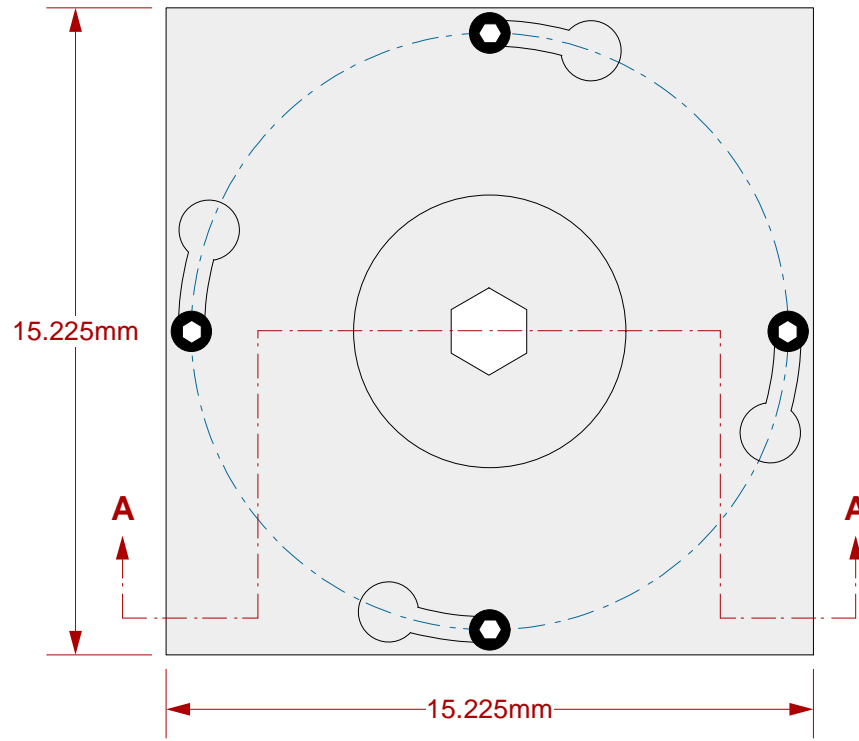


# GHz BGA Socket - Direct mount, solderless

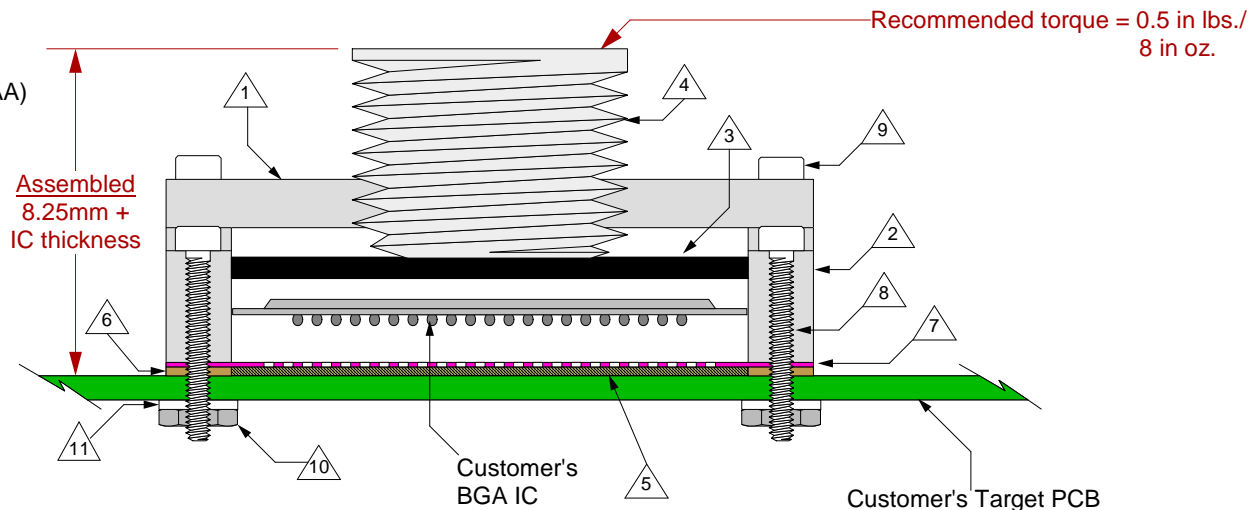
Top View



## 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

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: Black 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.

## SG-BGA-6178 Drawing

Status: Released

Scale: - N/A

Rev: B

Drawing: H. Hansen

Date: 2/1/06

File: SG-BGA-6178 Dwg

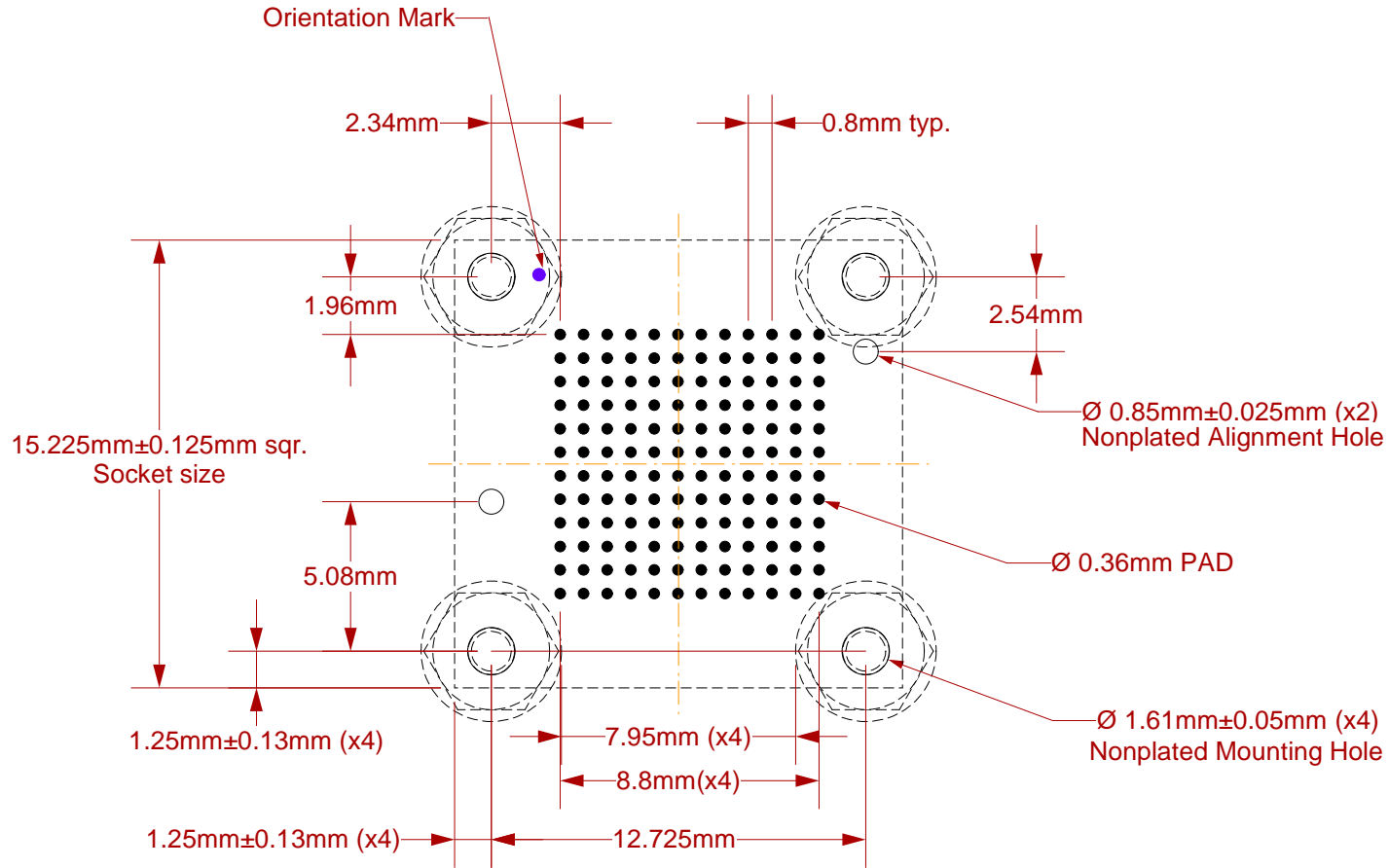
Modified: 6/2/09, AE

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

PAGE 1 of 3



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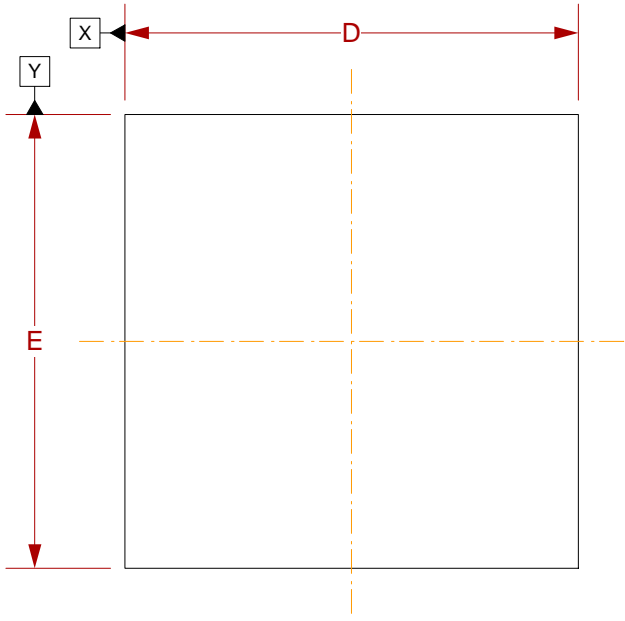
**Target PCB Recommendations**

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

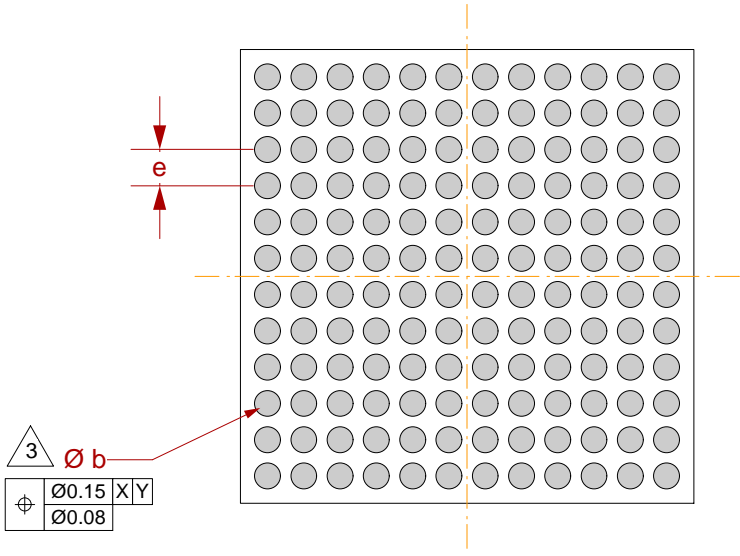
NOTE: Steel backing plate may be required based on end user's application

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

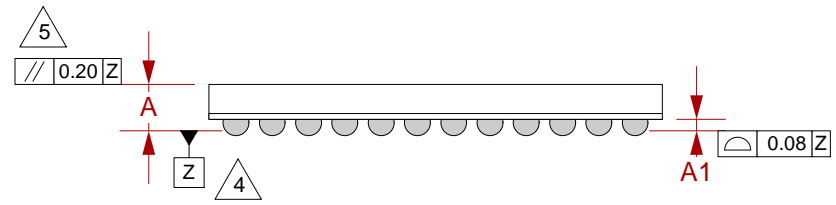
 <p>© 2006 IRONWOOD ELECTRONICS, INC. 11351 Rupp Drive, Suite 400, Burnsville, MN 55337 Tele: (952) 229-8200 www.ironwoodelectronics.com</p>	<p><b>SG-BGA-6178 Drawing</b></p>	<p>Status: Released</p>	<p>Scale: 4:1</p>	<p>Rev: B</p>
	<p>Drawing: H. Hansen</p>	<p>Date: 2/1/06</p>		
	<p>File: SG-BGA-6178 Dwg</p>	<p>Modified: 6/2/09, AE</p>		



Top View



Bottom View




Side 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		2.5
A1	0.18	0.28
b		0.6
D	10.0 BSC	
E	10.0 BSC	
e	0.8 BSC	

Array: 12x12

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	Drawing: H. Hansen		Date: 2/1/06	
	File: SG-BGA-6178 Dwg		Modified: 6/2/09, AE	