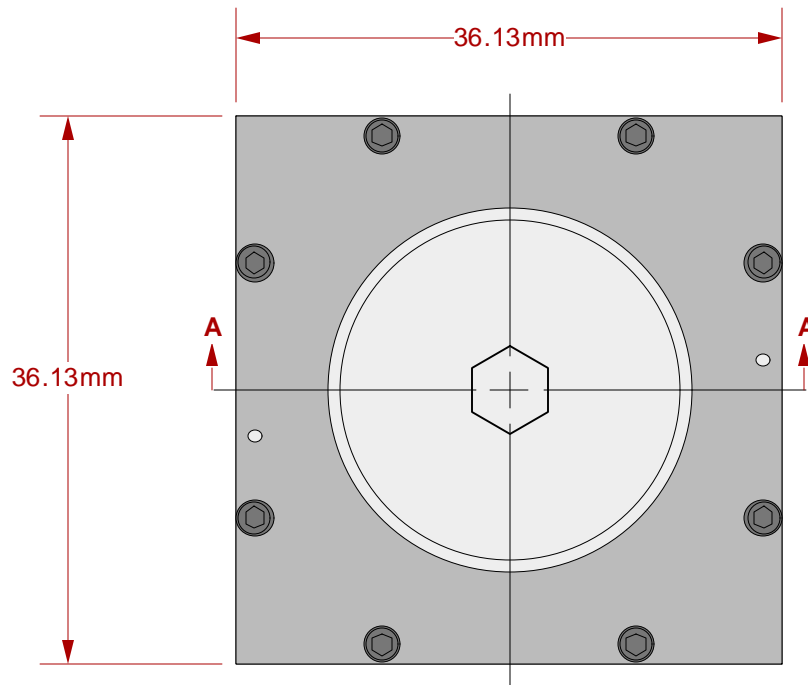


Top View

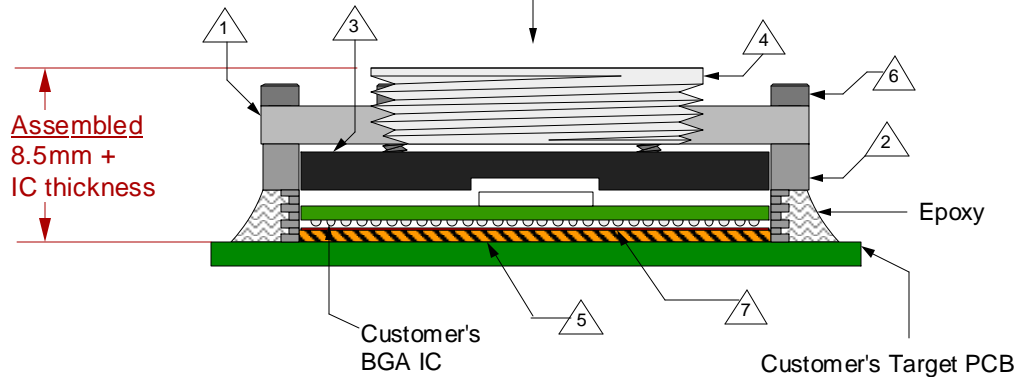


# GHz BGA Socket - Epoxy mount, solderless

## 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


Recommended torque is 12.37 in lb for 672 balls



- △ 1 Socket Lid: Black anodized 6061 Aluminum. Thickness = 2.5mm.
- △ 2 Socket base: Black anodized 6061 Aluminum. Thickness = 6.5mm.
- △ 3 Compression Plate: Black anodized 6061 Aluminum. Thickness = 2.5mm.
- △ 4 Compression screw: Clear anodized 6061 Aluminum. Thickness = 5mm, Hex socket = 5mm.
- △ 5 Elastomer: 40 micron dia gold plated brass filaments arranged symmetrically in a silicone rubber (63.5 degree angle). Thickness = 0.75mm.
- △ 6 Socket lid screw: Socket head cap, Alloy steel with black oxide finish, 0-80 fine thread, 4.76mm long.
- △ 7 Ball Guide: 0.010" thick Kapton

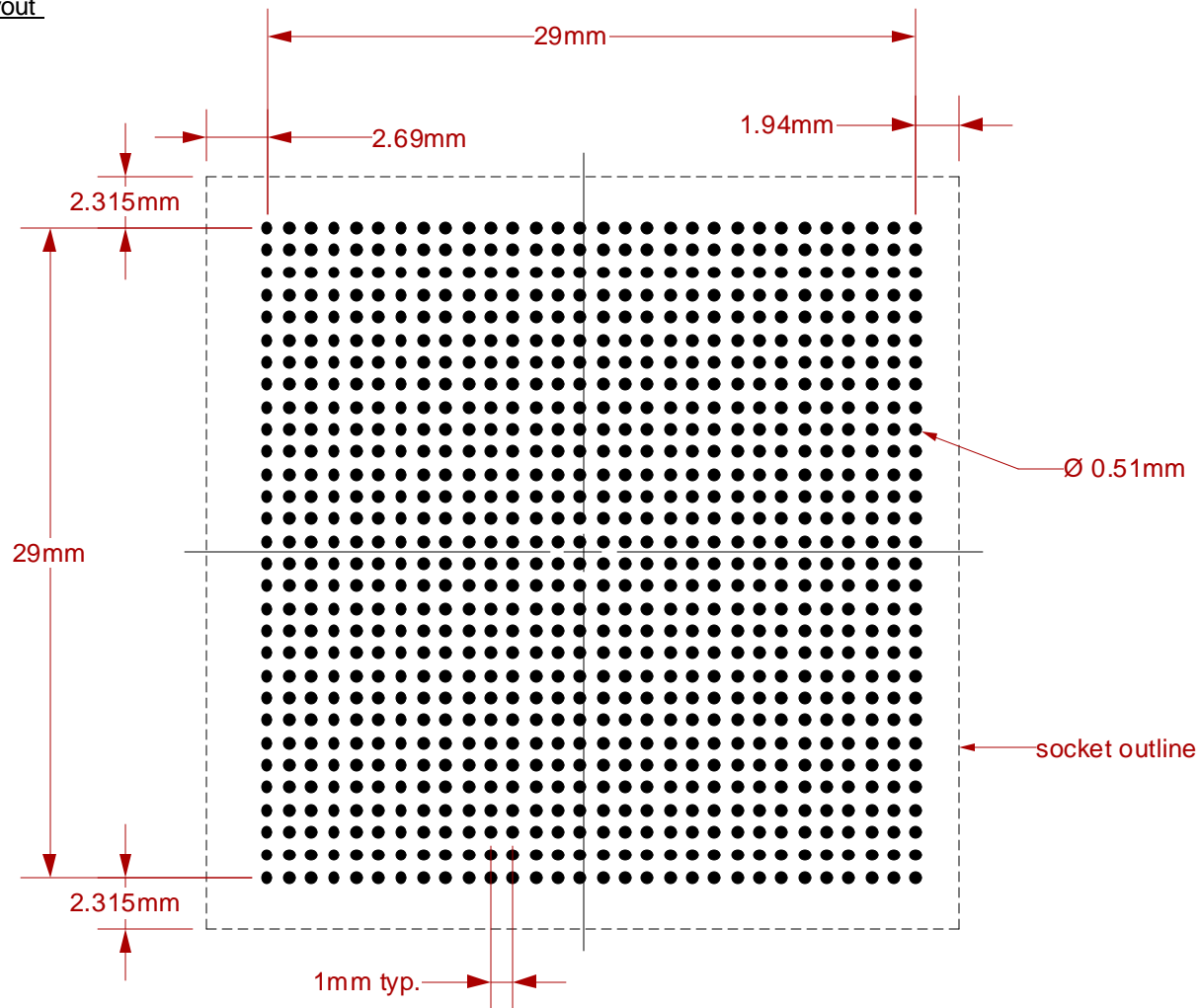
Note: Alignment guide for positioning socket base to target PCB will be supplied.

Side View  
(Section AA)

	<b>SG-BGA-6273 Drawing</b>		Status: Released	Scale: -	Rev: A
	© 2010 IRONWOOD ELECTRONICS, INC. Tele: (952) 229-8200 www.ironwoodelectronics.com		Drawing: E Smolentseva		Date: 10/12/10
			File: SG-BGA-6273 Dwg	Modified:	

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


Recommended PCB Layout  
Top View

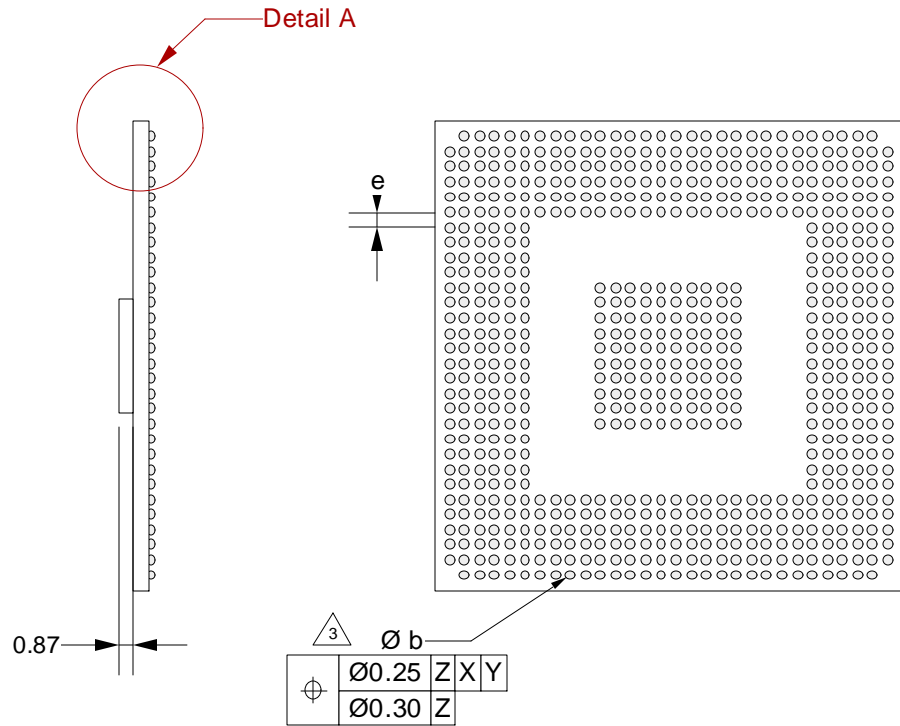
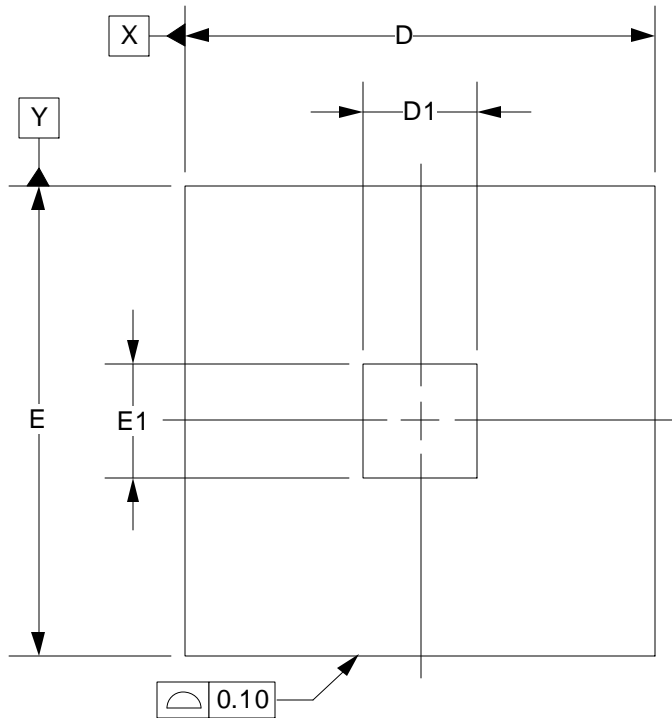


Target PCB Recommendations

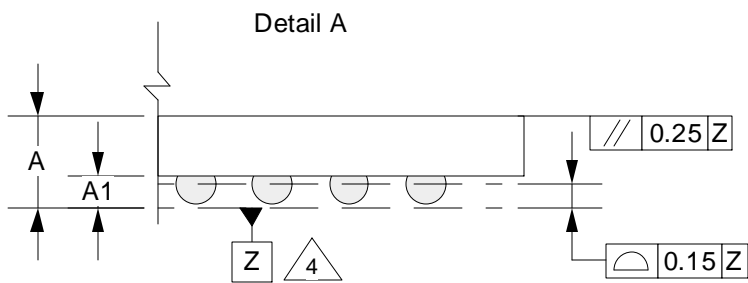
Total thickness: 1.6mm min.  
 Plating: Gold or Solder finish  
 PCB Pad height: Same or higher than solder mask

Recommended PCB Layout Tolerances:  $\pm 0.025\text{mm}$  [ $\pm 0.001''$ ] unless stated otherwise.

	<b>SG-BGA-6273 Drawing</b>		Status: Released	Scale: -	Rev: A
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			File: SG-BGA-6273 Dwg	Modified:	




⊕	∅ 0.25	Z	X	Y
	∅ 0.30	Z		

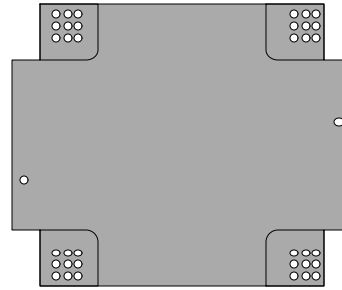
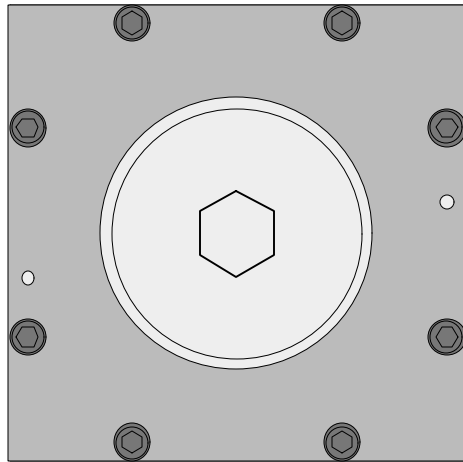


1. Dimensions are in millimeters.
  2. Interpret dimensions and tolerances per ASME Y 14.5M-1994.
- 3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.
  - 4. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
  - 5. Parallelism measurement shall exclude any effect of mark on top surface of package.

DIM	MIN	MAX
A		2.50
A1	0.4	0.6
b		0.70
D	31.00 BSC	
D1	7.56 BSC	
E	31.00 BSC	
E1	7.56 BSC	
e	1.00 BSC	

30 x 30 array

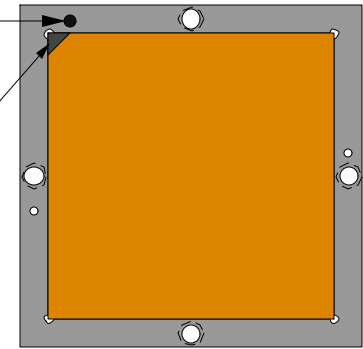
	<b>SG-BGA-6273 Drawing</b>		Status: Released	Scale: -	Rev: A
	© 2010 IRONWOOD ELECTRONICS, INC. Tele: (952) 229-8200 www.ironwoodelectronics.com		Drawing: E Smolentseva		Date: 10/12/10
			File: SG-BGA-6273 Dwg	Modified:	



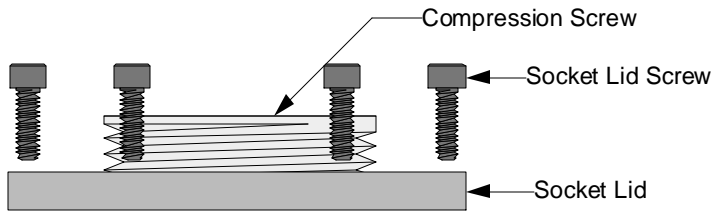
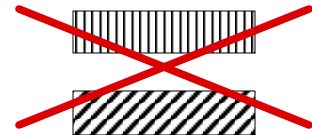
Top View Alignment Plate

Socket base orientation mark

Elastomer Orientation mark



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



Compression Plate

BGA package

Ball Guide

Elastomer

Alignment Plate

Socket Base

Epoxy Area

Target Board

**User Instructions:**

1. Insert alignment plate over dowel pins on the 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 oven cure.**
3. Place elastomer inside the socket base cavity (direction and orientation are critical) as shown above.
4. Place ball guide into the socket base cavity.
5. Place BGA package and compression plate into the socket base cavity.
6. Assemble socket lid onto socket base with socket lid screws.
7. Assemble compression screw into socket lid and apply 12.37 in-lb torque.

**SG-BGA-6273 Drawing**

Status: Released

Scale: -

Rev: A

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