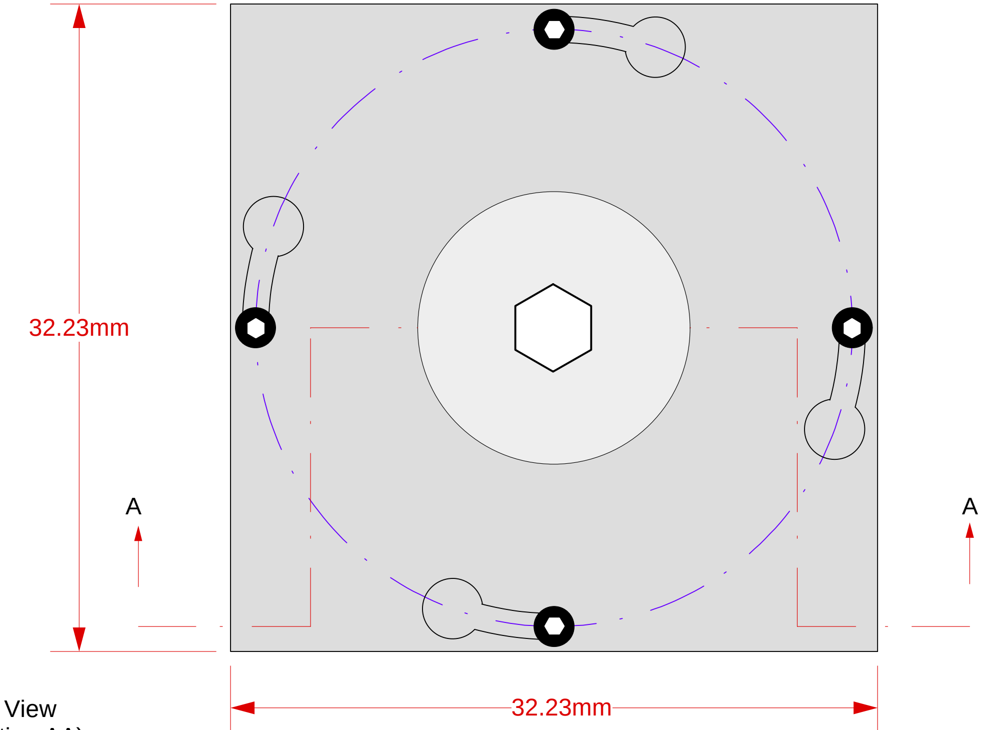
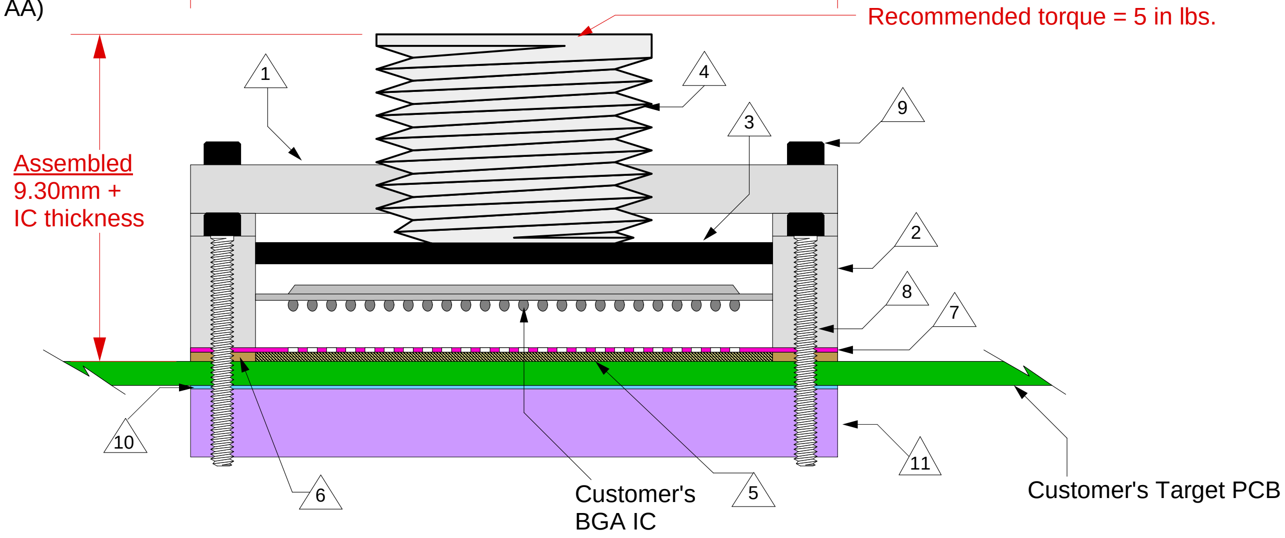
GHz BGA Socket - Direct mount, solderless

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

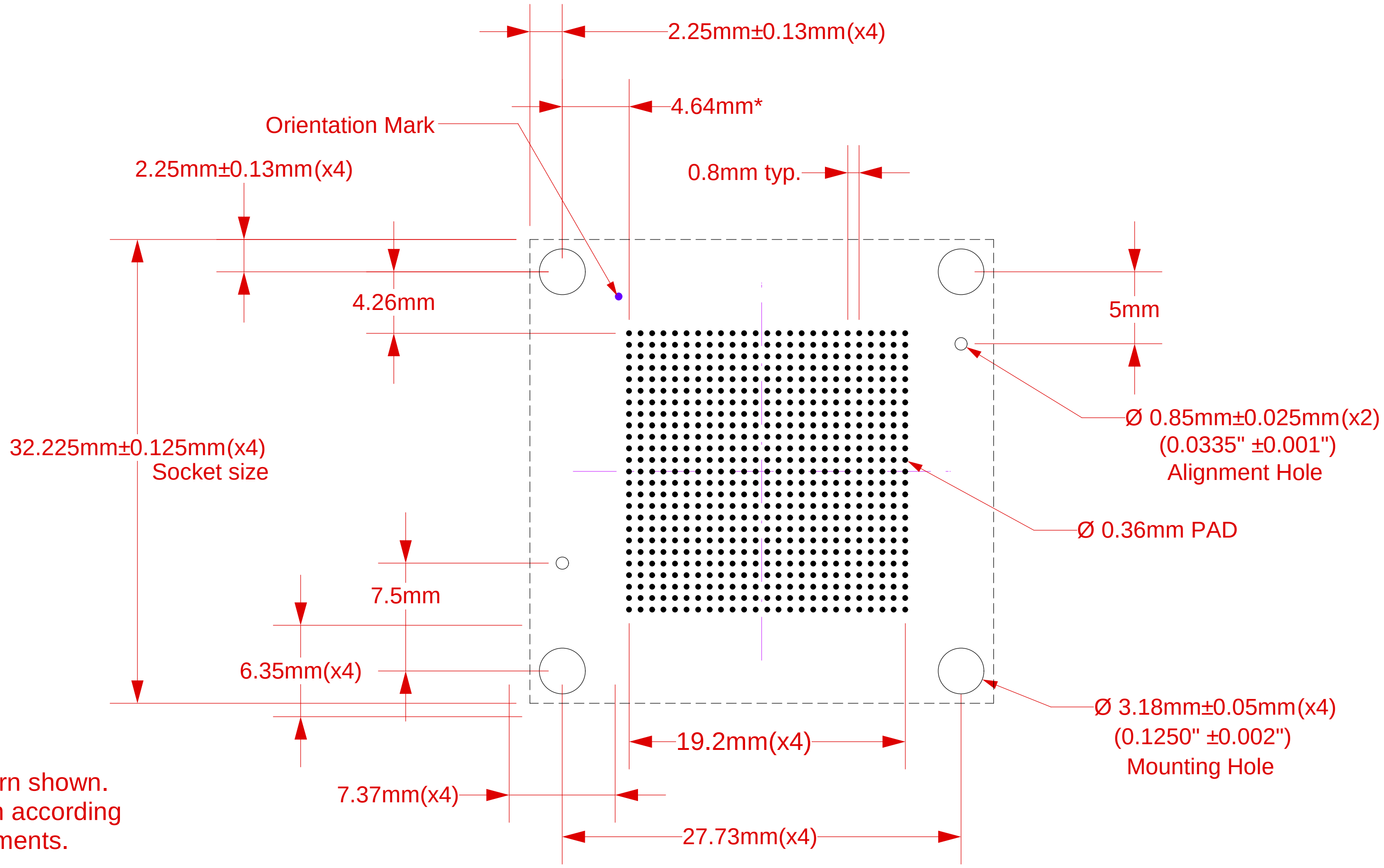
1	Socket Lid: Black anodized 6061 Aluminum. Thickness = 2.5mm.
2	Socket base: Black anodized 6061 Aluminum. Thickness = 6.5mm.
3	Compression Plate: Black anodized 6061 Aluminum. Thickness = 3.5mm.
4	Compression screw: Clear anodized 6061 Aluminum. Thickness = 5mm, Hex socket = 5mm.
5	Elastomer: 40 micron 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, 4-40 thread , 9.5mm long.
9	Socket lid screw: Shoulder screw, 18-8 SS, 0-80 fine thread
10	Insulation plate: Kapton polyimide film. Thickness = 0.25mm.
11	Backing Plate: Black anodized 6061 Aluminum. Thickness = 4mm.

SG-BGA-6094 Drawing	Status: Released	Scale: -	Rev: B
 PO BOX 21151 ST. PAUL, MN 55121 Tele: (651) 452-8100 www.ironwoodelectronics.com	Drawing: H. Hansen	Date: 12/19/03	
	File: SG-BGA-6094 Dwg.mcd	Modified: 3/5/15	

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.***



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

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

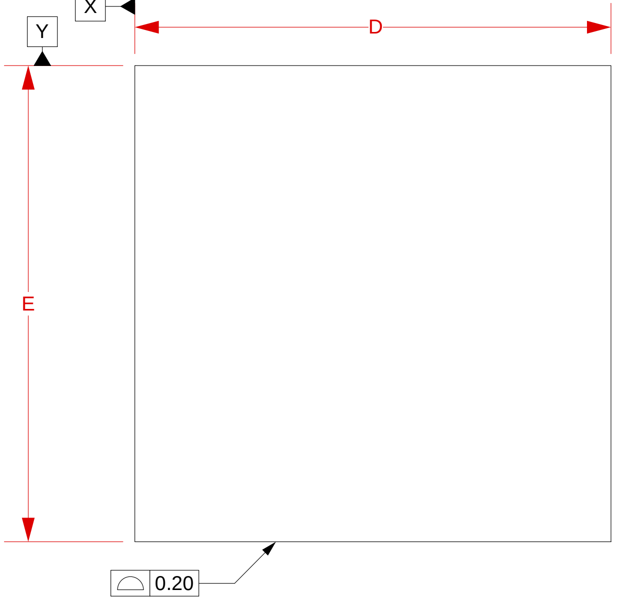
SG-BGA-6094 Drawing	Status: Released	Scale: 2:1	Rev: B
© 2003 IRONWOOD ELECTRONICS, INC. PO BOX 21151 ST. PAUL, MN 55121 Tele: (651) 452-8100 www.ironwoodelectronics.com	Drawing: H. Hansen File: SG-BGA-6094 Dwg.mcd	Date: 12/19/03 Modified: 3/5/15	

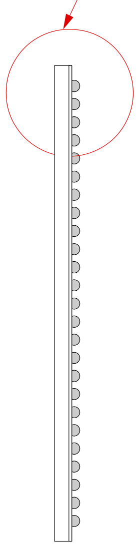
Compatible BGA Spec

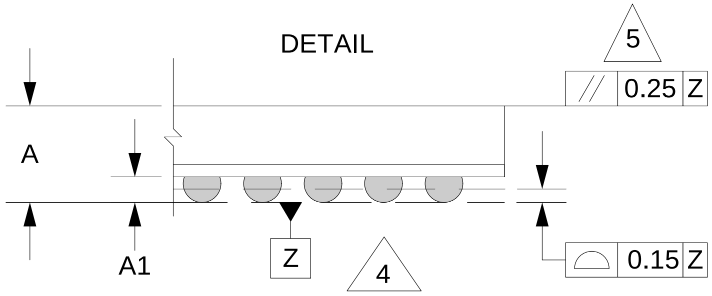
TOP VIEW
(Reference Only)

SIDE VIEW
(Reference Only)

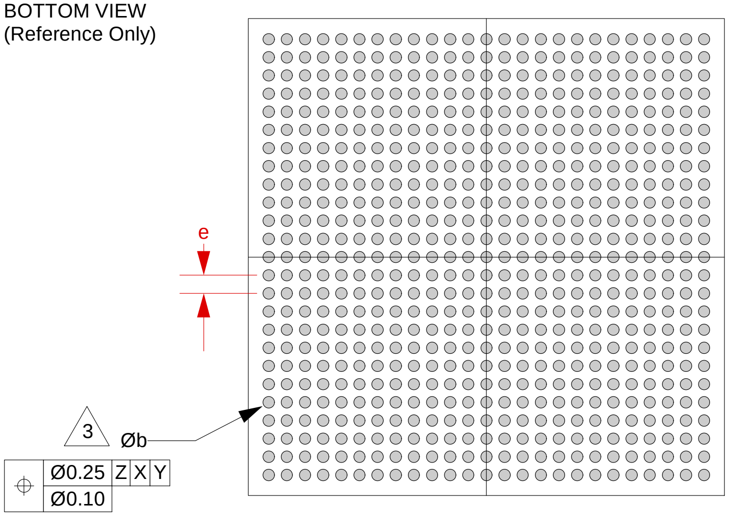
DETAIL







BOTTOM VIEW
(Reference Only)

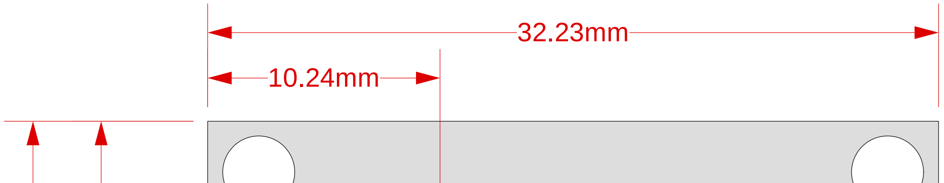


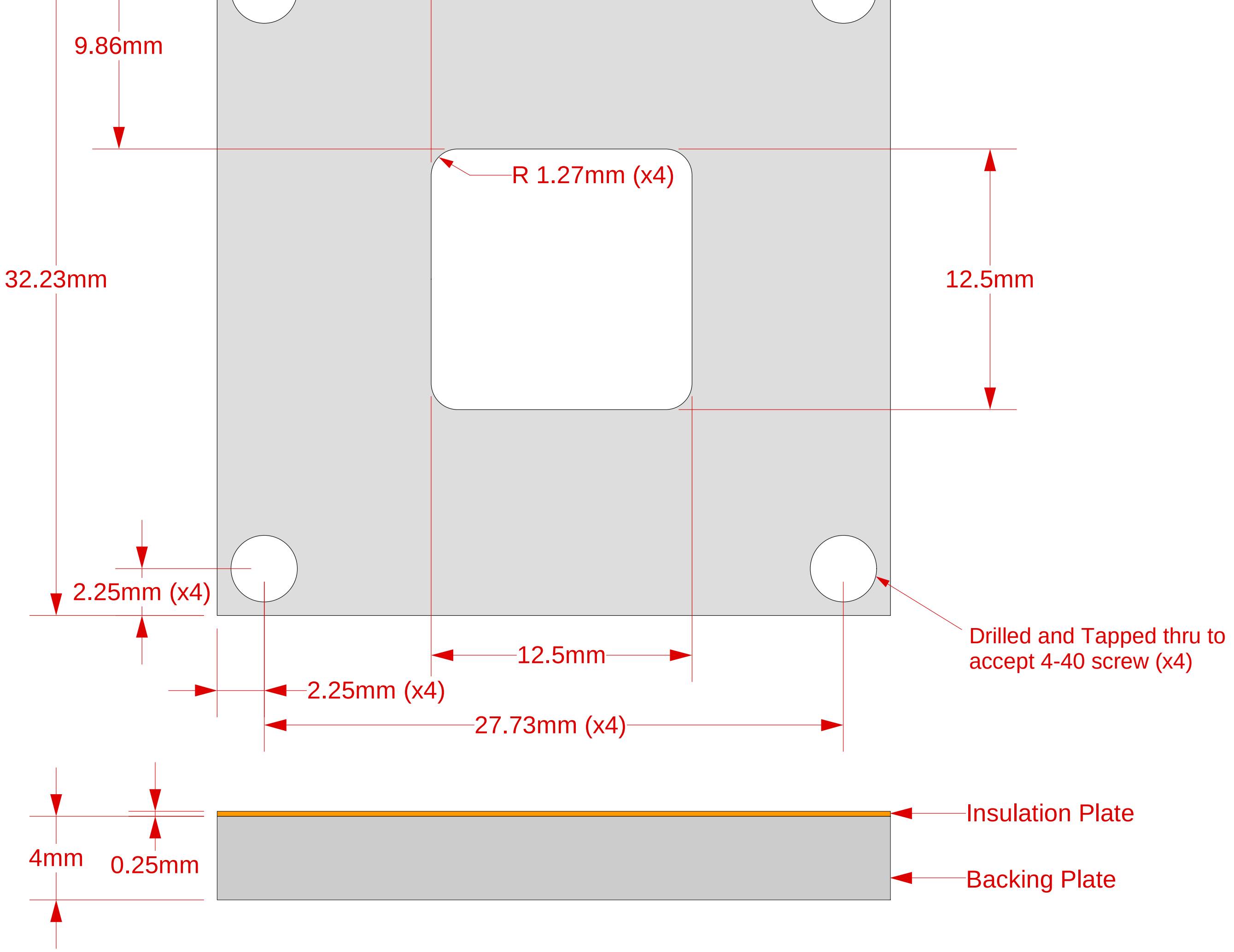
1. Dimensions are in millimeters.
2. Interpret dimensions and toleraces per ASME Y14.5M-1994.
3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plame Z.
4. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
5. Parallelism measurement shall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

DIM	MIN	MAX
A		1.70
A1	0.27	0.45
b		0.55
D	21.00 BSC	
E	21.00 BSC	
e	0.8 BSC	

Array 25x25

SG-BGA-6094 Drawing	Status: Released	Scale: -	Rev: B
 PO BOX 21151 ST. PAUL, MN 55121 Tele: (651) 452-8100 www.ironwoodelectronics.com	Drawing: H. Hansen File: SG-BGA-6094 Dwg.mcd	Date: 12/19/03 Modified: 3/5/15	





Description: Insulation and backing plate.

SG-BGA-6094 Drawing	Status: Released	Scale: -	Rev: B
© 2003 IRONWOOD ELECTRONICS, INC. PO BOX 21151 ST. PAUL, MN 55121 Tele: (651) 452-8100 www.ironwoodelectronics.com	Drawing: H. Hansen	Date: 12/19/03	
	File: SG-BGA-6094 Dwg.mcd	Modified: 3/5/15	

All tolerances are ±0.13mm