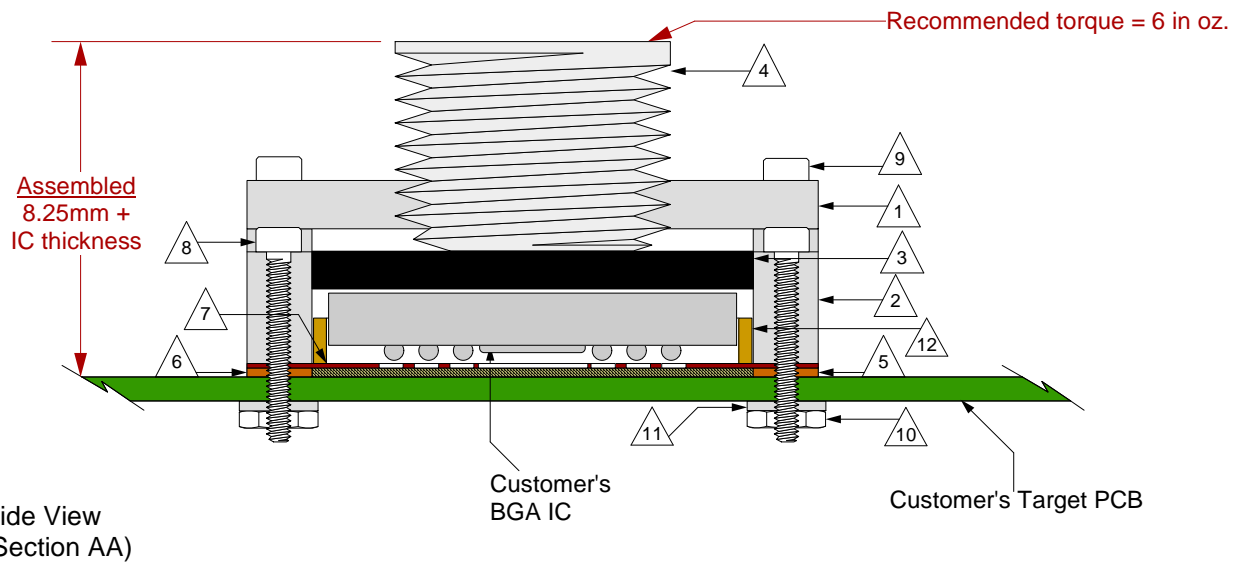


GHz BGA Socket - Direct mount, solderless


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



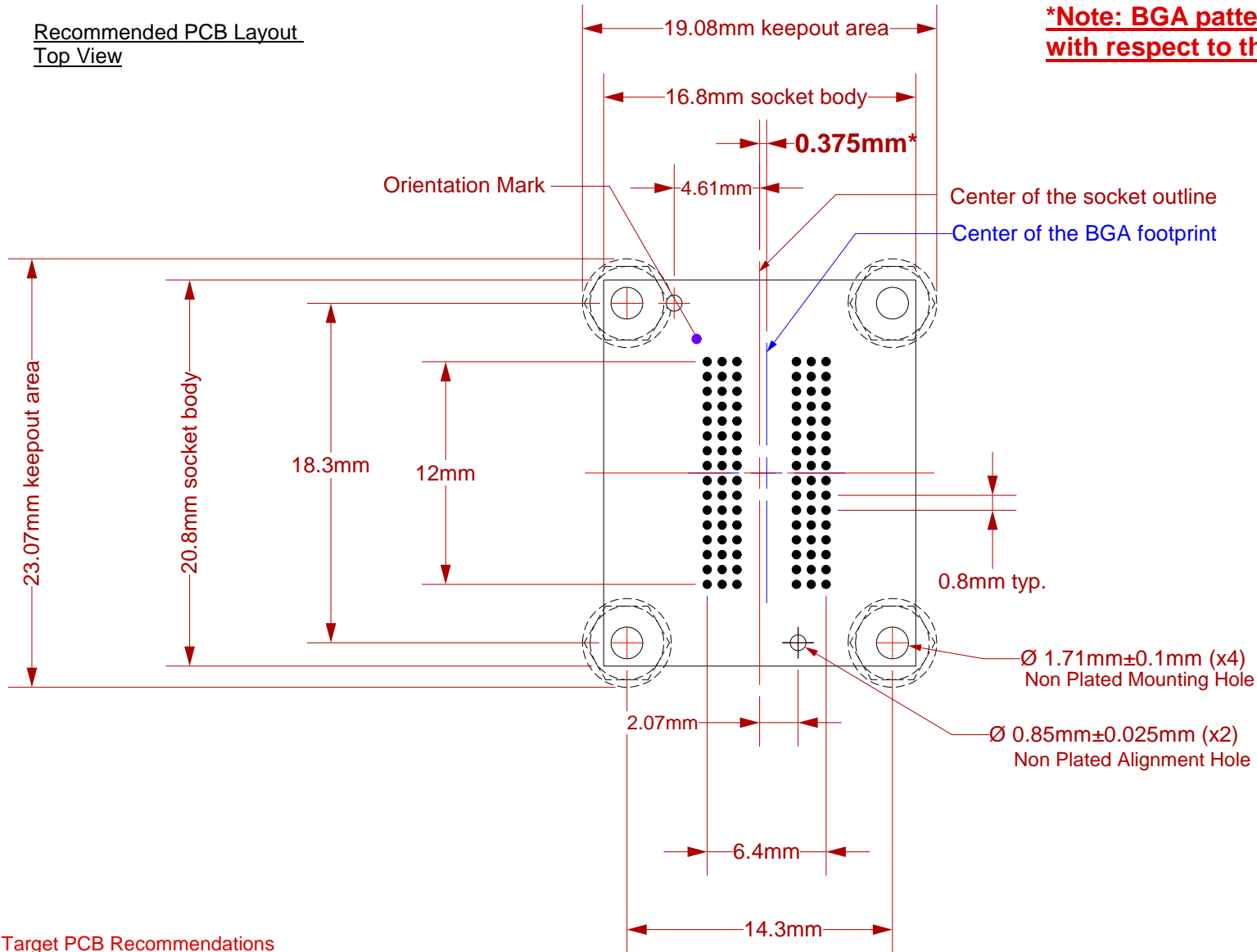
- △ 1 Socket Lid: Black anodized Aluminum. Thickness = 2.5mm.
- △ 2 Socket base: Black anodized Aluminum. Thickness = 5mm.
- △ 3 Compression Plate: Black anodized Aluminum. Thickness = 2.5mm.
- △ 4 Compression screw: Clear anodized Aluminum. Thickness = 5mm, Hex socket = 5mm.
- △ 5 Elastomer: 40 micron 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 = 0.725mm.
- △ 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 thickness.
- △ 12 IC Guide: Torlon

Side View
(Section AA)

| | | | | |
|---|---------------------------|------------------|------------------------|--------|
| SG-BGA-6292 Drawing | | Status: Released | Scale: - | Rev: C |
|  <p>© 2009 IRONWOOD ELECTRONICS, INC. 11351 Rupp Drive, Suite 400, Burnsville, MN 55337 Tele: (952) 229-8200 www.ironwoodelectronics.com</p> | Drawing: E Smolentseva | | Date: 10/22/09 | |
| | File: SG-BGA-6292 Dwg.mcd | | Modified: 11/17/14, DH | |

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

Recommended PCB Layout
Top View




Target PCB Recommendations

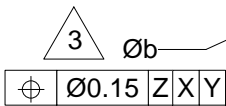
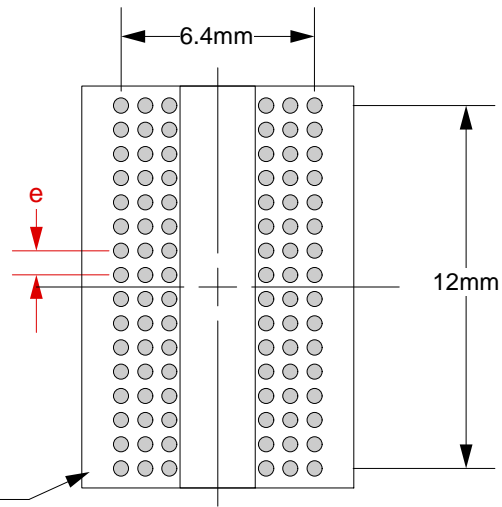
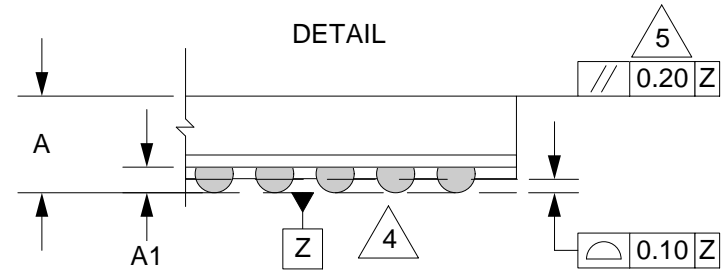
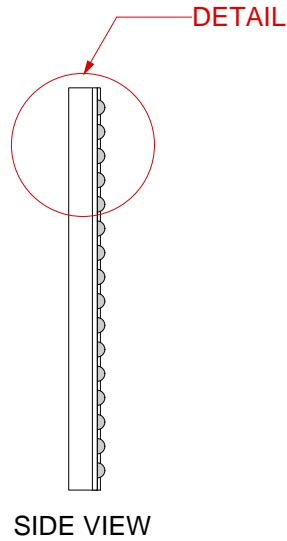
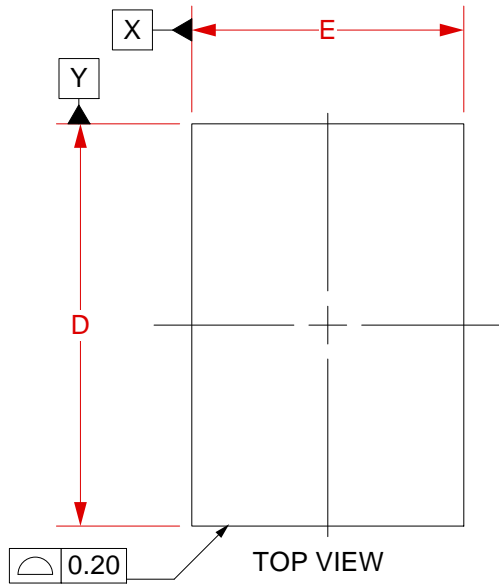
Total thickness: 1.6mm min.
Plating: Gold or Solder finish
PCB Pad height: Same or higher than solder mask

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

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

| | | | | | | |
|---|---|--|------------------|---------------------------|--------|------------------------|
|  | SG-BGA-6292 Drawing | | Status: Released | Scale: - | Rev: C | |
| | © 2009 IRONWOOD ELECTRONICS, INC. 11351 Rupp Drive, Suite 400, Burnsville, MN 55337 Tele: (952) 229-8200 www.ironwoodelectronics.com | | | Drawing: E Smolentseva | | Date: 10/22/09 |
| | | | | File: SG-BGA-6292 Dwg.mcd | | Modified: 11/17/14, DH |


DDR3 packages



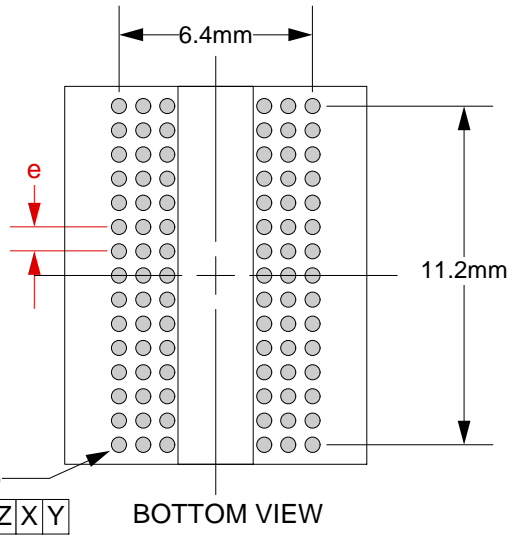
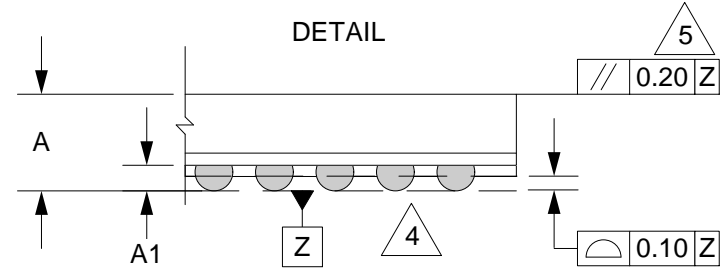
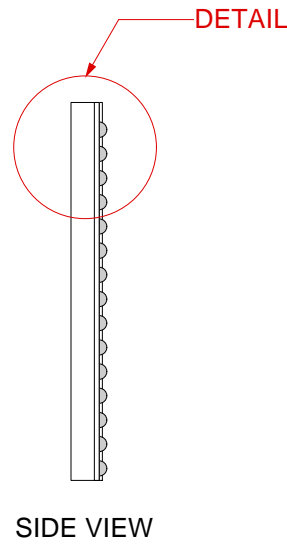
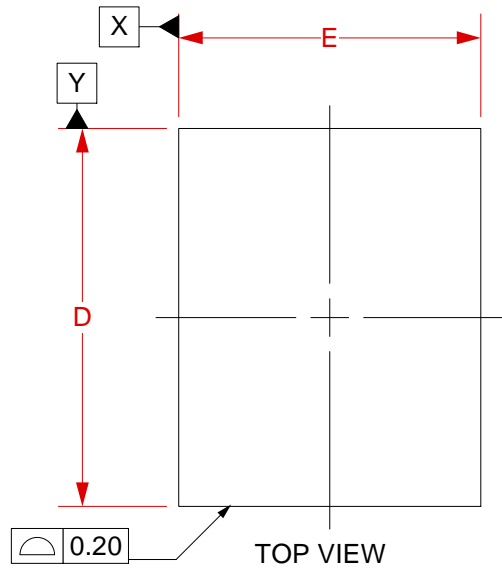
- 1 Dimensions are in millimeters.
- 2 Interpret dimensions and tolerances per ASME Y14.5M-1994.
- 3 Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.
- 4 Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
- 5 Parallelism measurement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

| DIM | MIN | MAX |
|-----|-----------|------|
| A | | 1.2 |
| A1 | 0.30 | 0.40 |
| b | 0.40 | 0.50 |
| E | 9.00 BSC | |
| D | 13.30 BSC | |
| e | 0.80 BSC | |

Array 9x16

| | | | | |
|---|----------------------------|------------------|------------------------|--------|
|  <p>© 2009 IRONWOOD ELECTRONICS, INC. 11351 Rupp Drive, Suite 400, Burnsville, MN 55337 Tele: (952) 229-8200 www.ironwoodelectronics.com</p> | SG-BGA-6292 Drawing | Status: Released | Scale: - | Rev: C |
| | Drawing: E Smolentseva | | Date: 10/22/09 | |
| | File: SG-BGA-6292 Dwg.mcd | | Modified: 11/17/14, DH | |

DDR2 packages



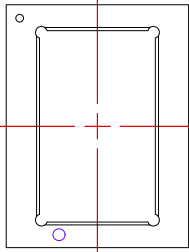
- 1 Dimensions are in millimeters.
- 2 Interpret dimensions and tolerances per ASME Y14.5M-1994.
- 3 Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.
- 4 Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
- 5 Parallelism measurement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

| DIM | MIN | MAX |
|-----|-----------|------|
| A | | 1.2 |
| A1 | 0.30 | 0.40 |
| b | 0.40 | 0.50 |
| E | 10.00 BSC | |
| D | 12.50 BSC | |
| e | 0.80 BSC | |

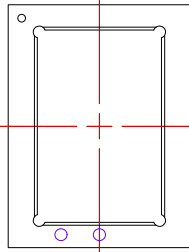
Array 9x15

DDR2

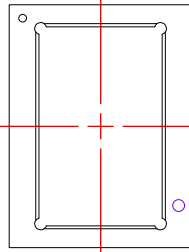
Insert Markings



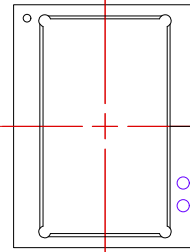
7.5 x 12.5



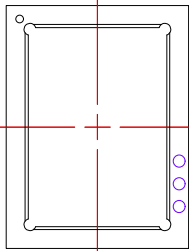
8 x 12.5



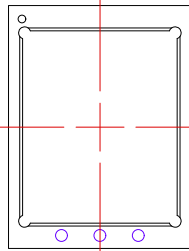
8 x 13



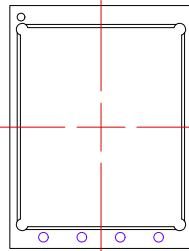
8 x 14



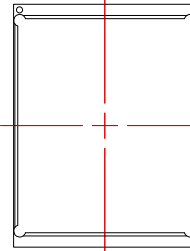
9 x 13



10 x 12.5

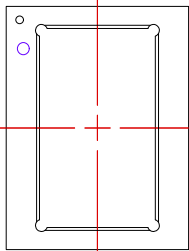


10.5 x 13.0

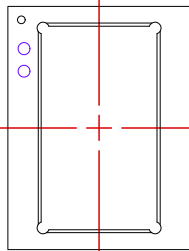


11.5 x 14.0

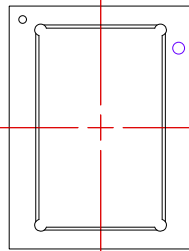
DDR3



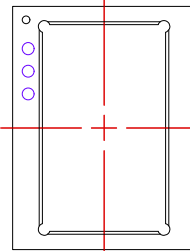
7.5 x 13



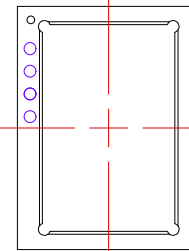
7.5 x 13.3



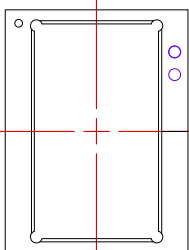
8 x 13



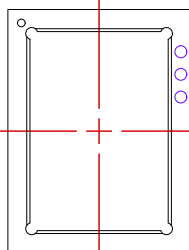
8 x 13.5



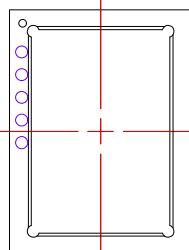
8.6 x 13.5



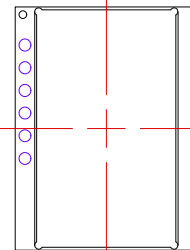
8 x 14



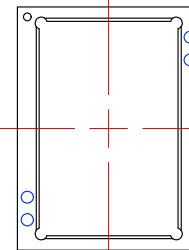
9 x 13



9 x 13.3



9 x 15.5



9 x 14

SG-BGA-6292 Drawing

Status: Released

Scale: -

Rev: C



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Drawing: E Smolentseva

Date: 10/22/09

File: SG-BGA-6292 Dwg.mcd

Modified: 11/17/14, DH