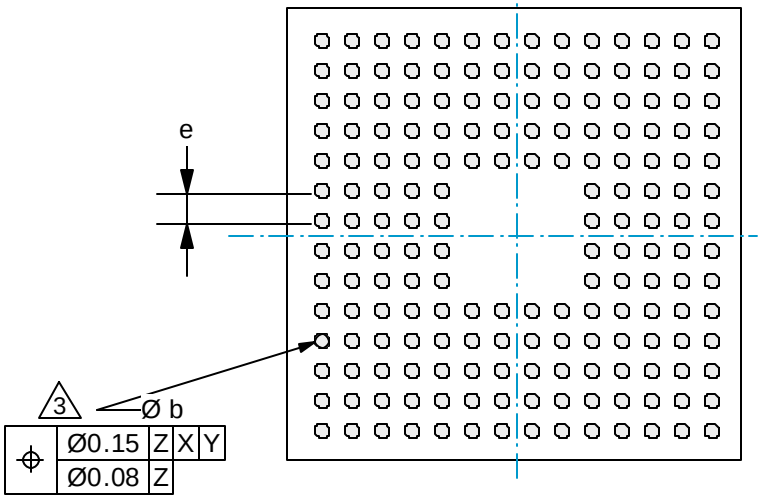


Top View



Side View





Bottom View

1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.
4. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
5. Parallelism measurement shall exclude any effect of mark on top surface of package.

DIM	MIN	MAX
A		2.5
A1	0.25	0.35
b	0.35	0.45
D	12.0 BSC	
E	12.0 BSC	
e	0.8 BSC	

14 x 14 array

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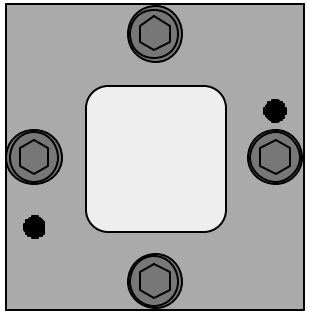
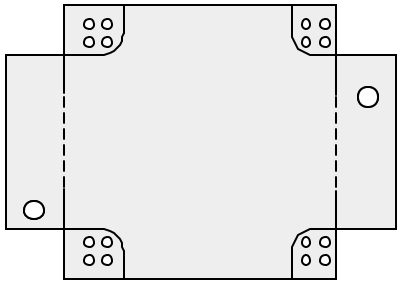
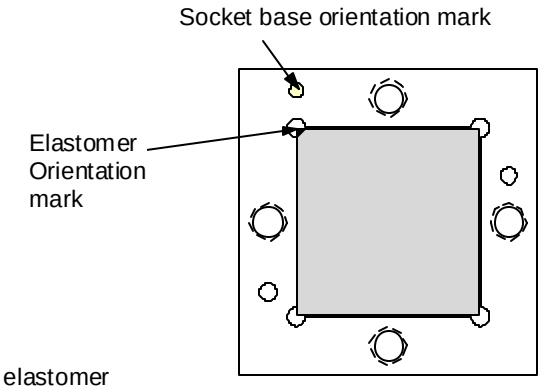
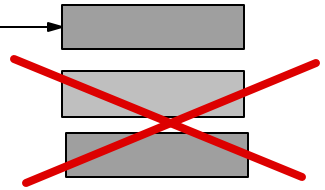


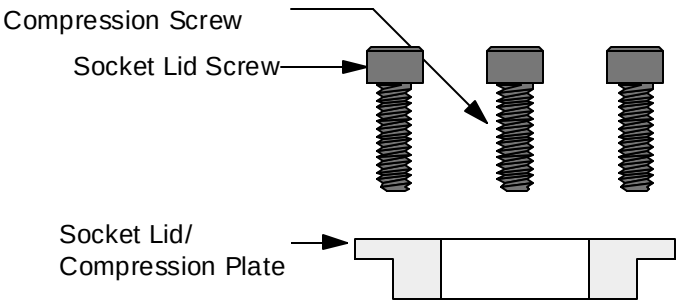


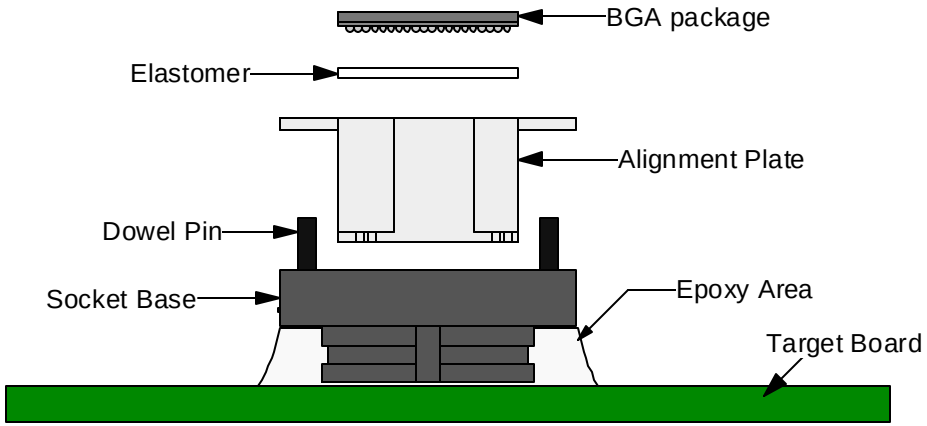
Top View Alignment Plate



When elastomer orientation mark is on upper left corner, side view of elastomer should be







User Instuctions:

1. Insert alignment plate onto dowel pins in socket base. Place alignment plate + socket base assembly onto target board.
2. Align holes on alignment plate with four corner pads on target board, hold socket base on to board tightly with finger and put a drop of super glue on each corner. Let it dry, remove the alignment plate, then run a bead of epoxy around socket base and let it cure until the epoxy is hardened. Recommended epoxy: DP110 (3M brand, 9 min work life). Other equivalent epoxies can be substituted. Cure at room temperature. **Note: Do not cure in the oven.**
3. Place elastomer inside the socket base cavity (direction and orientation are critical) as shown above.
4. Place BGA package and compression plate into the socket base cavity.
5. Assemble socket lid/compression plate onto socket base with socket lid screws.
6. Apply recommended torque to the lid screws.

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