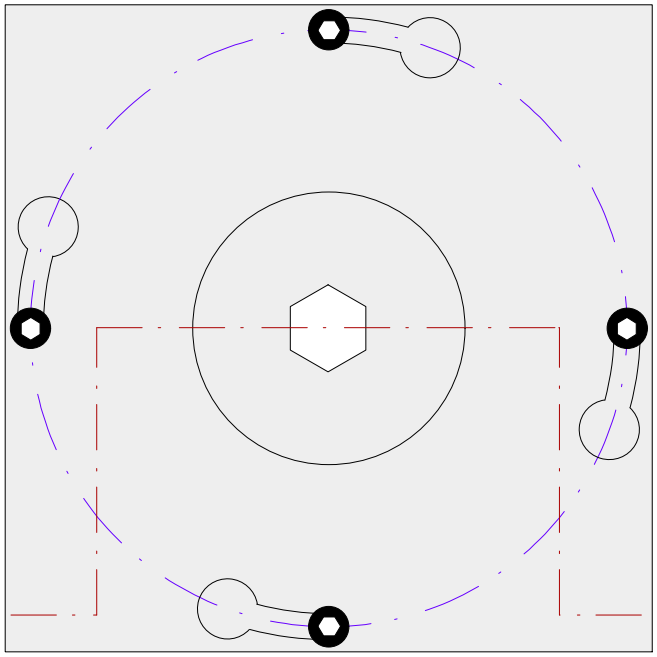
GHz BGA Socket - Direct mount, solderless

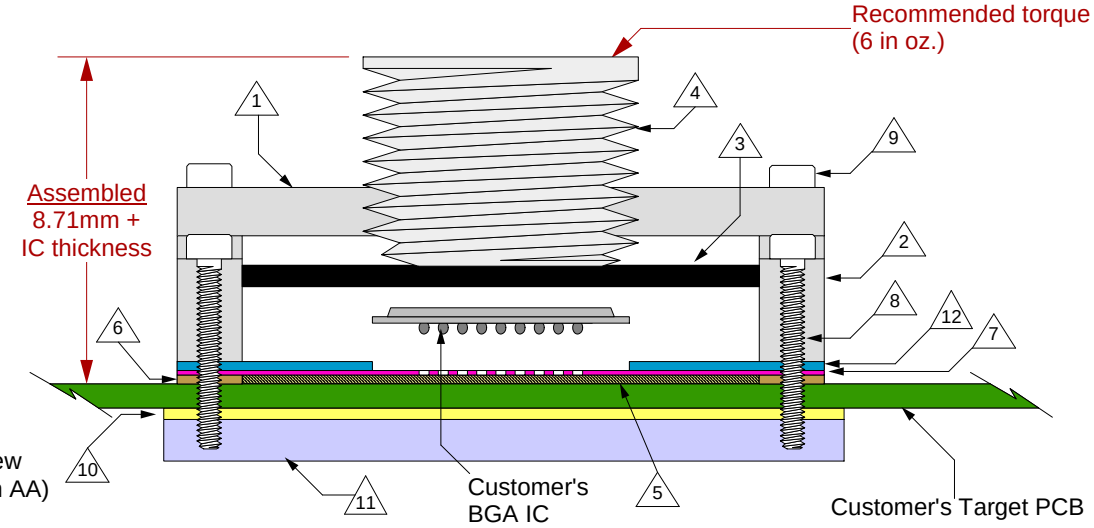
Features

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

Top View



Side View
(Section AA)



1. Socket Lid: Black anodized Aluminum. Thickness = 2.5mm.
2. Socket base: Black anodized Aluminum. Thickness = 5mm.
3. Compression Plate: Black anodized Aluminum. Thickness = 2.5mm.
4. Compression screw: Clear anodized Aluminum. Thickness = 5mm, Hex socket = 5mm.
5. Elastomer: 20 micron dia gold plated brass filaments arranged symmetrically in a silicone rubber (63.5 degree angle). Thickness = 0.5mm.
6. Elastomer Guide: Non-clad FR4. Thickness = 0.475mm.
7. Ball Guide: Kapton polyimide.
8. Socket base screw: Socket head cap, alloy steel with black oxide finish, 0-80 fine thread , 12.7mm long.
9. Socket lid screw: Shoulder screw, 18-8 SS, 0-80 fine thread.
10. Insulation Plate: FR4/G10, Thickness = 1.59mm.
11. Backing Plate: Black anodized Aluminum. Thickness = 6.35mm.
12. IC Guide: FR4/G10

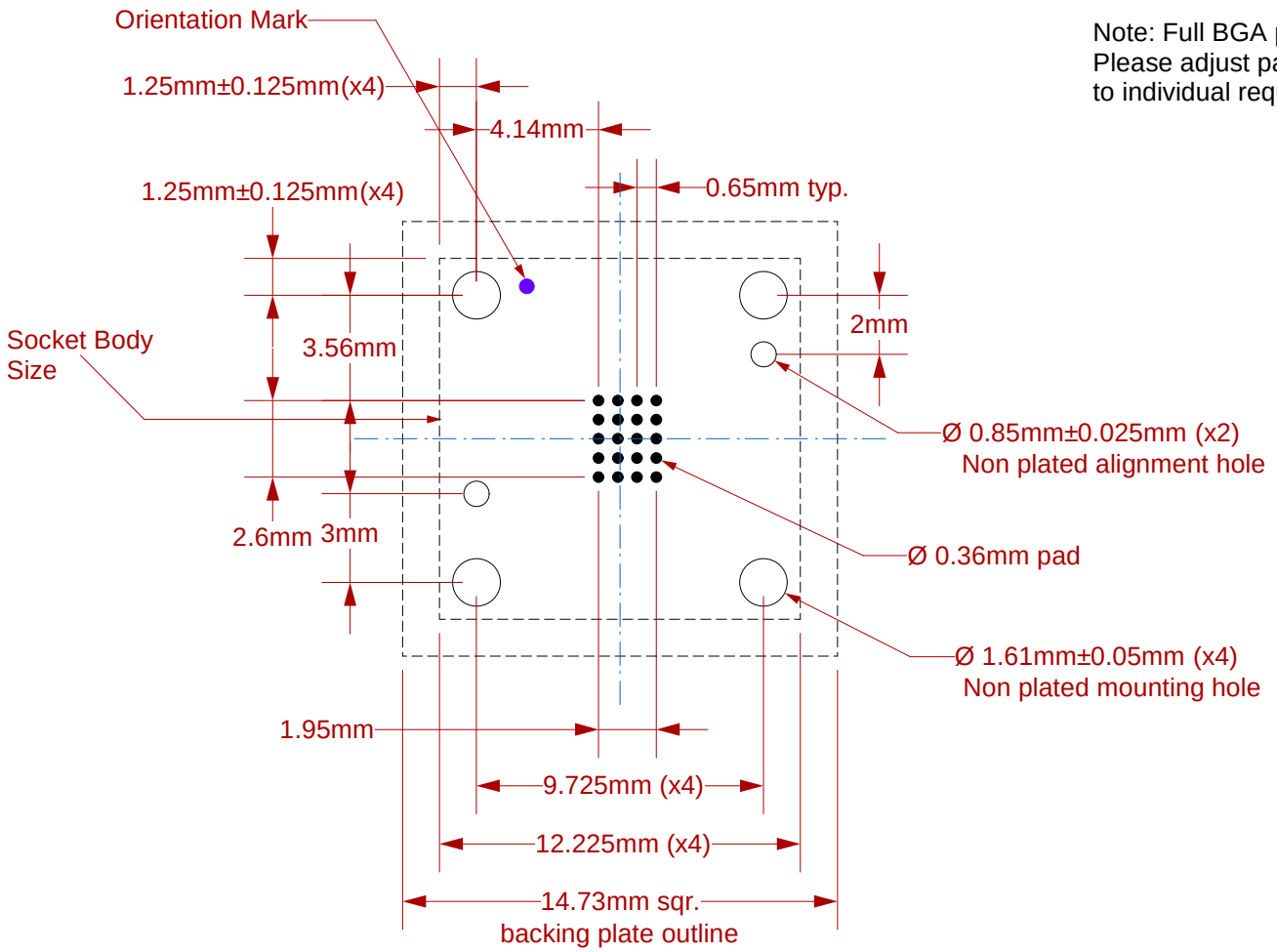
SG-BGA-7012 Drawing	Status: Released	Scale: -	Rev: E
© 2009 IRONWOOD ELECTRONICS, INC. Tele: (952) 229-8200 www.ironwoodelectronics.com	Drawing: E Smolentseva	Date: 2/12/03	
	File: SG-BGA-7012 Dwg	Modified: 6/26/09, AE	

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

Recommended PCB Layout
Top View

***Note: BGA pattern is not symmetrical with respect to the mounting holes.**

Note: Full BGA pattern shown.
Please adjust pattern according to individual requirements.

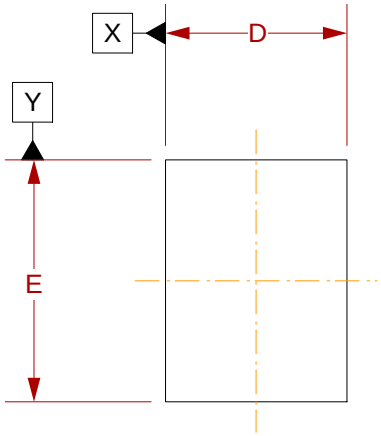


Target PCB Recommendations
Total thickness: 1.6mm min.
Plating: Gold or Solder finish
PCB Pad height: Same or higher than solder mask

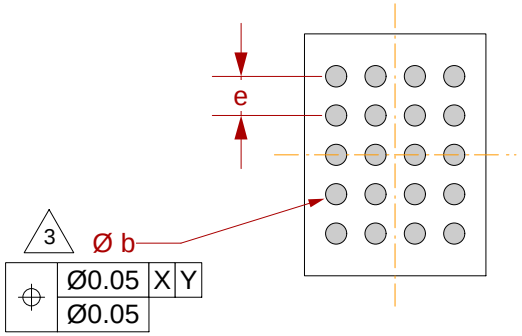
All dimensions are in mm unless stated otherwise

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

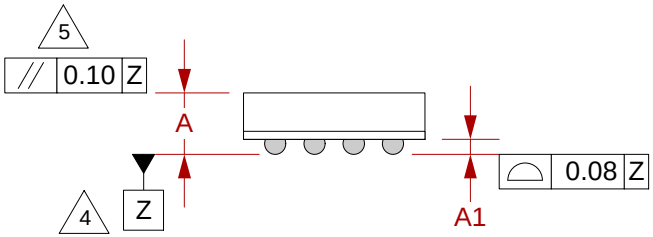
SG-BGA-7012 Drawing	Status: Released	Scale: 4:1	Rev: E
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	File: SG-BGA-7012 Dwg	Modified: 6/26/09, AE	



Top View



Bottom View



End 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.

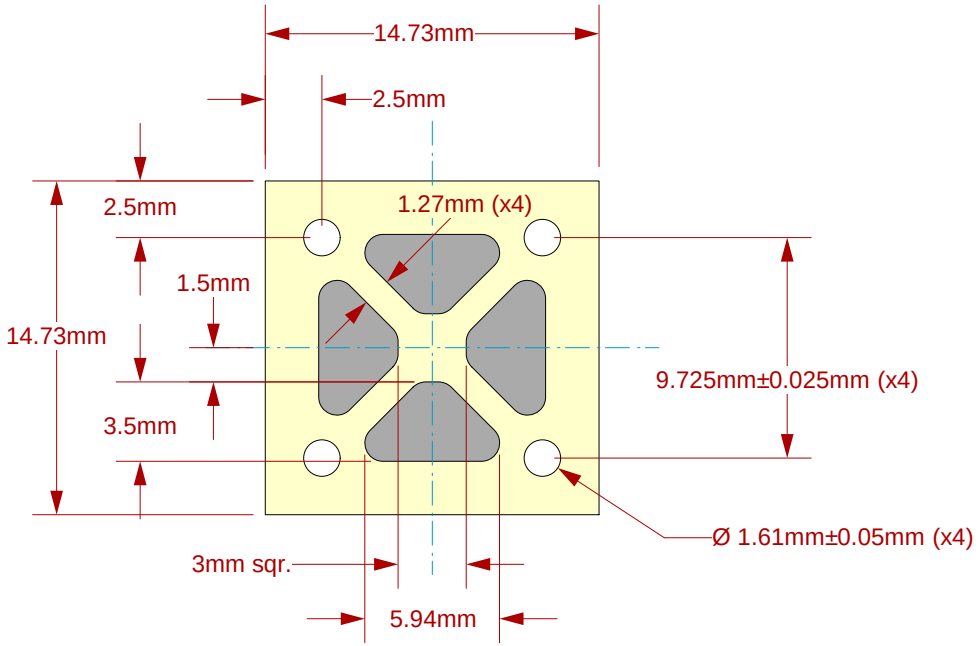
DIM	MIN	MAX
A		1.0
A1	0.15	0.25
b		0.45
D	3.0 BSC	
E	4.0 BSC	
e	0.65 BSC	

4 x 5 array

All dimensions are in mm unless stated otherwise

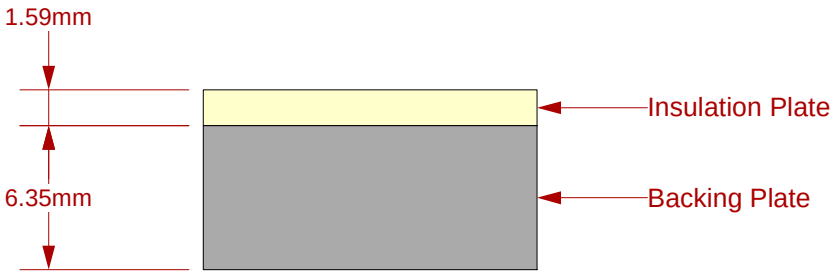
SG-BGA-7012 Drawing	Status: Released	Scale: 1:0.125	Rev: E
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	File: SG-BGA-7012 Dwg	Modified: 6/26/09, AE	

Top View



Note: Backing plate holes are tapped to accept 0-80 screws.

Side View



Description: Insulation Plate and Backing Plate

All dimensions are in mm.
All tolerences are +/- 0.125mm.
(Unless stated otherwise)

SG-BGA-7012 Drawing	Status: Released	Scale: -	Rev: E
© 2009 IRONWOOD ELECTRONICS, INC. Tele: (952) 229-8200 www.ironwoodelectronics.com	Drawing: E Smolentseva	Date: 2/12/03	
	File: SG-BGA-7012 Dwg	Modified: 6/26/09, AE	