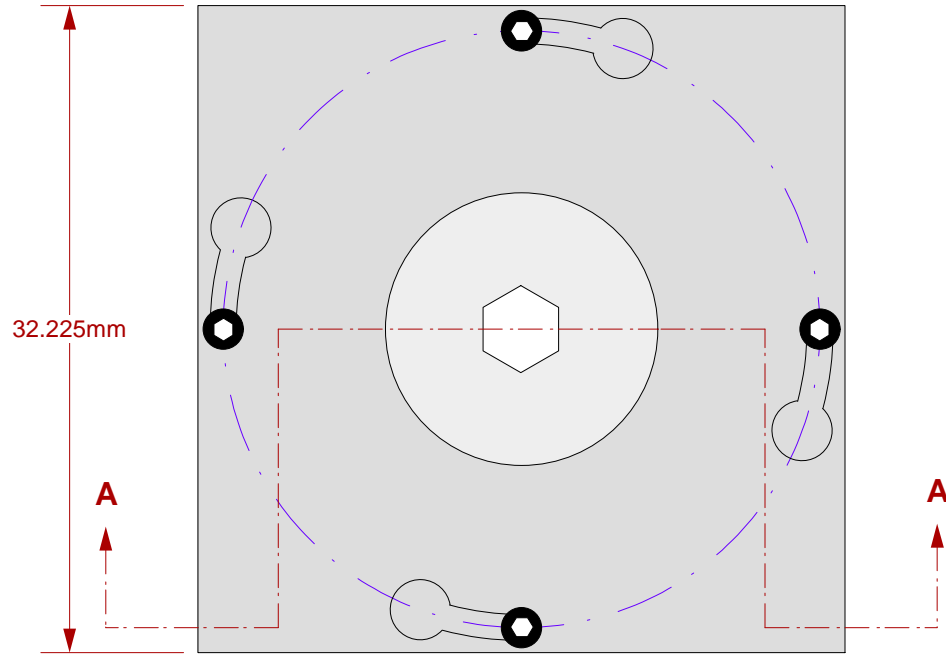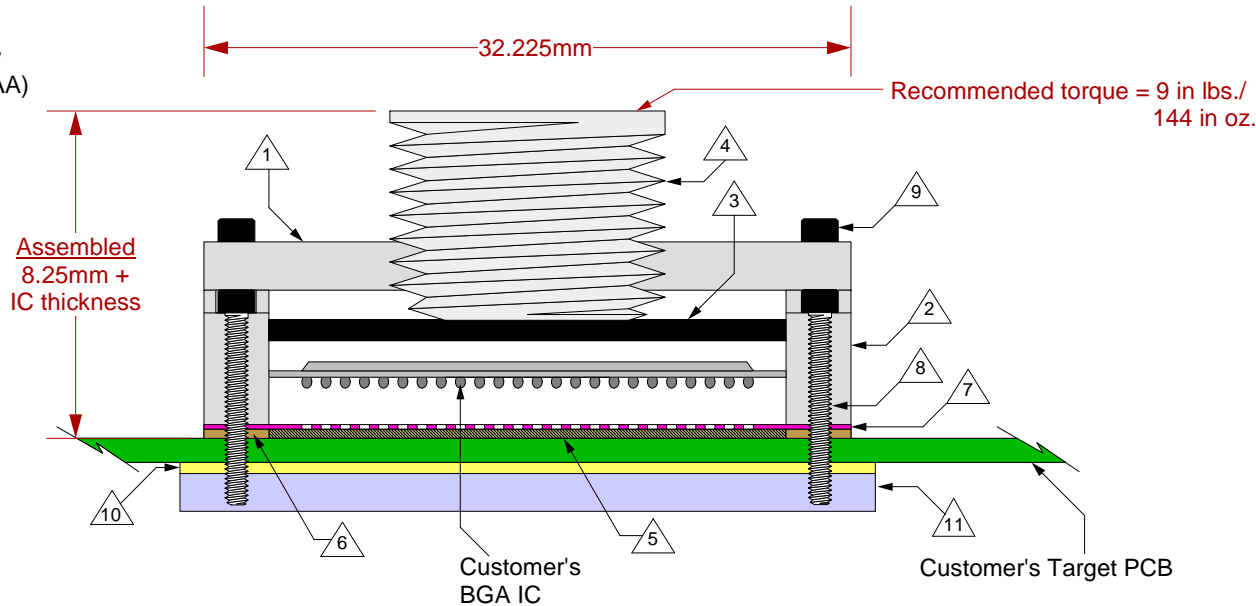Top View

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

32.225mm

A   A

32.225mm

Side View
(Section AA)

Recommended torque = 9 in lbs./
144 in oz.

Assembled
8.25mm +
IC thickness

Customer's
BGA IC

Customer's Target PCB

△	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: Clear anodized Aluminum. Thickness = 5mm, Hex socket = 5mm.
5	Elastomer: 20 micron dia gold plated brass filaments arranged symmetrically in a silicone rubber (63.5 degree angle). Thickness = 0.5mm.
6	Elastomer Guide: Non-clad FR4. Thickness = 0.475mm.
7	Ball Guide: Kapton polyimide.
8	Socket base screw: Socket head cap, Alloy steel with black oxide finish, 0-80 fine thread , 12.7 mm long.
9	Socket lid screw: Shoulder screw, 18-8 SS, 0-80 fine thread.
10	Insulation Plate: FR4/G10, 1.59mm thick.
11	Backing Plate: Black anodized Aluminum 6.35mm thick.

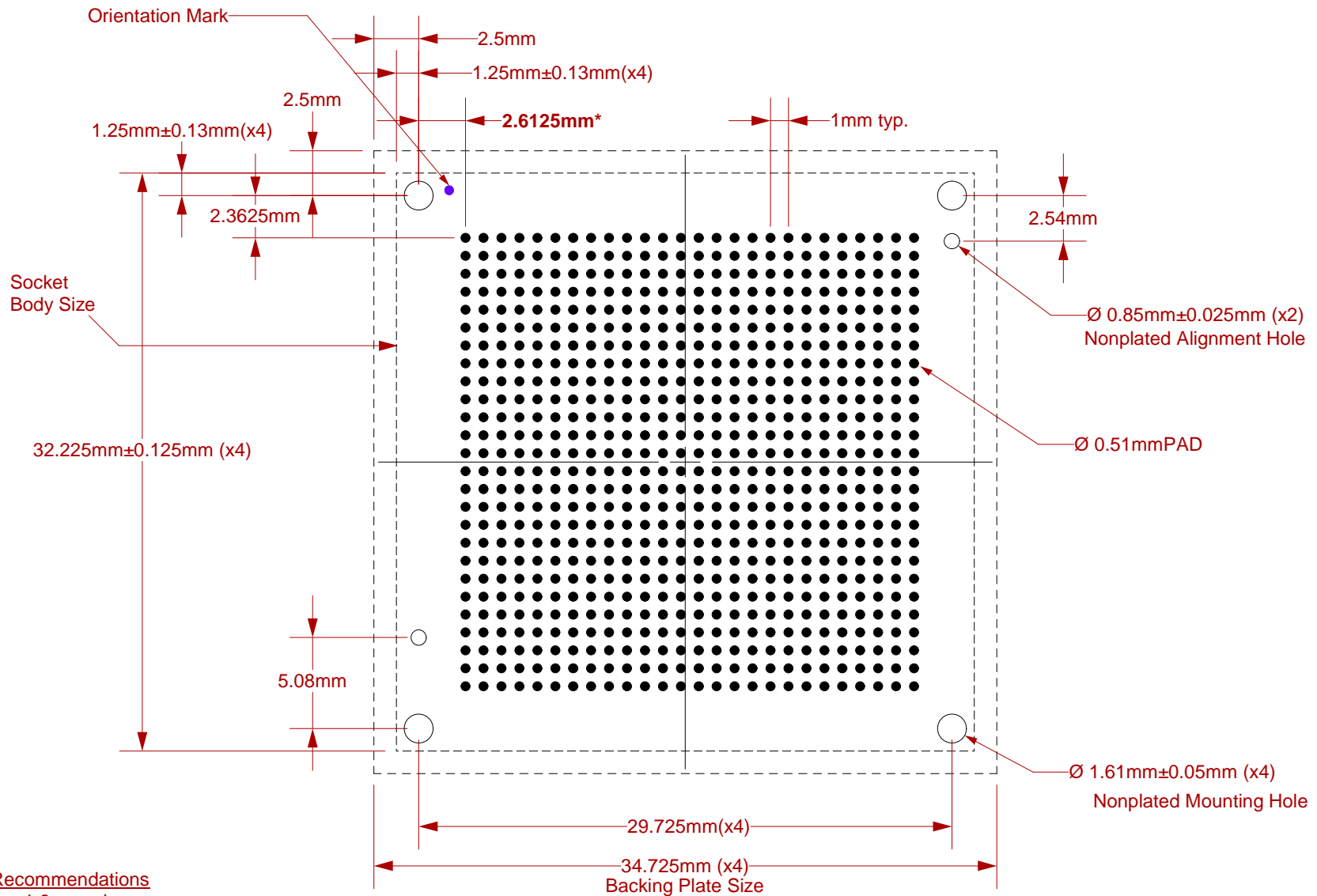| SG-BGA-8011 Drawing	Status: Released	Scale: -	Rev: C
© 2007 IRONWOOD ELECTRONICS, INC. 11351 Rupp Dr. Ste 400 Burnsville, MN 55337 Tele: (952) 229-8200 www.ironwoodelectronics.com	Drawing: J. Glab	Date: 12/04/07	
	File: SG-BGA-8011 Dwg	Modified: 5/19/09	

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.**

Orientation Mark

2.5mm

1.25mm±0.13mm(x4)

2.5mm

2.6125mm*

1mm typ.

1.25mm±0.13mm(x4)

2.3625mm

2.54mm

Socket
Body Size

Ø 0.85mm±0.025mm (x2)
Nonplated Alignment Hole

Ø 0.51mmPAD

32.225mm±0.125mm (x4)

5.08mm

Ø 1.61mm±0.05mm (x4)
Nonplated Mounting Hole
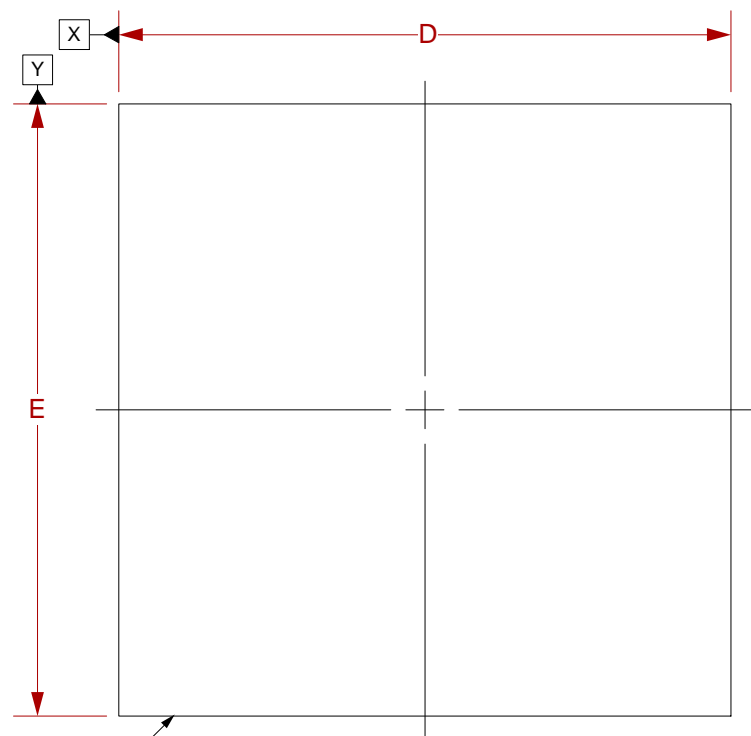
29.725mm(x4)

34.725mm (x4)
Backing Plate Size

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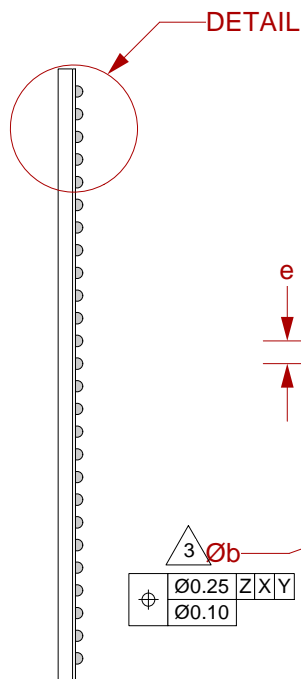PCB Pad height: Same or higher than solder mask

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

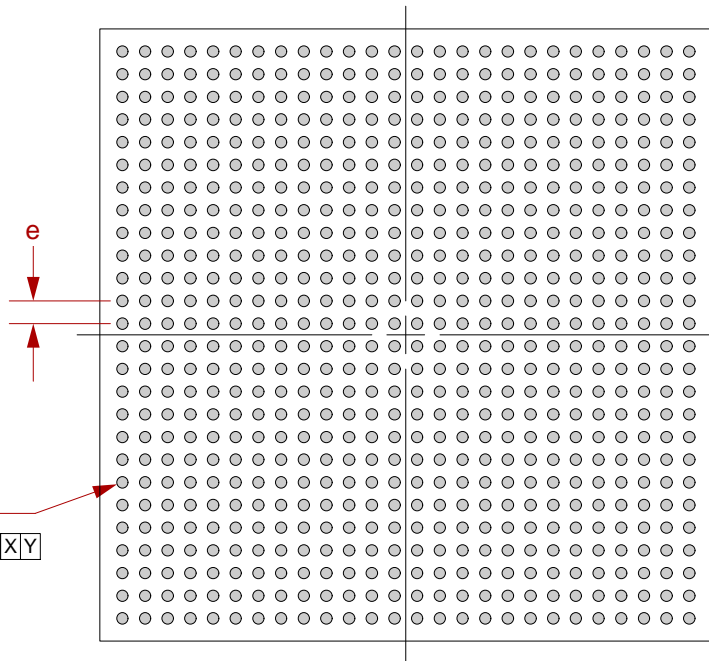Recommended PCB Layout Tolerances: ±0.025mm [±0.001"] unless stated otherwise.

SG-BGA-8011 Drawing	Status: Released	Scale: -	Rev: C
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Compatible BGA Spec

TOP VIEW

DETAIL

SIDE VIEW

3 Øb

⌖	Ø0.25	Z	X	Y
	Ø0.10			

BOTTOM VIEW

⬭ 0.20

DETAIL

5

// 0.20 Z

A

A1

Z

4

⌓ 0.2 Z
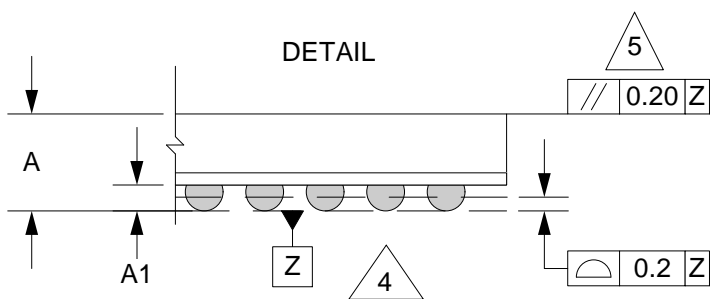
1. Dimensions are in millimeters.

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	0.4	0.6
b		0.70
D	27.00 BSC	
E	27.00 BSC	
e	1.0 BSC	

Array 26x26

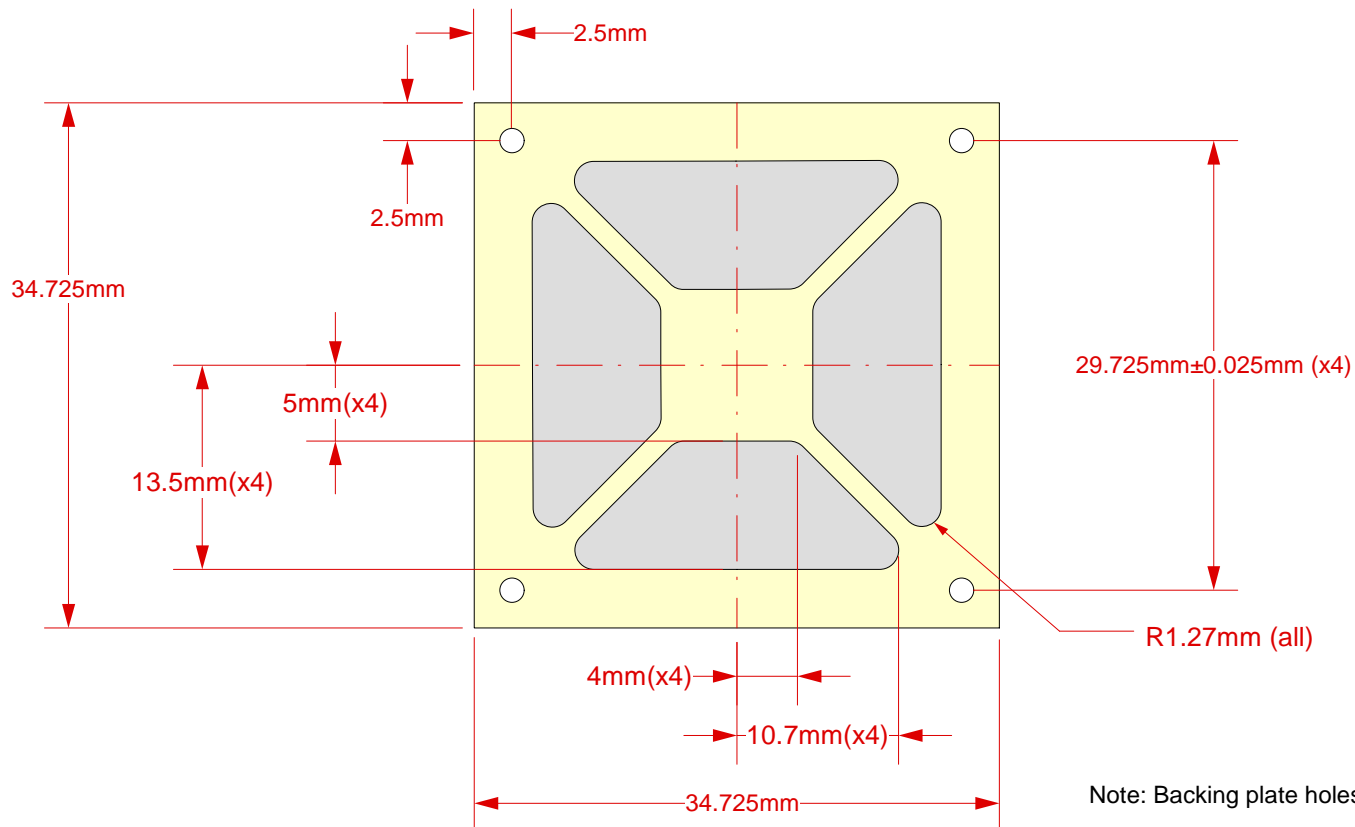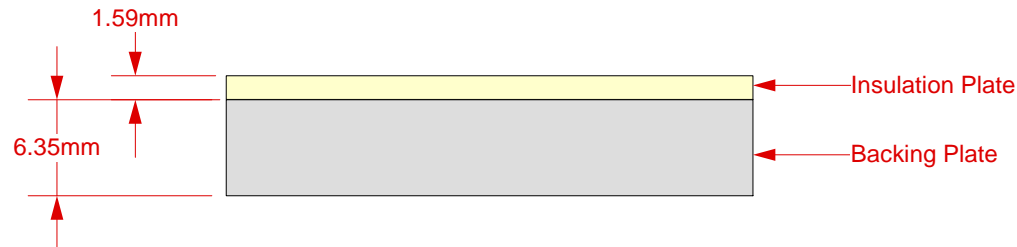| SG-BGA-8011 Drawing	Status: Released	Scale: -	Rev: C
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Top View

2.5mm
2.5mm
34.725mm
5mm(x4)
13.5mm(x4)
29.725mm±0.025mm (x4)
R1.27mm (all)
4mm(x4)
10.7mm(x4)
34.725mm

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

Side View

1.59mm
6.35mm
Insulation Plate
Backing Plate

Description: Backing Plate with Insulation Plate

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

SG-BGA-8011 Drawing	Status: Released	Scale: -	Rev: C
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