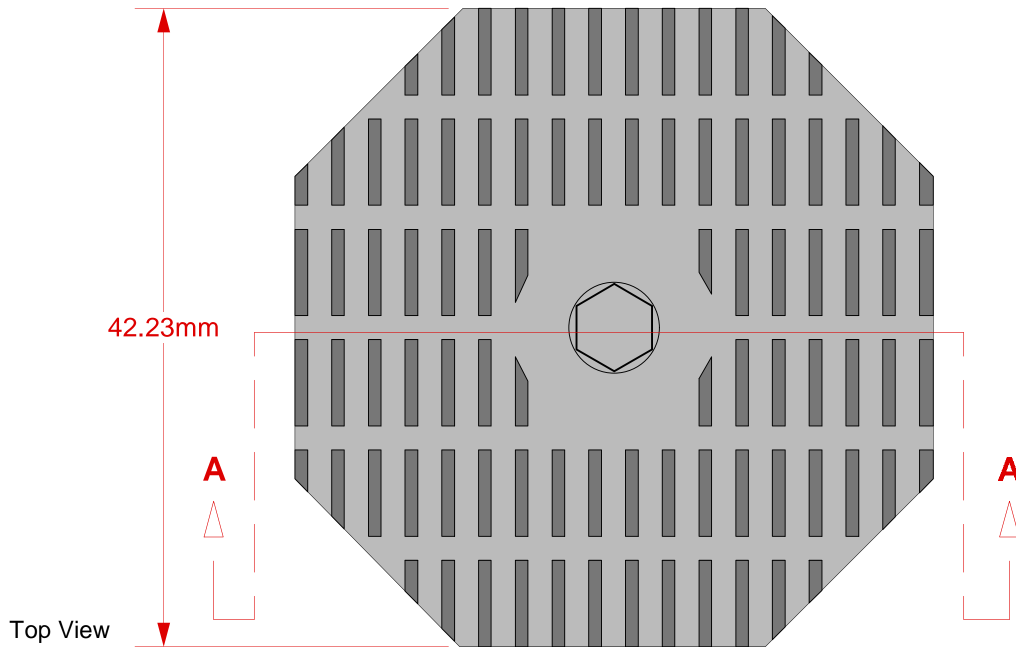
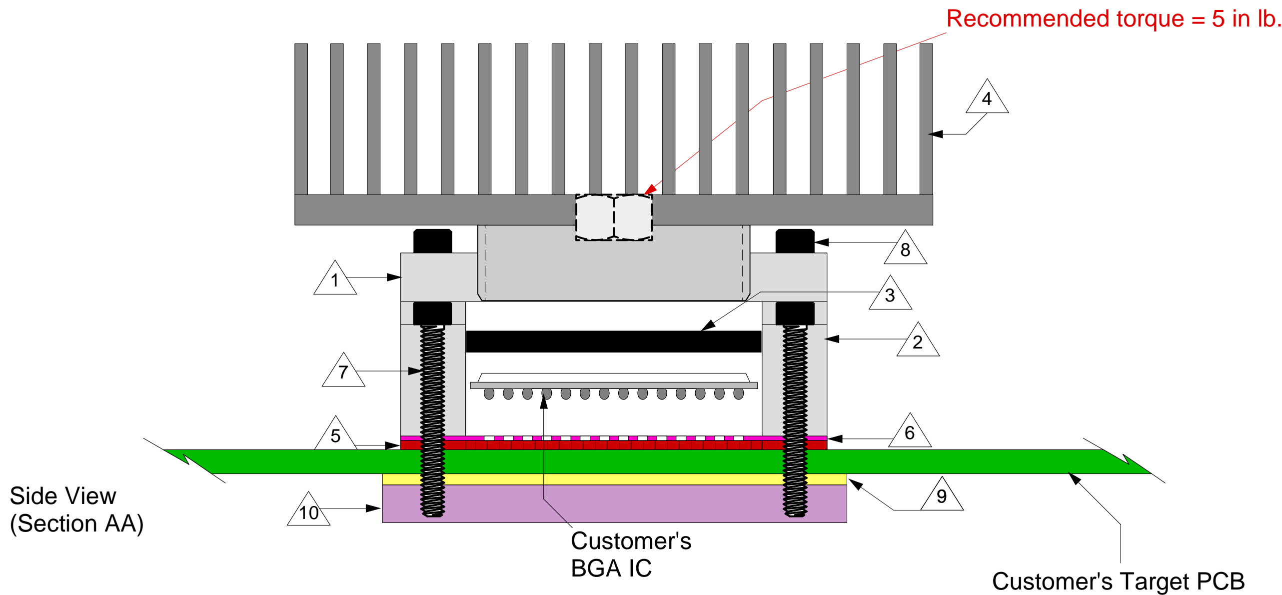


GHz BGA Socket - Direct mount, solderless

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 = 5mm.
3	Compression Plate: Black anodized Aluminum. Thickness = 2.5mm.
4	Heat sink compression screw: Black anodized Aluminum. Hex socket = 5mm, fin height 10 mm, octagonal
5	Elastomer: Embedded Silver Ball Matrix Thickness = 0.5969mm - 0.6604mm
6	Ball Guide: Kapton polyimide.
7	Socket base screw: Socket head cap, alloy steel with black oxide finish, 0-80 fine thread , 12.7mm long.
8	Socket lid screw: Shoulder screw, 18-8 SS, 0-80 fine thread.
9	Insulation Plate: FR4/G10, Thickness = 1.59mm.
10	Backing Plate: Black anodized Aluminum. Thickness = 6.35mm.

SM-BGA-9000 Drawing	Status: Released	Scale: -	Rev: A
© 2011 IRONWOOD ELECTRONICS, INC. Tele: (952) 229-8200 www.ironwoodelectronics.com	Drawing: E Smolentseva	Date: 4/12/11	
	File: SM-BGA-9000 Dwg.mcd	Modified:	

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

Recommended PCB Layout
Top View

Orientation Mark

2.4625mm

0.8mm typ.

2.4625mm

2.54mm

Ø 0.85mm±0.025mm (x2)
Non Plated Alignment Hole

28.225mm±0.125mm sqr.
Socket size

Ø 0.43mm pad (x 521)

5.08mm

Ø 1.7mm±0.1mm (x4)
Non Plated Mounting Hole

1.25mm±0.13mm

1.25mm±0.13mm

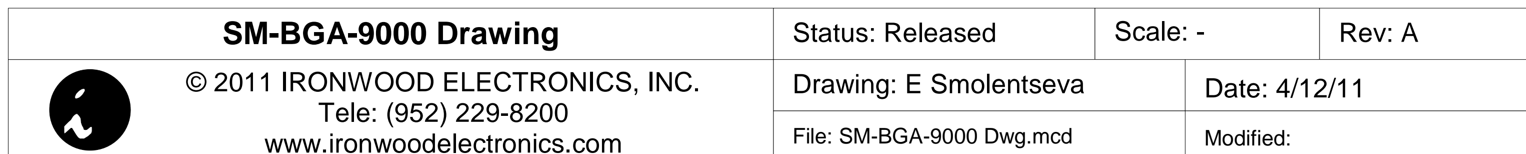
25.725mm(x4)

30.725mm sq. backing plate

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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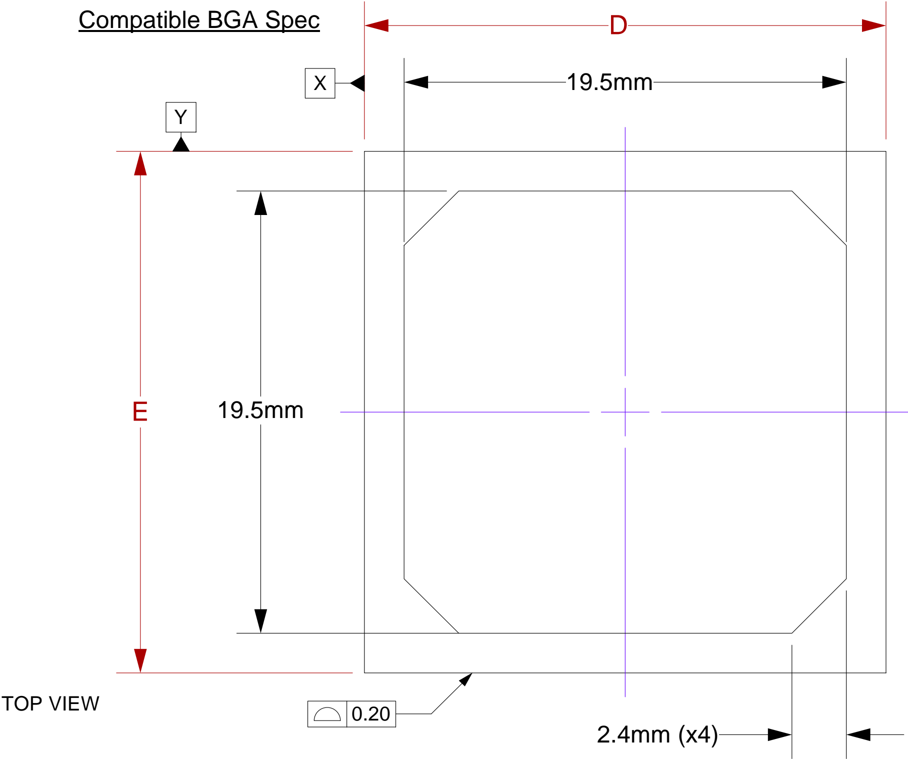
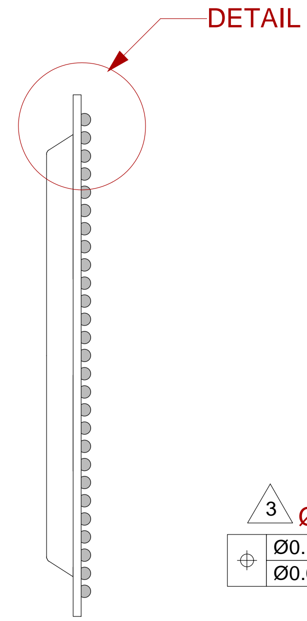
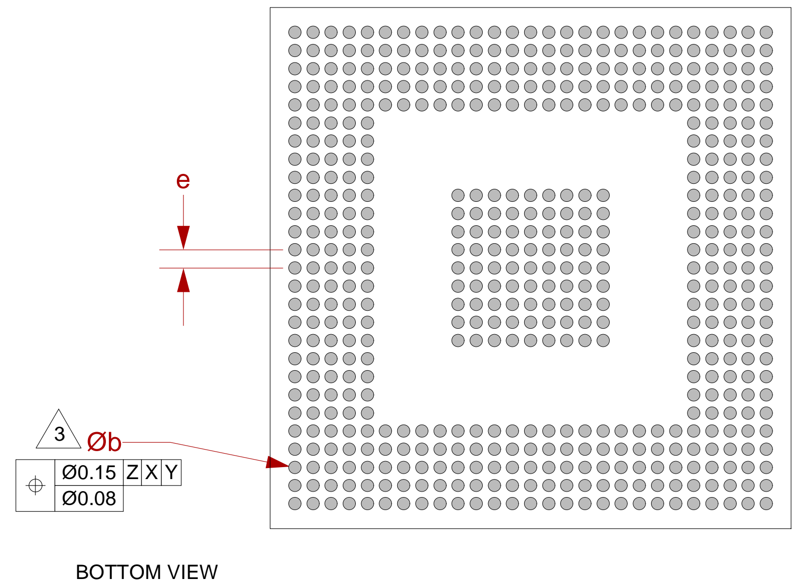
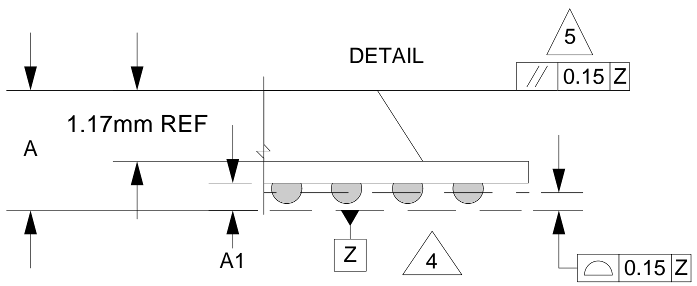




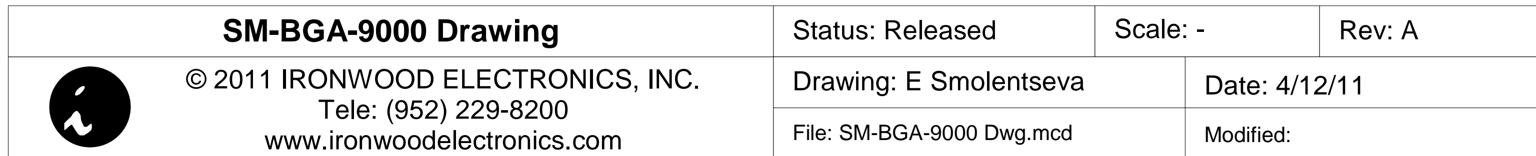




1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.
4. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
5. Parallelism measurement shall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

DIM	MIN	MAX
A	1.8	2.06
A1	0.30	0.50
b		0.50
D	23.0 BSC	
E	23.0 BSC	
e	0.8 BSC	

Array: 27x27



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Top View

30.725mm

2.5mm

1.27mm (x4)

2.5mm

30.725mm

25.725mm (x4)

5mm

5.03mm

Ø 1.61mm±0.05mm (x4)

10mm Sqr.

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

16mm (x4)

20.06mm

Side View

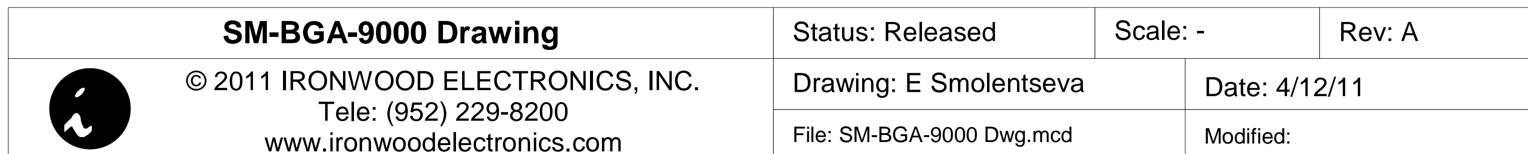
1.59mm

6.35mm

Insulation Plate

Backing Plate

Description: Backing Plate with Insulation Plate



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