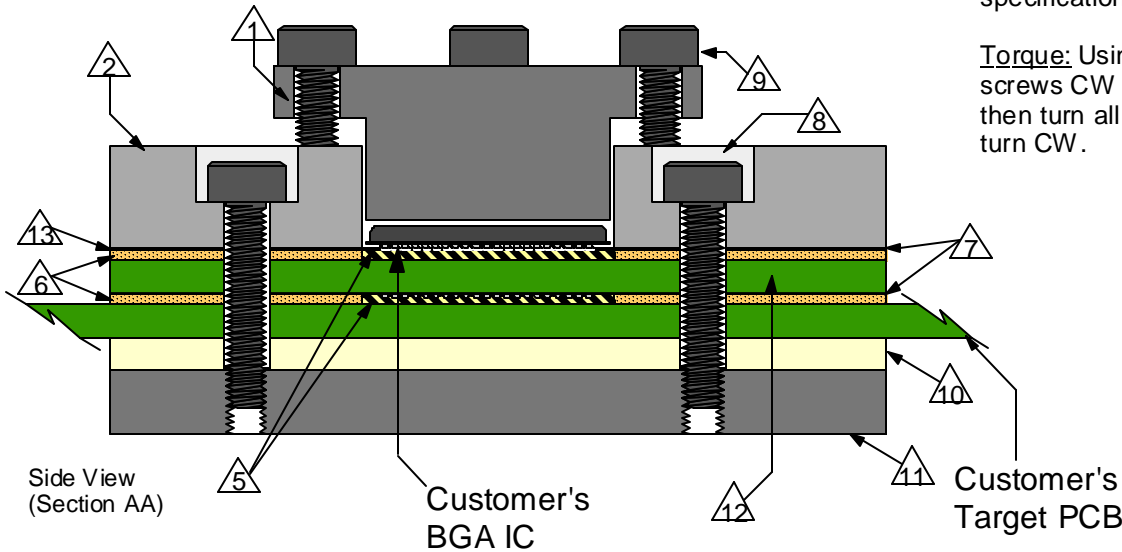
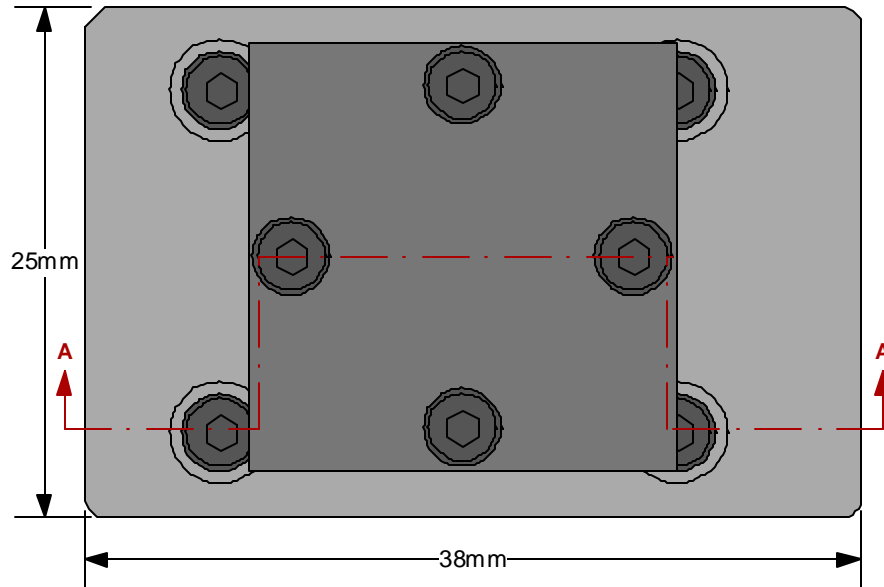


# GHz BGA Socket - Direct mount, solderless

Top View



## 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
- Easily removable swivel socket lid

**Socket Assembly:** Attach components (base assembly, insulation plate, compression plate) with base screws and torque to specification.

**Chip Installation:** Install chip into socket base, attach lid to base with lid screws then torque to specification.


**Torque:** Using L wrench, turn all screws CW until resistance is felt, then turn all screws another 1/4 turn CW.

## Materials:

- 1 Lid: Black anodized 6061 Aluminum. Thickness = 2.5mm.
- 2 Base: Black anodized 6061 Aluminum. Thickness = 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 = 0.5mm.
- 7 Ball Guide: Kapton
- 8 Socket base screw: Socket head cap, alloy steel with black oxide finish, M2 fine thread, 12.0mm long.
- 9 Lid screw: Socket head cap, alloy steel with black oxide finish, M2 fine thread, 6.0mm long.
- 10 Insulation Plate: 1.59mm thickness.
- 11 Backing Plate: Black anodized 6061 Aluminum. Thickness = 3.175mm.
- 12 Interposer Board: 12 lyr PCB, FR406 material, 50 ohm controlled impedance.
- 13 Ball Guide Shim: Kapton

## Description:

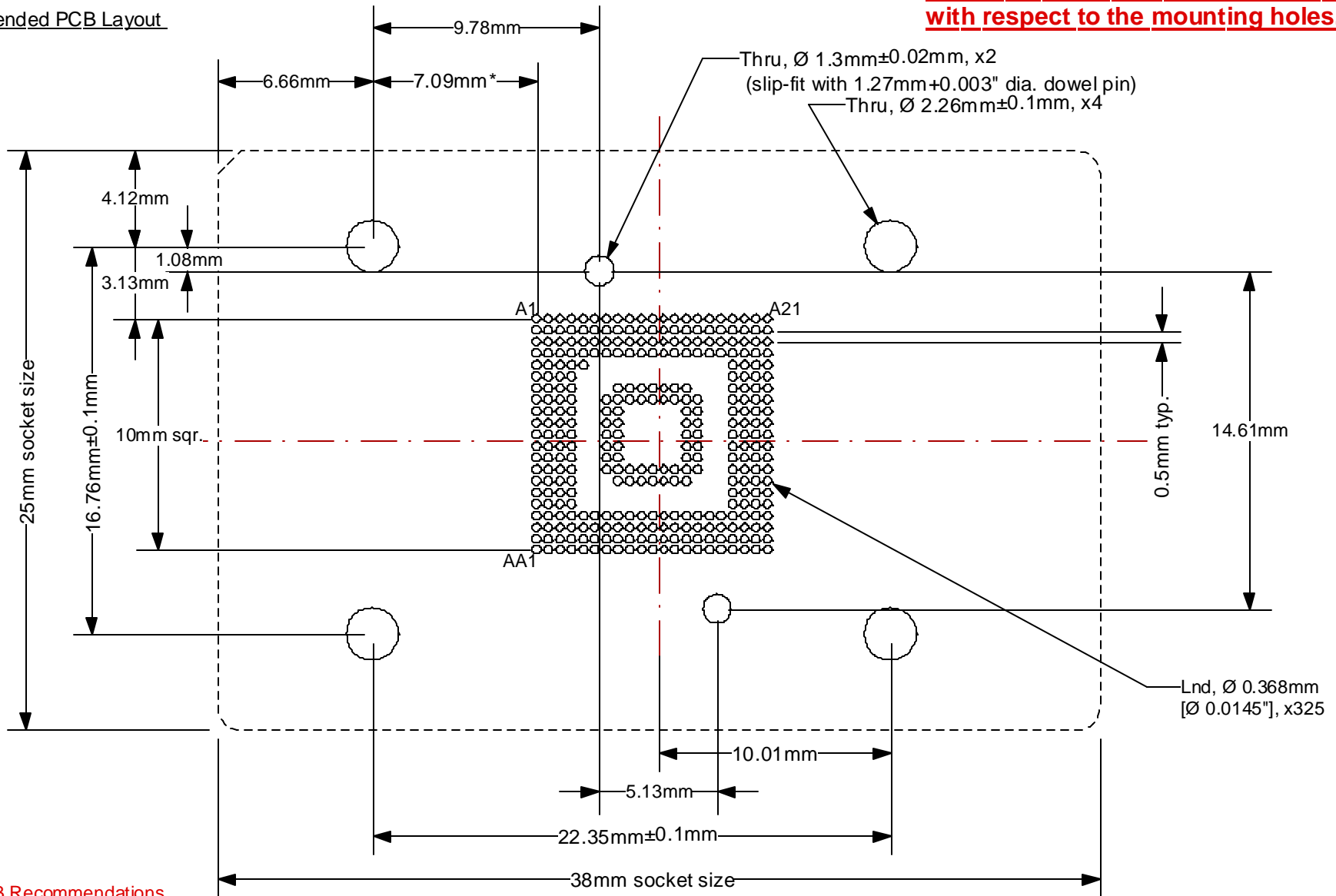
Device Converter OMAP1710, 289 BGA GHz socket, to OMAP2420, 325 BGA Yamaichi socket (IC398-0325-083) interface. Utilizes an intermediate translator board and 2 z-axis conductive elastomers.

<b>DC-BGA/BGA-OMAP2420-H-R-01 Drawing</b>		Status: Released	Scale: -	Rev: A
 <p>© 2004 IRONWOOD ELECTRONICS, INC. PO BOX 21151 ST. PAUL, MN 55121 Tele: (651) 452-8100 www.ironwoodelectronics.com</p>	Drawing: H. Hansen		Date: 9/28/04	
	File: DC-BGA/BGA-OMAP2420-H-R-01 Dwg		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.**




**Target PCB Recommendations**

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

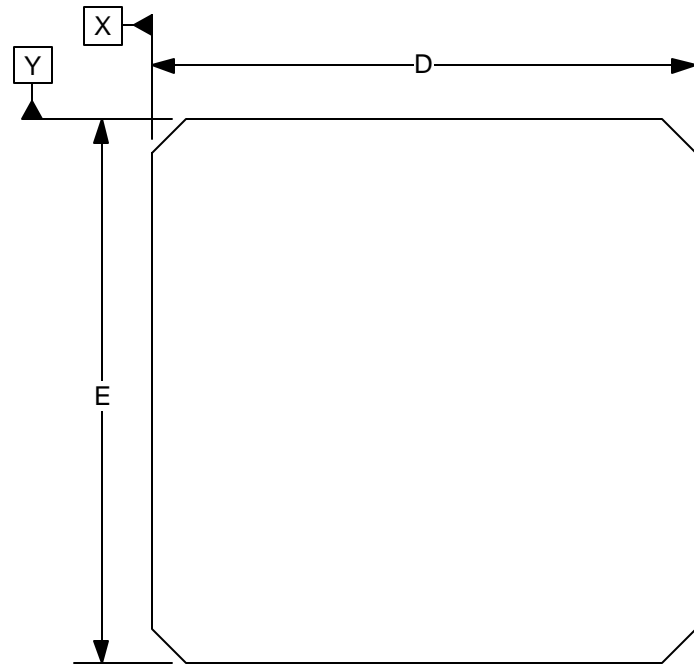
Top view: component side

All dimensions are in mm unless stated otherwise

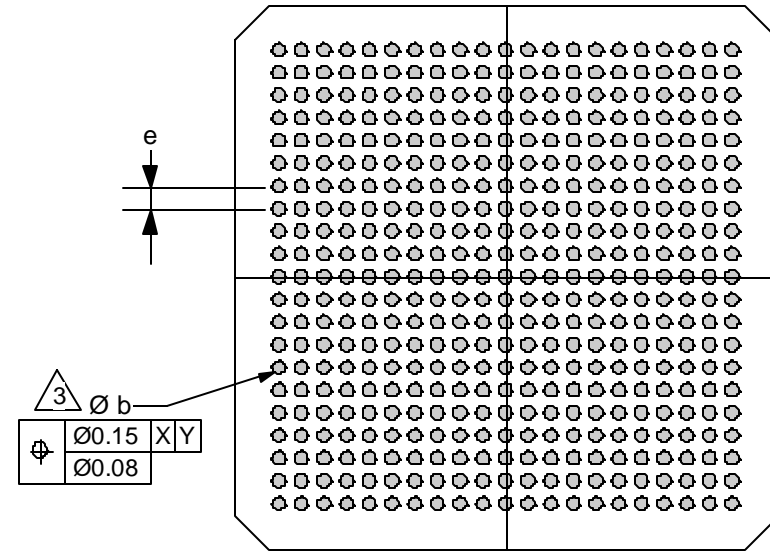
Recommended PCB Layout Tolerances:  $\pm 0.025\text{mm}$  [ $\pm 0.001"$ ] unless stated otherwise.

 <p>© 2004 IRONWOOD ELECTRONICS, INC. PO BOX 21151 ST. PAUL, MN 55121 Tele: (651) 452-8100 www.ironwoodelectronics.com</p>	<p>DC-BGA/BGA-OMAP2420-H-R-01 Drawing</p>	<p>Status: Released</p>	<p>Scale: 4:1</p>	<p>Rev: A</p>
	<p>Drawing: H. Hansen</p>	<p>Date: 9/28/04</p>		
	<p>File: DC-BGA/BGA-OMAP2420-H-R-01 Dwg</p>	<p>Modified:</p>		

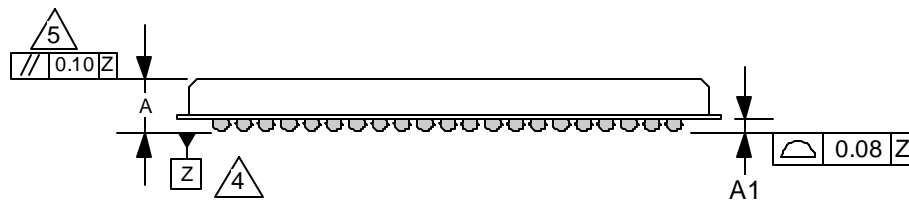
Compatible BGA Spec



Top View



Bottom View



End View

1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5M-1994.

- Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.
- Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
- Parallelism measurement shall exclude any effect of mark on top surface of package.

DIM	MIN	MAX
A		1.20
A1	0.20	0.30
b		0.35
D	12.00 BSC	
E	12.00 BSC	
e	0.5 BSC	

Array 21x21

All dimensions are in mm unless stated otherwise

	<b>DC-BGA/BGA-OMAP2420-H-R-01 Drawing</b>			Status: Released	Scale: 1:0.125	Rev: A
	© 2004 IRONWOOD ELECTRONICS, INC. PO BOX 21151 ST. PAUL, MN 55121 Tele: (651) 452-8100 www.ironwoodelectronics.com			Drawing: H. Hansen		Date: 9/28/04
					File: DC-BGA/BGA-OMAP2420-H-R-01 Dwg	Modified: