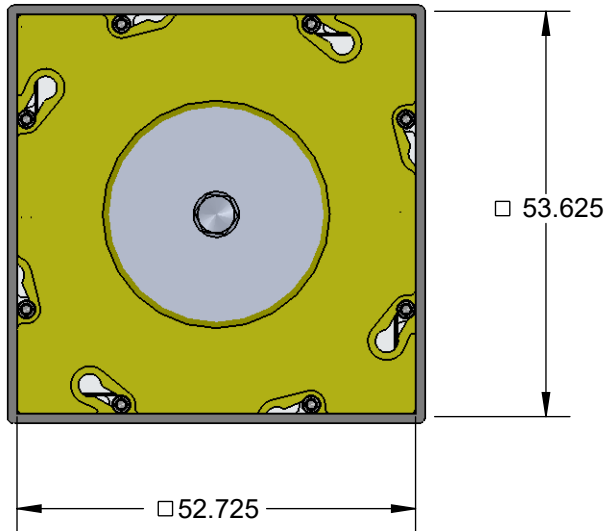


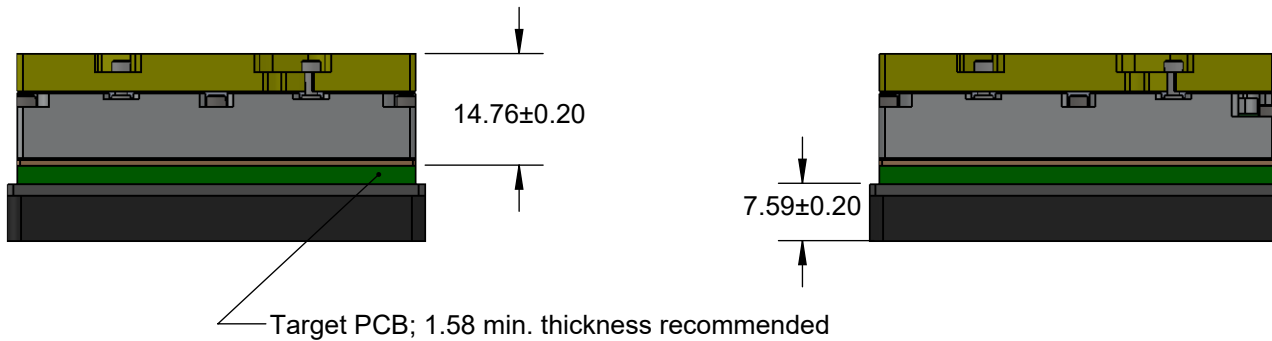
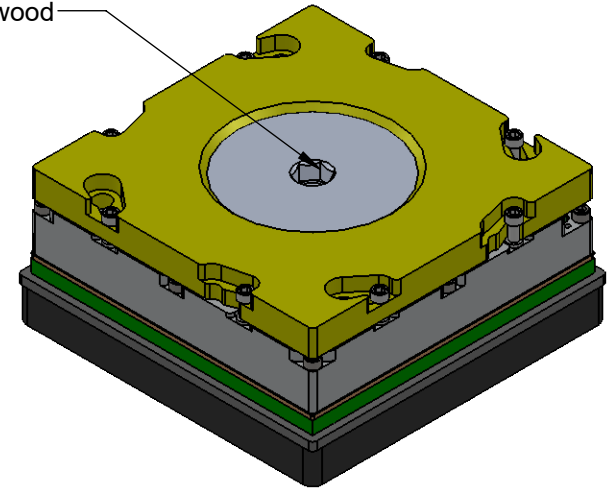
SG-BGA DIRECT MOUNT, SOLDERLESS SOCKET

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




Required torque= 49 in-lb
Recommended Tool: Contact Ironwood



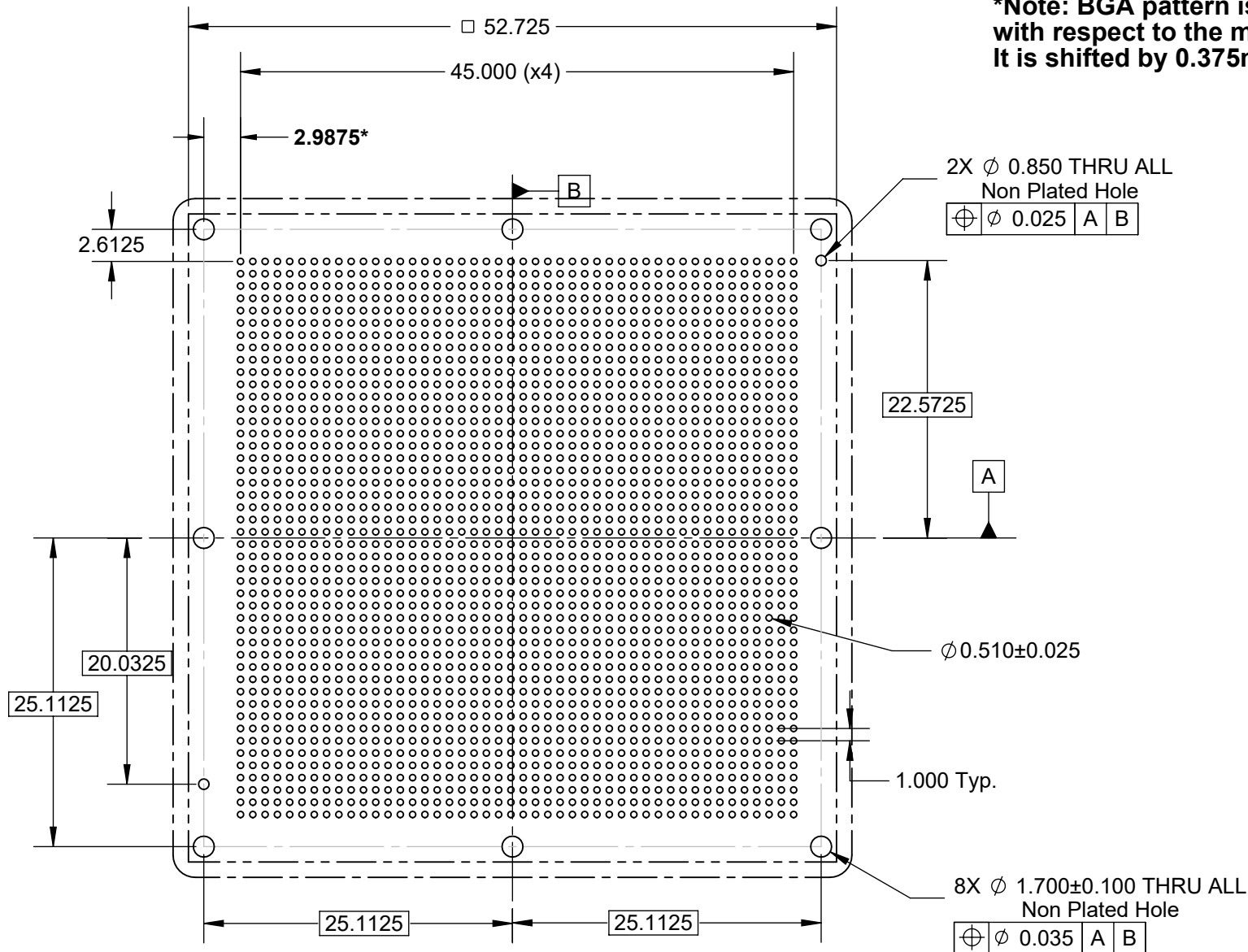
Description: SG-BGA skt 47.5x47.5mm 1mm 46x46 array

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-6450 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 156.16	STATUS: Released ENG: B. Schatz FILE: SG-BGA-6450 Dwg	SHEET: 1 OF 4 DRAWN BY: M. Raske DATE: 10/28/2016	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.

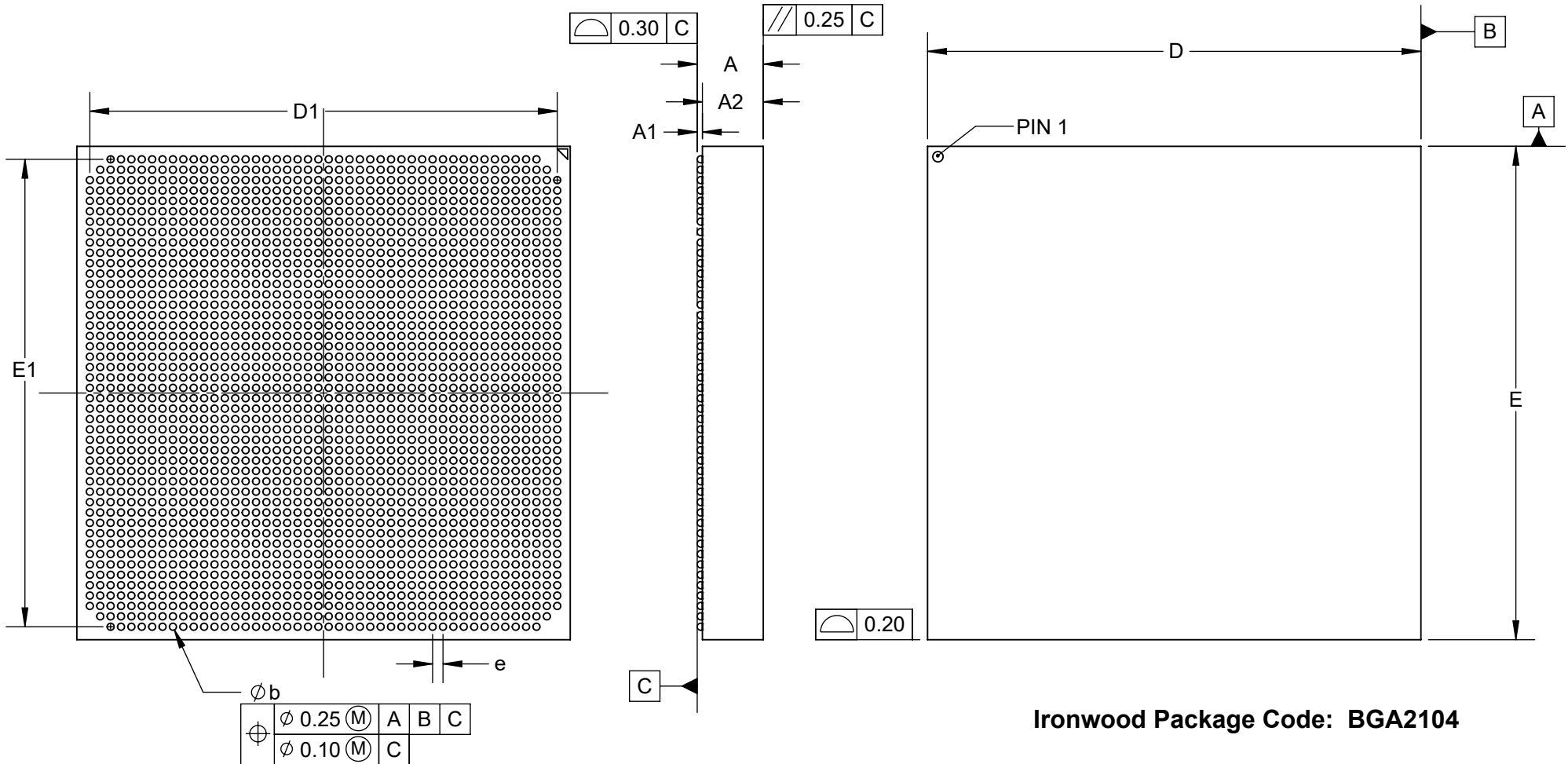
Target PCB Recommendations

Total thickness: 2mm min.

Plating: Gold or Solder finish

PCB Pad height: Same or higher than solder mask

 SG-BGA-6450 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 156.16	STATUS: Released ENG: B. Schatz FILE: SG-BGA-6450 Dwg	SHEET: 2 OF 4 DRAWN BY: M. Raske DATE: 10/28/2016	REV. A SCALE: 2:1



Ironwood Package Code: BGA2104


DIM	Minimum	Nominal	Maximum
A	6.16	6.36	6.56
A1	0.40	0.50	0.60
A2	5.66	5.86	6.06
D/E	47.50 BSC		
D1/E1	45.00 BSC		
e	1.00 BSC		
b	0.50	0.60	0.70
ARRAY	46 x 46		
PIN COUNT			2104

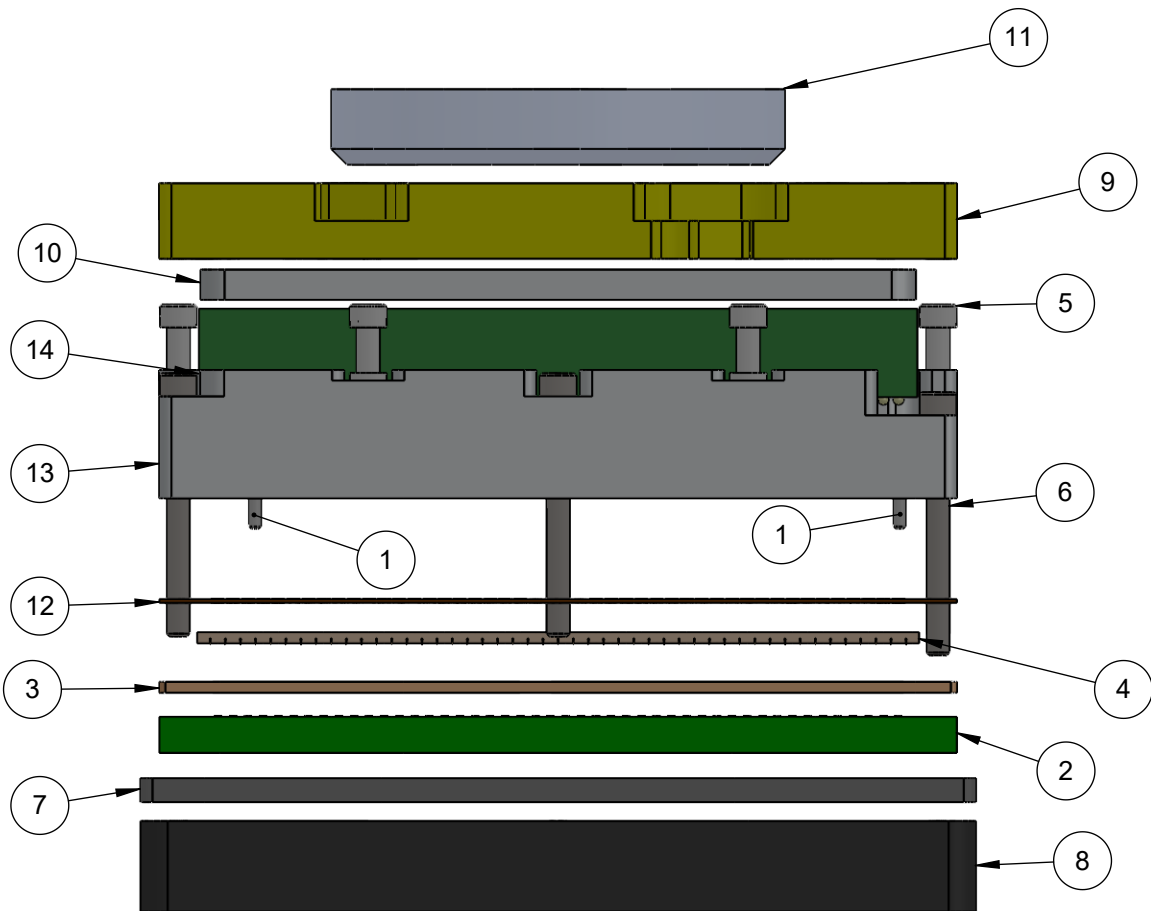
1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane C.
4. Datum C (seating plane) is defined by the spherical crowns of the solder balls.
5. Parallelism measurement shall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

Description: Compatible BGA

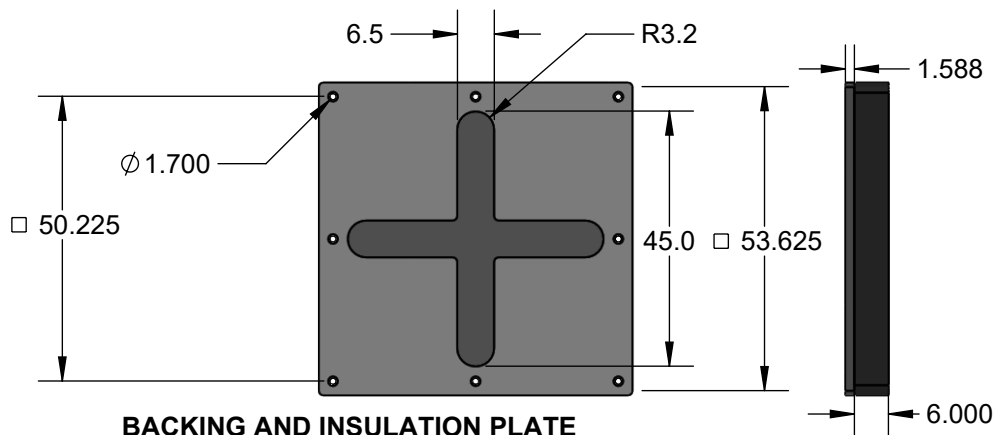
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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.

 SG-BGA-6450 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 156.16	STATUS: Released ENG: B. Schatz FILE: SG-BGA-6450 Dwg	SHEET: 3 OF 4 DRAWN BY: M. Raske DATE: 10/28/2016	REV. A SCALE: 1.75:1
--	--	---	---	-------------------------




ITEM NO.	Description	Material
1	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
2	Test PCB for 47.5x47.5mmmm 46x46, 1MM pitch	FR4
3	Elastomer Guide 47.5mm IC	Kapton Polyimide/Cirlex/Ultem
4	0.75mm thick 0.1mm pitch 63 deg angled elastomer	Silicon Rubber
5	#0-80 Shoulder Screw, 2.29mm thread length	Stainless Steel (303)
6	#0-80 X .625 LG, SOC HD CAP SCREW, ALLOY STL, BLK OXIDE	Alloy Steel
7	Insulation Plate	High temp Substrate
8	Backing Plate 47.5x47.5mm IC	7075-T6 Aluminum Alloy
9	Socket Lid for 47.5mm IC	7075-T6 Aluminum Alloy
10	Compression Plate for 45mm IC	7075-T6 Aluminum Alloy
11	Compression Screw, M30	7075-T6 Aluminum Alloy
12	Ball guide for 47.5x47.5mm 46x46, 1MM pitch	Kapton Polyimide/Cirlex
13	Swivel Socket Base 47.5x47.5mm IC	7075-T6 Aluminum Alloy
14	Customer's device	FR4 Standard



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 ±0.03mm [±0.001"], Pitches (from true position) ±0.025mm [±0.001"], substrate thickness tolerance ±10%, all other tolerances ±0.13mm [±0.005"] unless stated otherwise. Materials and specifications are subject to change without notice.

 SG-BGA-6450 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A	STATUS: Released	SHEET: 4 OF 4	REV. A
	Finish: N/A	ENG: B. Schatz	DRAWN BY: M. Raske	SCALE: 2:1
	Weight: 156.16	FILE: SG-BGA-6450 Dwg	DATE: 10/28/2016	