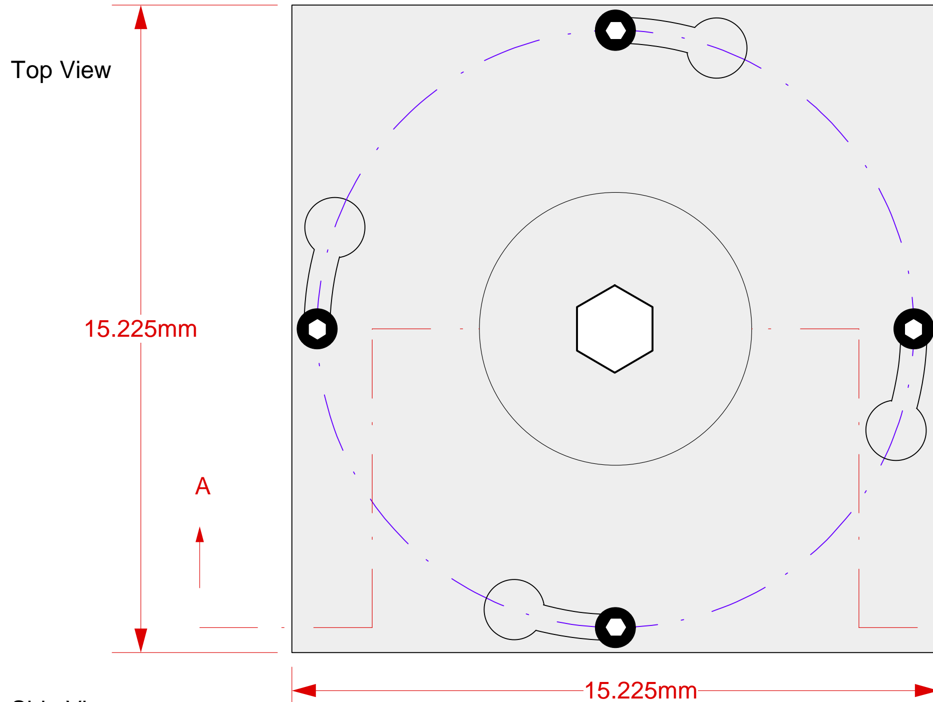
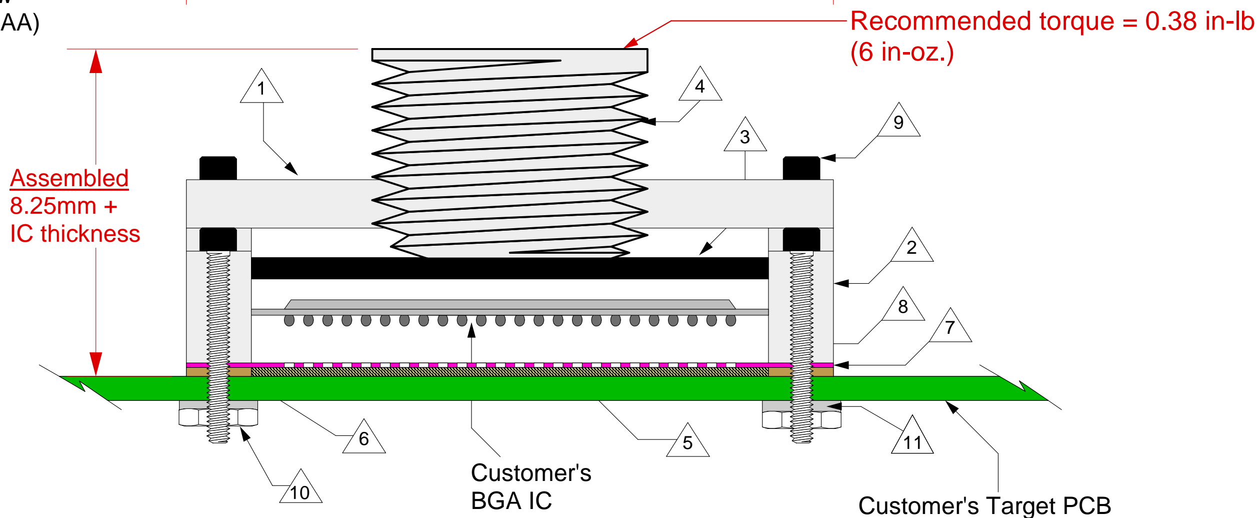
# GHz BGA Socket - Direct mount, solderless




**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

| No. | Description |
|---|---|
| 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: Black 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 = 0.725mm. |
| 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 | Socket base nut: 18-8 Stainless steel, 0-80 fine thread. |
| 11 | Nylon washer: 1.73mm ID; 4.78mm OD, 0.64mm thick |

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

| SG-BGA-6021 Drawing | Status: Released | Scale: NA | Rev: F |
|---|---|---|---|
| © 2001 IRONWOOD ELECTRONICS, INC. PO BOX 21151 ST. PAUL, MN 55121 Tele: (651) 452-8100 www.ironwoodelectronics.com | Drawing: H. Hansen | Date: 11/26/01 | |
| | File: SG-BGA-6021 Dwg.mcd | Modified: 6/2/09 AE | |

Recommended PCB Layout
Top View

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

1.25mm±0.13mm(x4)

Orientation Mark

8.00mm

2.74mm

1.25mm±0.13mm(x4)

0.80mm typ.

2.36mm(x4)

2.54mm

Ø 0.850mm±0.025mm(x2)

15.225mm±0.125mm(x4)
Socket size

8.00mm

Alignment Hole

5.08mm

Ø 0.360mmxPAD

Ø 1.61mm±0.05mm(x4)

Mounting Hole

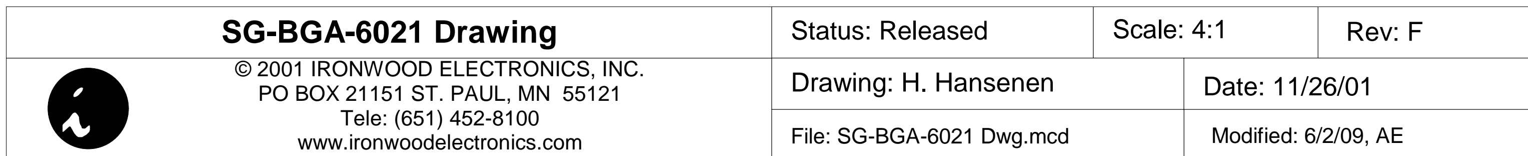
12.725mm(x4)

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

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: ±0.025mm [±0.001”] unless stated otherwise.



| SG-BGA-6021 Drawing | Status: Released | Scale: 4:1 | Rev: F |
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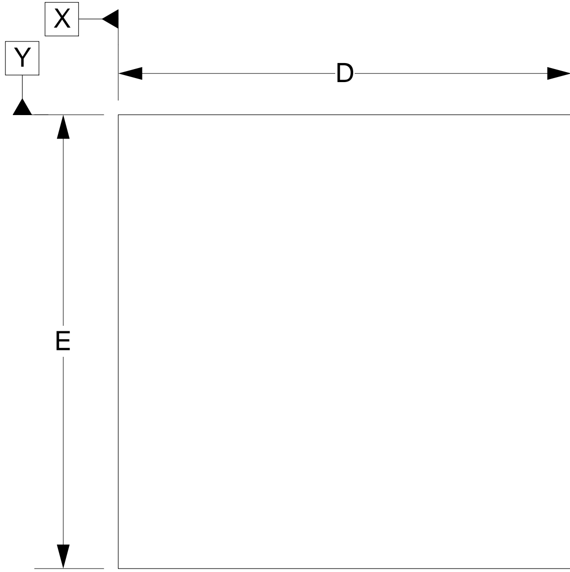
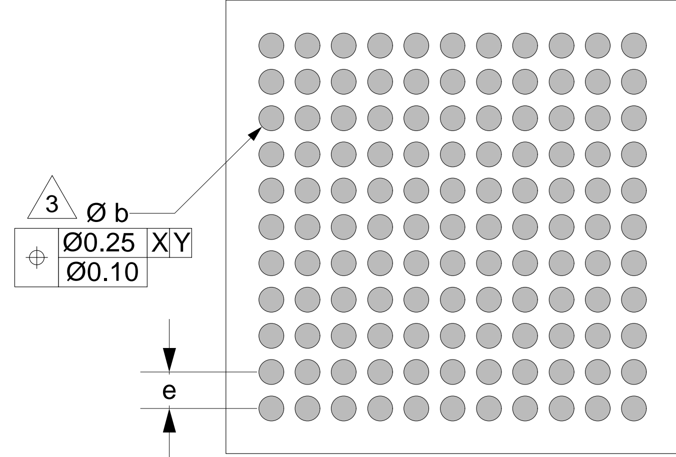
| | File: SG-BGA-6021 Dwg.mcd | Modified: 6/2/09, AE | |

Compatible BGA Spec.




Top View




Bottom View

**Array 11x11**

1. Dimensions are in millimeters.

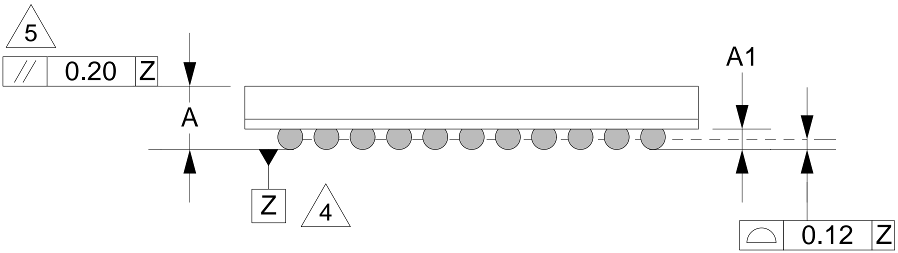
2. Interpret dimensions and toleraces per ASME Y14.5M-1994.

3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.

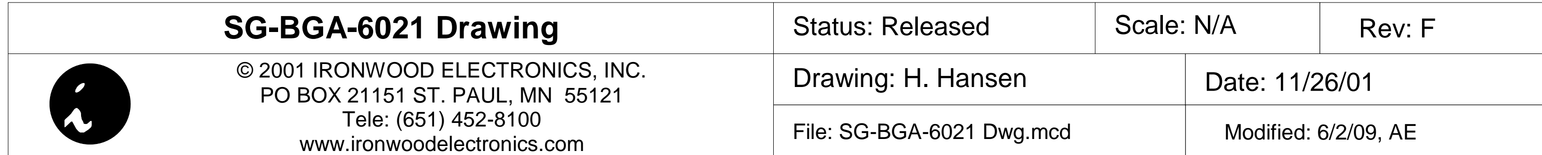
4. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.

5. Parallelism measurement shall exclude any effect of mark on top surface of package.

| DIM | MIN | MAX |
|---|---|---|
| A | | 2.5 |
| A1 | 0.25 | 0.35 |
| b | | 0.45 |
| D | 10.0 BSC | |
| E | 10.0 BSC | |
| e | 0.8 BSC | |




End VIew



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