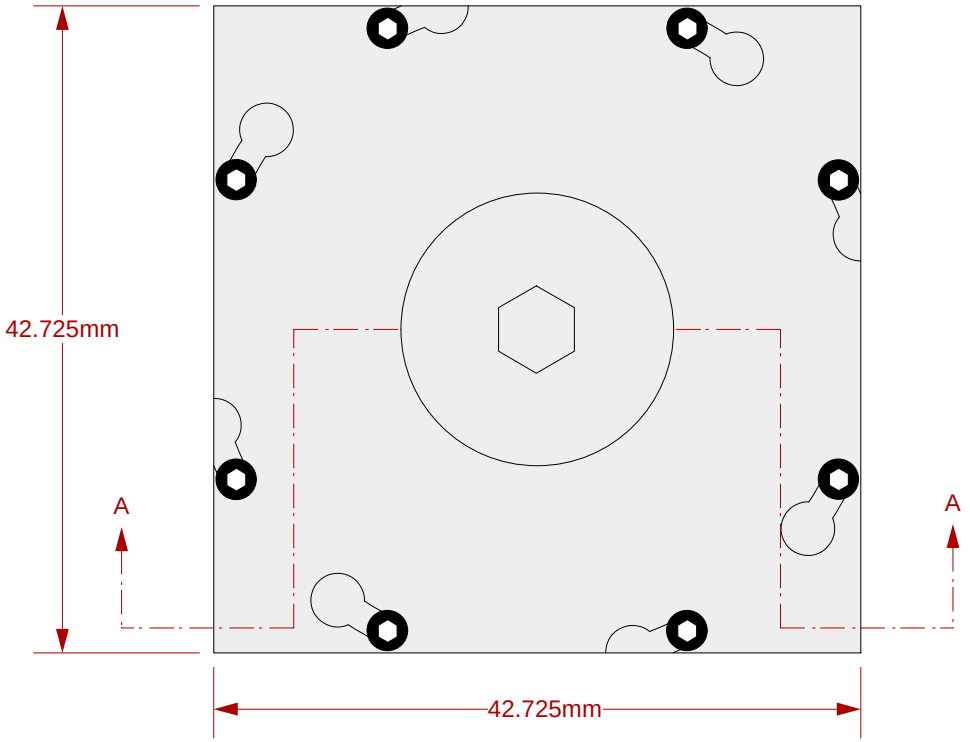
# GHz BGA Socket - Direct mount, solderless

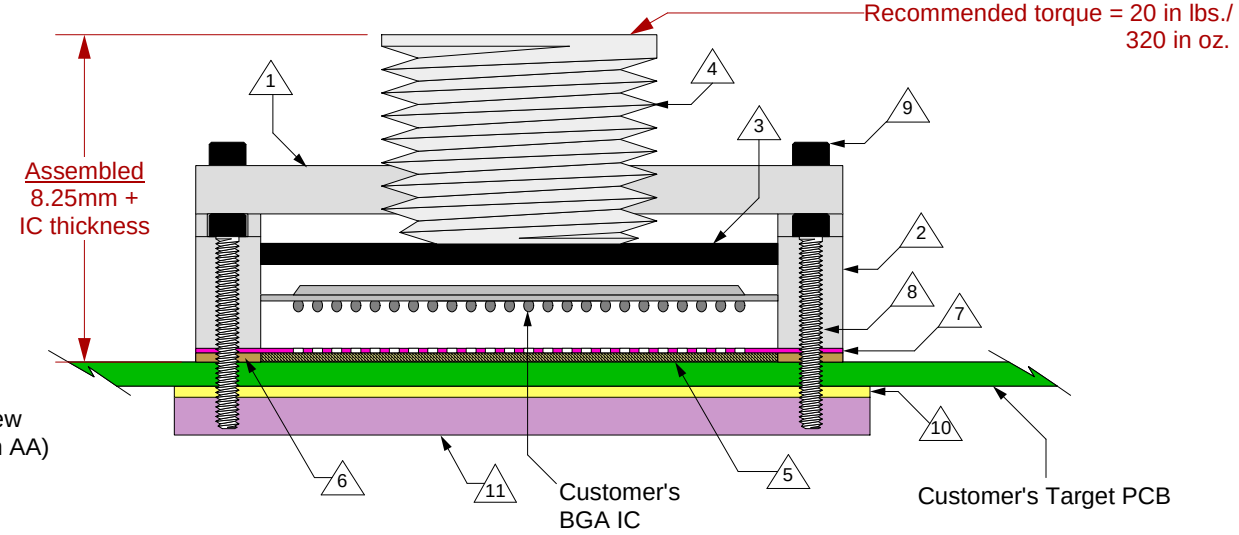
Top View




**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)



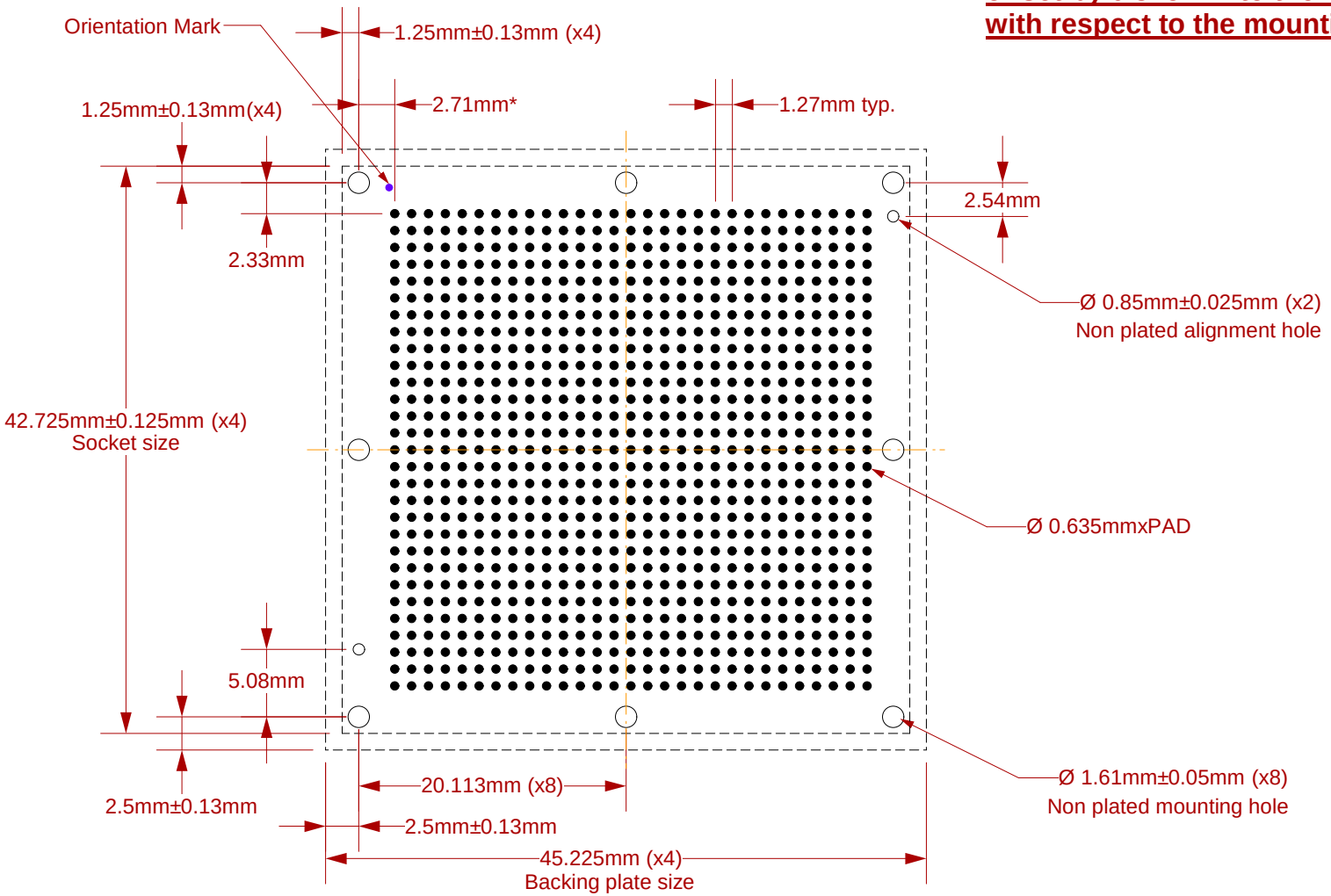

| | |
|---|---|
| 1 | Socket Lid: Black anodized Aluminum. Thickness = 2.5mm. |
| 2 | Socket base: Black anodized Aluminum. Thickness = 5mm. |
| 3 | Compression Plate: Black anodized Aluminum. Thickness = 2.5mm. |
| 4 | Compression screw: Clear anodized Aluminum. Thickness = 5mm, Hex socket = 5mm. |
| 5 | Elastomer: 40 micron dia gold plated brass filaments arranged symmetrically in a silicone rubber (63.5 degree angle). Thickness = 0.75mm. |
| 6 | Elastomer Guide: Cirlex or equivalent 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 , 12.7mm 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. |

| | | | |
|---|---|---|---|
| **SG-BGA-6015 Drawing** | Status: Released | Scale: - | Rev: H |
| <br>11351 Rupp Drive, Suite 400, Burnsville, MN 55337<br>Tele: (952) 229-8200<br>www.ironwoodelectronics.com | Drawing: Meghann Fedde | Date: 8/20/01 | |
| | File: **SG-BGA-6015** Dwg.mcd | Modified:11/3/09, MAF | |

All tolerances: ±0.125mm (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: ±0.025mm [±0.001"] unless stated otherwise.

| SG-BGA-6015 Drawing | Status: Released | Scale: 2:1 | Rev: H |
|---|---|---|---|
| <br>11351 Rupp Drive, Suite 400, Burnsville, MN 55337<br>Tele: (952) 229-8200<br>www.ironwoodelectronics.com | Drawing: Meghann Fedde | Date: 8/20/01 | |
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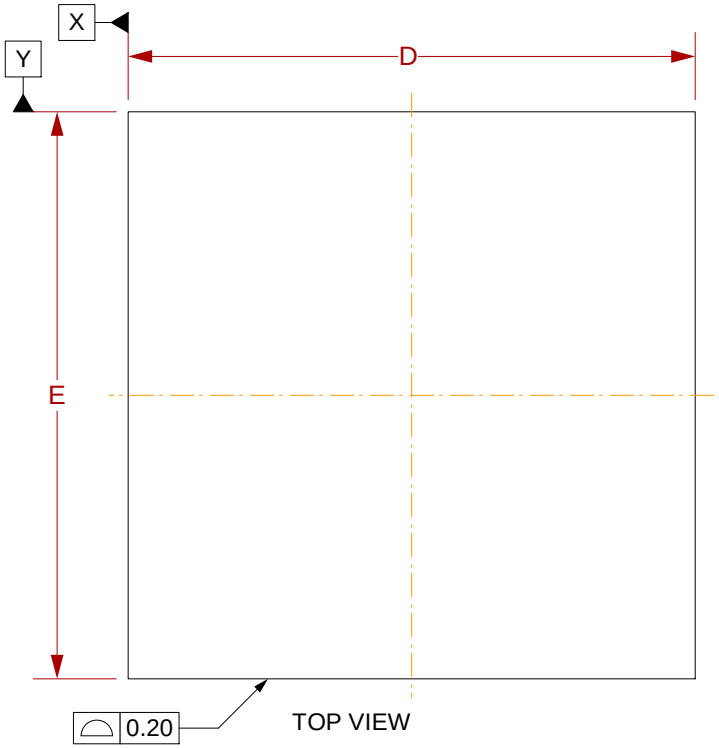


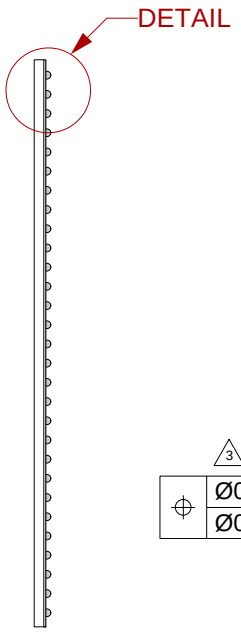


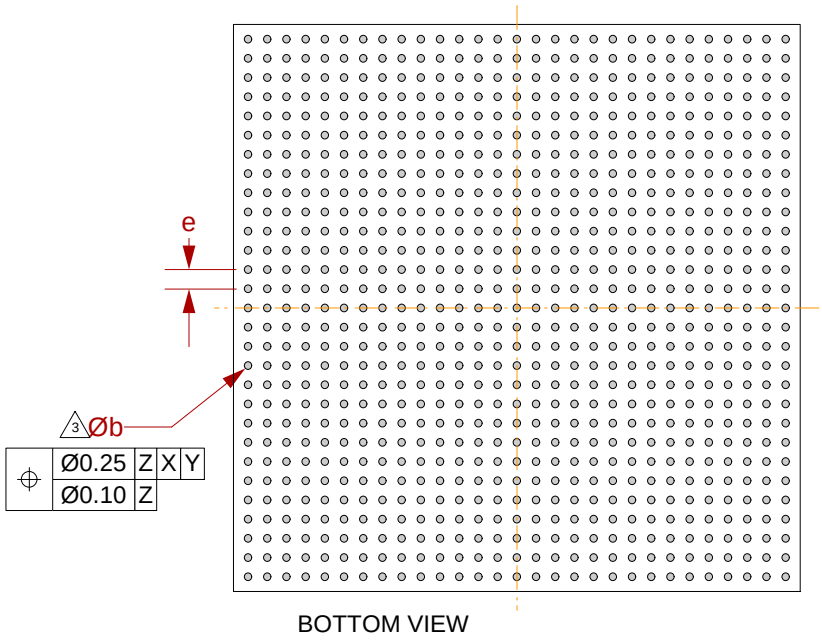


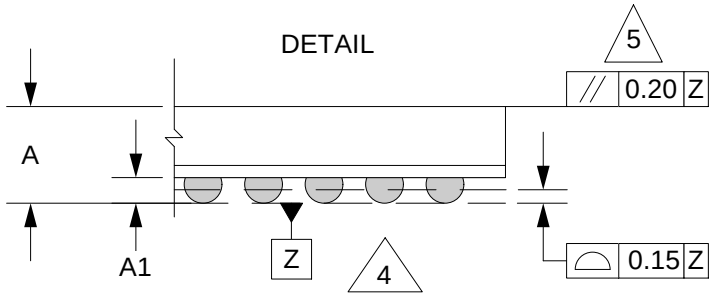


1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.
4. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
5. Parallelism measurement shall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

| DIM | MIN | MAX |
|---|---|---|
| A | | 2.5 |
| A1 | 0.6 | 0.7 |
| b | | 0.85 |
| D | 37.50 BSC | |
| E | 37.50 BSC | |
| e | 1.27 BSC | |

Array: 29x29

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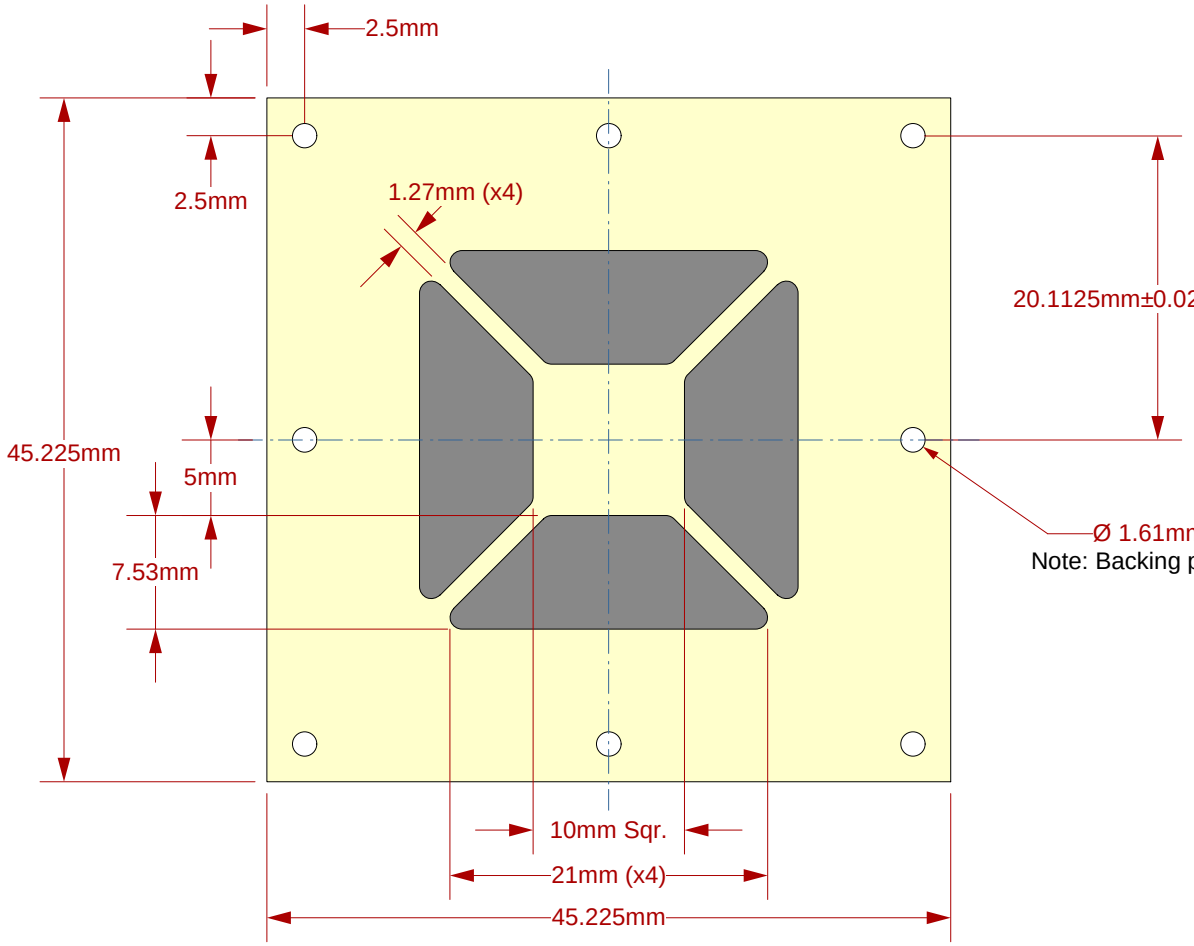
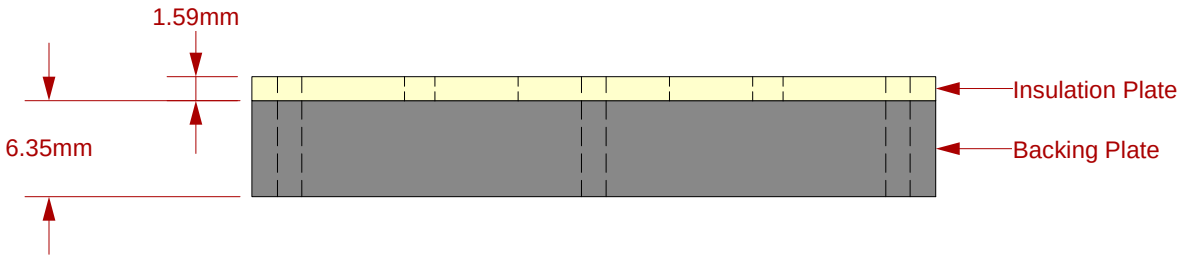
Top View




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

Side View




Description: Insulation Plate and Backing Plate

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| | File: **SG-BGA-6015** Dwg.mcd | | Modified: 11/3/09, MAF |

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