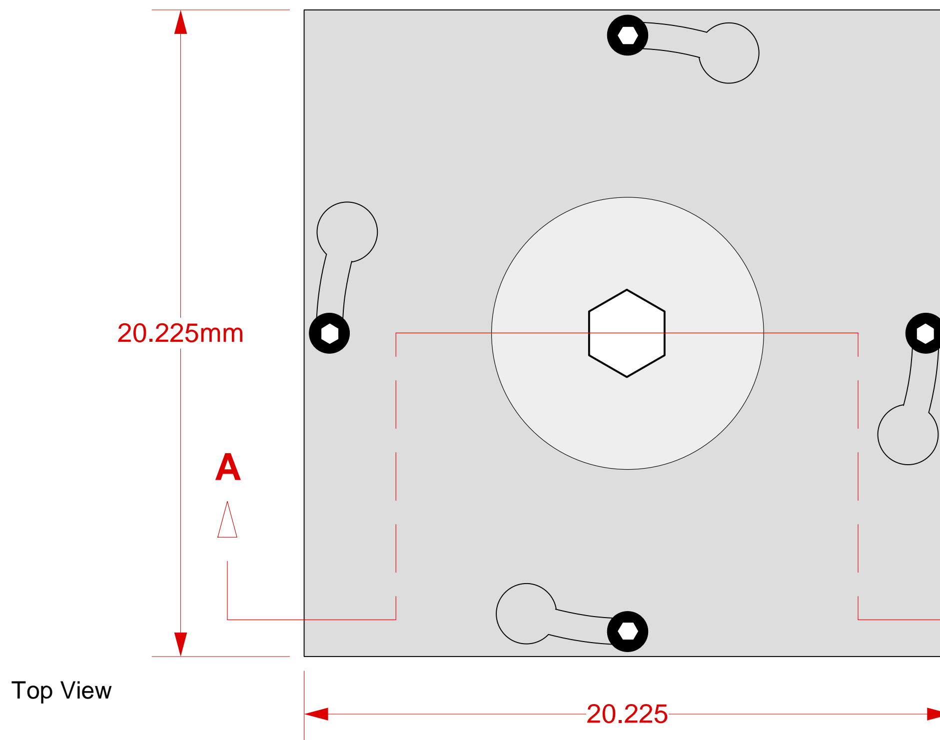
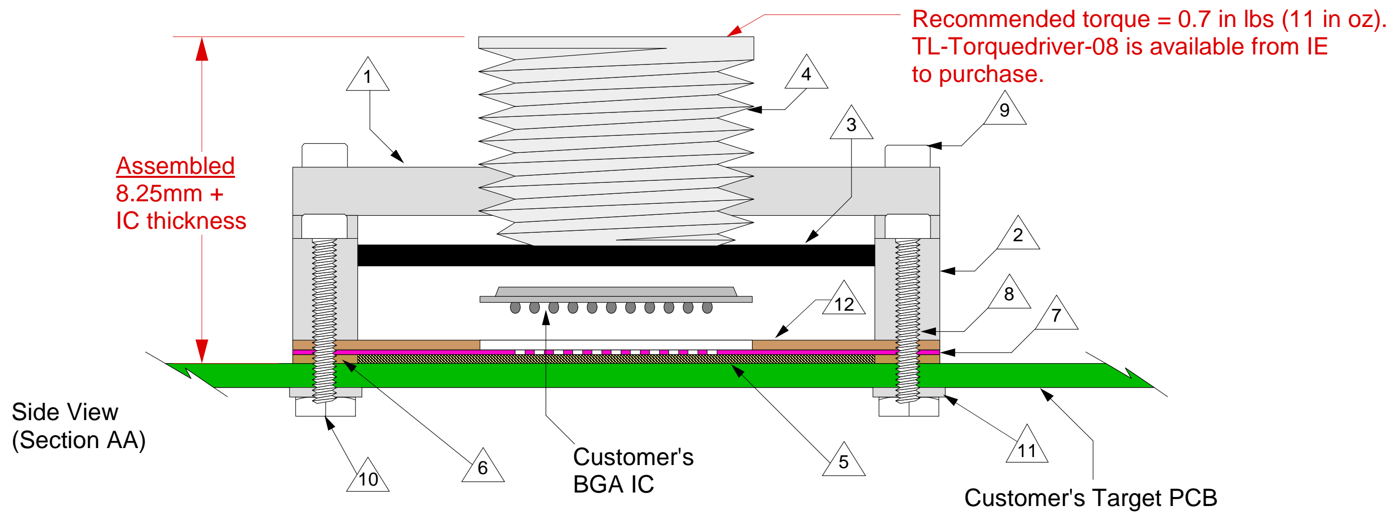
GHz BGA Socket - Direct mount, solderless





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
- Ball guide prevents over compression of elastomer
- Easily removable swivel socket lid

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: 40 micron dia gold plated brass filaments arranged symmetrically in a silicone rubber (63.5 degree angle). Thickness = 0.75mm.
6. Elastomer Guide: Non-clad FR4. Thickness = 0.725mm.
7. Ball Guide: Kapton polyimide.
8. Socket base screw: Socket head cap, alloy steel with black oxide finish, 0-80 fine thread , 9.525mm long.
9. Socket lid screw: Shoulder screw, 18-8 SS, 0-80 fine thread.
10. Socket base nut: 18-8 Stainless steel, 0-80 fine thread.
11. Nylon washer: 1.73mm ID; 4.78mm OD 0.64mm thickness.
12. IC Guide: Ultem 1000

SG-BGA-6116 Drawing	Status: Released	Scale: -	Rev: B
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	File: SG-BGA-6116 Dwg	Modified: 7/2/09, 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.**

Orientation Mark

4.238mm*

1mm typ.

1.863mm

2.54mm

Ø 0.85mm±0.025mm (x2)
Non plated alignment hole

20.225mm±0.125mm sqr.
Socket size

14mm

Ø 0.51mm pad (x165)

5.08mm

Ø 1.61mm±0.05mm (x4)
Non plated mounting hole

1.25mm±0.13mm (x4)

10mm

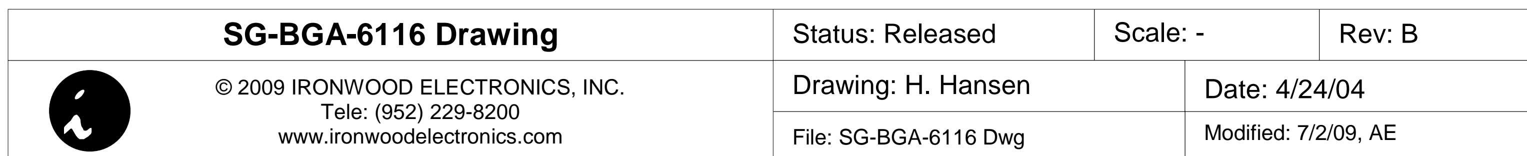
1.25mm±0.13mm (x4)

17.725mm (x4)

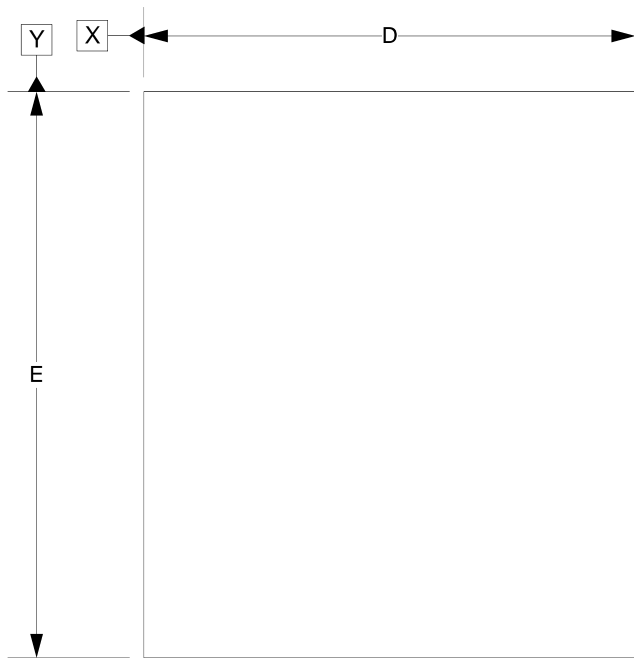
Target PCB Recommendations
Total thickness: 1.6mm min.
Plating: Gold or Solder finish.
PCB pad height: Same or higher than solder mask.

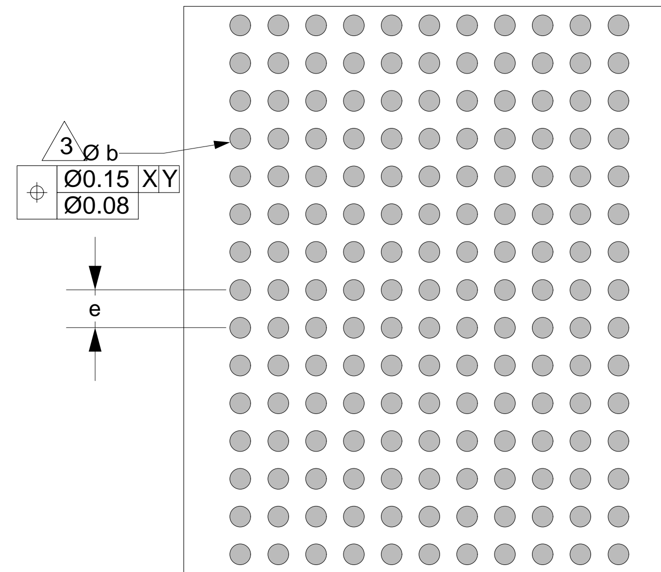
NOTE: Steel backing plate may be required based on end user's application

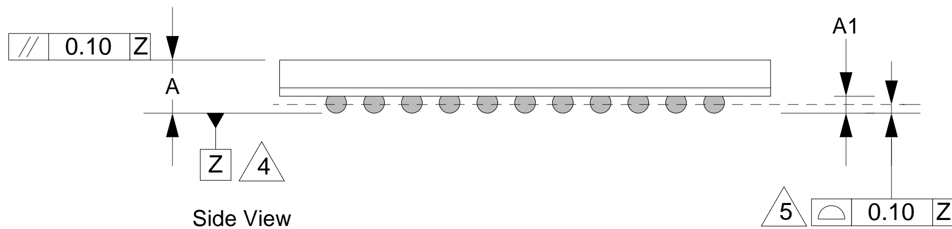
Recommended PCB Layout Tolerances: ±0.025mm [±0.001"] unless stated otherwise.



Compatible BGA Spec.

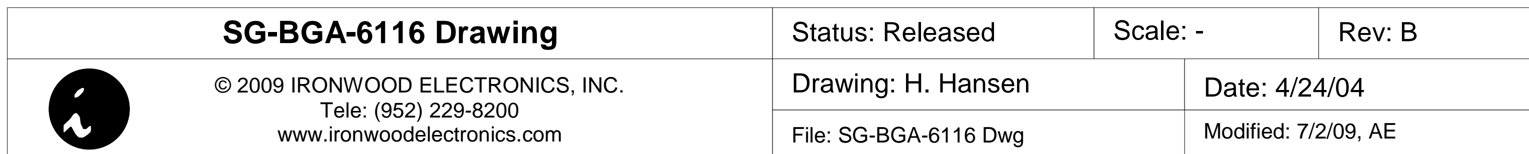






1. Dimensions are in millimeters.
2. Interpret dimensions and toleraces per ASME Y14.5M-1994.
3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plame Z.
4. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
5. Parallelism measurement shall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

DIM	MIN	MAX
A		1.20
A1	0.30	0.40
b	0.35	0.50
D	13.0 BSC	
E	15.0 BSC	
e	1.0 BSC	



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