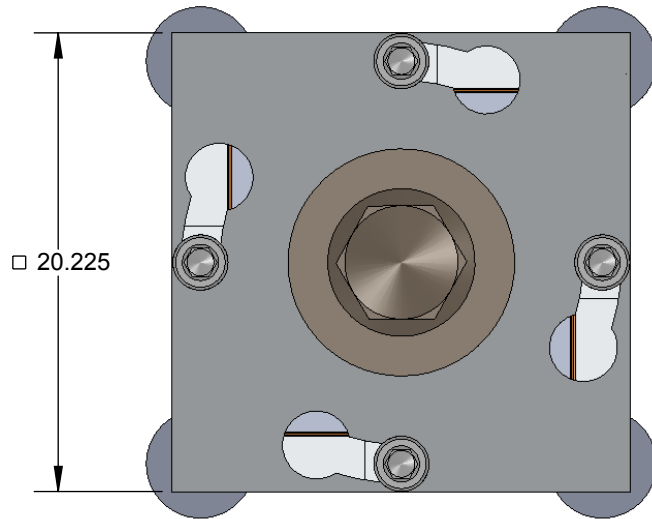


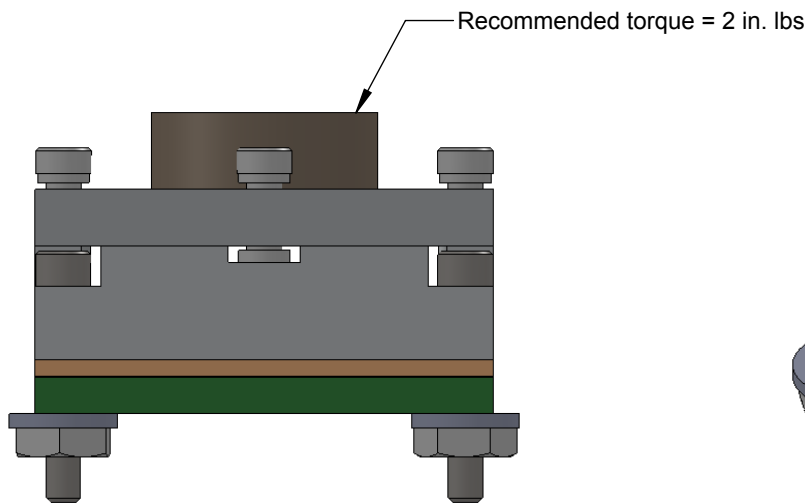
# GHz BGA Socket - Direct mount, solderless

## Features

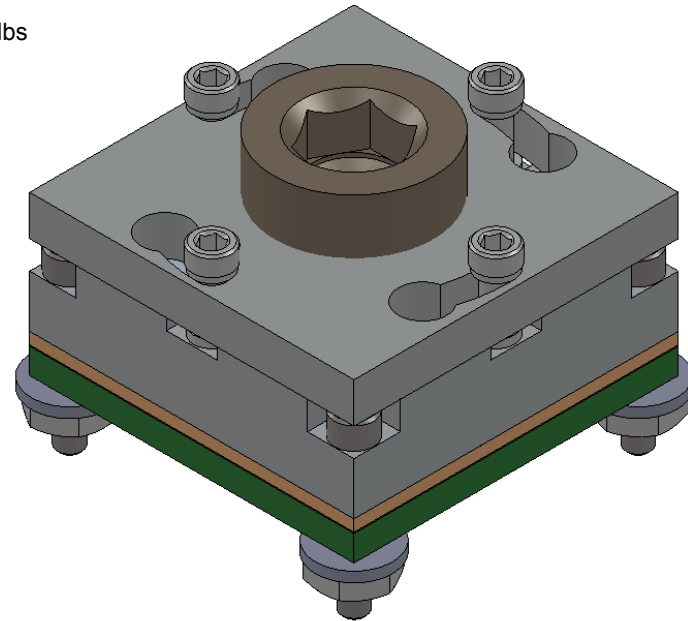
- Directly mounts to target PCB (needs tooling holes) with hardware.
- High speed, reliable Elastomer connection
- Minimum real estate required
- Compression plate distributes forces evenly
- Ball guide prevents over compression of elastomer
- Easily removable swivel socket lid



TOP VIEW




FRONT VIEW



### Description: BGA Socket

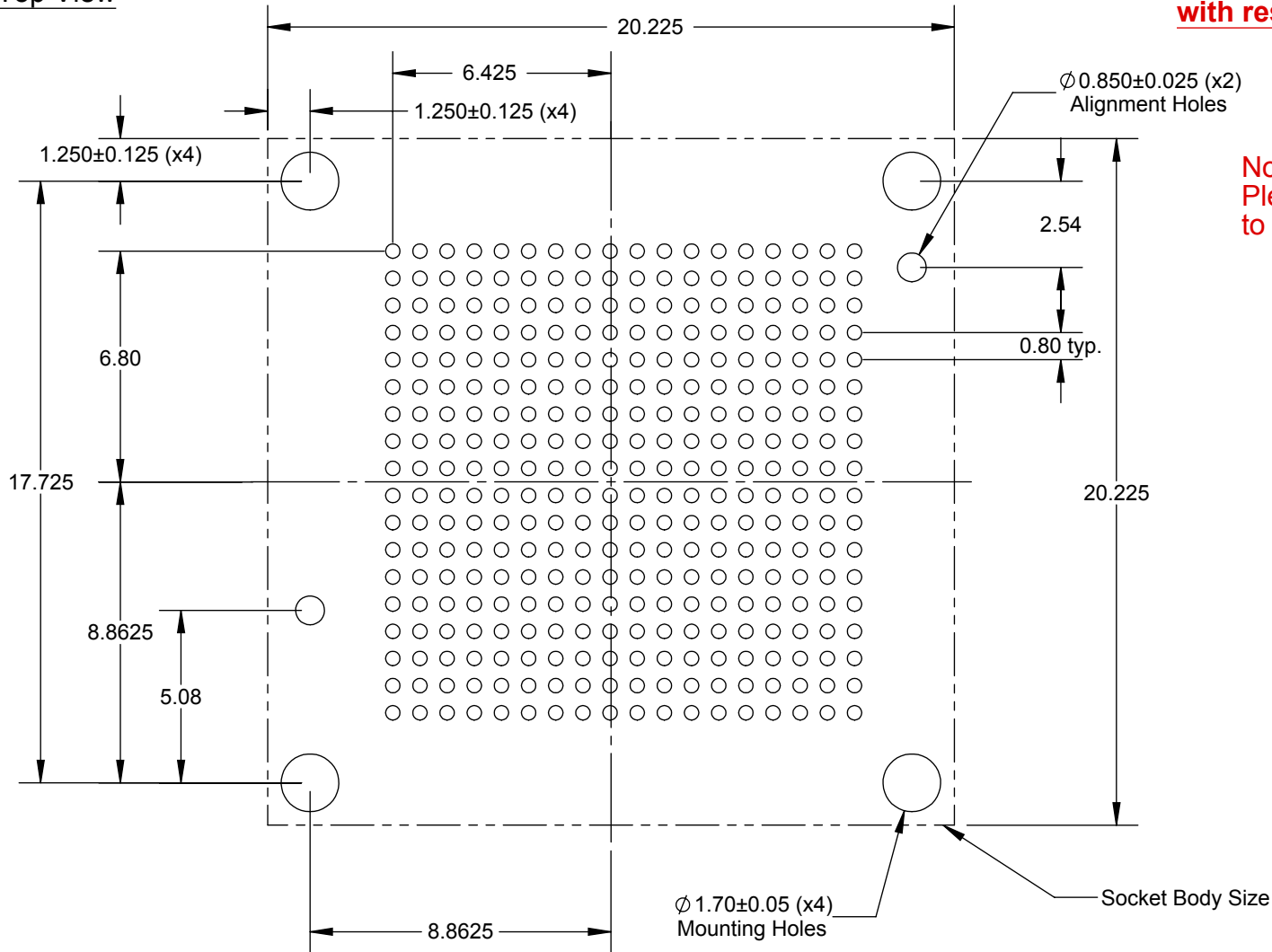
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

Tolerances: Hole diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001''$ ], Pitches (from true position)  $\pm 0.025\text{mm}$  [ $\pm 0.001''$ ], substrate thickness tolerance  $\pm 10\%$ , all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005''$ ] unless stated otherwise. Materials and specifications are subject to change without notice.

 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 9.82	STATUS: Released	SHEET: 1 OF 5	REV. D
		DRAWN BY: D. Hauer	SCALE: 3:1	
		FILE: SG-BGA-6229 Dwg	DATE: 8/06/12	

**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

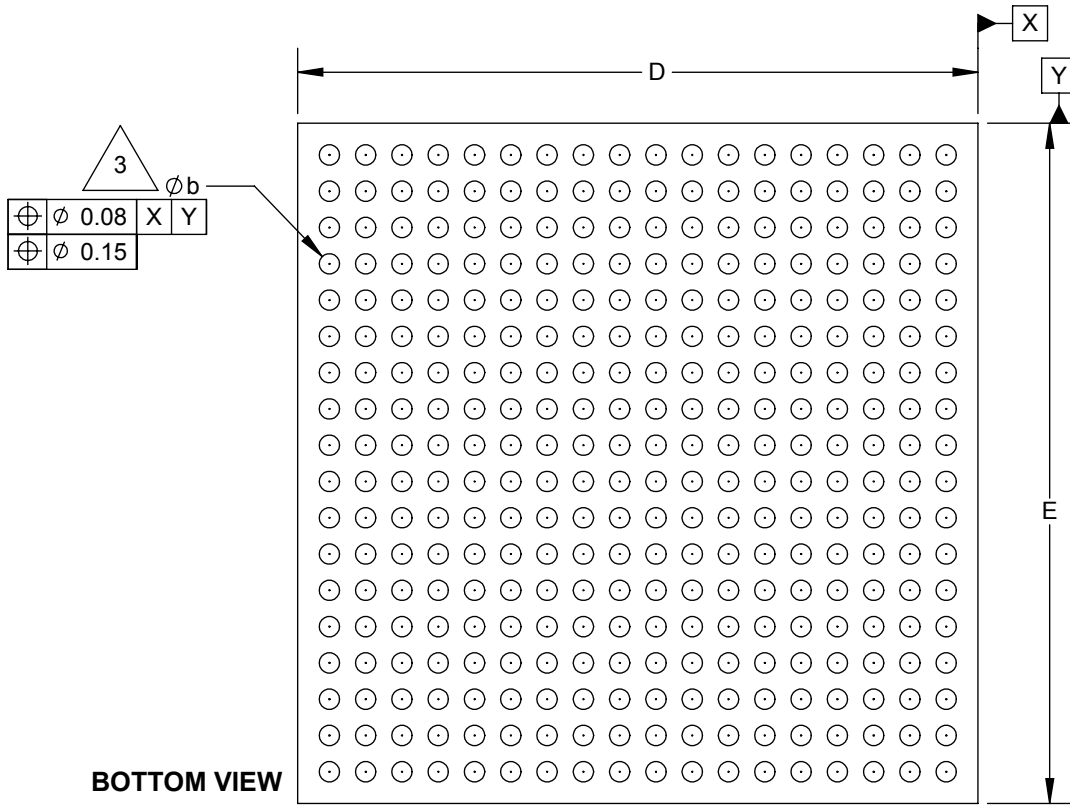
**Description: LAYOUT**

Primary dimension units are millimeters, Secondary dimension units are [inches]. Weight is in grams.

Tolerances: Hole diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001''$ ], Pitches (from true position)  $\pm 0.025\text{mm}$  [ $\pm 0.001''$ ], substrate thickness tolerance  $\pm 10\%$ , all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005''$ ] unless stated otherwise. Materials and specifications are subject to change without notice.

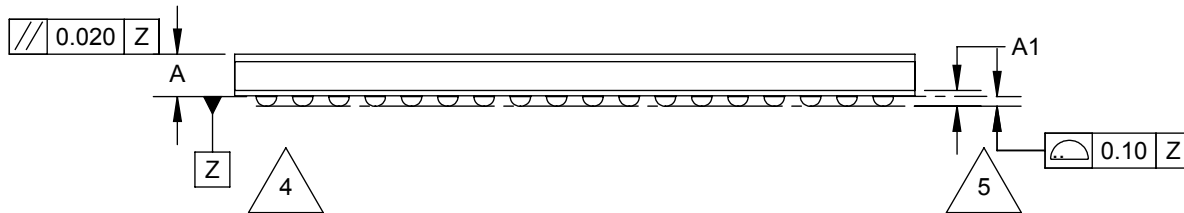
 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 9.82	STATUS: Released	SHEET: 2 OF 5	REV. D
		DRAWN BY: D. Hauer	SCALE: 5:1	
		FILE: SG-BGA-6229 Dwg	DATE: 8/06/12	

# Compatible BGA Spec



**BOTTOM VIEW**

Array 18x18



**SIDE VIEW**


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

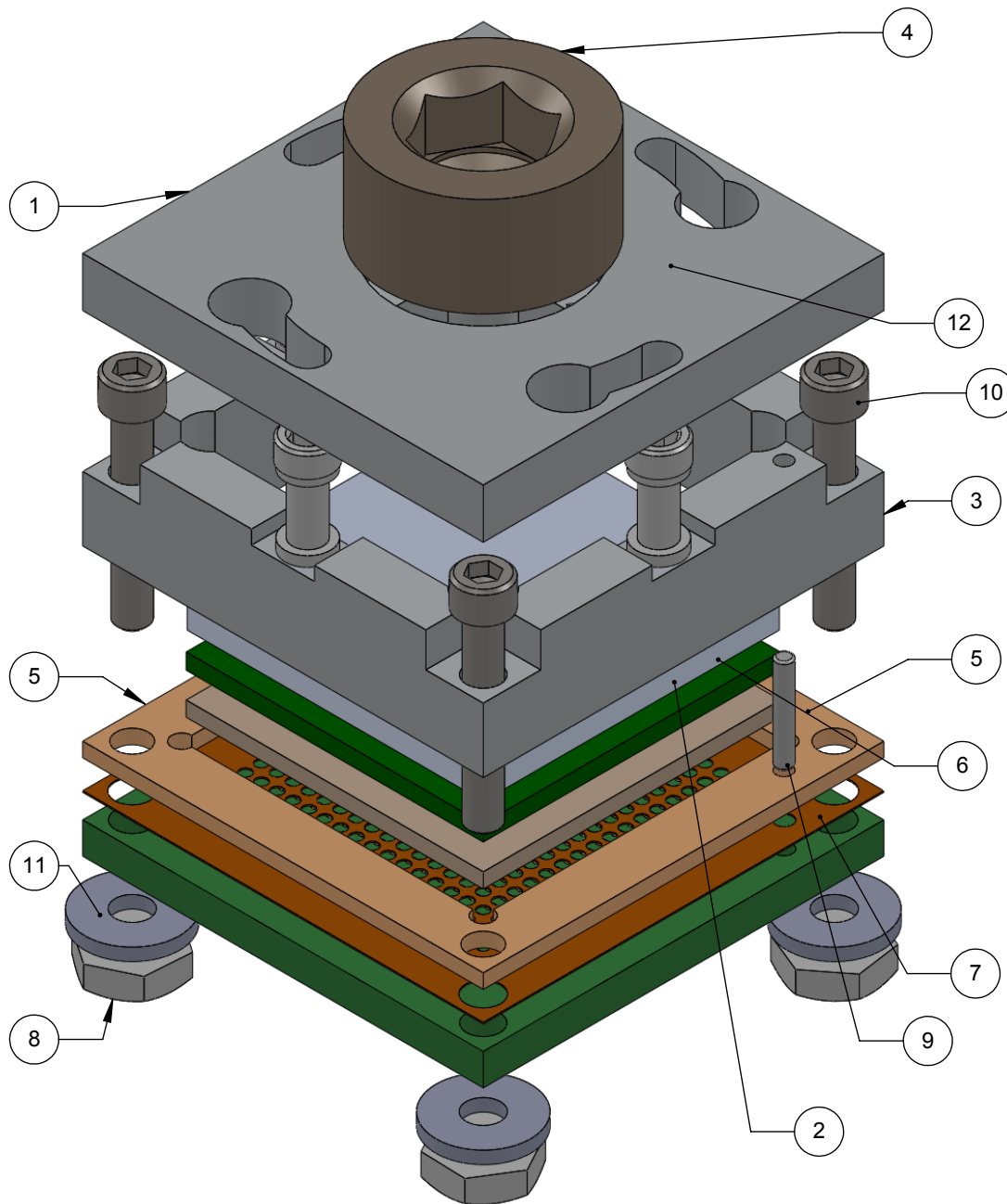
DIM	MIN	MAX
A		1.70
A1	0.21	
b	0.4	
D	15.0 BSC	
E	15.0 BSC	
e	0.8 BSC	

## Description: BGA IC

Primary dimension units are millimeters. Secondary dimension units are [inches]. Weight is in grams.

Tolerances: Hole diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001^{\circ}$ ], Pitches (from true position)  $\pm 0.025\text{mm}$  [ $\pm 0.001^{\circ}$ ], substrate thickness tolerance  $\pm 10\%$ , all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005^{\circ}$ ] unless stated otherwise. Materials and specifications are subject to change without notice.

 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 9.82	STATUS: Released	SHEET: 3 OF 5	REV. D
		DRAWN BY: D. Hauer	SCALE: 6:1	
		FILE: SG-BGA-6229 Dwg	DATE: 8/06/12	




ITEM NO.	PART NUMBER	DESCRIPTION	Material
1	M1043	Socket Lid 15mm	7075-T6, Plate (SS)
2	M1057	Compression Plate 15mm	7075-T6 Aluminum Alloy
3	M1071	Socket Base	7075-T6 Alumium Alloy
4	M1082	Compression Screw M10	7075-T6 Alumium Alloy
5	P3112	Elastomer Guide	Ultem 1000
6	P4098	BGA324 ,0.8mm Pitch	FR4
7	P6891	Ball Guide	Kapton Polyimide/Cirlex
8	R1005	Nut, #0-80, SS	Stainless Steel (18-8)
9	R1341	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
10	R1438	#0-80 X .375 LG, SOC HD CAP SCREW, ALLOY STL, BLK OXIDE	Alloy Steel
11	R1492	Washer, #0 x .025", Nylon	Nylon 6/6
12	R2613	#0-80 Shoulder Screw, 0.090" thread length	Stainless Steel (303)
13	P11874	Target PCB BGA324 0.375mm shift 0.8mm pitch	FR4 High temp
14	R1549_1 5mm_sq uare	63 deg angled elastomer	Silicon Rubber

### Description: SOCKET

Primary dimension units are millimeters, Secondary dimension units are [inches]. Weight is in grams.

Tolerances: Hole diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001"$ ], Pitches (from true position)  $\pm 0.025\text{mm}$  [ $\pm 0.001"$ ], substrate thickness tolerance  $\pm 10\%$ , all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005"$ ] unless stated otherwise. Materials and specifications are subject to change without notice.


 <b>SG-BGA-6229 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 9.82	STATUS: Released	SHEET: 4 OF 5	REV. D
		DRAWN BY: D. Hauer	SCALE: 4:1	
		FILE: SG-BGA-6229 Dwg	DATE: 8/06/12	

Rev	Date	Initials	Description
A	05/24/07	JG	Original
B	07/02/09	AE	Changed socket lid screw from socket head cap screw to shoulder screw
C	08/06/12	DH	VW to SW
D	12/21/12	SD	Replaced Target PCB to correct shift

### Description: Revision History

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

Tolerances: Hole diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001"$ ], Pitches (from true position)  $\pm 0.025\text{mm}$  [ $\pm 0.001"$ ], substrate thickness tolerance  $\pm 10\%$ , all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005"$ ] unless stated otherwise. Materials and specifications are subject to change without notice.

 <b>SG-BGA-6229 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Finish: Weight:	STATUS: Released	SHEET: 5 OF 5	REV. D
		DRAWN BY: D. Hauer	SCALE: 1:1	
		FILE: SG-BGA-6229 Dwg	DATE: 8/06/12	