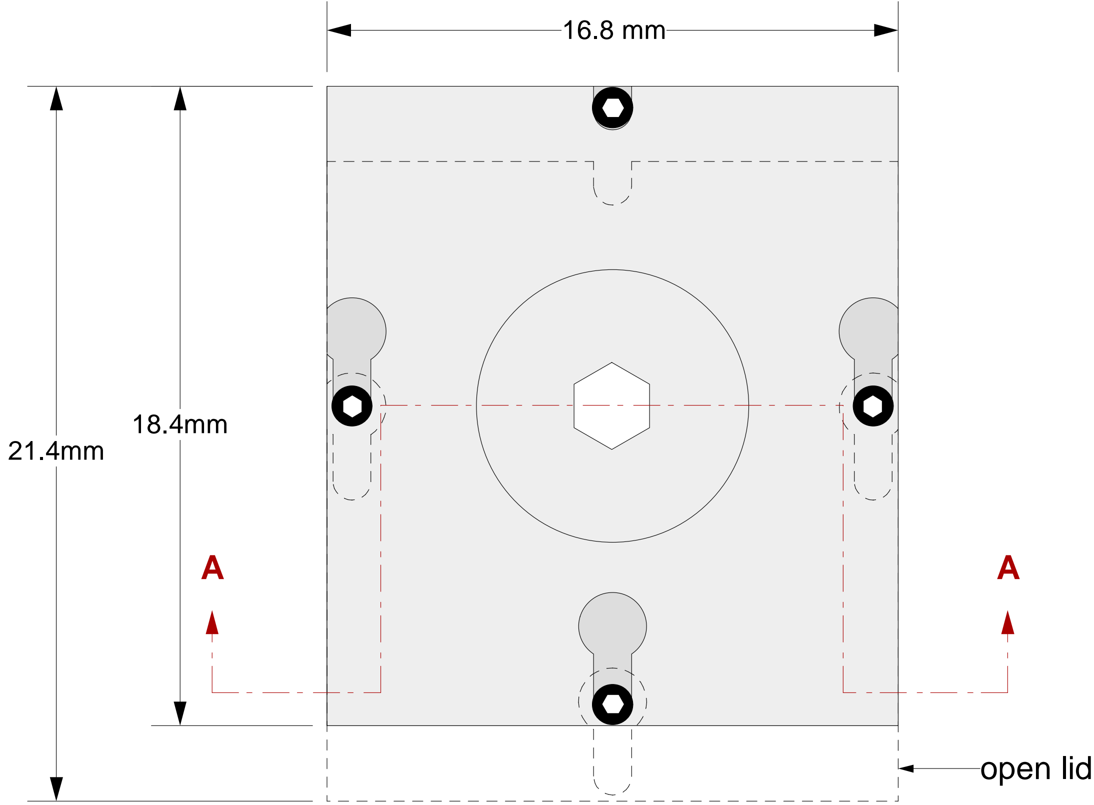
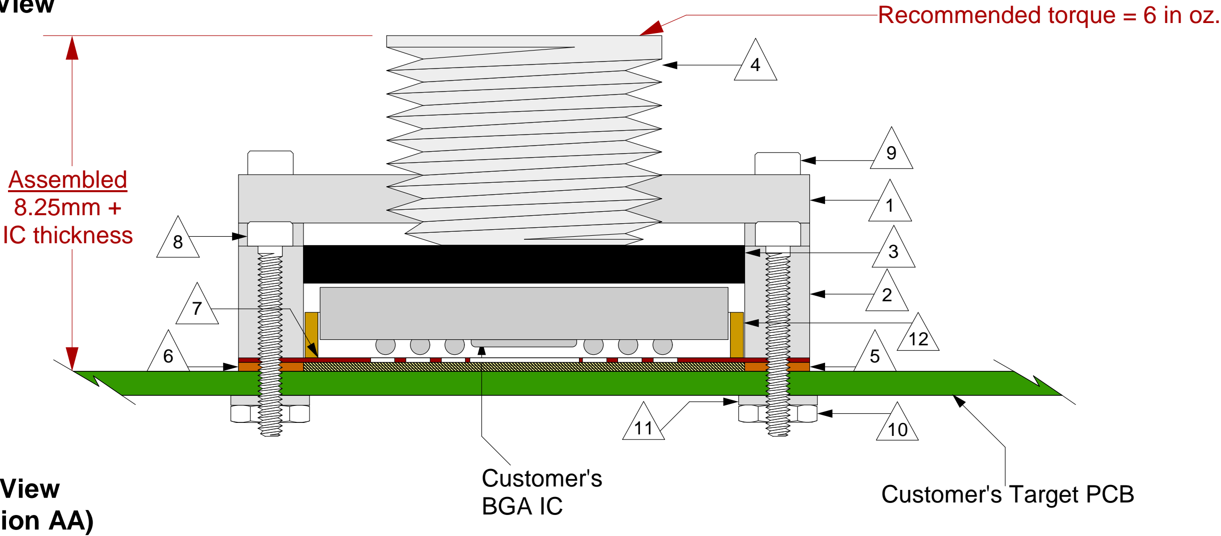


Top View

GHz BGA Socket - Direct mount, solderless

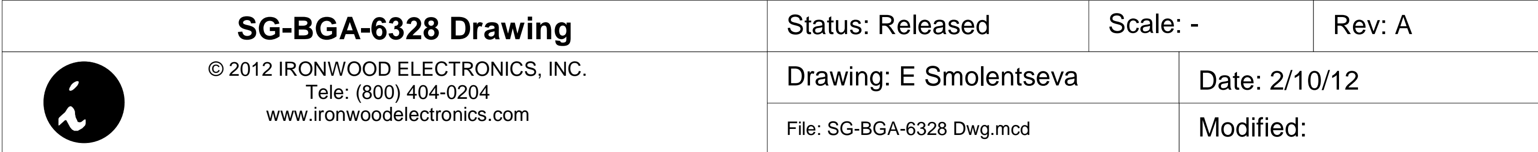
Features

- 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



Side View (Section AA)

#	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: 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: Ultem



SG-BGA-6328 Drawing	Status: Released	Scale: -	Rev: A
© 2012 IRONWOOD ELECTRONICS, INC. Tele: (800) 404-0204 www.ironwoodelectronics.com	Drawing: E Smolentseva	Date: 2/10/12	
	File: SG-BGA-6328 Dwg.mcd	Modified:	

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

Recommended PCB Layout
Top View

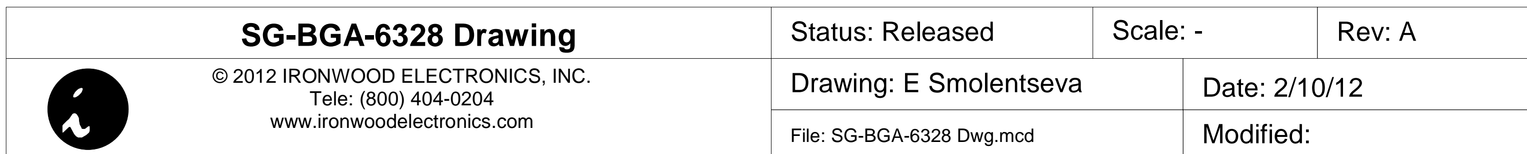
***Note: BGA pattern is *not* symmetrical with respect to the mounting holes.**

19.08mm keepout area
16.8mm socket body
0.375mm*
Orientation Mark
4.61mm
Center of the BGA footprint
Center of the socket outline
20.68mm keepout area
18.4mm socket body
15.9mm
3.15mm
9.6mm
0.8mm typ.
Ø 1.71mm±0.1mm (x4)
Non Plated Mounting Hole
2.07mm
Ø 0.85mm±0.025mm (x2)
Non Plated Alignment Hole
6.4mm
14.3mm

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.



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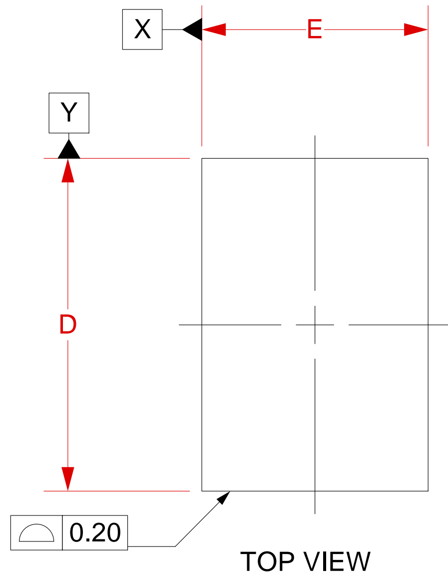
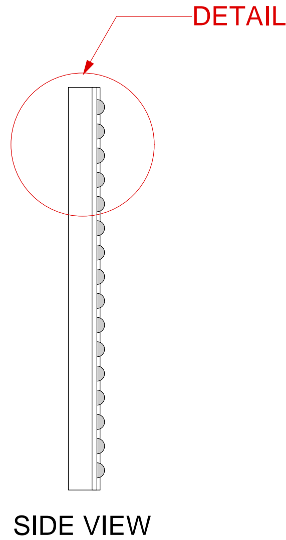
Compatible BGA Spec

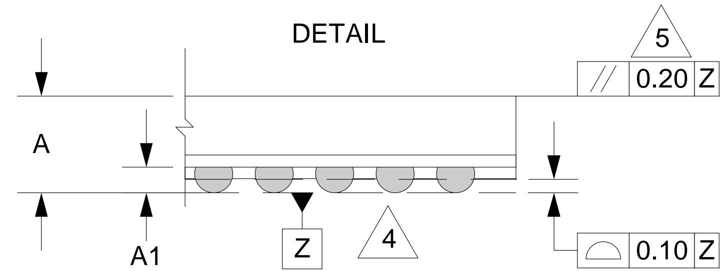
DDR3 7.5x11mm package

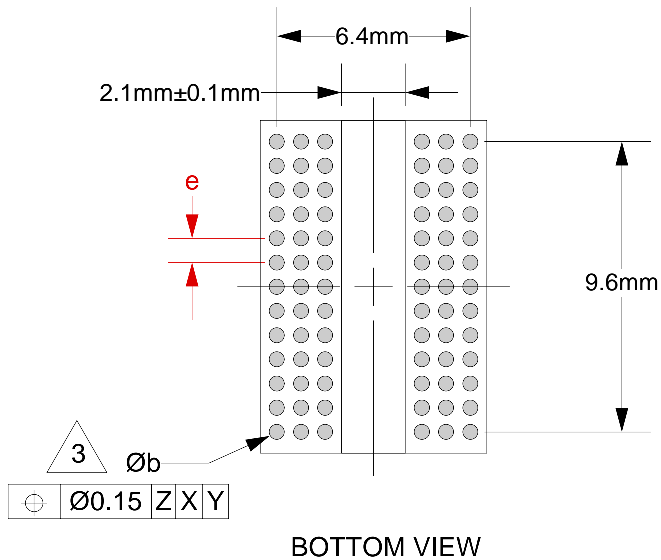


TOP VIEW



SIDE VIEW



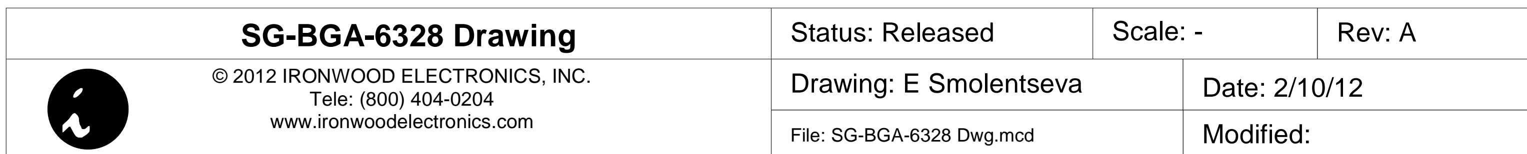


BOTTOM VIEW

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		1.2
A1	0.29	0.39
b	0.40	0.50
E	7.4	7.6
D	10.9	11.1
e	0.80 BSC	

Array 9x13



SG-BGA-6328 Drawing	Status: Released	Scale: -	Rev: A
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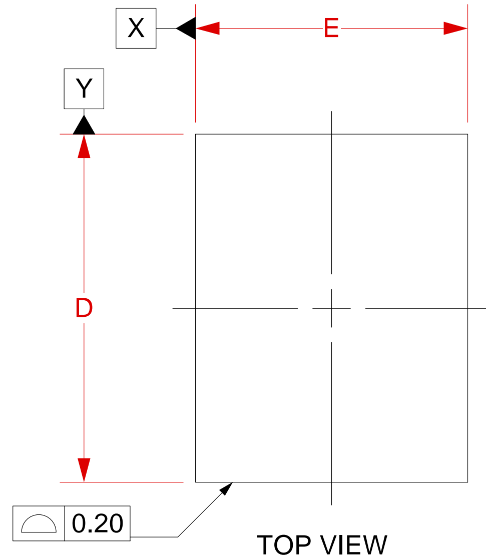
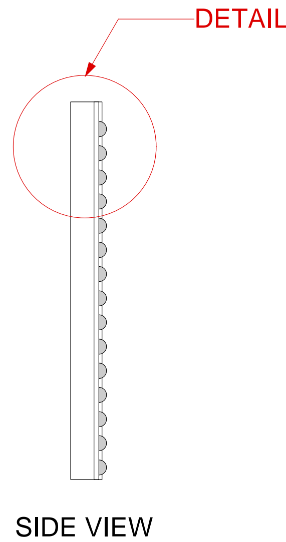
	File: SG-BGA-6328 Dwg.mcd	Modified:	

Compatible BGA Spec

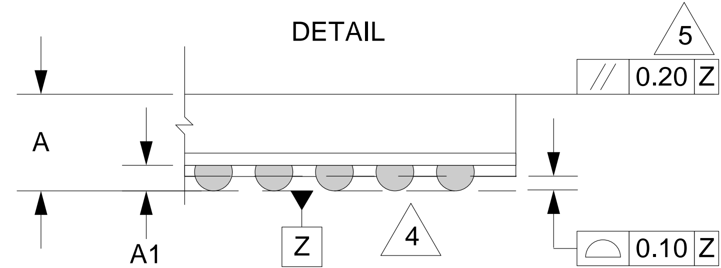
DDR3 9x11.5mm package

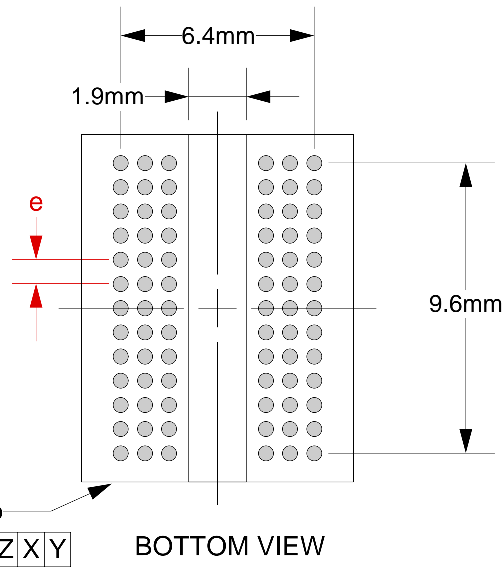


TOP VIEW



SIDE VIEW





BOTTOM 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		1.2
A1	0.30	0.40
b	0.45	0.55
E	8.9	9.1
D	11.4	11.6
e	0.80 BSC	

Array 9x13

SG-BGA-6328 Drawing	Status: Released	Scale: -	Rev: A
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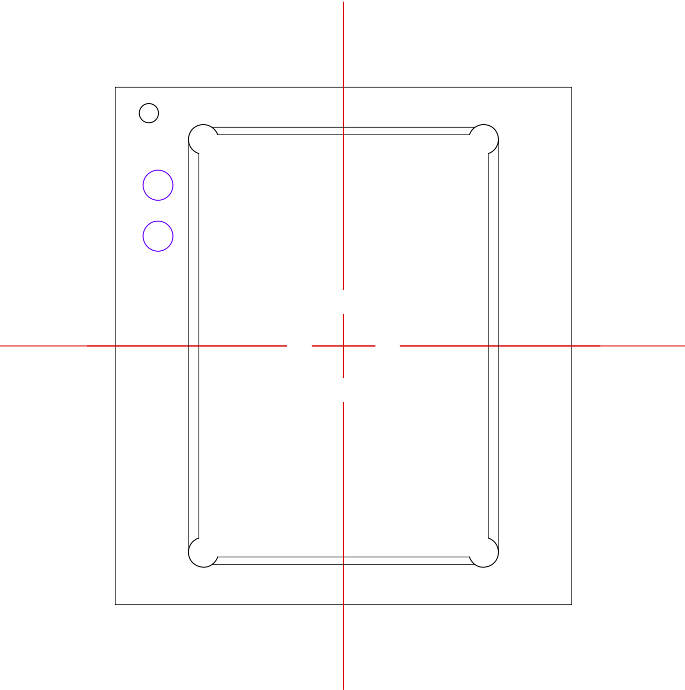
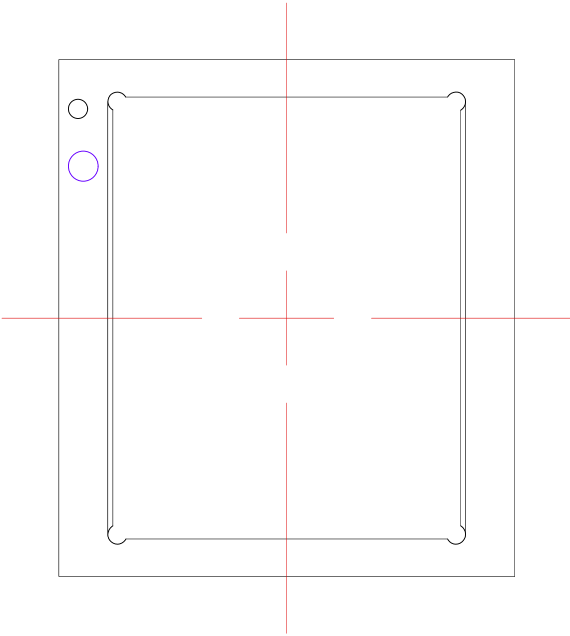
IC Guides

DDR3



7.5 x 11 package



9 x 11.5 package