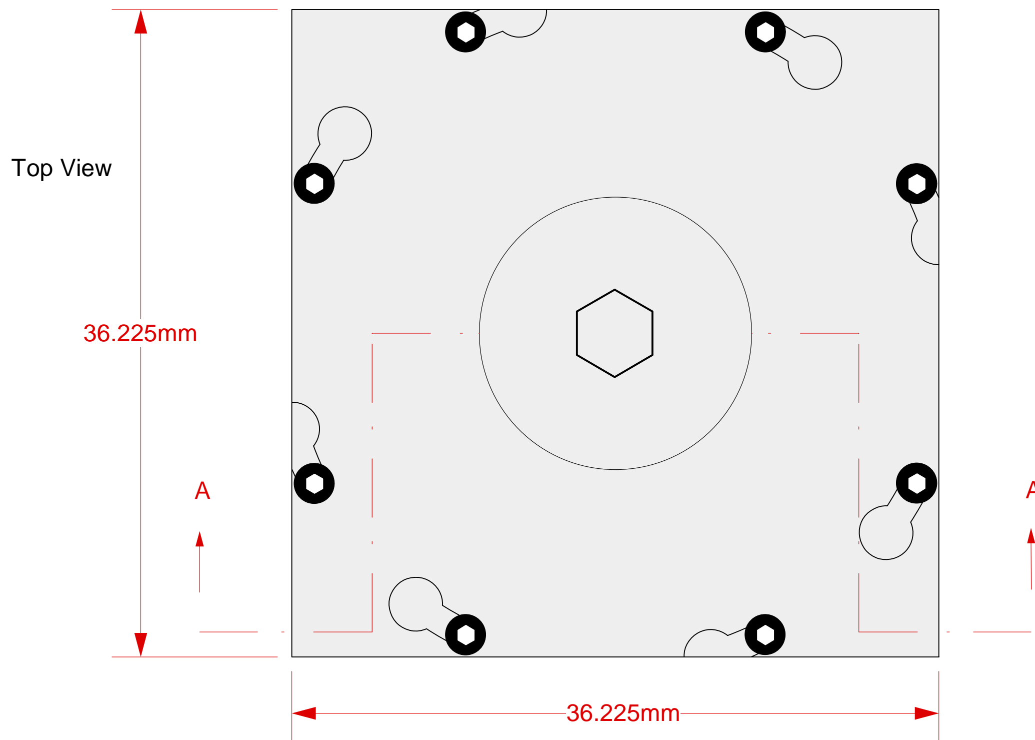
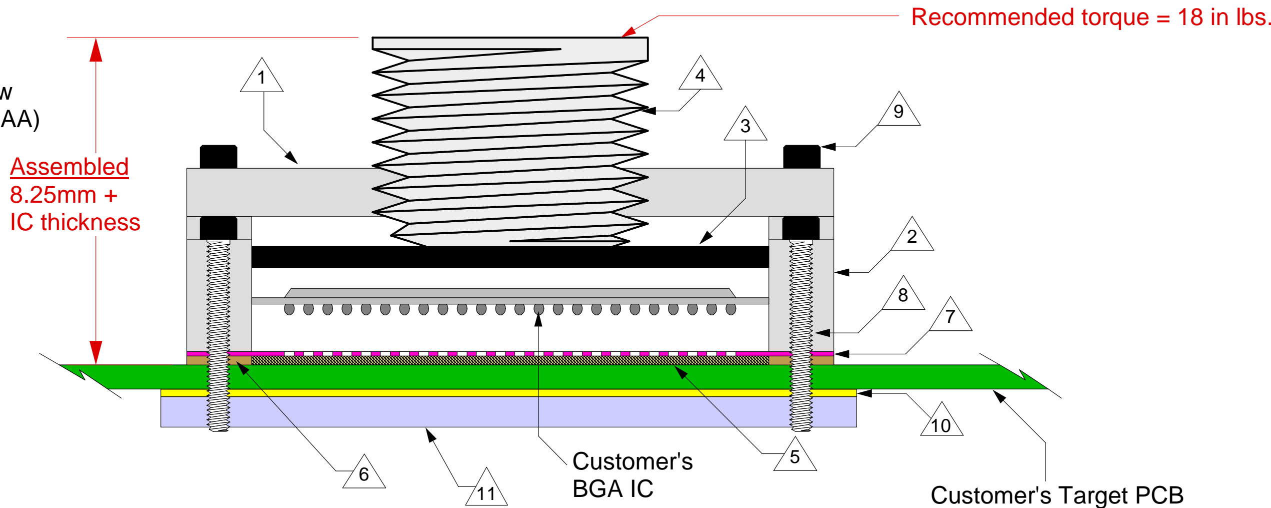
GHz BGA Socket - Direct mount, solderless



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



#	Description
1	Socket Lid: Black anodized Aluminum. Thickness = 2.5mm.
2	Socket base: Black anodized Aluminum. Thickness = 6.5mm.
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: Cirlex or equivalent. Thickness = 0.75mm.
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	Insulation Plate: FR4/G10, Thickness = 1.59mm.
11	Backing Plate: Black anodized Aluminum. Thickness = 6.35mm.

SG-BGA-6042 Drawing	Status: Released	Scale: -	Rev: E
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	File: **SG-BGA-6042** Dwg.mcd	Modified: 7/20/09, 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.**

1.25mm±0.13mm(x4)

Orientation Mark

2.74mm*

1mm typ.

1.25mm±0.13mm(x4)

2.36mm

2.54mm

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

36.225mm±0.125mm (x4)

Socket size

Ø 0.51mmxPAD

5.08mm

2.5mm±0.13mm

2.5mm±0.13mm

Ø 1.61mm±0.05mm(x8)
Non plated mounting hole

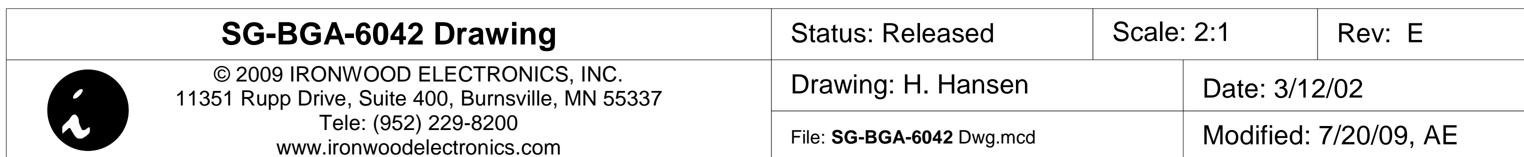
16.8625mm (x8)

38.725mm±0.125mm (x4)
Backing plate size

Target PCB Recommendations
Total thickness: 2.4mm 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.



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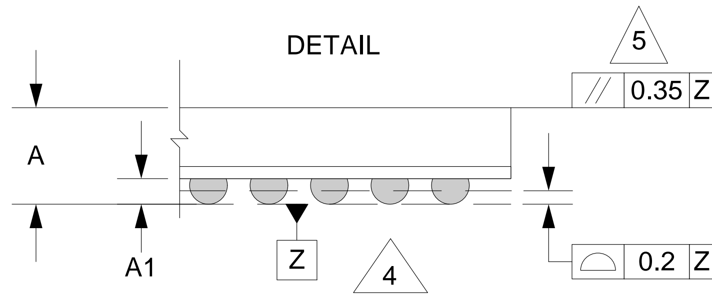
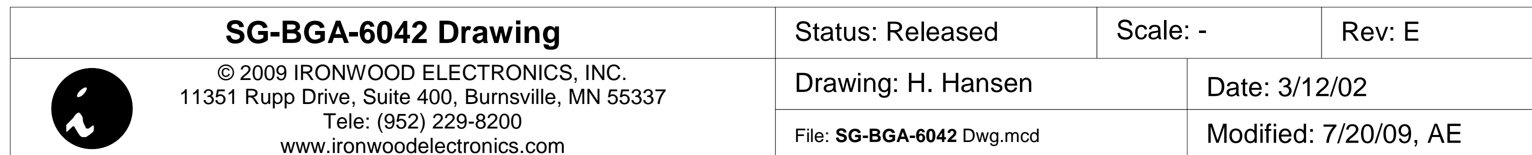
Compatible BGA Spec



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		3.4
A1	0.4	0.6
b		0.7
D	31.00 BSC	
E	31.00 BSC	
e	1.0 BSC	

Array 30x30



SG-BGA-6042 Drawing

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2.5mm

1.27mm (x4)

2.5mm

16.863mm±0.025mm (x8)

38.725mm

Ø 1.61mm±0.05mm (x8)

Top View

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

10mm Sqr.

17mm (x4)

38.725mm

1.59mm

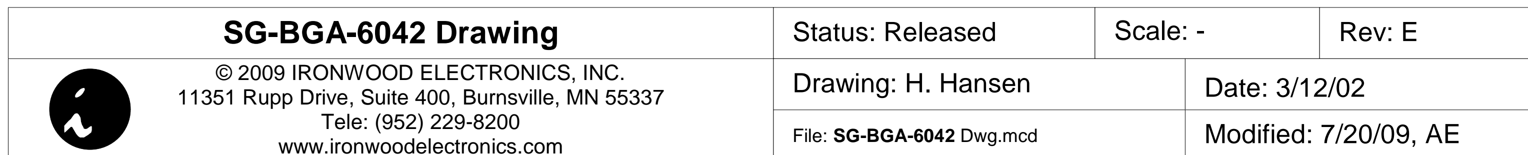
Insulation Plate

Side View

6.35mm

Backing Plate

Description: Insulation Plate and Backing Plate



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