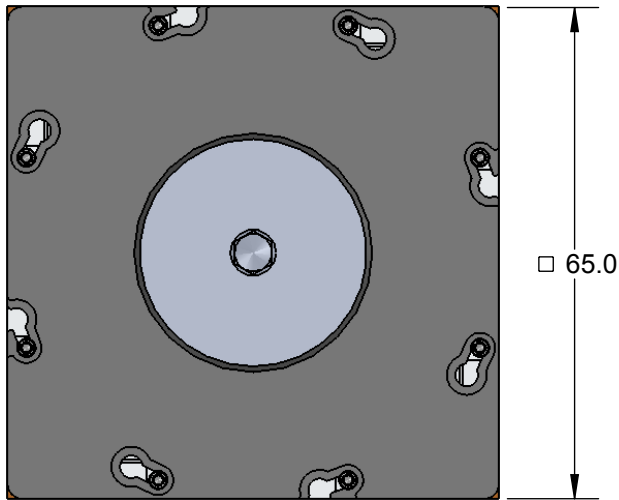


SG-BGA DIRECT MOUNT, SOLDERLESS SOCKET

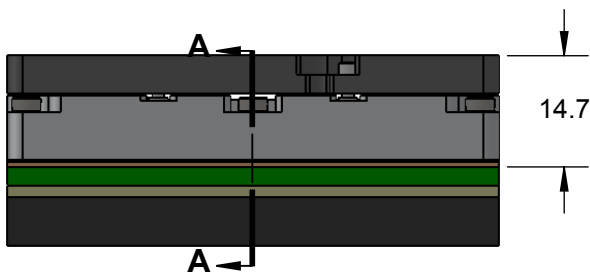
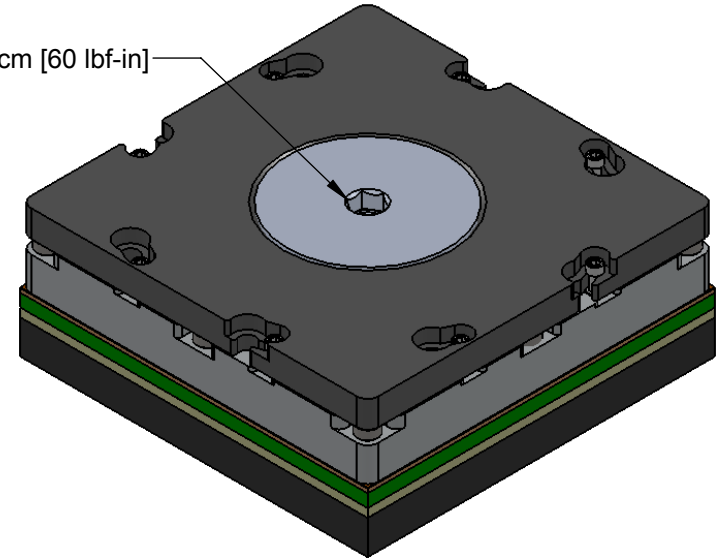
Features

- 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

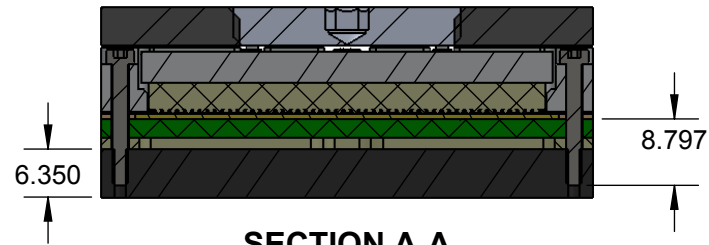


Top View

Recommended torque= 678 N-cm [60 lbf-in]



Side View




SECTION A-A

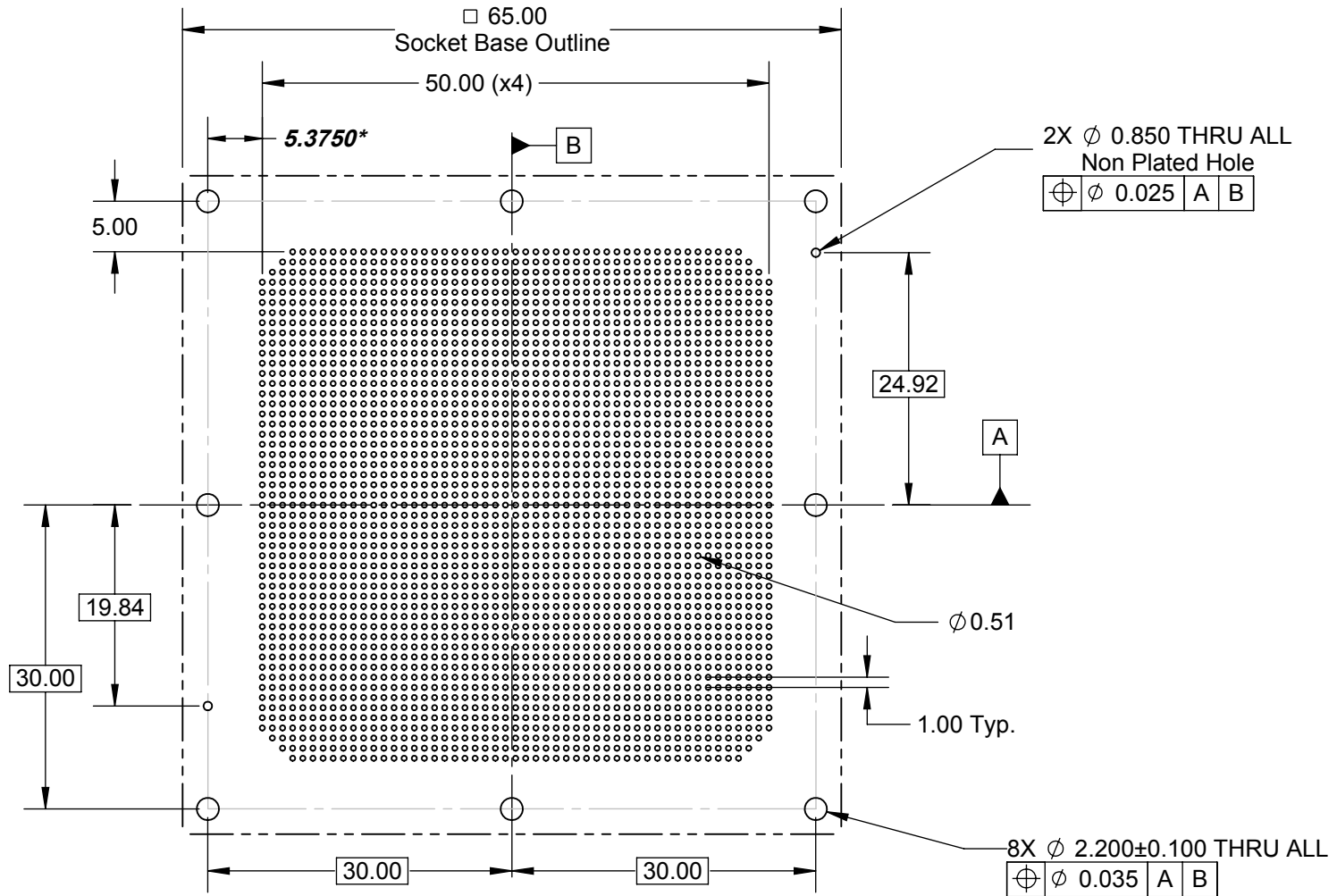
Description: SG-BGA skt 52.5x52.5mm 1mm 51x51 array

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.

 SG-BGA-6422 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 240.83	STATUS: Released ENG: R. Patil FILE: SG-BGA-6422 Dwg	SHEET: 1 OF 4 DRAWN BY: M. Raske DATE: 04/16/2015	REV. A SCALE: 1:1

***Note: BGA pattern is not symmetrical with respect to the mounting holes. It is shifted by 0.375mm to the right of center.**



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) $\pm 0.0762\text{mm}$ [$\pm 0.003"$], 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.

Target PCB Recommendations

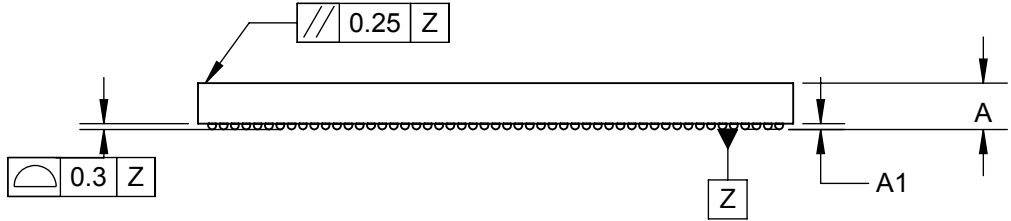
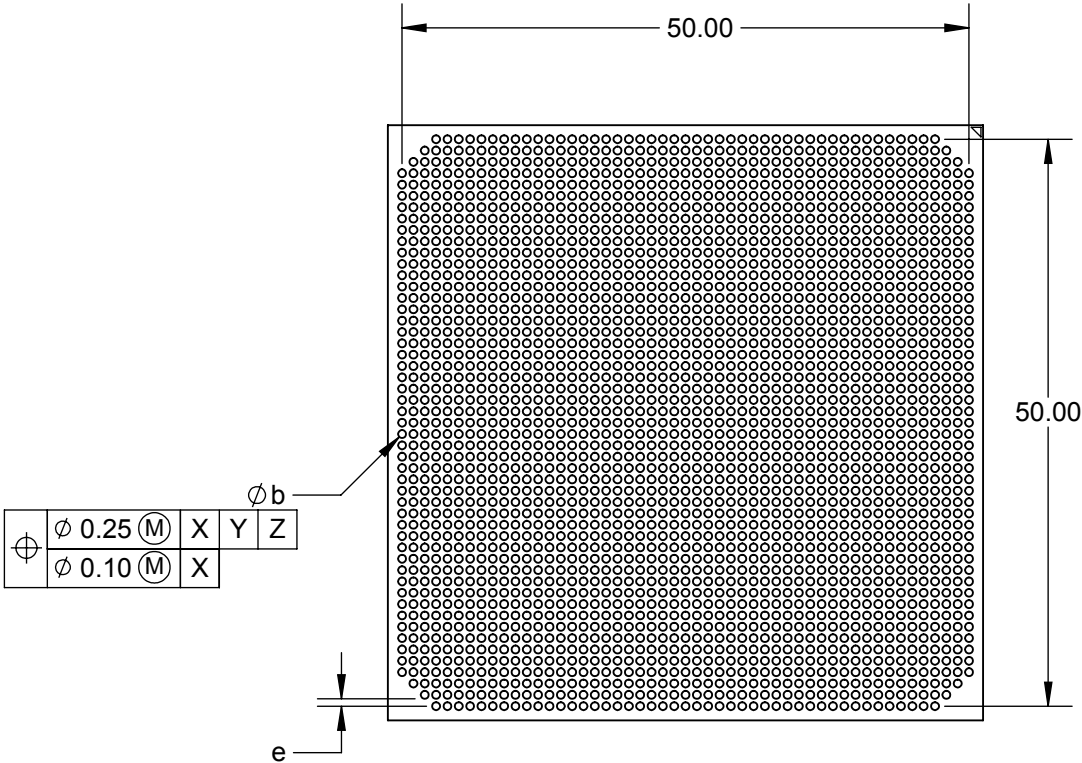
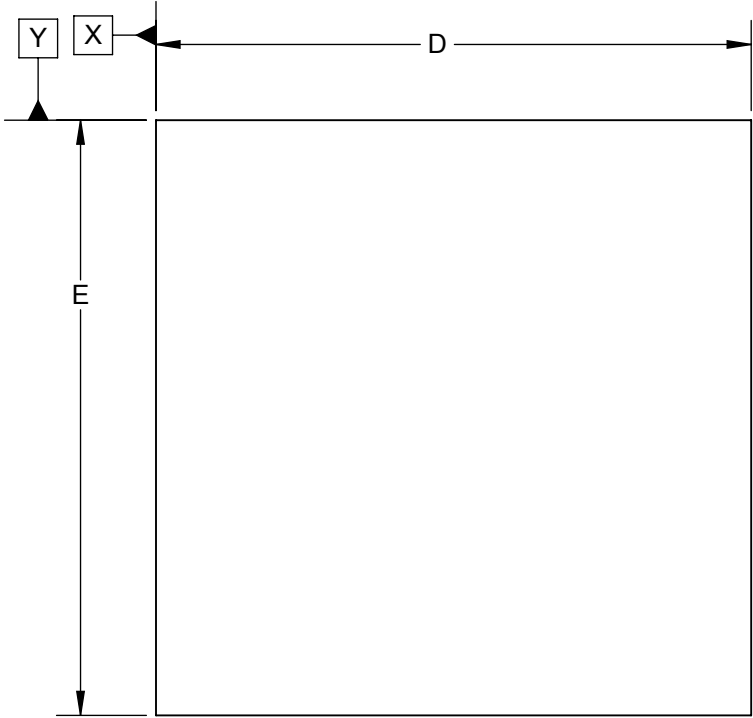
Total thickness: 2mm min.

Plating: Gold or Solder finish

PCB Pad height: Same or higher than solder mask

 SG-BGA-6422 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 240.83	STATUS: Released ENG: R. Patil FILE: SG-BGA-6422 Dwg	SHEET: 2 OF 4 DRAWN BY: M. Raske DATE: 04/16/2015	REV. A SCALE: 3:2

Ironwood Package Code: BGA1936B



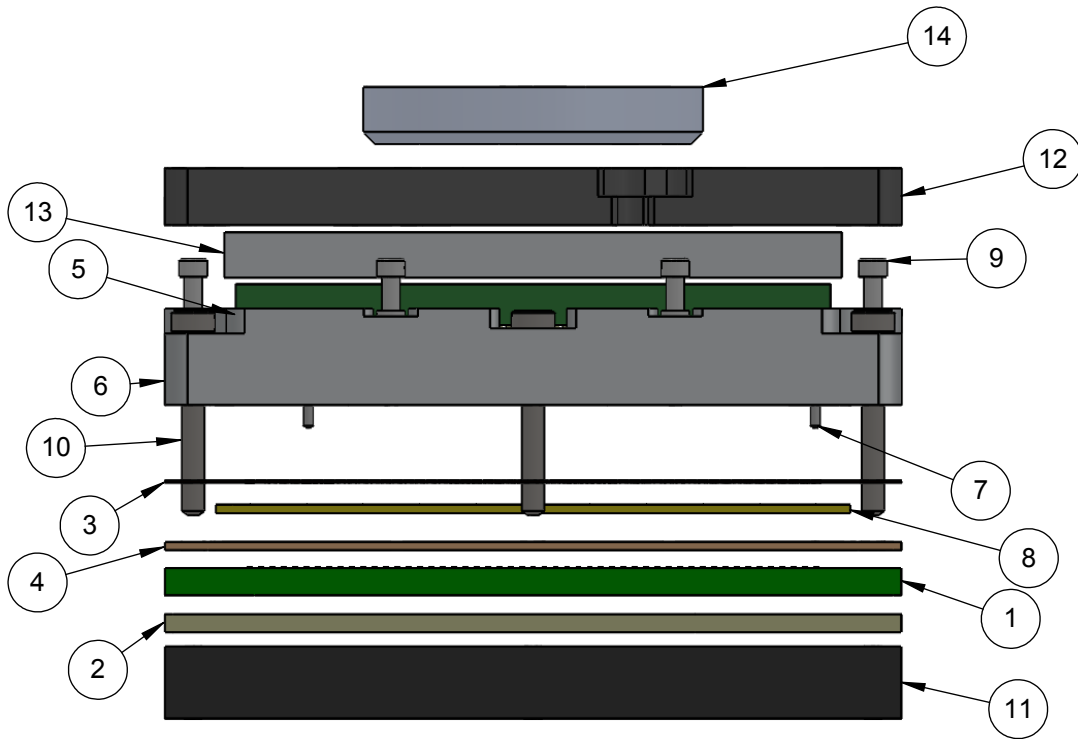
1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.
4. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
5. Parallelism measurement shall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

DIM	Minimum	Maximum
A	3.61	4.01
A1	0.40	0.60
b	0.50	0.70
D	52.50 BSC	
E	52.50 BSC	
e	1.00 BSC	
ARRAY	51 x 51	
PIN COUNT	2577	

Description: Compatible BGA

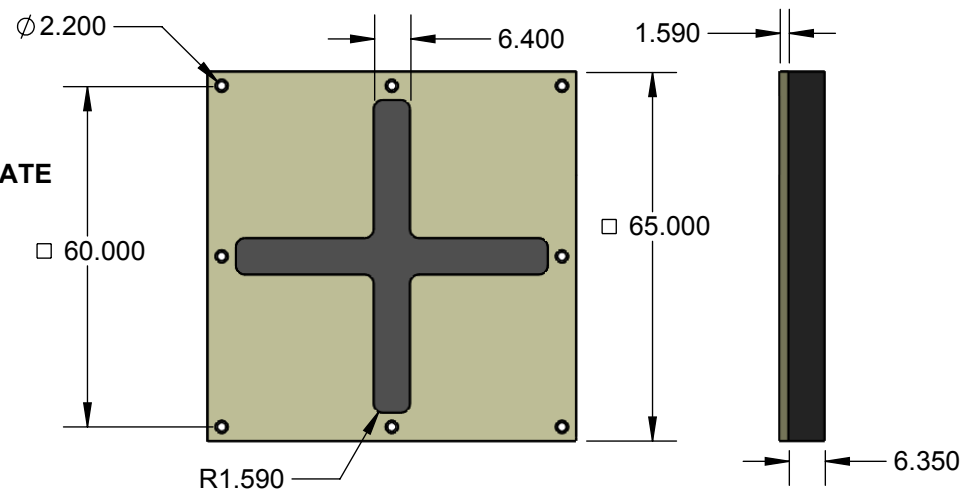
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.
 Tolerances: Hole diameters $\pm 0.03\text{mm}$ [± 0.001 "], Pitches (from true position) $\pm 0.025\text{mm}$ [± 0.001 "], substrate thickness tolerance $\pm 10\%$, all other tolerances $\pm 0.13\text{mm}$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

 SG-BGA-6422 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 240.83	STATUS: Released	SHEET: 3 OF 4	REV. A
		ENG: R. Patil	DRAWN BY: M. Raske	SCALE: 3:2
		FILE: SG-BGA-6422 Dwg	DATE: 04/16/2015	



ITEM NO.	Description	Material
1	PCB 51x51 array 1mm pitch	FR4
2	Insulation Plate 55mm	FR4 High temp
3	Ball Guide 51x51 array 1mm pitch	Kapton Polyimide/Cirlex
4	Elastomer Guide 55mm IC	Ultem 1000
5	BGA device 52.5x52.5mm, 51x51 array 1mm pitch	FR4 Standard
6	Swivel Socket Base 52.5x52.5mm IC 7mm ht	7075-T6 Aluminum Alloy
7	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
8	0.75mm thick 0.1mm pitch 63 deg angled elastomer	SG Elastomer
9	#0-80 Shoulder Screw, 2.29mm thread length	Stainless Steel (303)
10	Screw, M2x0.4 x 16mm, Cap, SS	Stainless Steel (18-8)
11	Backing Plate 55mm IC	7075-T6 Aluminum Alloy
12	Socket Lid for 55mm IC	7075-T6 Aluminum Alloy
13	Compression Plate for 55mm IC	7075-T6 Aluminum Alloy
14	Compression Screw, M30	7075-T6 Aluminum Alloy


BACKING AND INSULATION PLATE



Description: Socket Assy, Insulation Plate

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.

 SG-BGA-6422 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 240.83	STATUS: Released	SHEET: 4 OF 4	REV. A
		ENG: R. Patil	DRAWN BY: M. Raske	SCALE: 3:2
		FILE: SG-BGA-6422 Dwg	DATE: 04/16/2015	