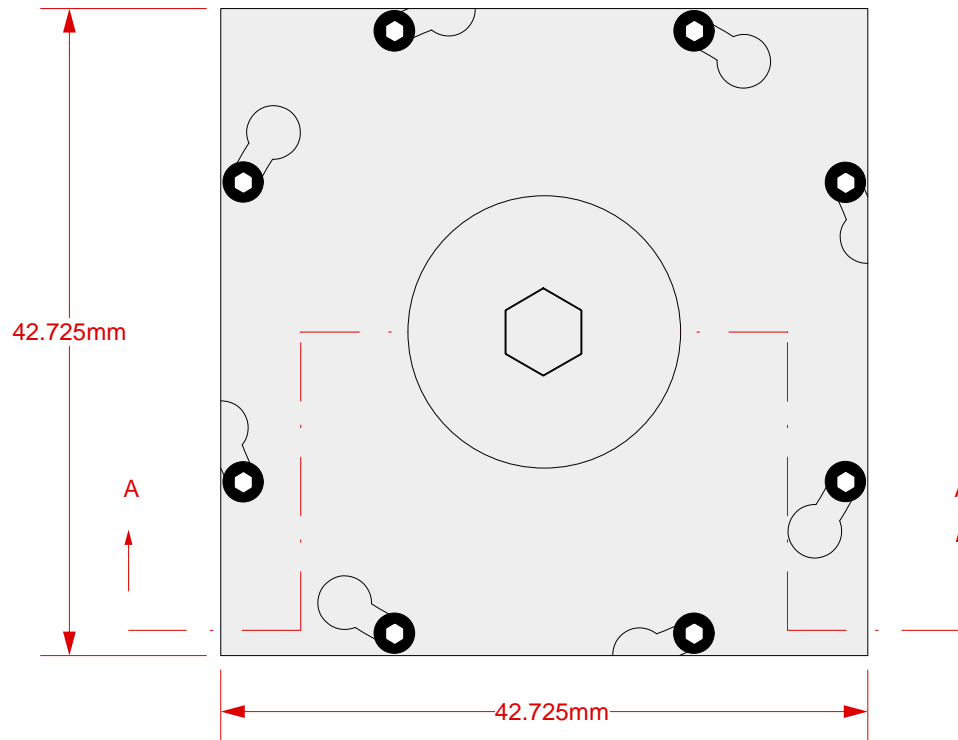


# GHz BGA Socket - Direct mount, solderless

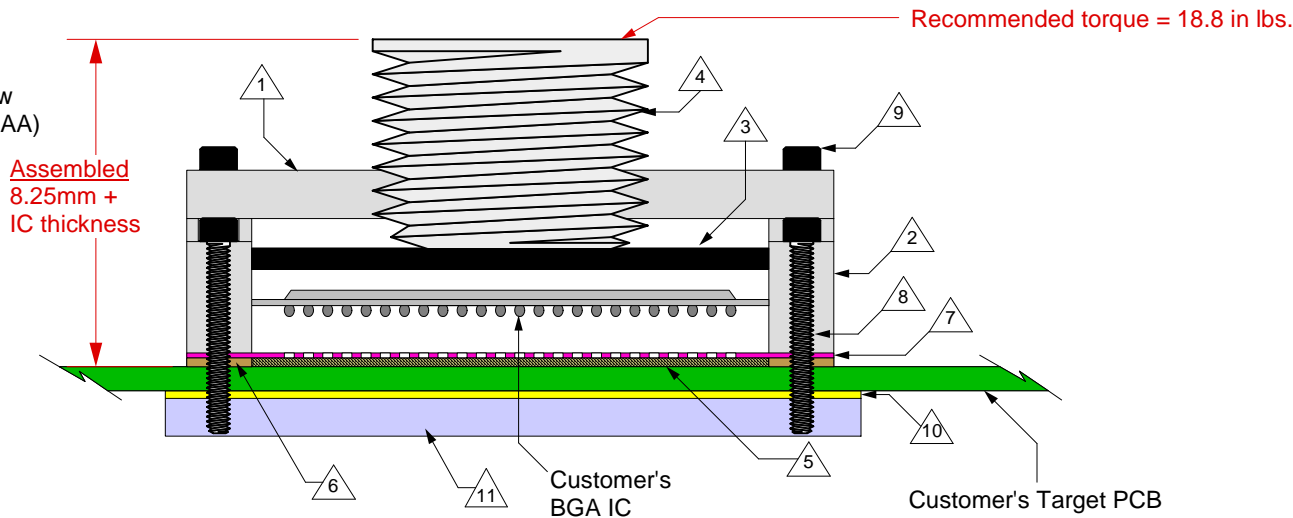
Top View



## 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.<br>Thickness = 2.5mm.   |
| 2  | Socket base: Black anodized Aluminum.<br>Thickness = 5mm.  |
| 3  | Compression Plate: Black anodized Aluminum.<br>Thickness = 2.5mm.  |
| 4  | Compression screw: Clear anodized Aluminum.<br>Thickness = 5mm, Hex socket = 5mm.  |
| 5  | Elastomer: 40 micron dia gold plated brass filaments arranged symmetrically in a silicone rubber (63.5 degree angle).<br>Thickness = 0.75mm. |
| 6  | Elastomer Guide: Cirlex or equivalent<br>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 | Insulation Plate: FR4/G10, Thickness = 1.59mm.   |
| 11 | Backing Plate: Black anodized Aluminum.<br>Thickness = 6.35mm.   |

## SG-BGA-6115 Drawing

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

Status: Released

Scale: -

Rev: C

Drawing: H. Hansen

Date: 3/19/04

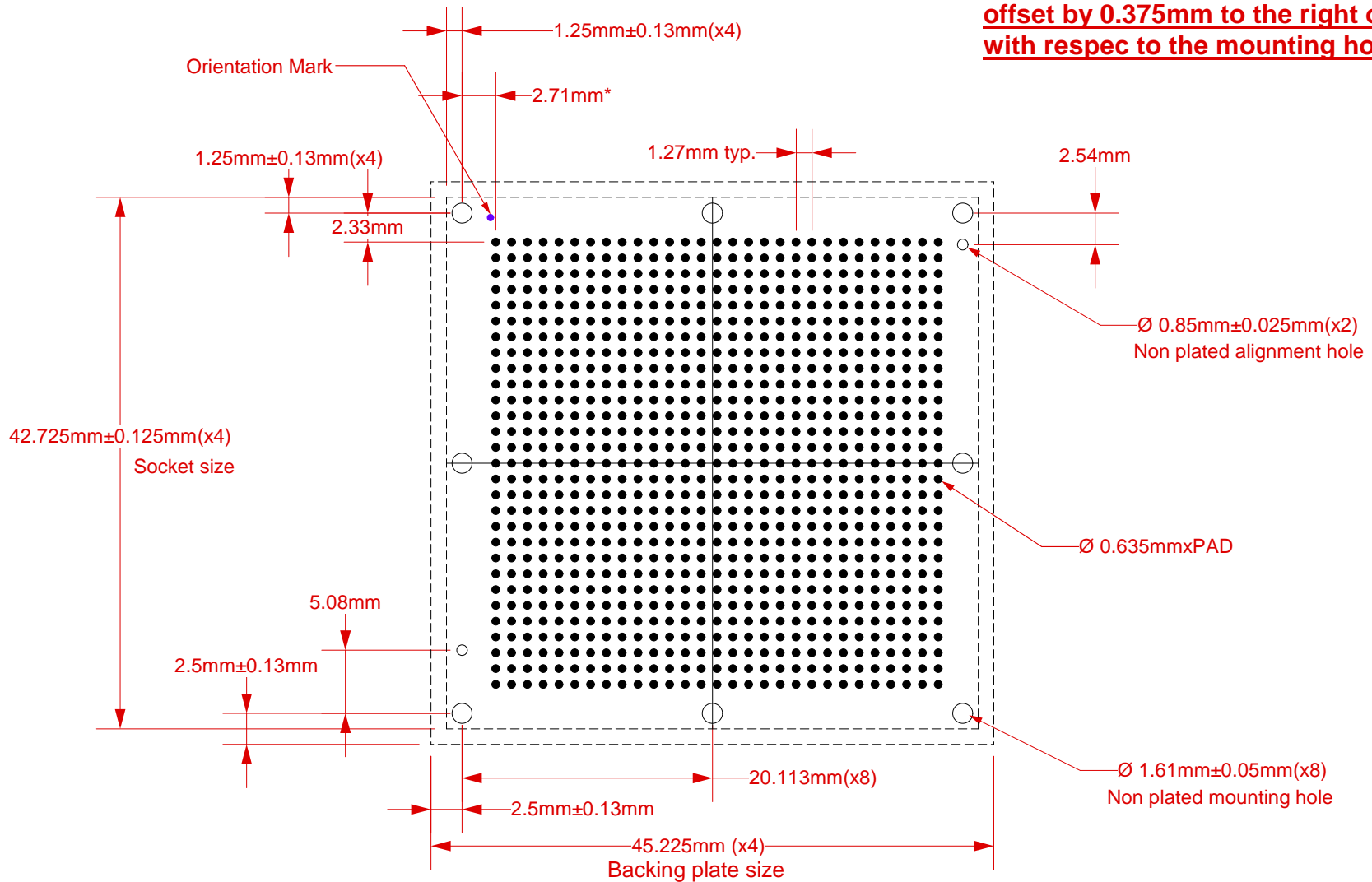
File: SG-BGA-6115 Dwg

Modified: 11/4/09

All tolerances:  $\pm 0.125\text{mm}$  (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. It is offset by 0.375mm to the right of center with respect to the mounting holes.**




Target PCB Recommendations

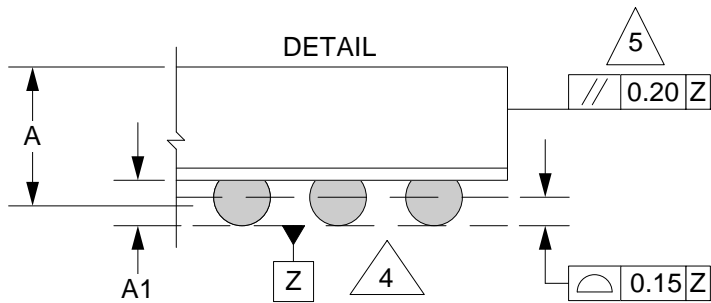
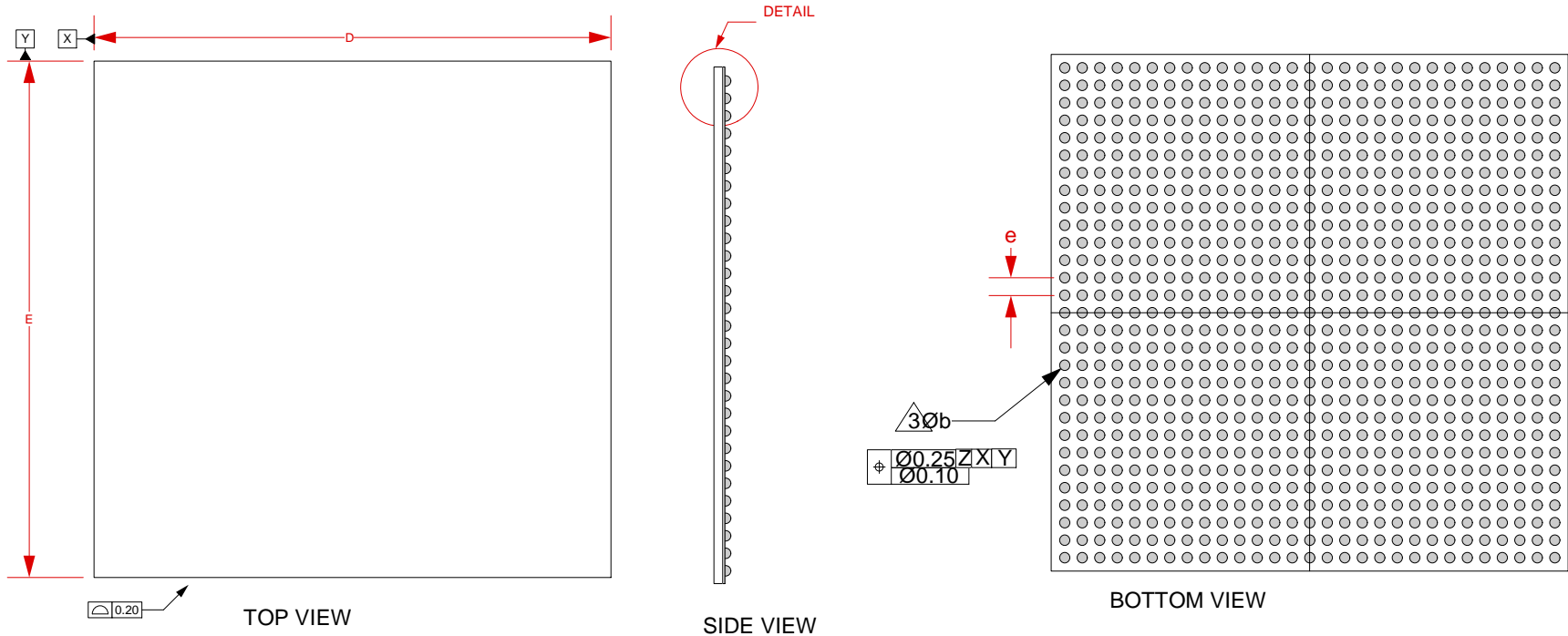
Total thickness: 2.4mm min.  
 Plating: Gold or Solder finish  
 PCB Pad height: Same or higher than solder mask

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-6115 Drawing</b></p>		Status: Released	Scale: 2:1	Rev: C
	<p>Drawing: H. Hansen</p>		<p>Date: 3/19/04</p>		
	<p>File: SG-BGA-6115 Dwg</p>		<p>Modified: 11/4/09</p>		


Compatible BGA Spec



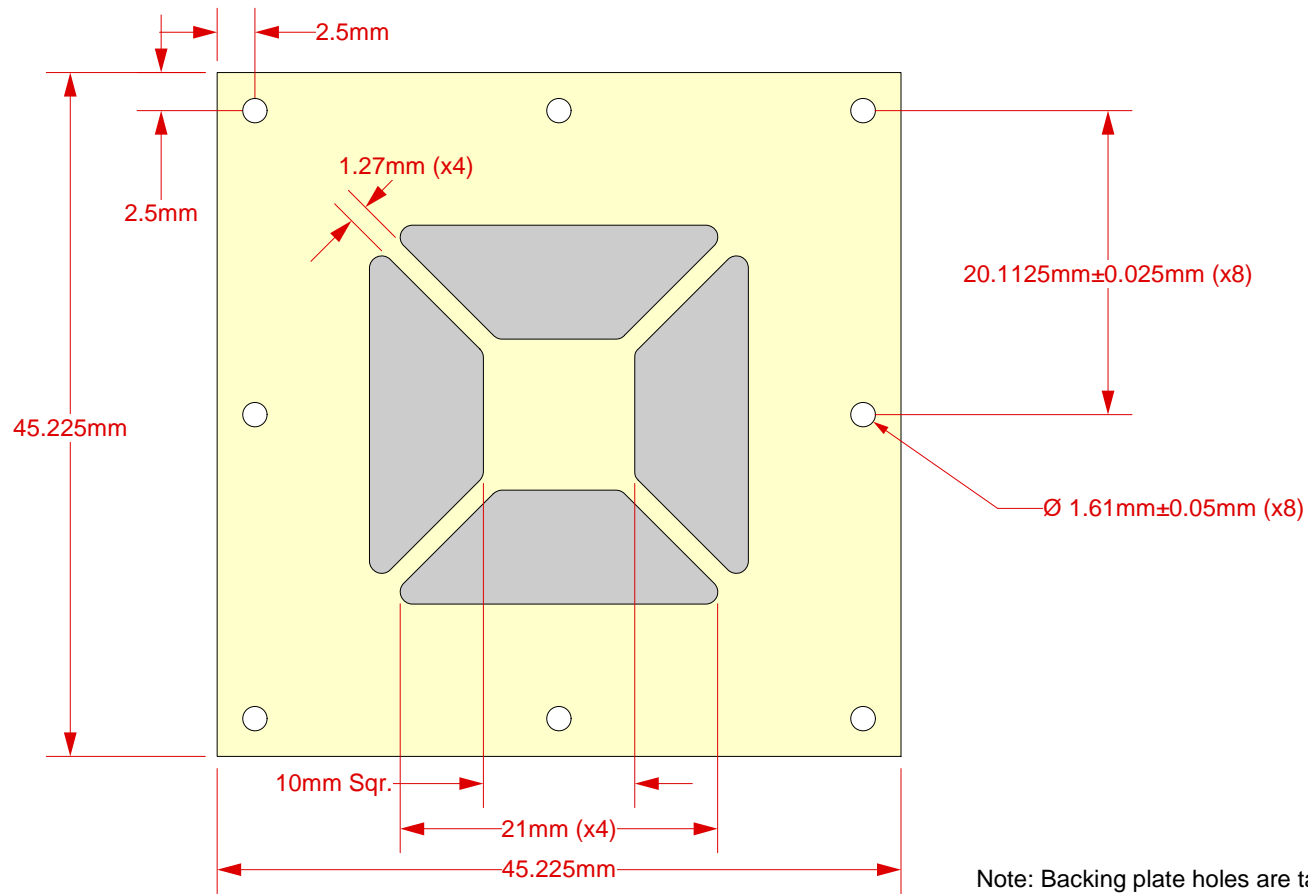
1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.
4. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
5. Parallelism measurement shall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

DIM	MIN	MAX
A		3.67
A1	0.5	0.6
b		0.75
D	37.50 BSC	
E	37.50 BSC	
e	1.27 BSC	

Array: 29x29

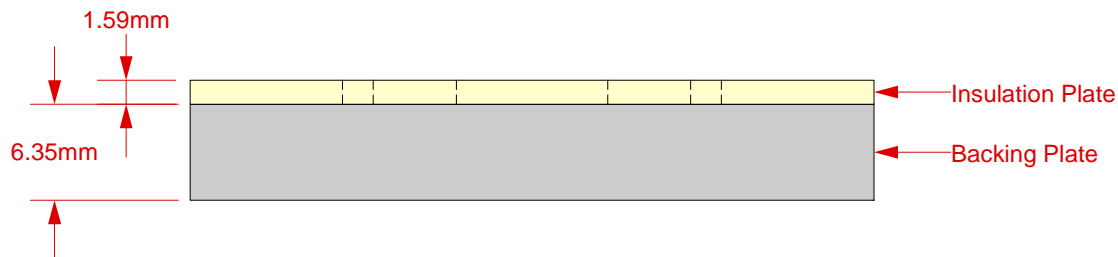
 <p>© 2009 IRONWOOD ELECTRONICS, INC. 11351 Rupp Drive, Suite 400, Burnsville, MN 55337 Tele: (952) 229-8200 www.ironwoodelectronics.com</p>	<b>SG-BGA-6115 Drawing</b>	Status: Released	Scale: -	Rev: C
	Drawing: H. Hansen	Date: 3/19/04		
	File: SG-BGA-6115 Dwg.mcd	Modified: 11/4/09		

Top View




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

Side View



Description: Insulation Plate and Backing Plate

<b>SG-BGA-6115 Drawing</b>		Status: Released	Scale: -	Rev: C
 <p>© 2009 IRONWOOD ELECTRONICS, INC. 11351 Rupp Drive, Suite 400, Burnsville, MN 55337 Tele: (952) 229-8200 www.ironwoodelectronics.com</p>	Drawing: H. Hansen		Date: 3/19/04	
	File: SG-BGA-6115 Dwg.mcd		Modified: 11/4/09	

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