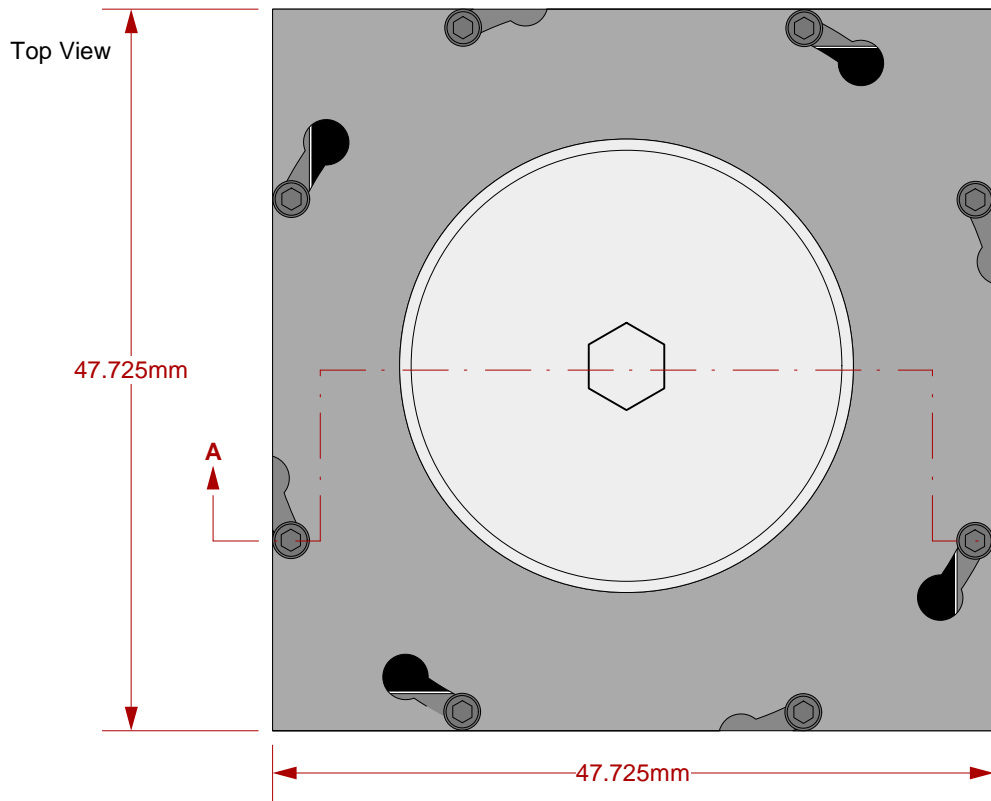


# GHz BGA Socket - Direct mount, solderless



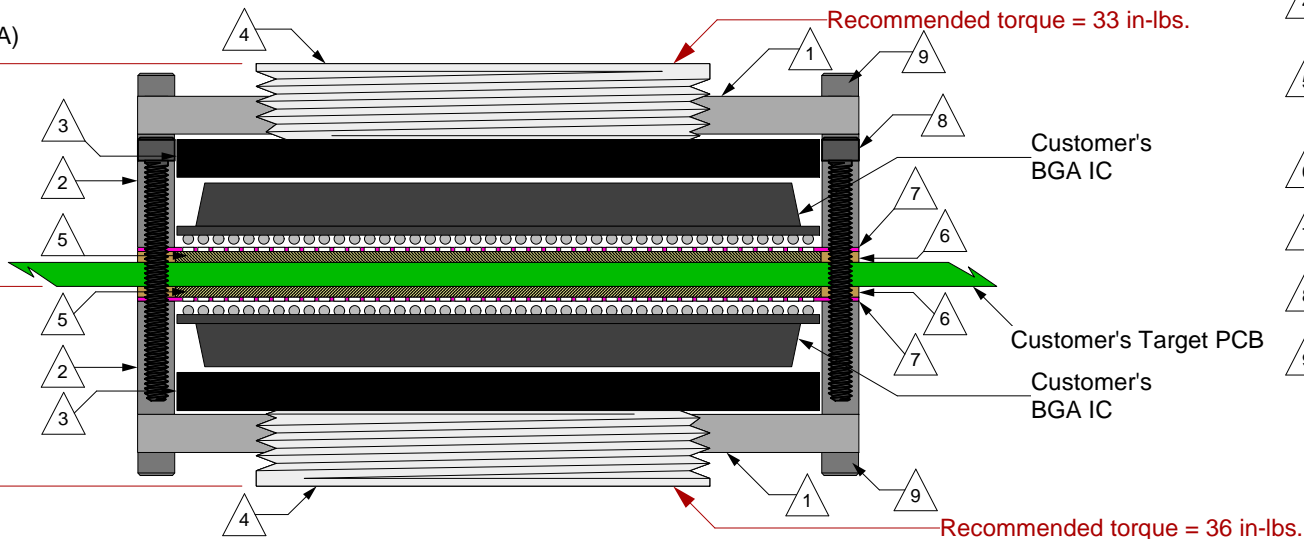
## Features

- 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

Side View  
(Section AA)

Assembled  
8.48mm +  
IC thickness

Assembled  
8.48mm +  
IC thickness



- 1 Socket Lid: Black anodized Aluminum. Thickness = 2.5mm.
- 2 Socket base: Black anodized Aluminum. Thickness = 7.5mm.
- 3 Compression Plate: Black anodized Aluminum. Thickness = 4.0mm.
- 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 = 0.725mm.
- 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.

## SG-BGA-6130 Drawing

© 2009 IRONWOOD ELECTRONICS, INC.  
11351 Rupp Drive, Suite 400, Burnsville, MN 55337  
Tele: (952) 229-8200  
www.ironwoodelectronics.com

Status: Released

Scale: -

Rev: B

Drawing: Heidi Hansen

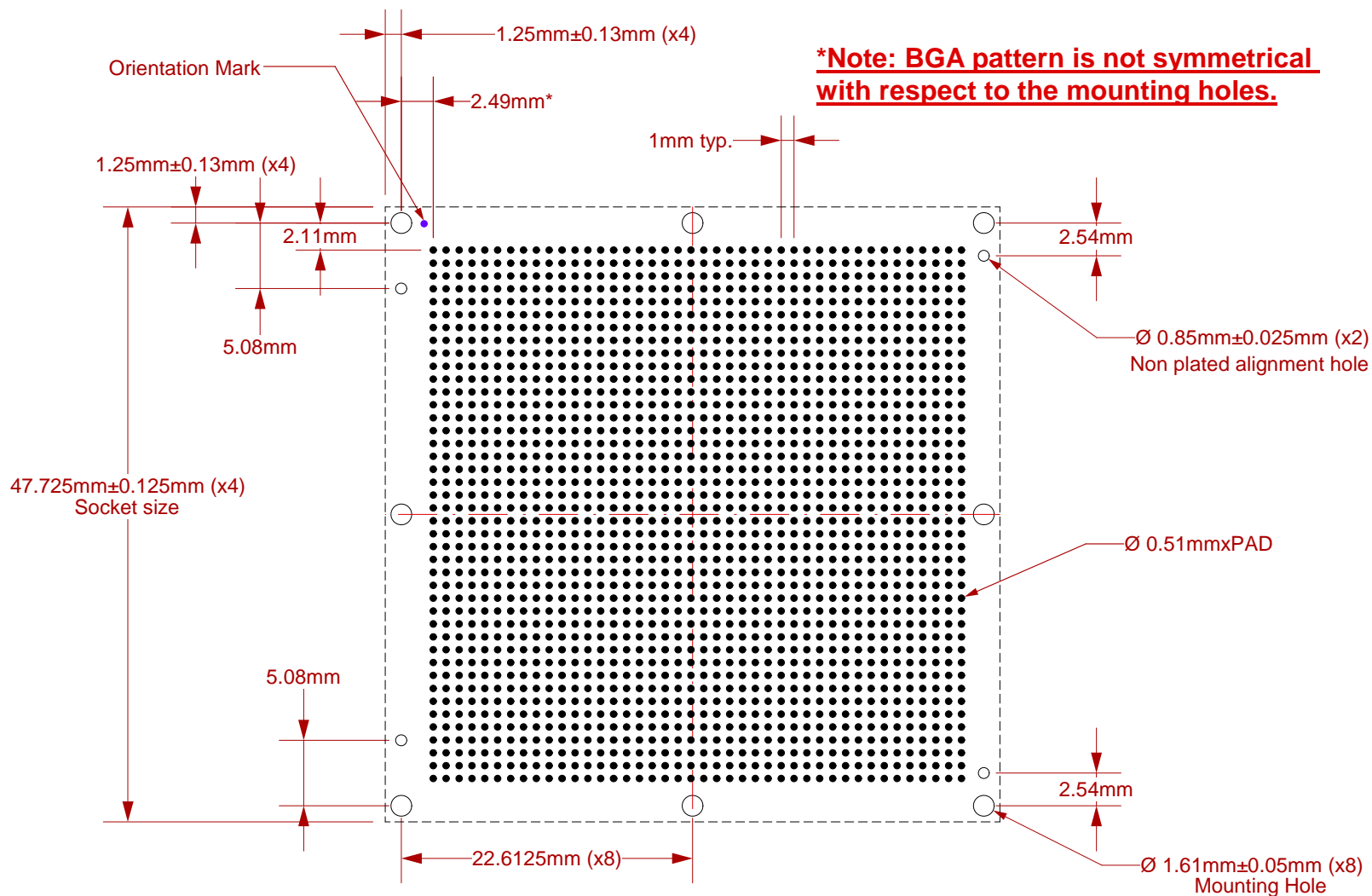
Date: 9/8/04

File: SG-BGA-6130 Dwg

Modified: 8/3/09, AE

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

Recommended PCB Layout Top View  
and Top (x-ray) view



Target PCB Recommendations

Total thickness: 2.4mm min.


Plating: Gold or Solder finish

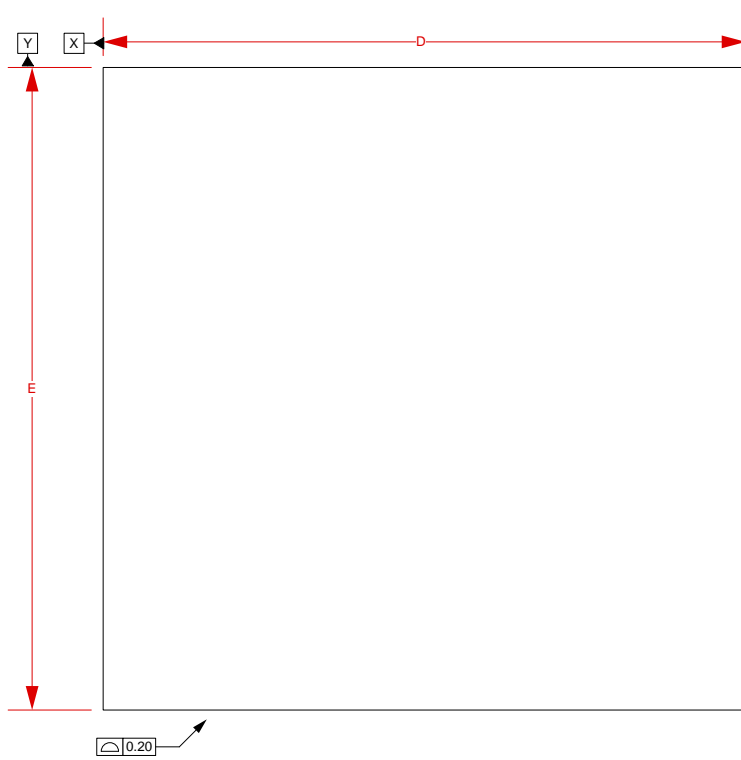
PCB Pad height: Same or higher than solder mask

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

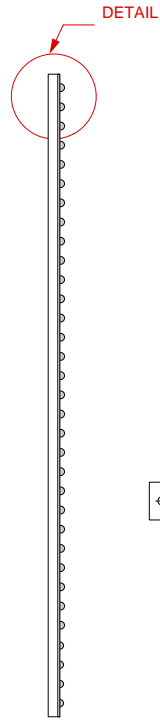


Recommended PCB Layout Tolerances:  $\pm 0.025\text{mm}$  [ $\pm 0.001''$ ] unless stated otherwise.

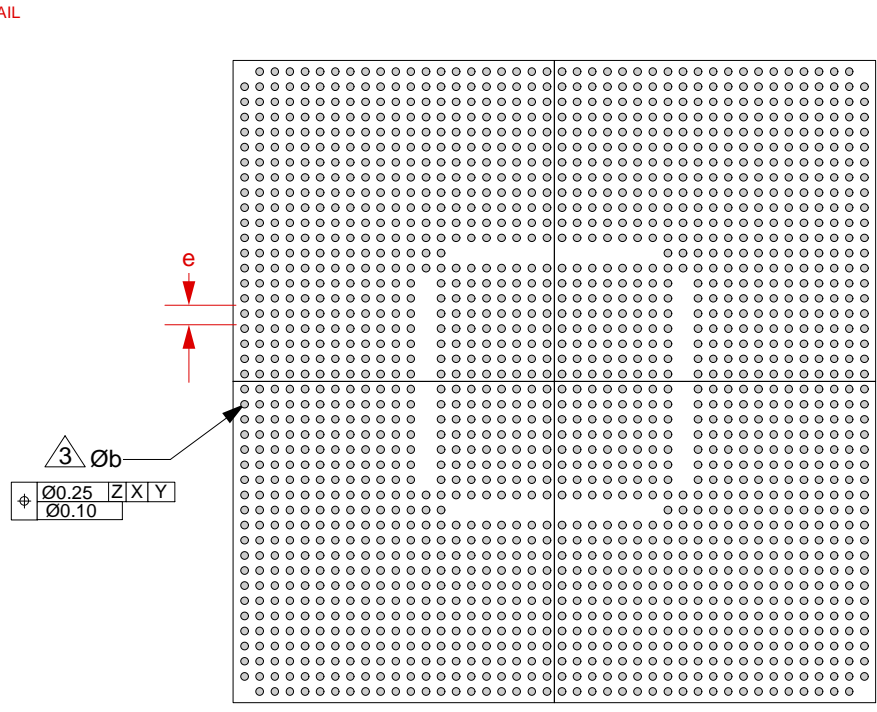
 <p>© 2009 IRONWOOD ELECTRONICS, INC. 11351 Rupp Drive, Suite 400, Burnsville, MN 55337 Tele: (952) 229-8200 www.ironwoodelectronics.com</p>	<p><b>SG-BGA-6130 Drawing</b></p>	<p>Status: Released</p>	<p>Scale: 2:1</p>	<p>Rev: B</p>
	<p>Drawing: Heidi Hansen</p>	<p>Date: 9/8/04</p>		
	<p>File: SG-BGA-6130 Dwg</p>	<p>Modified: 8/3/09, AE</p>		



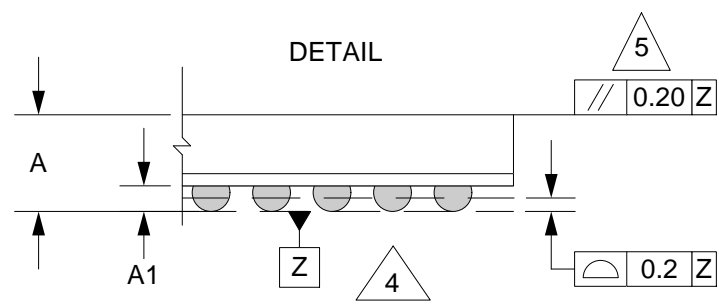
TOP VIEW



SIDE VIEW




BOTTOM VIEW

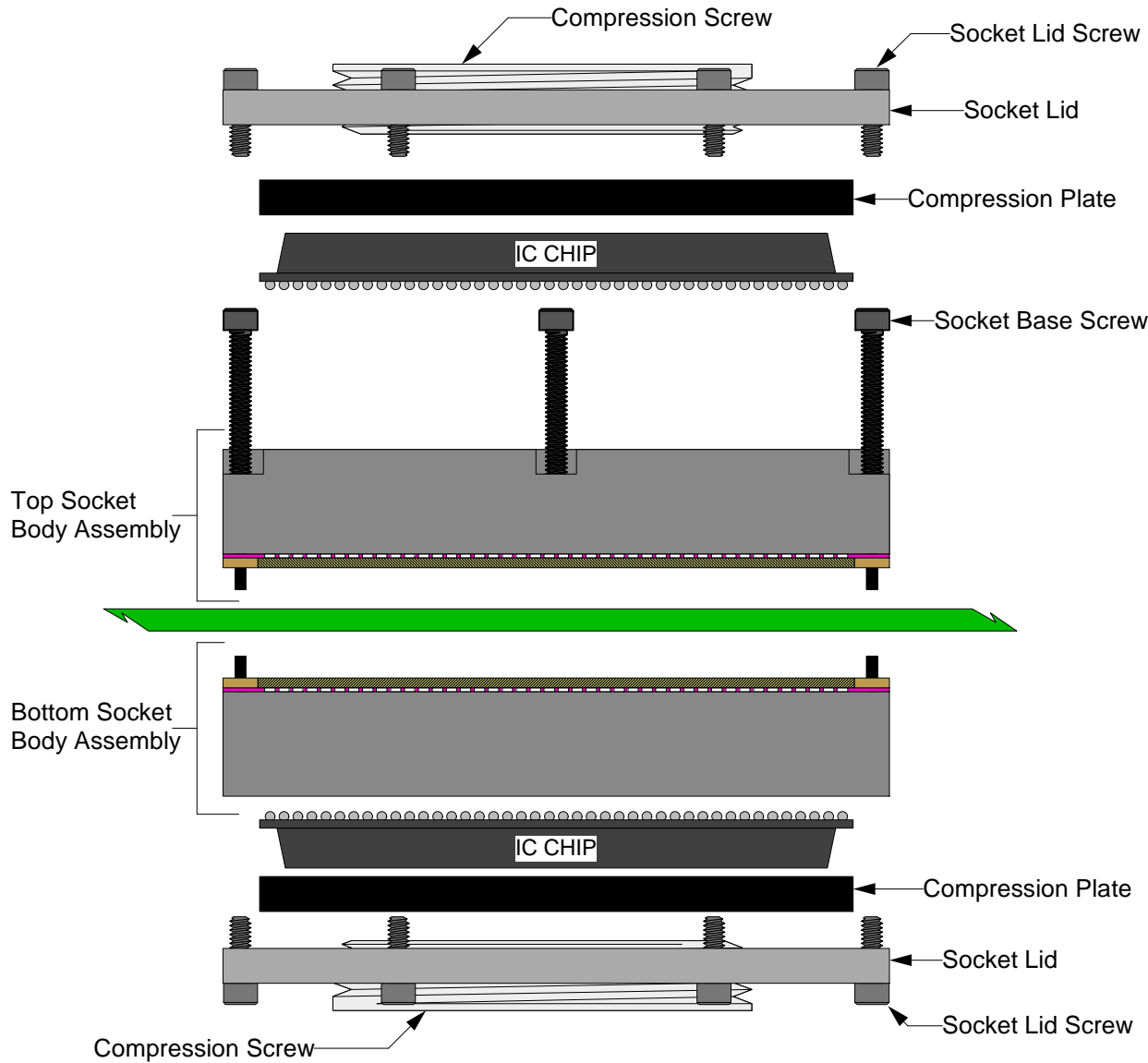


1. Dimensions are in millimeters.
  2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
- 3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.
  - 4. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
  - 5. Parallelism measurement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

DIM	MIN	MAX
A		3.45
A1	0.40	0.60
b		0.70
D	42.50 BSC	
E	42.50 BSC	
e	1.0 BSC	


Array: 42x42

 <p><b>SG-BGA-6130 Drawing</b></p> <p>© 2009 IRONWOOD ELECTRONICS, INC. 11351 Rupp Drive, Suite 400, Burnsville, MN 55337 Tele: (952) 229-8200 www.ironwoodelectronics.com</p>	Status: Released	Scale: -	Rev: B
	Drawing: Heidi Hansen		Date: 9/8/04
	File: SG-BGA-6130 Dwg		Modified: 8/3/09, AE



**USER INSTRUCTIONS:**

1. Press socket base assemblies into target board aligning dowel pins into tooling holes.
2. Screw socket base screws into top socket base assembly through to bottom socket base assembly.
3. Place in IC chip (note orientation) and compression plate into top socket base assembly.
4. Screw socket lid onto top socket base assembly.
5. Place in IC chip (note orientation) and compression plate into bottom socket base assembly.
6. Screw socket lid onto bottom socket base assembly.
7. Apply 33 in/lb recommended torque in one side with initial increments of 5 in-lbs and 36 in-lbs on the other side with initial increments of 5 in-lbs on alternating top and bottom compression screws.

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	<p>Drawing: Heidi Hansen</p>	<p>Date: 9/8/04</p>		
	<p>File: SG-BGA-6130 Dwg</p>	<p>Modified: 8/3/09, AE</p>		

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