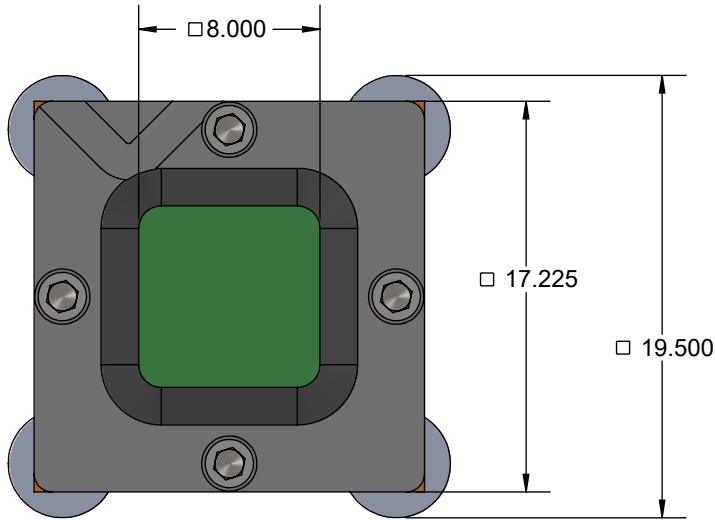


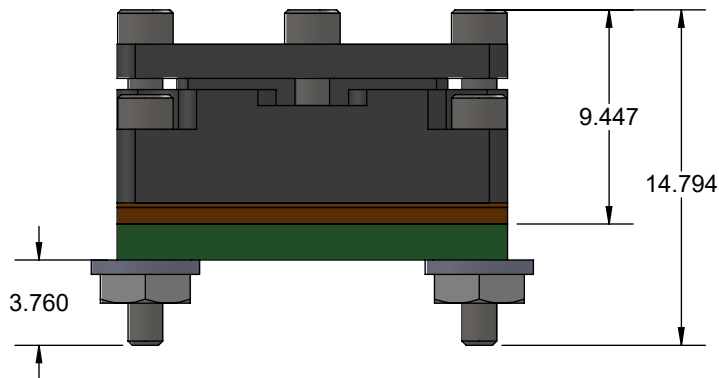
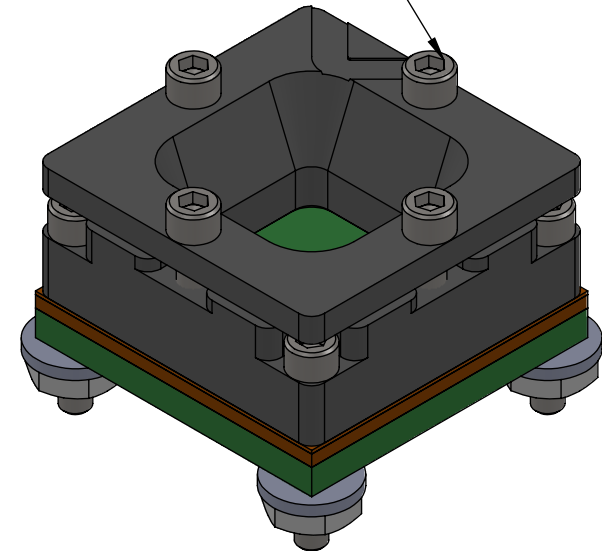
GHz BGA Socket - Direct mount, solderless

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
- Open top compression plate




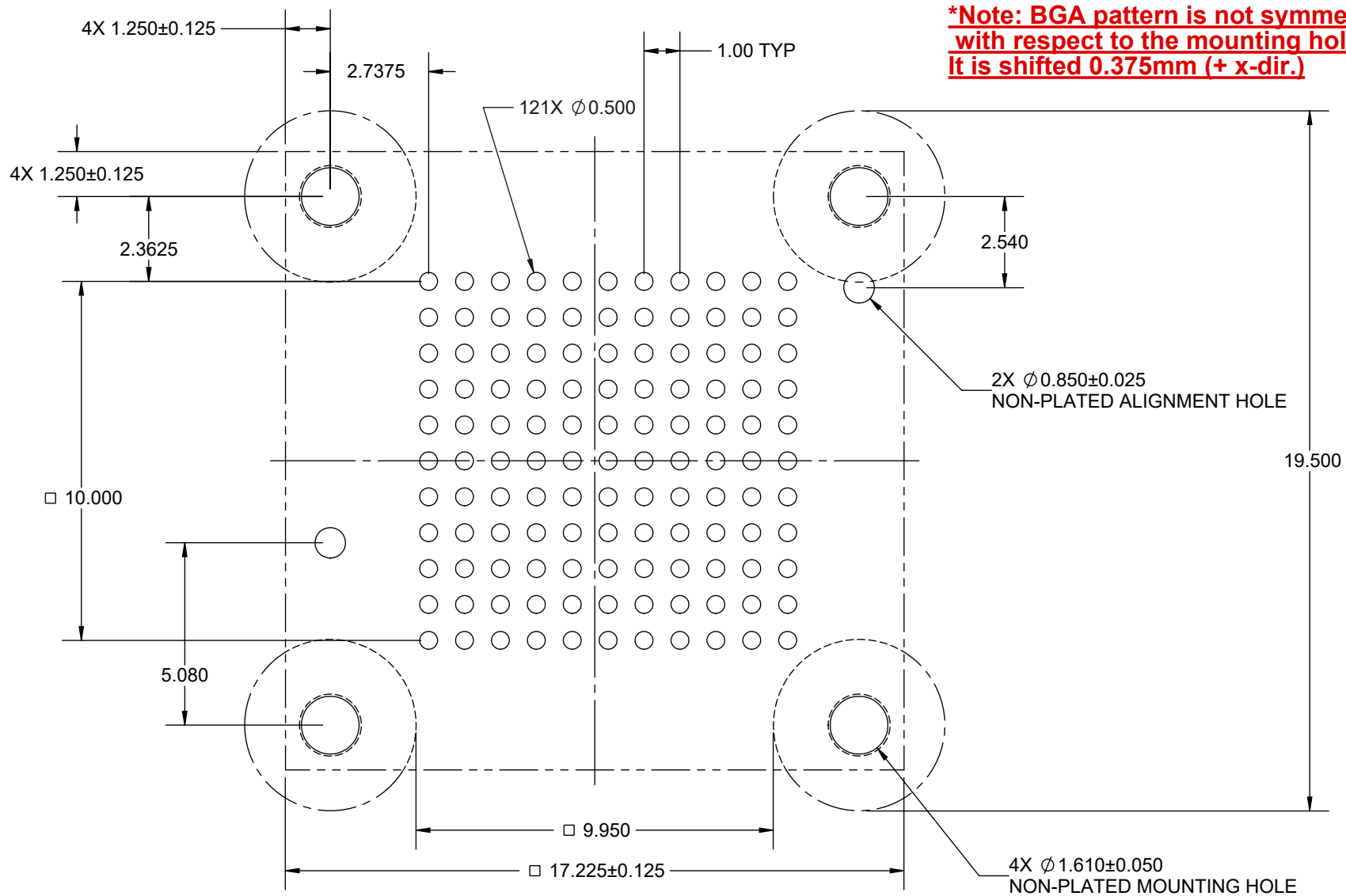
Required torque = 0.715 N-cm [1 ozf-in] per screw
 Contact Ironwood for proper torquedriver to achieve this torque value



Description: SG-BGA 12mm IC, 11x11 array, 1mm pitch w/ open top lid

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.
 Tolerances: Hole diameters $\pm 0.0254\text{mm}$ [$\pm 0.001''$], Pitches (from true position) $\pm 0.0254\text{mm}$ [$\pm 0.001''$],
 substrate thickness tolerance $\pm 10\%$, all other tolerances $\pm 0.127\text{mm}$ [$\pm 0.005''$]
 unless stated otherwise. Materials and specifications are subject to change without notice.

 ©2016 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	SG-BGA-6457 Specification	Material: N/A Finish: N/A Weight: 6.03	STATUS: Quality Approval Pending	SHEET: 1 OF 4	REV. -.01
			ENG: J. Vavra	DRAWN BY: M. Raske	SCALE: 3:1
			FILE: SG-BGA-6457 Dwg	DATE: 03/27/2018	



***Note: BGA pattern is not symmetrical with respect to the mounting holes. It is shifted 0.375mm (+ x-dir.)**


Target PCB Recommendations

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

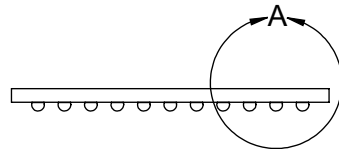
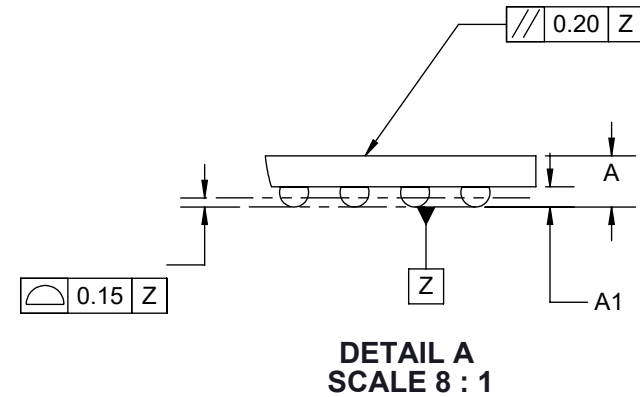
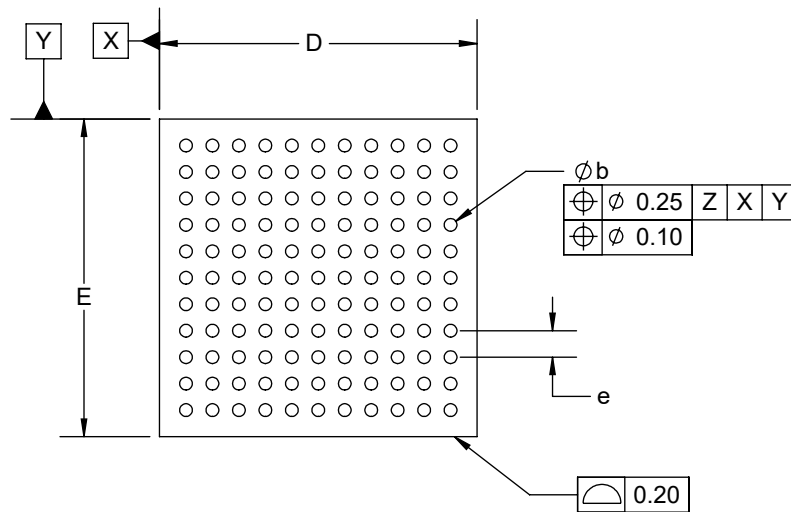
NOTE: Steel backing plate may be required based on end user's application

Description: Recommended PCB Layout

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.
 Tolerances: Hole diameters $\pm 0.0254\text{mm}$ [$\pm 0.001"$], Pitches (from true position) $\pm 0.0254\text{mm}$ [$\pm 0.001"$],
 substrate thickness tolerance $\pm 10\%$, all other tolerances $\pm 0.127\text{mm}$ [$\pm 0.005"$]
 unless stated otherwise. Materials and specifications are subject to change without notice.

 <p>SG-BGA-6457 Drawing ©2016 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>Material: N/A Finish: N/A Weight: 6.03</p>	STATUS: Quality Approval Pending	SHEET: 2 OF 4	REV. -.01
		ENG: J. Vavra	DRAWN BY: M. Raske	SCALE: 6:1
		FILE: SG-BGA-6457 Dwg	DATE: 03/27/2018	

Ironwood Package Code: BGA121C



Array 11x11


DIM	MIN	MAX
A	---	2.50
A1	0.20	---
b	---	0.70
D	12.00 BSC	
E	12.00 BSC	
e	1.00 BSC	

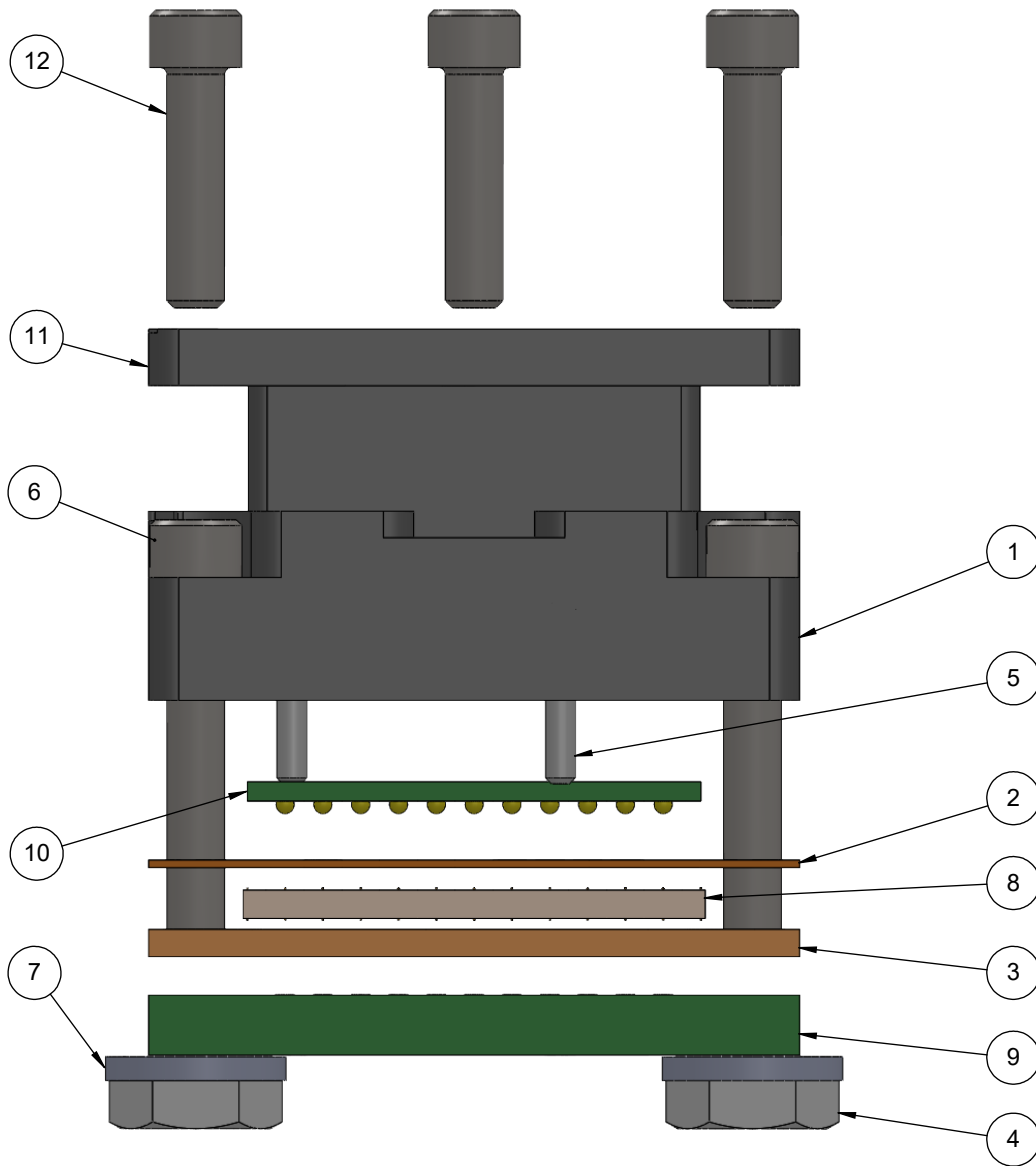
Dimensions are in millimeters.

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

Description: Compatible Device

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.
Tolerances: Hole diameters $\pm 0.0254\text{mm}$ [$\pm 0.001^{\circ}$], Pitches (from true position) $\pm 0.0254\text{mm}$ [$\pm 0.001^{\circ}$],
substrate thickness tolerance $\pm 10\%$, all other tolerances $\pm 0.127\text{mm}$ [$\pm 0.005^{\circ}$]
unless stated otherwise. Materials and specifications are subject to change without notice.


 SG-BGA-6457 Drawing ©2016 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 6.03	STATUS: Quality Approval Pending	SHEET: 3 OF 4	REV. -.01
		ENG: J. Vavra	DRAWN BY: M. Raske	SCALE: 3.5:1
		FILE: SG-BGA-6457 Dwg	DATE: 03/27/2018	



ITEM NO.	DESCRIPTION	Material
1	GHz Socket Base 12mm IC	7075-T6 Aluminum Alloy
2	Ball Guide 11x11 array, 1.0mm pitch	Kapton Polyimide/Cirlex
3	Elastomer Guide	Kapton Polyimide/Cirlex/Ultem / Kapton Polyimide or Cirlex
4	Nut, #0-80, SS	Stainless Steel (18-8)
5	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
6	#0-80 X .375 LG, SOC HD CAP SCREW, ALLOY STL, BLK OXIDE	Alloy Steel
7	Washer, #0 x .025", Nylon	Nylon 6/6
8	0.75mm thick 0.1mm pitch 63 deg angled elastomer	Silicon Rubber
9	Test PCB	Material <not specified>
10	Test Chip	Material <not specified>
11	Open Top Lid for 12x12mm IC	7075-T6 Aluminum Alloy
12	#0-80 X .25 LG, SOC HD CAP SCREW, ALLOY STL, BLK OXIDE	Alloy Steel

Description: Socket, Backing Plate Detail

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.
 Tolerances: Hole diameters $\pm 0.0254\text{mm}$ [$\pm 0.001"$], Pitches (from true position) $\pm 0.0254\text{mm}$ [$\pm 0.001"$], substrate thickness tolerance $\pm 10\%$, all other tolerances $\pm 0.127\text{mm}$ [$\pm 0.005"$] unless stated otherwise. Materials and specifications are subject to change without notice.

 SG-BGA-6457 Drawing ©2016 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 6.03	STATUS: Quality Approval Pending	SHEET: 4 OF 4	REV. -.01
		ENG: J. Vavra	DRAWN BY: M. Raske	SCALE: 5:1
		FILE: SG-BGA-6457 Dwg	DATE: 03/27/2018	