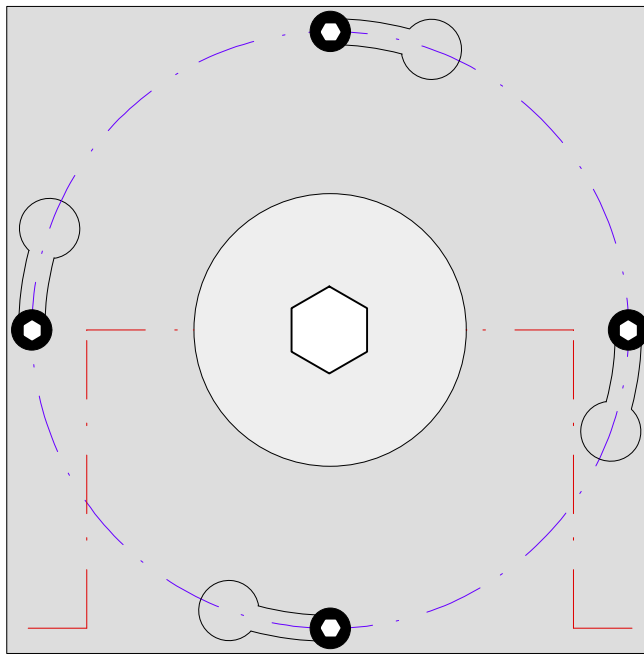


# GHz BGA Socket - Direct mount, solderless

Top View

22.225mm

A



22.225mm

A

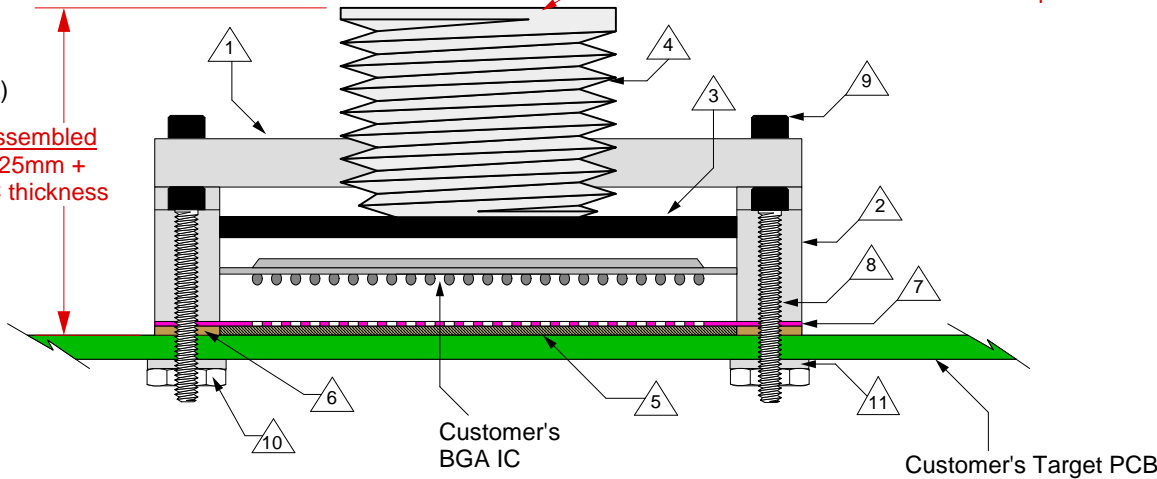
## Features

- 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  
8.25mm +  
IC thickness

Recommended torque = 3 - 4 in lbs.



Socket Lid: Black anodized Aluminum.  
Thickness = 2.5mm.



Socket base: Black anodized Aluminum.  
Thickness = 5mm.



Compression Plate: Black anodized Aluminum.  
Thickness = 2.5mm.



Compression screw: Black anodized Aluminum.  
Thickness = 5mm, Hex socket = 5mm.



Elastomer: 40 micron dia gold plated brass  
filaments arranged symmetrically in a silicone  
rubber (63.5 degree angle).  
Thickness = 0.75mm.



Elastomer Guide: Non-clad FR4.  
Thickness = 0.725mm.



Ball Guide: Kapton polyimide.



Socket base screw: Socket head cap, alloy steel with  
black oxide finish, 0-80 fine thread, 9.525mm long.



Socket lid screw: Shoulder screw, 18-8 SS, 0-80 fine  
thread.



Socket base nut: 18-8 Stainless steel, 0-80 fine thread.



Nylon washer: 1.73mm ID; 4.78mm OD  
0.64mm thickness.

## SG-BGA-6060 Drawing

Status: Released

Scale: -

Rev: C



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

Drawing: H. Hansen

Date: 8/14/02

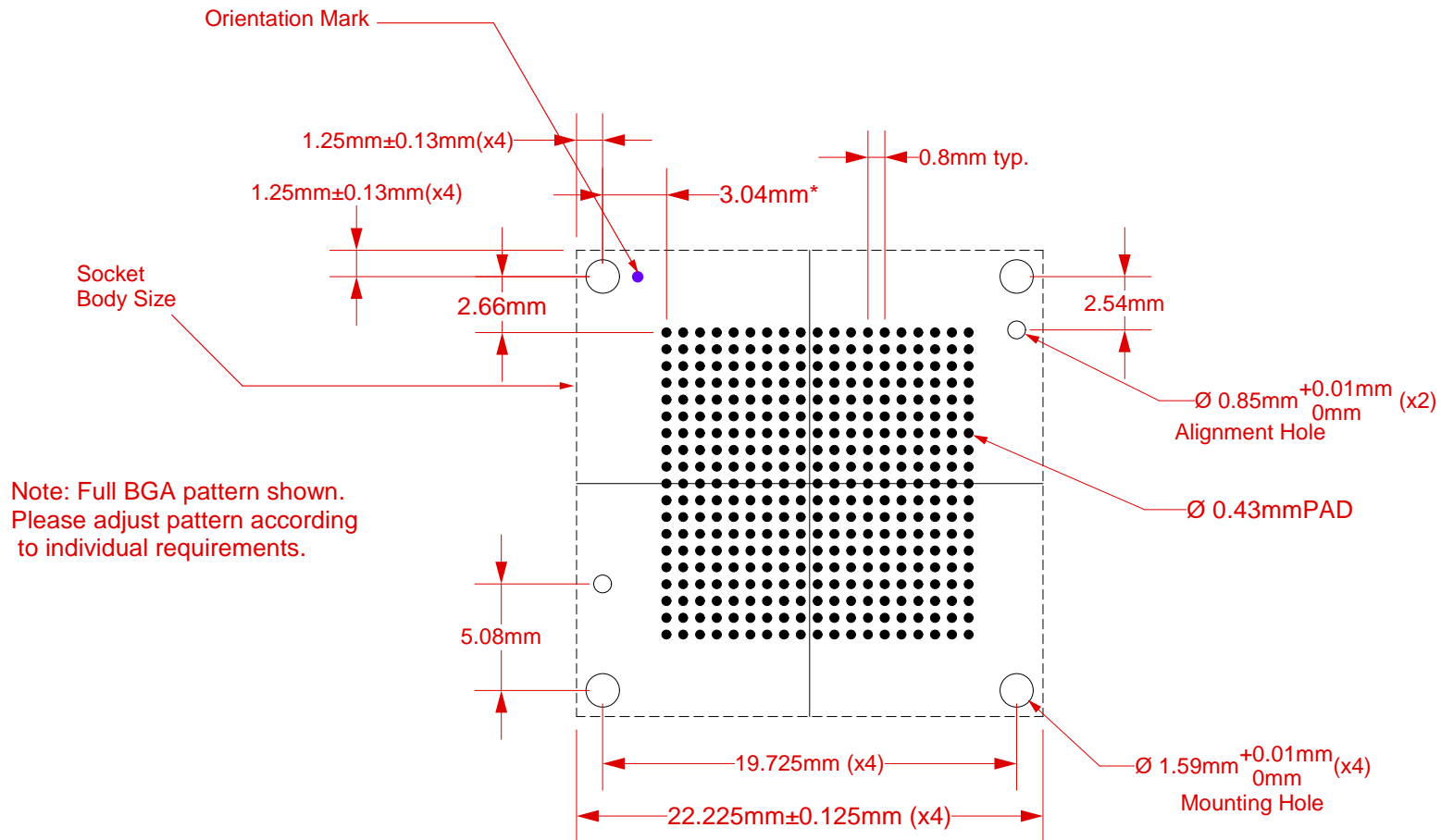
File: SG-BGA-6060 Dwg.mcd

Modified: 7/6/09, AE

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

PAGE 1 of 3

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




**Target PCB Recommendations**

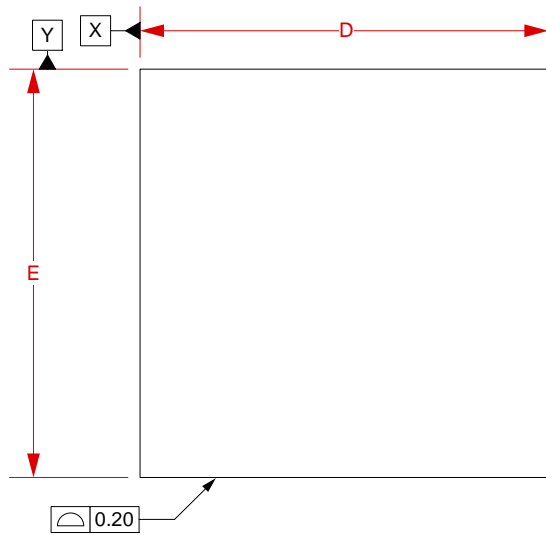
- Total thickness: 1.6mm min.
- Plating: Gold or Solder finish
- PCB Pad height: Same or higher than solder mask

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

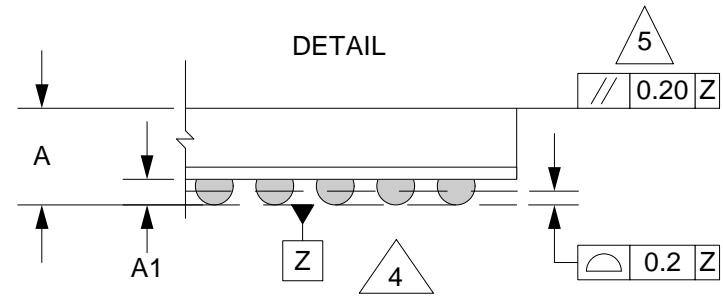
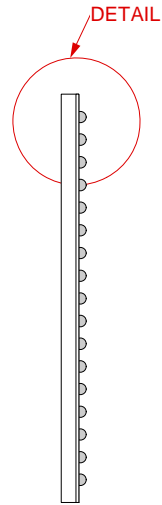
Recommended PCB Layout Tolerances:  $\pm 0.025\text{mm}$  [ $\pm 0.001''$ ] unless stated otherwise.

|   |  |                           |            |                      |
|---|--|---------------------------|------------|----------------------|
|  | <b>SG-BGA-6060 Drawing</b>   | Status: Released          | Scale: 3:1 | Rev: C               |
|   | © 2009 IRONWOOD ELECTRONICS, INC.<br>Tele: (952) 229-8200<br>www.ironwoodelectronics.com | Drawing: H. Hansen        |            | Date: 8/14/02        |
|   |  | File: SG-BGA-6060 Dwg.mcd |            | Modified: 7/6/09, AE |

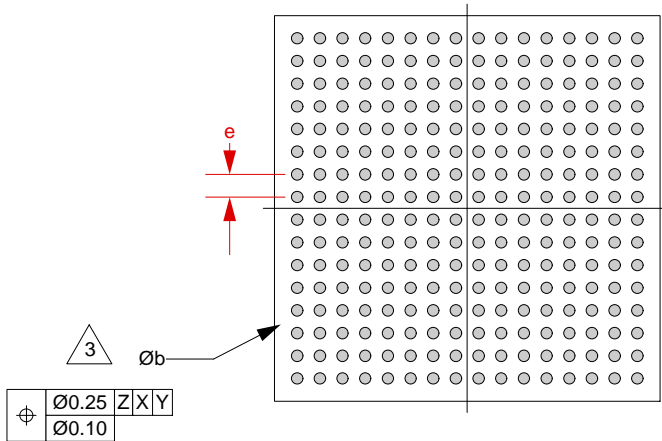
TOP VIEW  
(reference only)



SIDE VIEW  
(reference only)




BOTTOM VIEW  
(reference only)



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   |           | 1.7 |
| A1  | 0.35      | 0.5 |
| b   |           | 0.6 |
| D   | 17.00 BSC |     |
| E   | 17.00 BSC |     |
| e   | 0.8 BSC   |     |

Array 19x19

|   |  |                           |                    |                      |
|---|--|---------------------------|--------------------|----------------------|
| <b>SG-BGA-6060 Drawing</b>  |  | Status: Released          | Scale: -           | Rev: C               |
|  | © 2009 IRONWOOD ELECTRONICS, INC.<br>Tele: (952) 229-8200<br>www.ironwoodelectronics.com |                           | Drawing: H. Hansen |                      |
|   |  |                           | Date: 8/14/02      |                      |
|   |  | File: SG-BGA-6060 Dwg.mcd |                    | Modified: 7/6/09, AE |