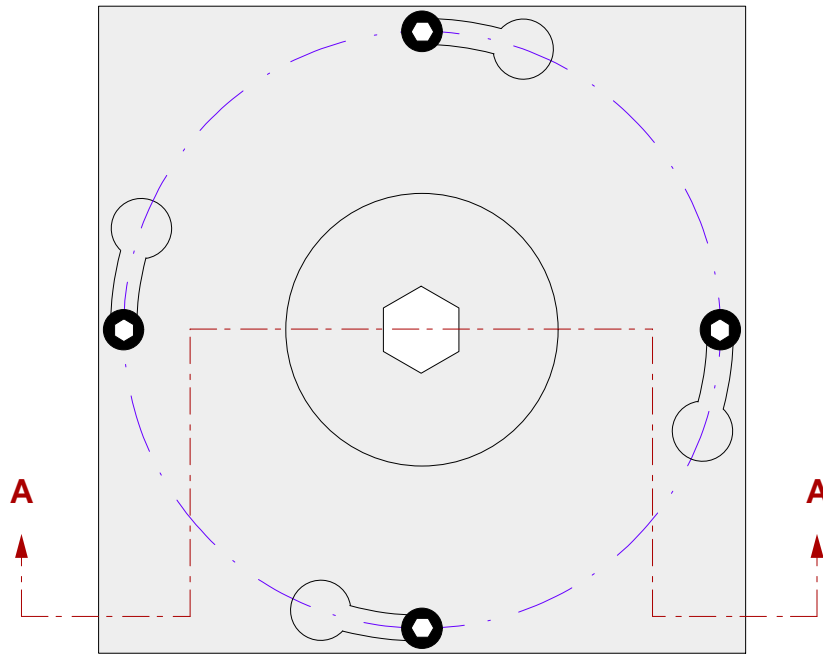


# GHz BGA Socket - Direct mount, solderless

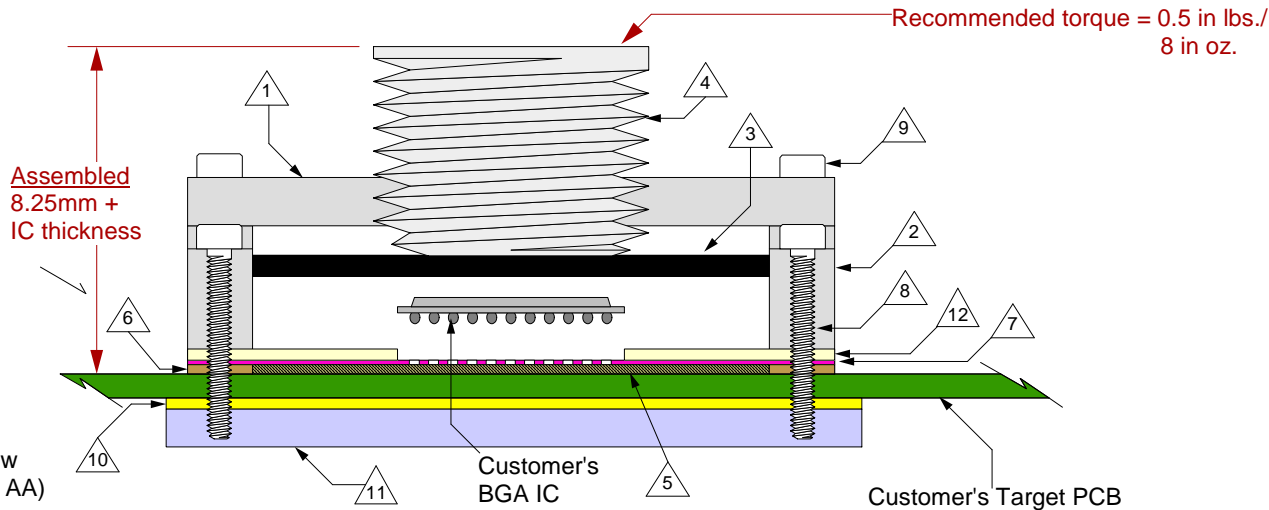
## Features

- 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 , 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.
- △ 12 IC Guide: FR4

## SG-BGA-7051 Drawing

Status: Released

Scale: -

Rev: B

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Tele: (952) 229-8200  
www.ironwoodelectronics.com

Drawing: H. Hansen

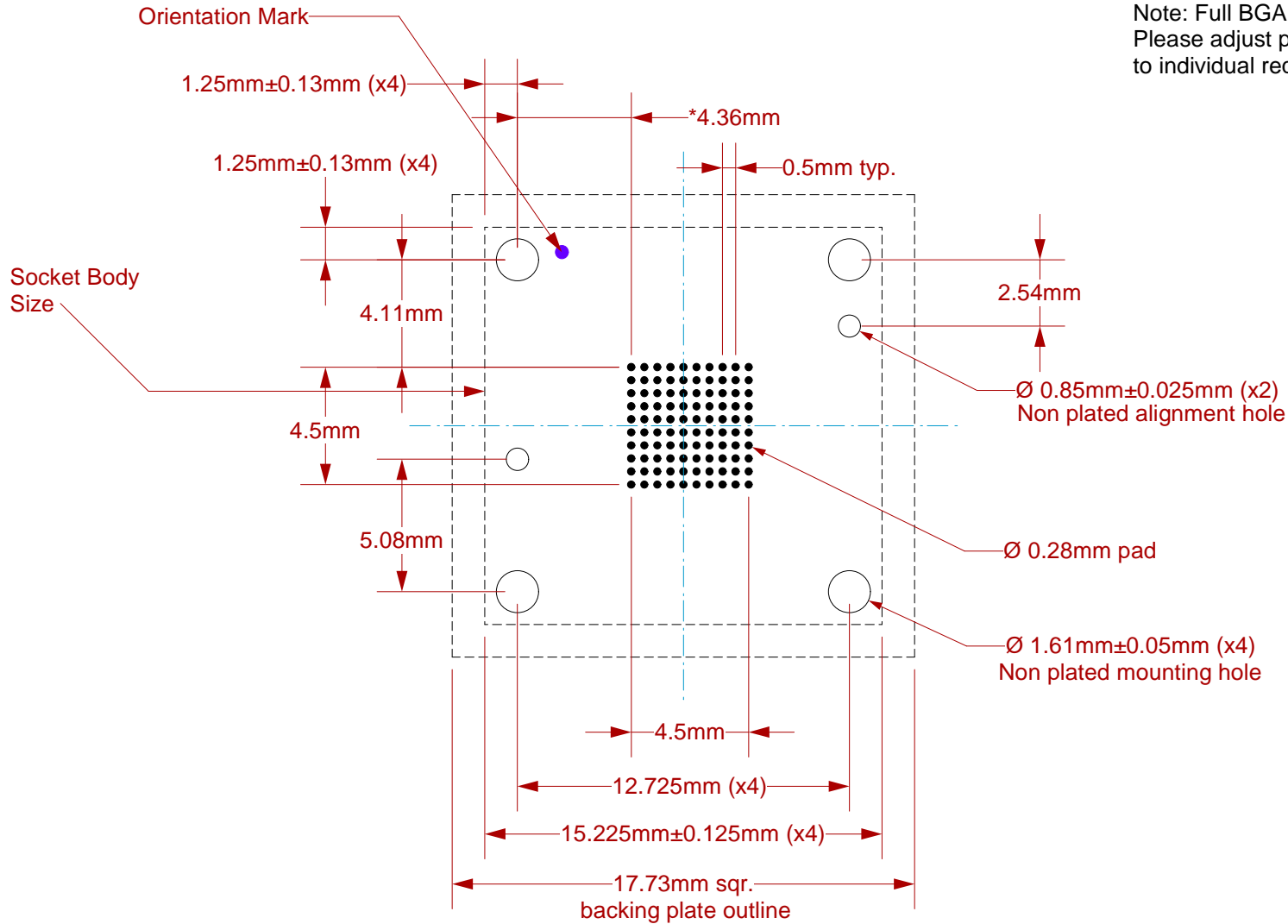
Date: 5/10/05

File: SG-BGA-7051 Dwg

Modified: 6/2/09, AE

All tolerances:  $\pm 0.125\text{mm}$  (unless stated otherwise). Materials and specifications are subject to change without notice.

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




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

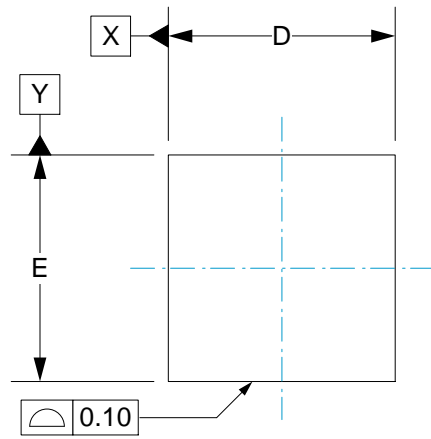
Target PCB Recommendations

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

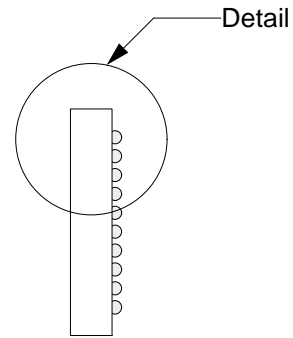
All dimensions are in mm unless stated otherwise

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

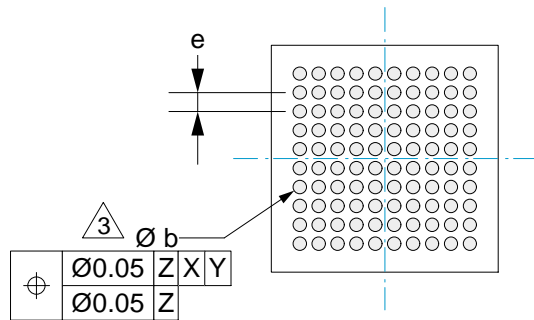
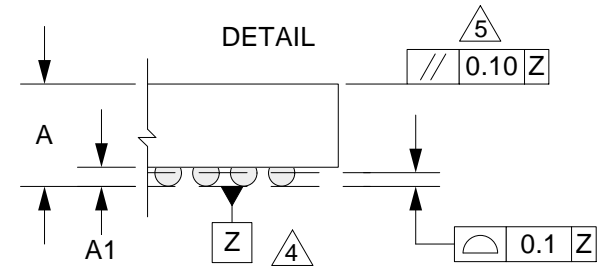
 <p>© 2005 IRONWOOD ELECTRONICS, INC. Tele: (952) 229-8200 www.ironwoodelectronics.com</p>	<b>SG-BGA-7051 Drawing</b>		Status: Released	Scale: 4:1	Rev: B
	Drawing: H. Hansen		Date: 5/10/05		
	File: SG-BGA-7051 Dwg		Modified: 6/2/09, AE		



Top View



Side View




Bottom View

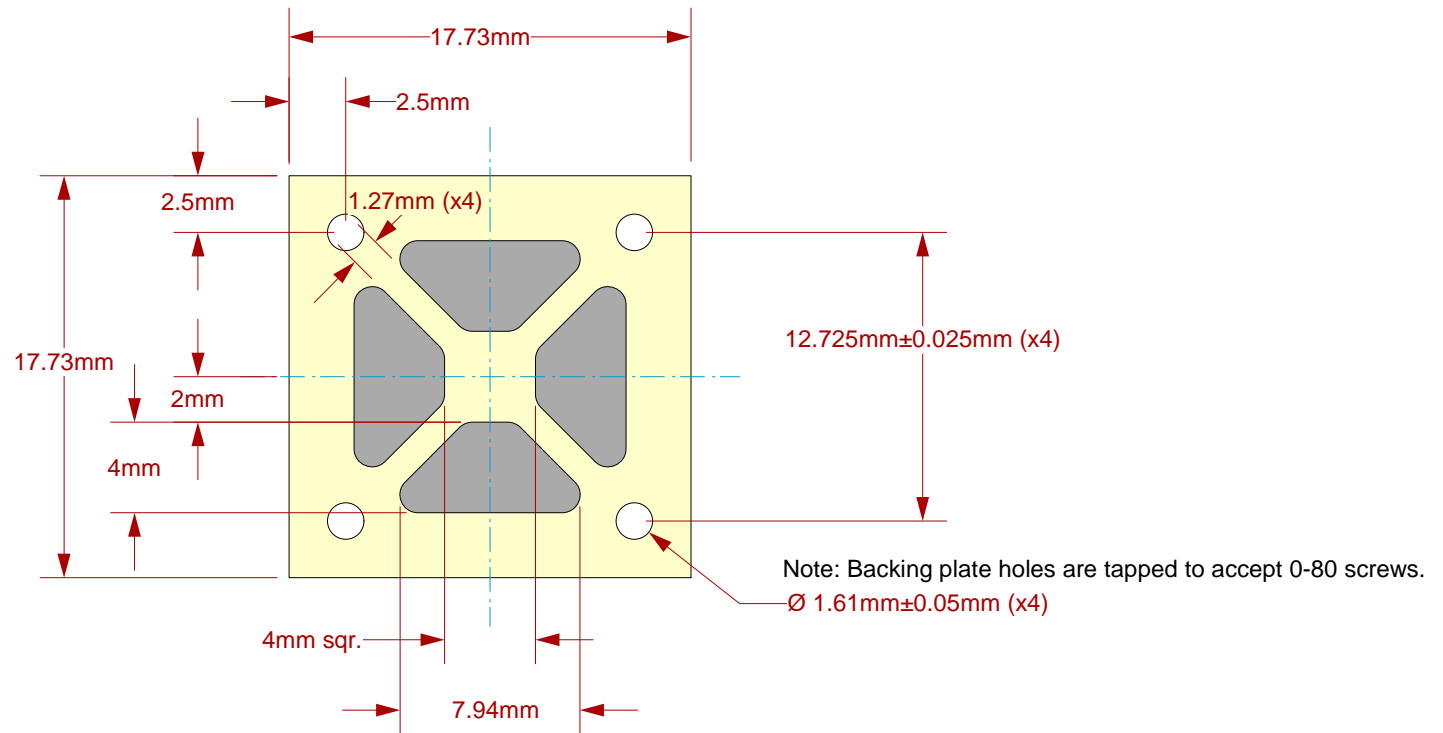
1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.
4. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
5. Parallelism measurement shall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

DIM	MIN	MAX
A		1.35
A1	0.15	0.25
b		0.35
D	6.0 BSC	
E	6.0 BSC	
e	0.5 BSC	

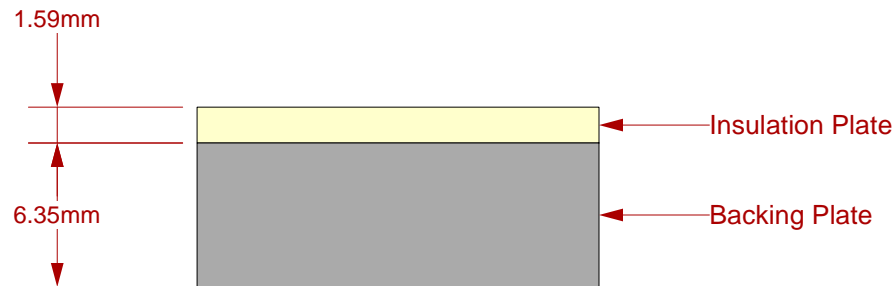
10 x 10 array

	<b>SG-BGA-7051 Drawing</b>	Status: Released	Scale: 1:0.2	Rev: B
	© 2005 IRONWOOD ELECTRONICS, INC. Tele: (952) 229-8200 www.ironwoodelectronics.com	Drawing: H. Hansen		Date: 5/10/05
		File: SG-BGA-7051 Dwg	Modified: 6/2/09, AE	

Top View




Side View



Description: Insulation Plate and Backing Plate

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

	<b>SG-BGA-7051 Drawing</b>	Status: Released	Scale: 3:1	Rev: B
	© 2005 IRONWOOD ELECTRONICS, INC. Tele: (952) 229-8200 www.ironwoodelectronics.com	Drawing: H. Hansen		Date: 5/10/05
		File: SG-BGA-7051 Dwg	Modified: 6/2/09, AE	