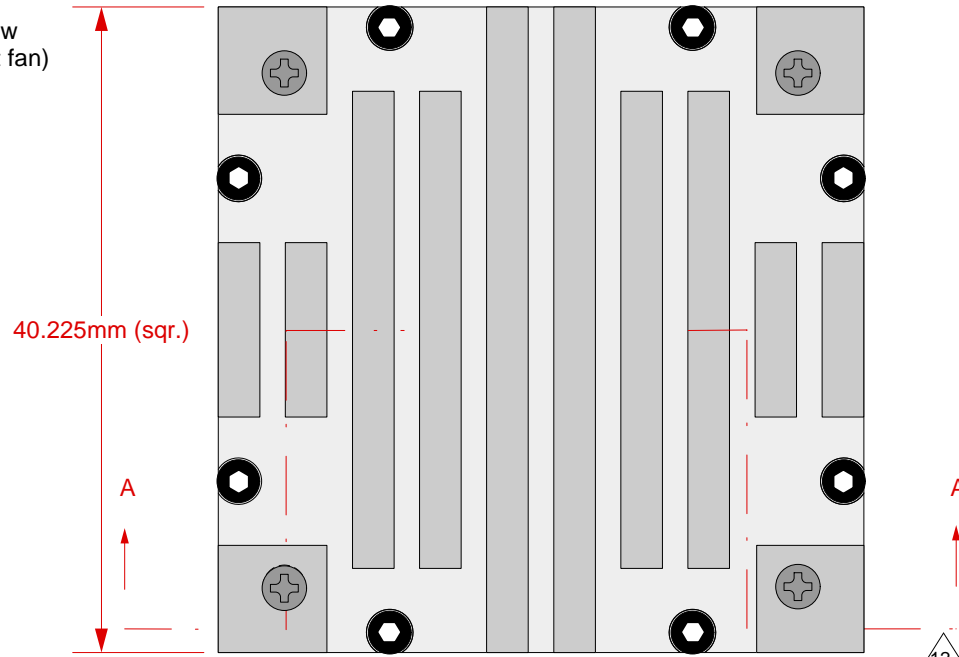


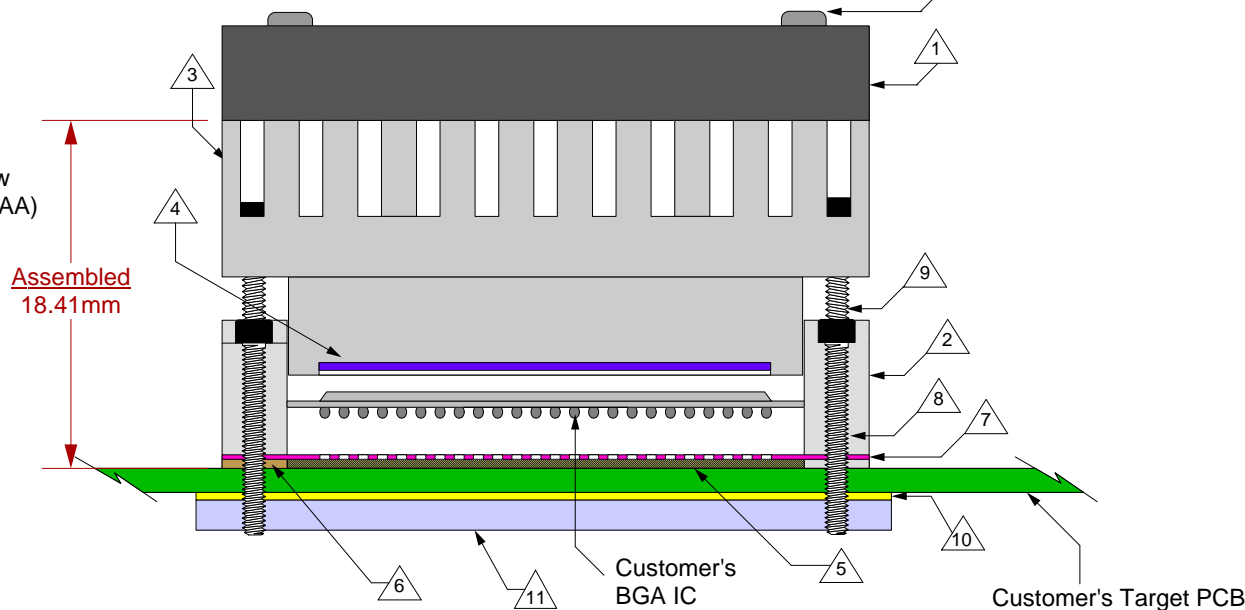
GHz BGA Socket - Direct mount, solderless

Top View
(without fan)



40.225mm (sqr.)

Side View
(Section AA)




Assembled
18.41mm

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

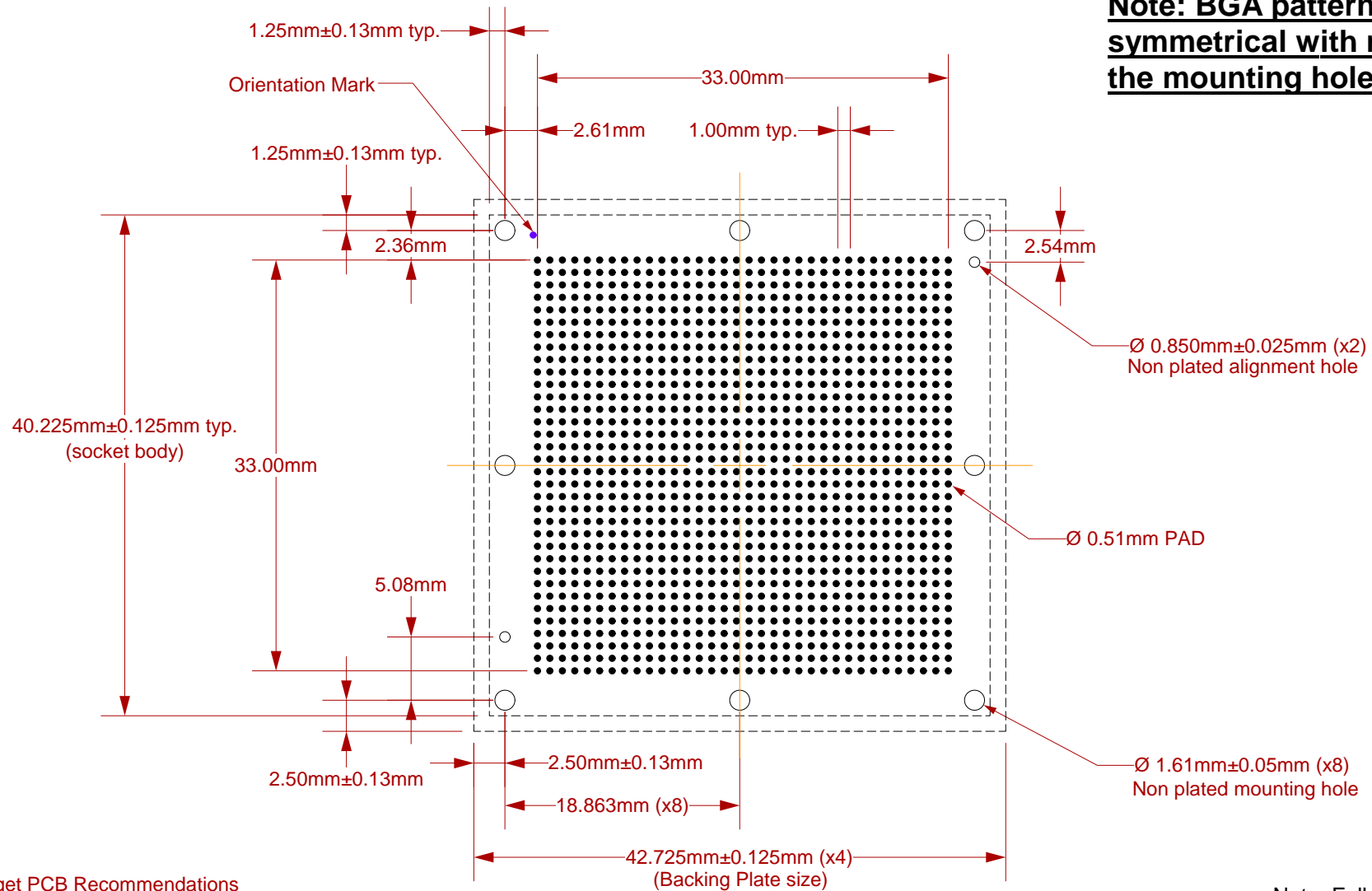
- △ 1 Fan: 20mm thick, 40mm square, 12V, 9.5 CFM
- △ 2 Socket base: Black anodized Aluminum.
Thickness = 6.5mm.
- △ 3 Heat Sink Lid: Black anodized Aluminum.
- △ 4 Thermal Pad: Bergquist Gap Pad 1500
Thickness = 1mm.
- △ 5 Elastomer: 20 micron dia gold plated brass
filaments arranged symmetrically in a silicone
rubber (63.5 degree angle).
Thickness = 0.5mm.
- △ 6 Elastomer Guide: Cirlex or equivalent.
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 , 15.875mm long.
- △ 9 Socket lid screw: Socket head cap, alloy steel with
black oxide finish, 0-80 fine thread , 4.76mm long.
- △ 10 Insulation Plate: FR4/G10, 1.59mm thick.
- △ 11 Backing Plate: Black anodized Aluminum.
Thickness = 6.35mm.
- △ 12 Phillips pan head M4 25mm length 18-8 SS

	SG-BGA-8001 Drawing	Status: Released	Scale: -	Rev: A
	© 2007 IRONWOOD ELECTRONICS, INC. 11351 Rupp Drive, Suite 400, Burnsville, MN 55337 Tele: (952) 229-8200 www.ironwoodelectronics.com	Drawing: J. Glab	Date: 3/16/07	
		File: SG-BGA-8001 Dwg	Modified:	

All tolerances: ± 0.125 mm (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.




Target PCB Recommendations

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

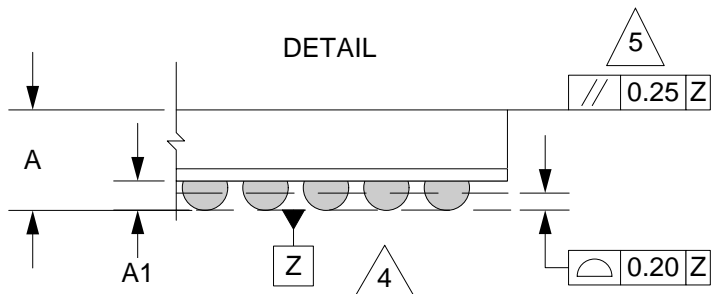
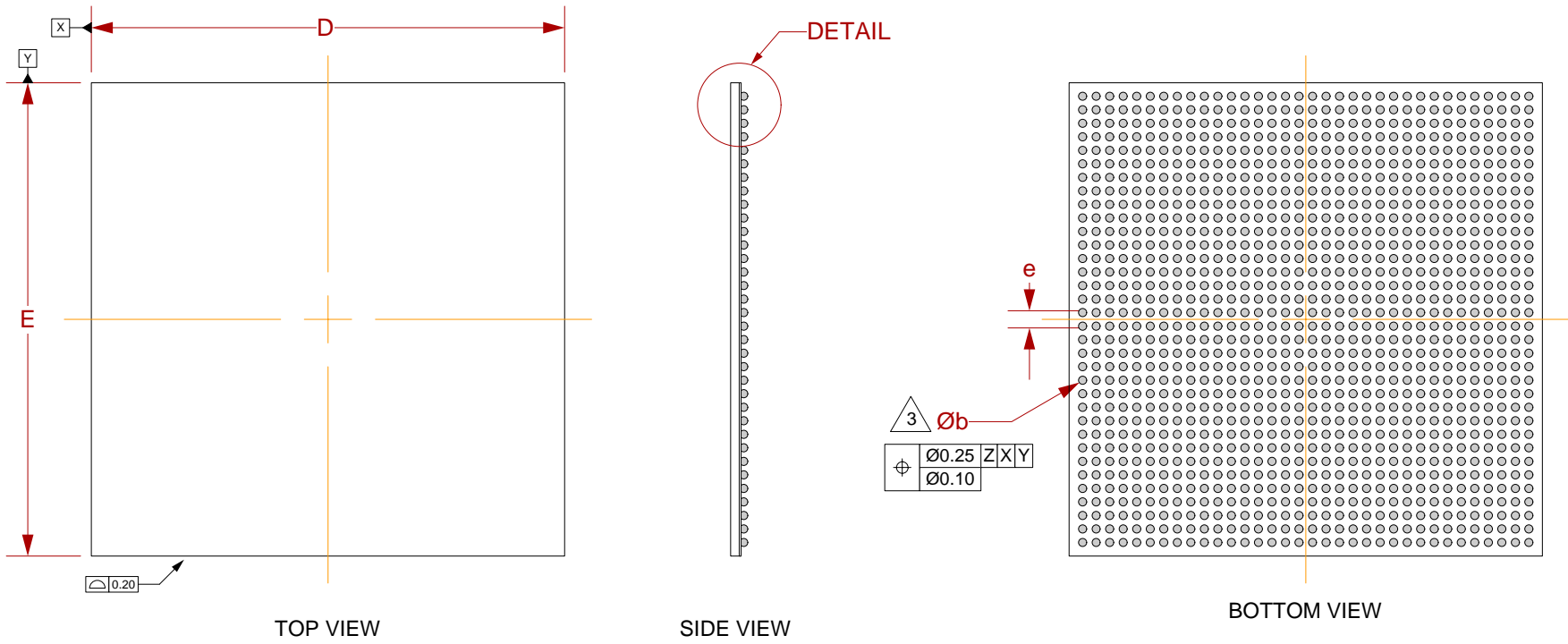
Note: Full BGA pattern shown.
Please adjust pattern according to individual requirements.

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

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

SG-BGA-8001 Drawing		Status: Released	Scale: -	Rev: A
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	File: SG-BGA-8001 Dwg		Modified:	


Compatible BGA Spec



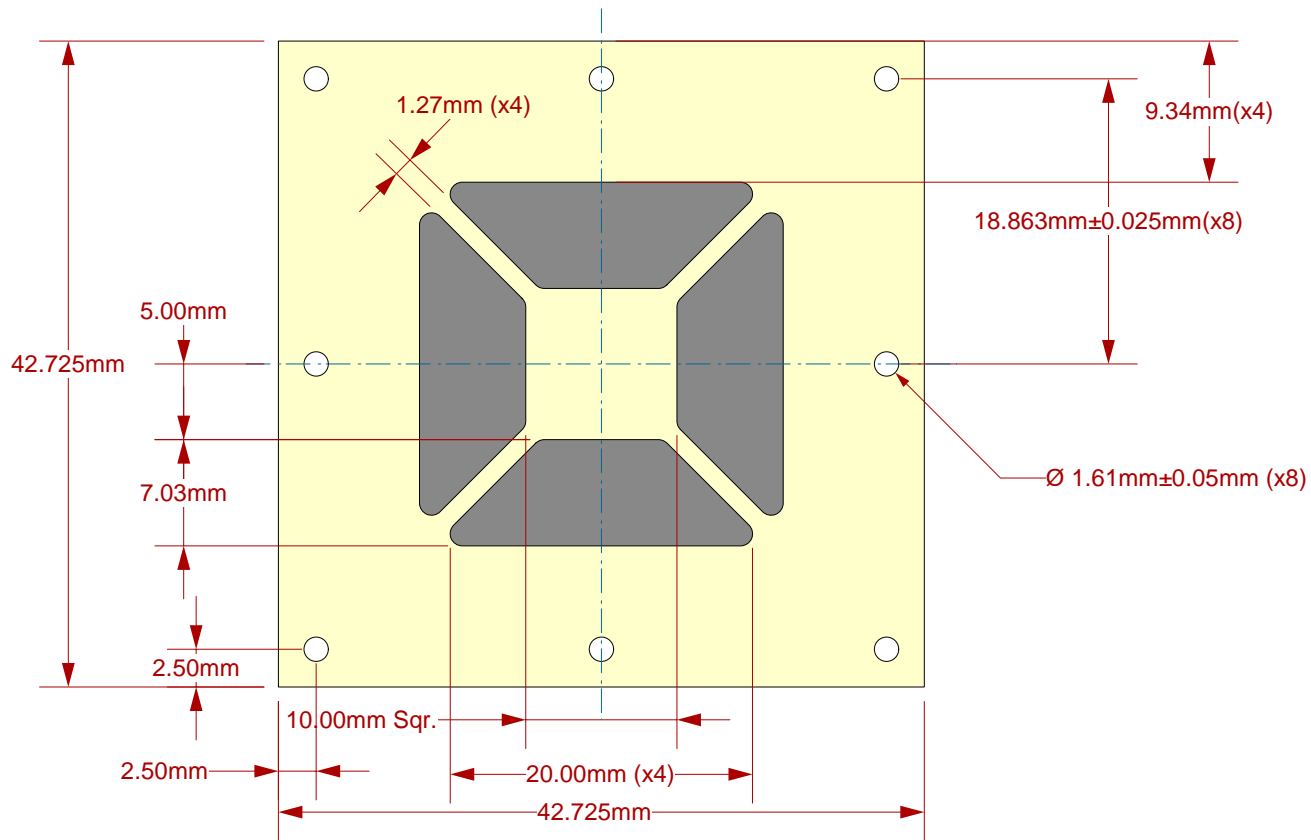
1. Dimensions are in millimeters.
 2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
- 3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.
 - 4. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
 - 5. Parallelism measurement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

DIM	MIN	MAX
A		3.42
A1	0.3	
b	0.5	0.7
D	35.0 BSC	
E	35.0 BSC	
e	1.00 BSC	

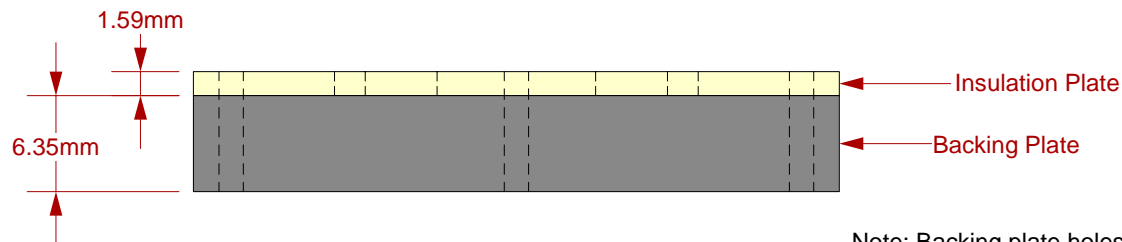
Array 34x34

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	Drawing: J. Glab		Date: 3/16/07	
	File: SG-BGA-8001 Dwg		Modified:	

Top View




Side View



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

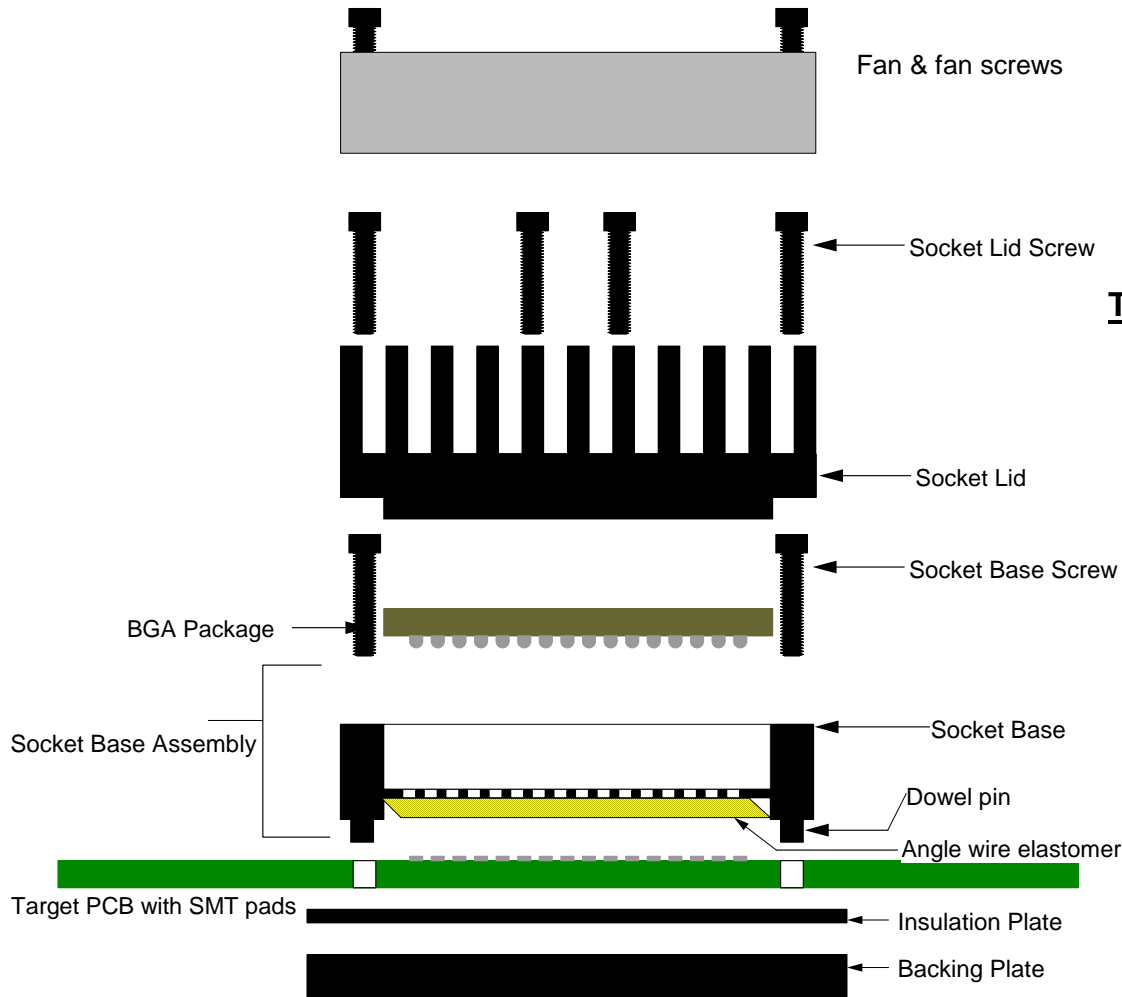
Description: Insulation Plate and Backing Plate

	SG-BGA-8001 Drawing © 2007 IRONWOOD ELECTRONICS, INC. 11351 Rupp Drive, Suite 400, Burnsville, MN 55337 Tele: (952) 229-8200 www.ironwoodelectronics.com	Status: Released	Scale: -	Rev: A
		Drawing: J. Glab	Date: 3/16/07	
		File: SG-BGA-8001 Dwg	Modified:	

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


C7036 Socket (direct mount - hardware)

User Instructions



Tooling holes have to be designed into the target PCB for this version of the GHz BGA socket

1. Install the socket base assembly on the target PCB with the socket base screws (1 in-lb torque per screw). Check orientation of the socket with respect to the target PCB. Place insulation plate in between target PCB and backing plate. Socket base screws will thread into the backing plate.
2. Place BGA package (solder ball side down) into the socket. NOTE: BGA orientation on target PCB is critical.
3. Install the socket lid on to the socket base assembly using socket lid screws.
4. Apply torque of 8, 12, and 16 in-oz per lid screw in gradual increments on all lid screws in X-fashion. The recommended torque driver is TL-TORQUEDRIVER-08.
5. Mount fan on top of heat sink lid using fan screws.

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	<p>Drawing: J. Glab</p>	<p>Date: 3/16/07</p>		
	<p>File: SG-BGA-8001 Dwg</p>	<p>Modified:</p>		