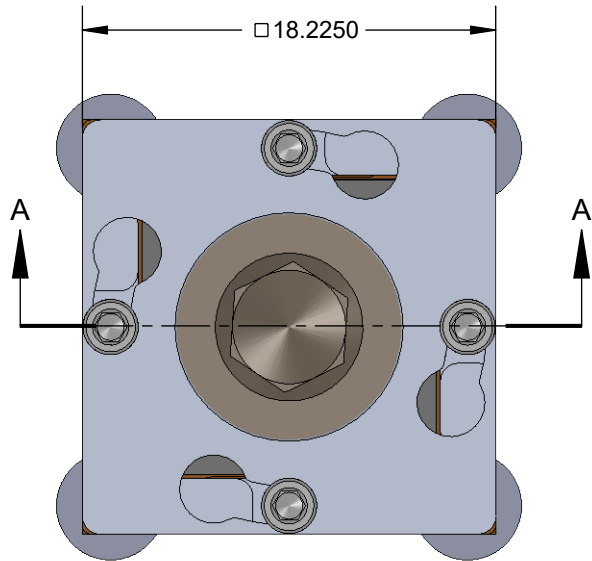


# GHz BGA Socket - Direct mount, solderless

## Features

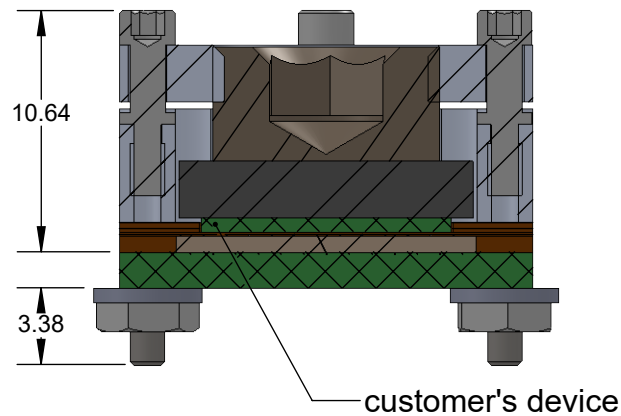
- Directly mounts to target PCB.
- High speed, reliable Elastomer connection
- Minimum real estate required
- Compression plate distributes forces evenly
- Easily removable socket lid
- Ball guide prevents over compression of elastomer

TOP VIEW

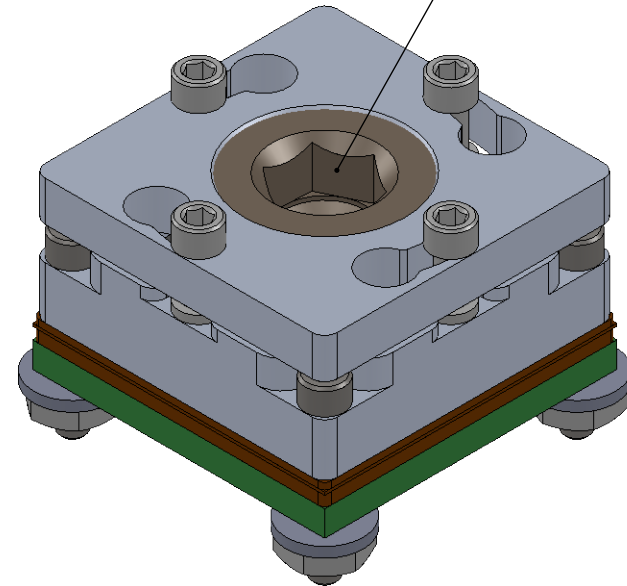


Required Torque: 3.8 N-cm [0.34 lbf-in]

Recommended tool: TL-TORQUEDRIVER-09




SECTION A-A



## Description: SG-BGA Socket, 11x13mm 8x8, 1mm pitch

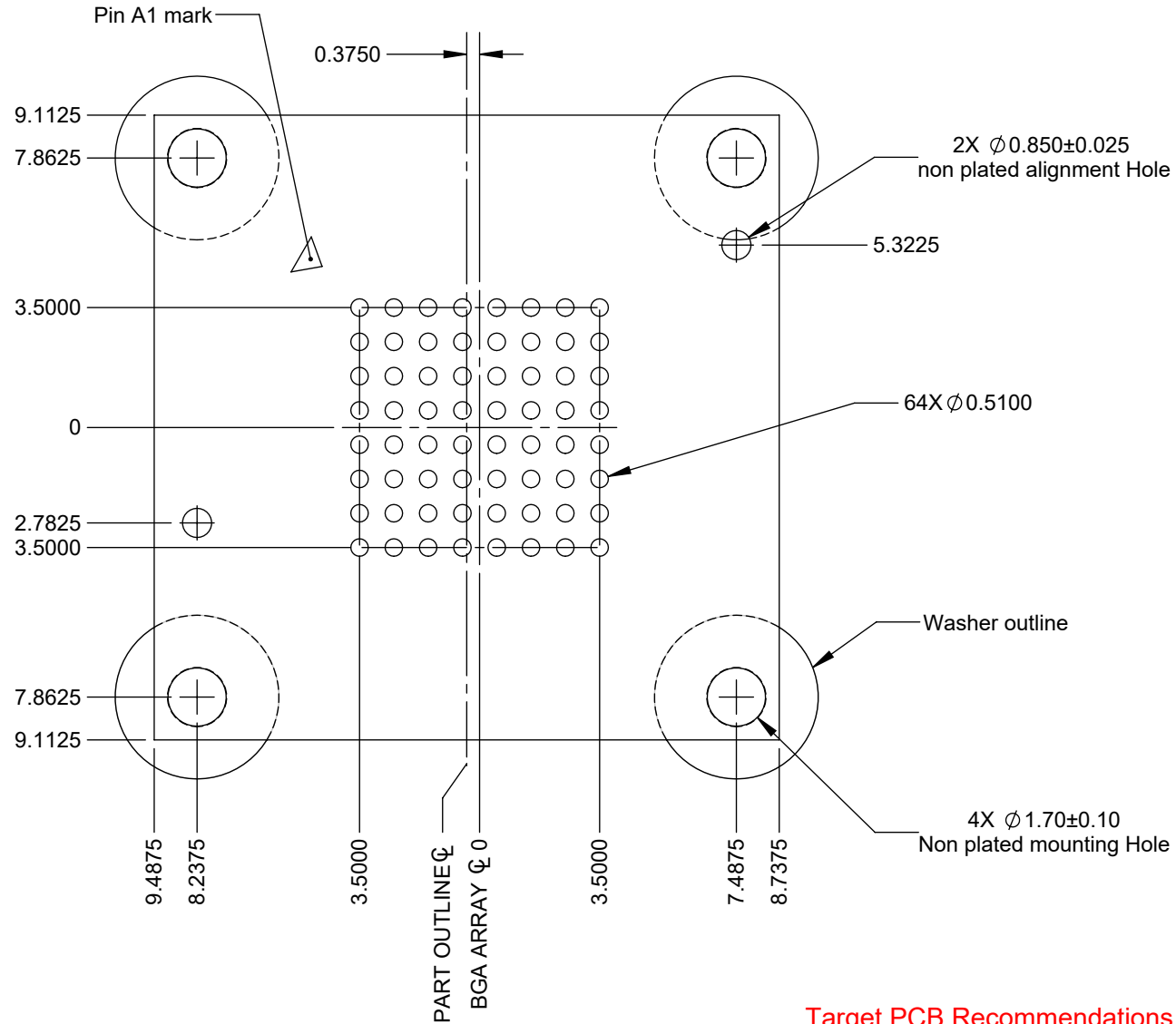
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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-6454 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 8.43	STATUS: Released ENG: E. Smolentseva FILE: SG-BGA-6454 Dwg	SHEET: 1 OF 4 DRAWN BY: M. Raske DATE: 01/19/2017	REV. A SCALE: 3:1

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.**

**Description: SG-BGA Socket, 11x13mm 8x8, 1mm pitch**

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

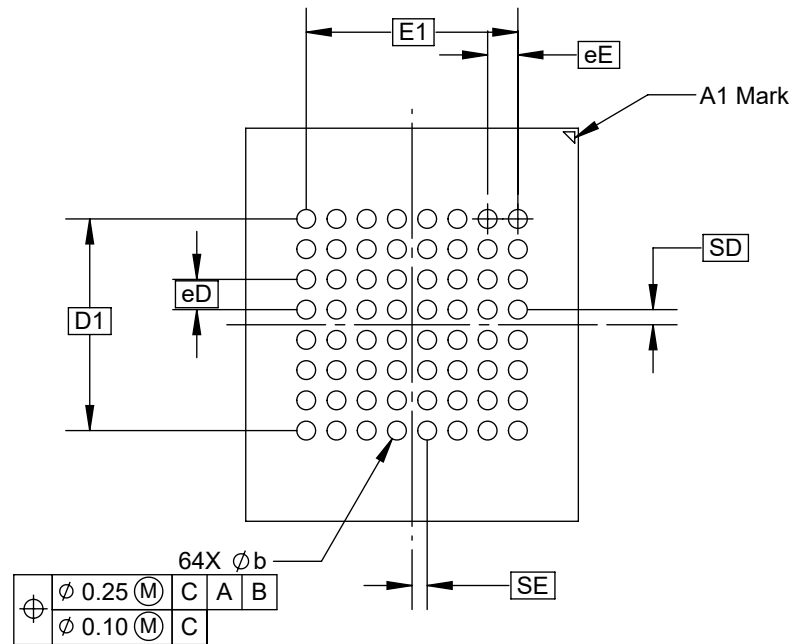
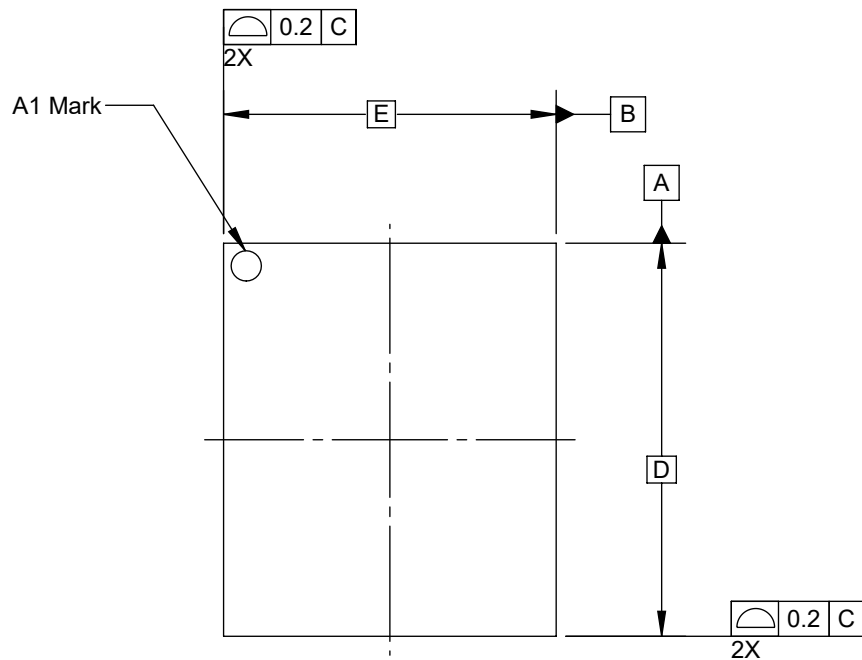
Tolerances: Hole diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001"$ ], Pitches (from true position)  $\pm 0.025\text{mm}$  [ $\pm 0.001"$ ], substrate thickness tolerance  $\pm 10\%$ , all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005"$ ] unless stated otherwise. Materials and specifications are subject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

 <b>SG-BGA-6454 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 8.43	STATUS: Released ENG: E. Smolentseva FILE: SG-BGA-6454 Dwg	SHEET: 2 OF 4 DRAWN BY: M. Raske DATE: 01/19/2017	REV. A SCALE: 5:1

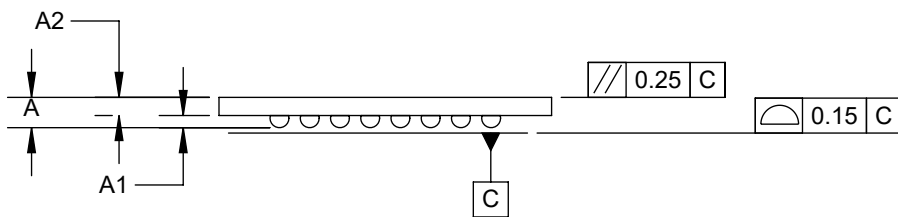
Top View

Compatible BGA Spec

Bottom View



Front View




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

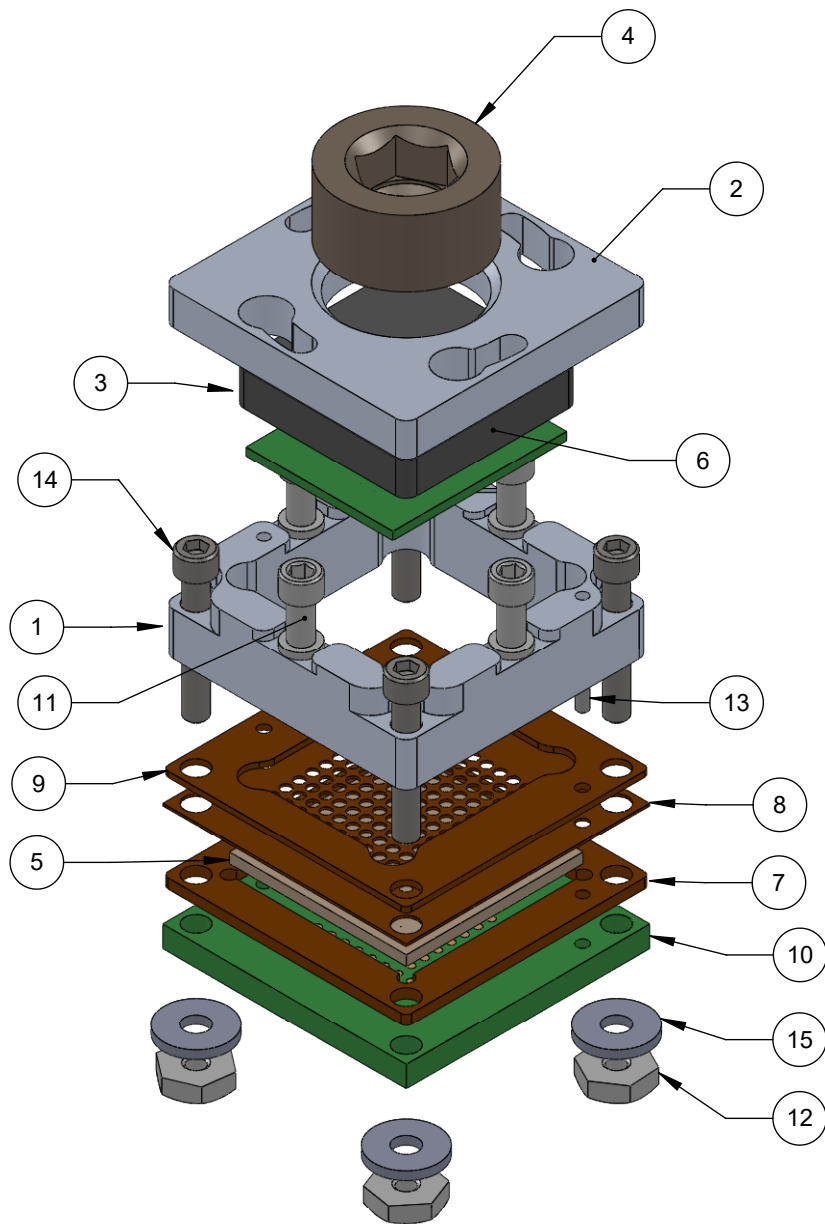
Description: Compatible BGA

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.

SYMBOL	MIN.	NOM.	MAX.
A			1.40
A1	0.40		
A2	0.60		
D	13.00 BSC.		
E	11.00 BSC.		
D1	7.00 BSC.		
E1	7.00 BSC.		
MD	8		
ME	8		
N	64		
b	0.50	0.60	0.70
eD	1.00 BSC.		
eE	1.00 BSC.		
SD/SE	0.5 BSC.		

 <b>SG-BGA-6454 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 8.43	STATUS: Released ENG: E. Smolentseva FILE: SG-BGA-6454 Dwg	SHEET: 3 OF 4 DRAWN BY: M. Raske DATE: 01/19/2017	REV. A SCALE: 4:1




ITEM NO.	Description	Material
1	GHz Socket Base 13mm IC	7075-T6 Aluminum Alloy
2	Socket Lid, 18.225 X 18.225	7075-T6 Aluminum Alloy
3	Compression Plate, 12.95 X 12.95	7075-T6 Aluminum Alloy
4	Compression Screw M10	7075-T6 Alumium Alloy
5	0.75mm thick 0.1mm pitch 63 deg angled elastomer	Silicon Rubber
6	Customer's device	FR4 High temp
7	Elastomer Guide 13x13mm	Kapton Polyimide/Cirlex/Ultem
8	Ball Guide	Kapton Polyimide/Cirlex
9	IC Guide for 11x13mm IC	Kapton Polyimide/Cirlex
10	Customer's target PCB	FR4 High temp
11	#0-80 Shoulder Screw, 2.29mm thread length	Stainless Steel (303)
12	Nut, #0-80, SS	Stainless Steel (18-8)
13	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
14	#0-80 X .375 LG, SOC HD CAP SCREW, ALLOY STL, BLK OXIDE	Alloy Steel
15	Washer, #0 x .025", Nylon	Nylon 6/6

## Description: Socket sub components

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-6454 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 8.43	STATUS: Released	SHEET: 4 OF 4	REV. A
		ENG: E. Smolentseva	DRAWN BY: M. Raske	SCALE: 2.5:1
		FILE: SG-BGA-6454 Dwg	DATE: 01/19/2017	