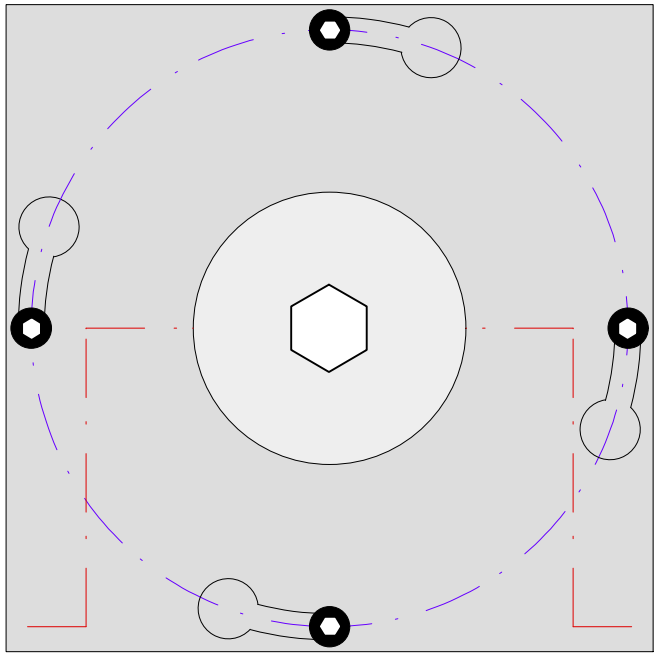
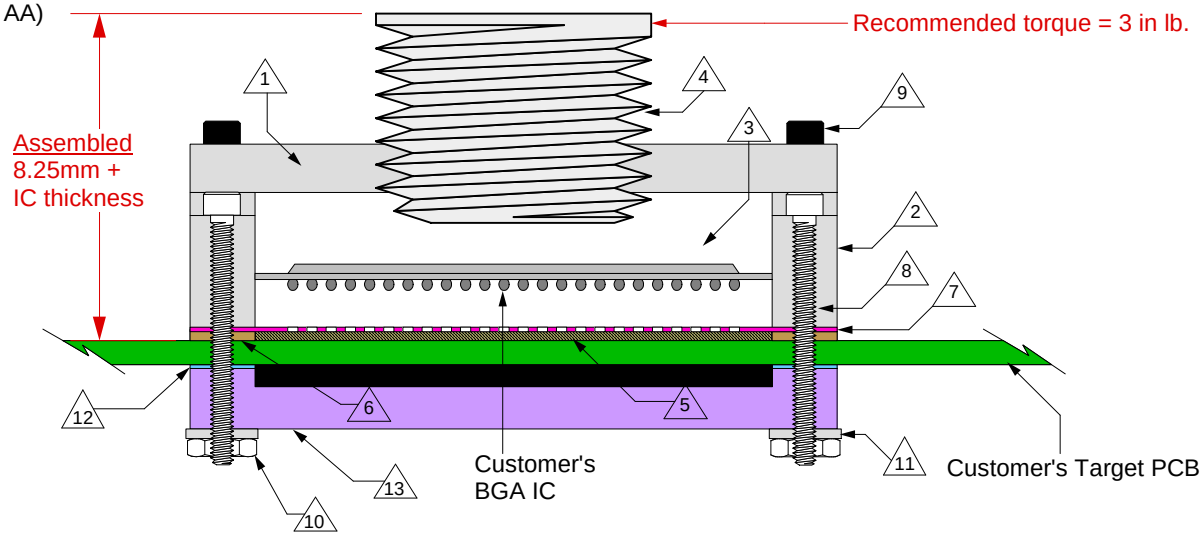
# GHz BGA Socket - Direct mount, solderless

Top View




Side View
(Section AA)




**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

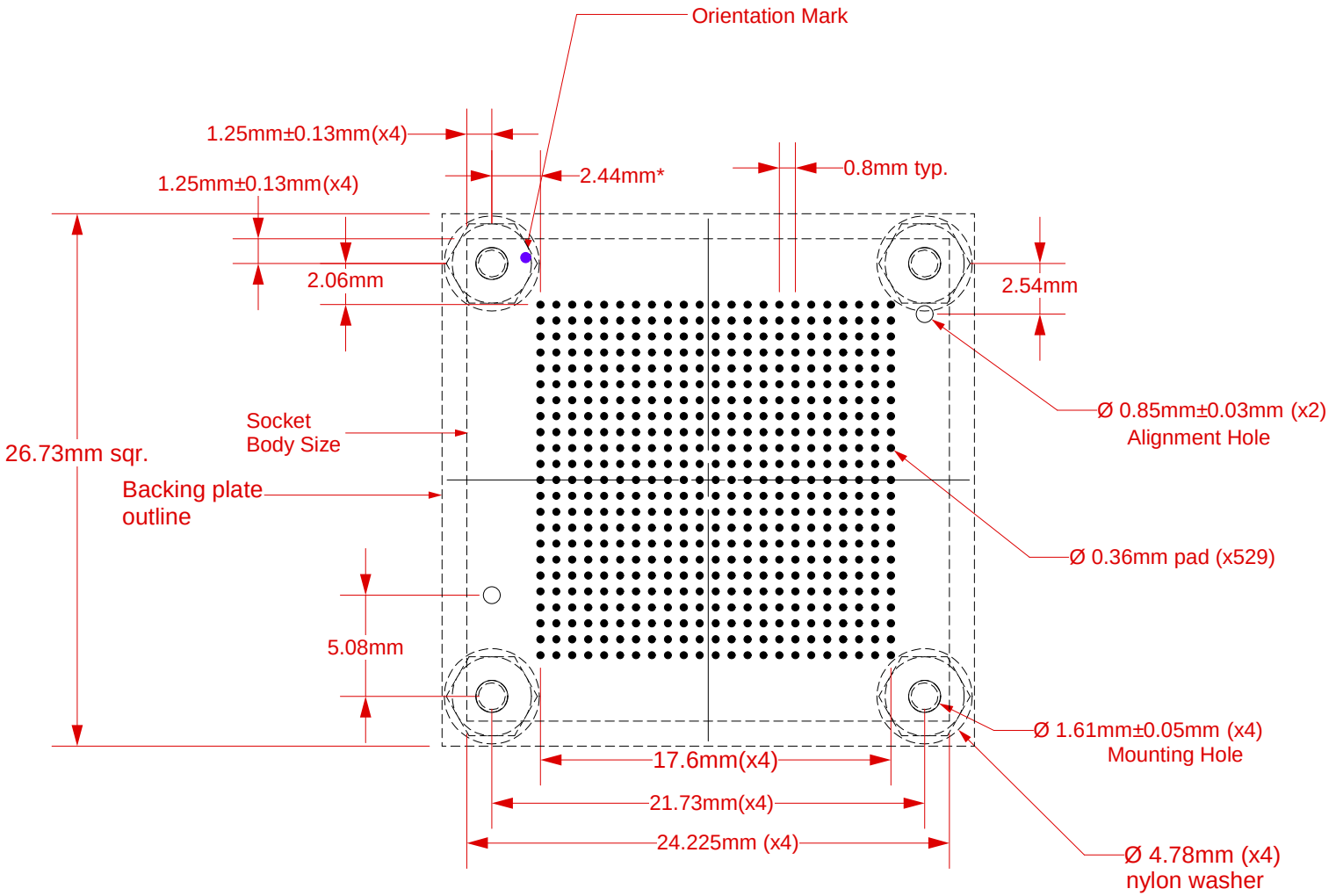
| | |
|---|---|
| 1 | Socket Lid: Black anodized Aluminum. Thickness = 2.5mm. |
| 2 | Socket base: Black anodized Aluminum. Thickness = 5mm. |
| 3 | Compression Plate: Black anodized Aluminum. Thickness = 2.5mm. |
| 4 | Compression screw: Clear anodized Aluminum. Thickness = 5mm, Hex socket = 5mm. |
| 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: Non-clad FR4. Thickness = 0.745mm. |
| 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 | Socket base nut: 18-8 Stainless steel, 0-80 fine thread. |
| 11 | Nylon washer: 1.73mm ID; 4.78mm OD 0.64mm thickness. |
| 12 | Insulation plate: Kapton polyamide film. Thickness: 0.25mm |
| 13 | Backing plate: Black anodized Aluminum. Thickness = 4 mm. |

| | | | |
|---|---|---|---|
| **SG-BGA-6124 Drawing** | Status: Released | Scale: - | Rev: B |
| <br>11351 Rupp Drive, Suite 400, Burnsville, MN 55337<br>Tele: (952) 229-8200<br>www.ironwoodelectronics.com | Drawing: H. Hansen | Date: 8/3/04 | |
| | File: SG-BGA-6124 Dwg | Modified: 7/17/09, AE | |

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.**




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

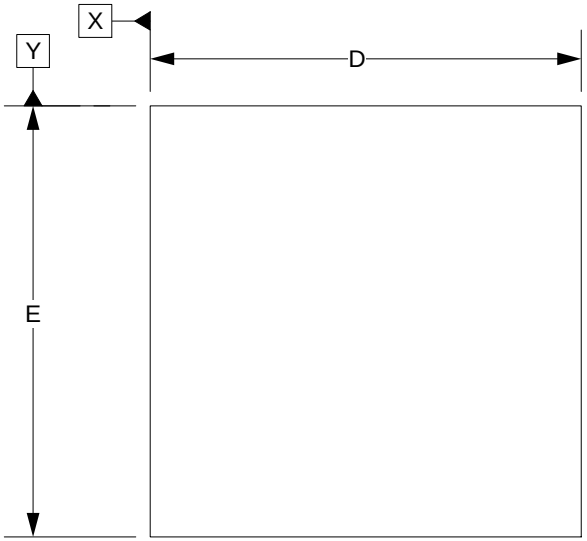
NOTE: Backing plate may be required based on end user's application

Note: Full BGA pattern shown. Please adjust pattern according to individual requirements.

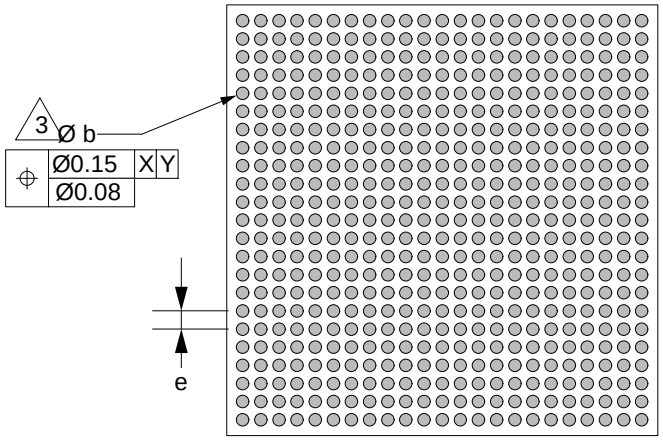
Recommended PCB Layout Tolerances: ±0.025mm [±0.001"] unless stated otherwise.

| SG-BGA-6124 Drawing | Status: Released | Scale: 3:1 | Rev: B |
|---|---|---|---|
| <br>11351 Rupp Drive, Suite 400, Burnsville, MN 55337<br>Tele: (952) 229-8200<br>www.ironwoodelectronics.com | Drawing: H. Hansen | Date: 8/3/04 | |
| | File: SG-BGA-6124 Dwg | Modified: 7/17/09, AE | |

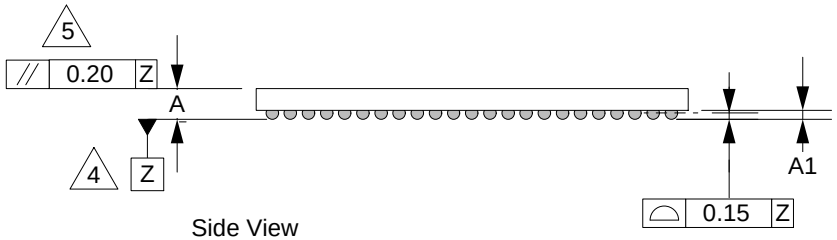
Compatible BGA Spec.




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 | | 1.4 |
| A1 | 0.25 | |
| b | 0.35 | 0.45 |
| D | 19.0 BSC | |
| E | 19.0 BSC | |
| e | 0.8 BSC | |

Array: 23 X 23

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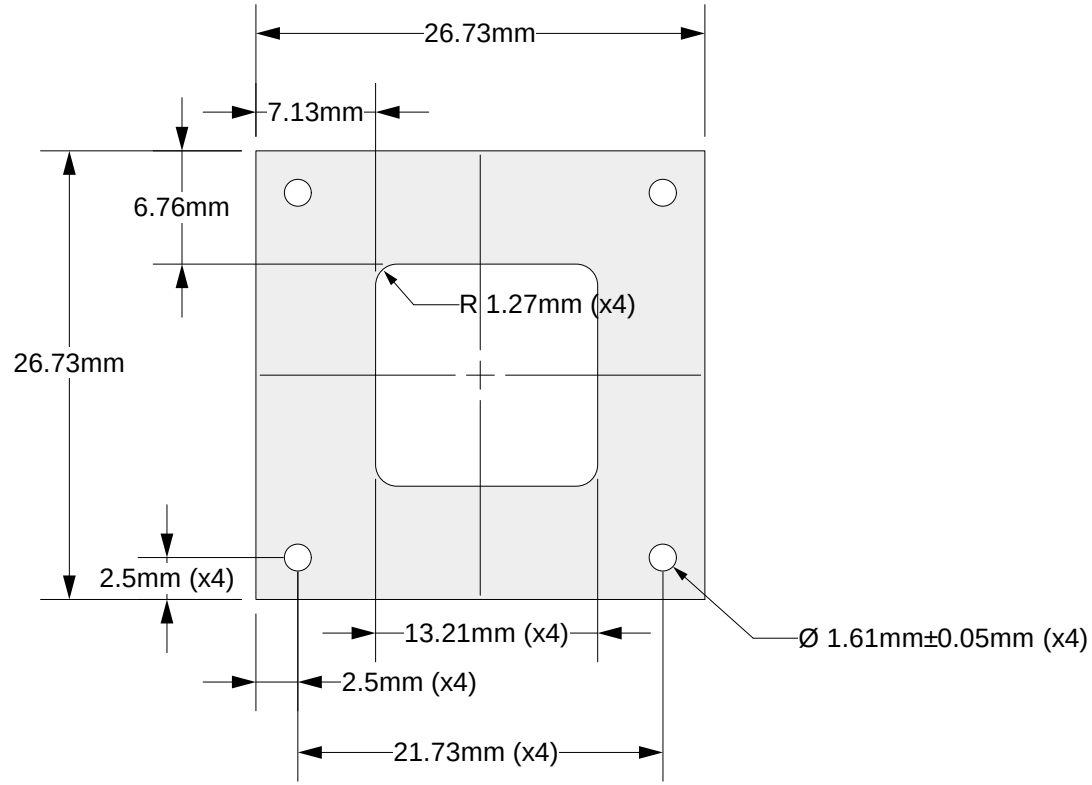


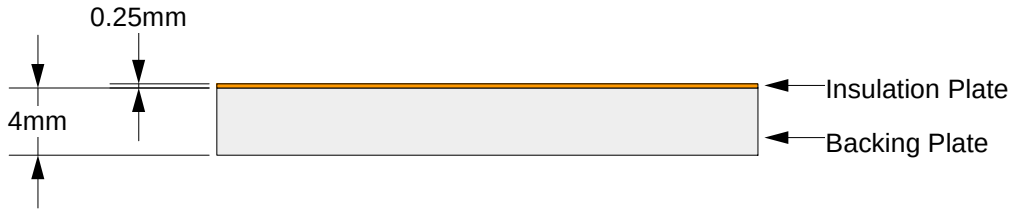


Description: Insulation and backing plate.

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|---|---|---|---|
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| | File: SG-BGA-6124 Dwg | Modified: 7/17/09, AE | |

All tolerances are ±0.13mm