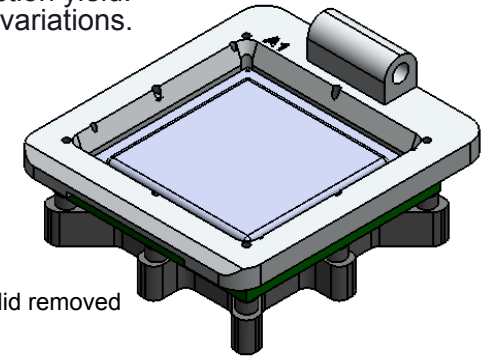
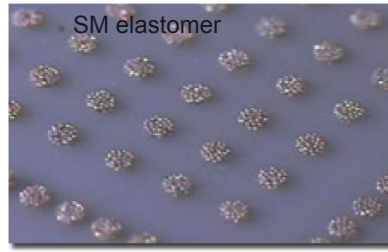
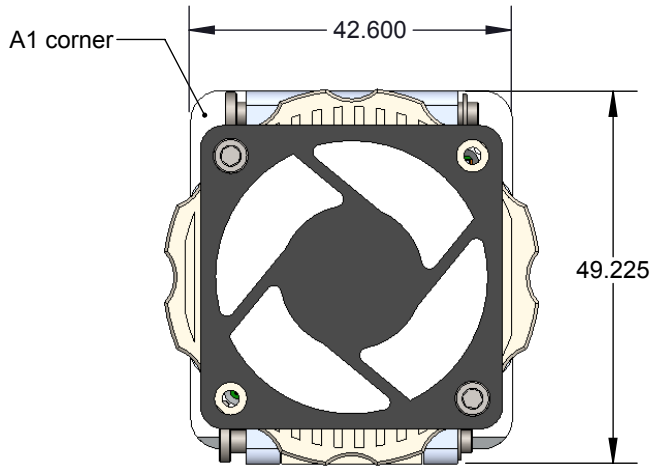


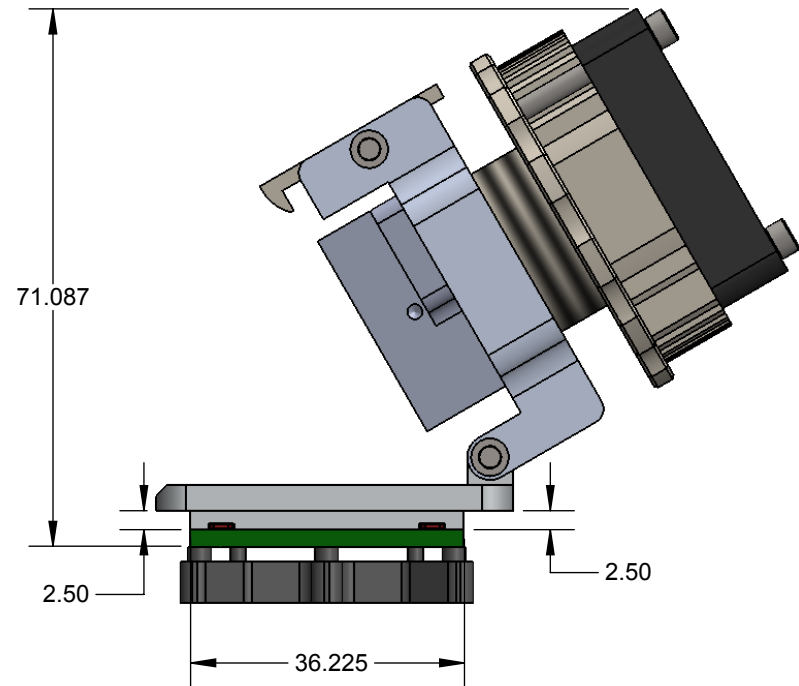
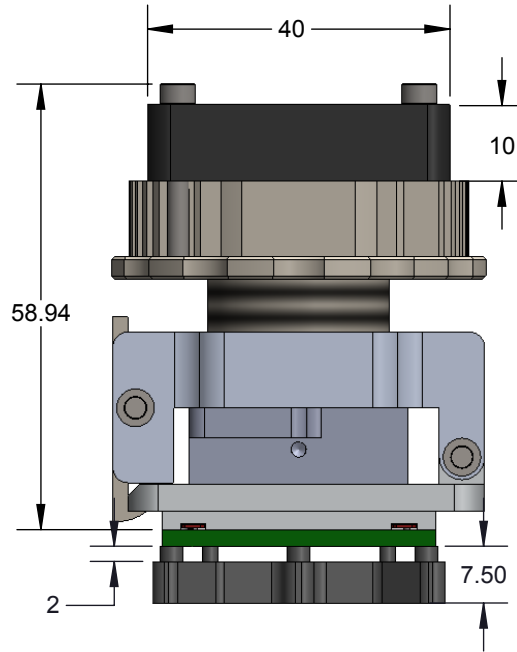
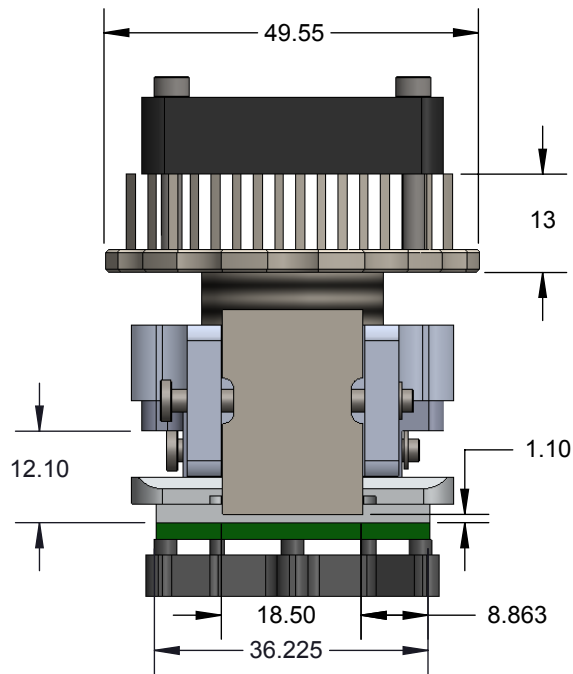
Silver Ball Matrix BGA Socket

Features

- Wide temperature range (-55C to +150C).
- Current capability is 4A per pin.
- Over 40GHz bandwidth @-1dB for edge pins.
- Low and stable contact resistance for reliable production yield.
- Highly compliant to accommodate wide co-planarity variations.
- Capacitance under 0.15pF




TOP VIEW: lid removed

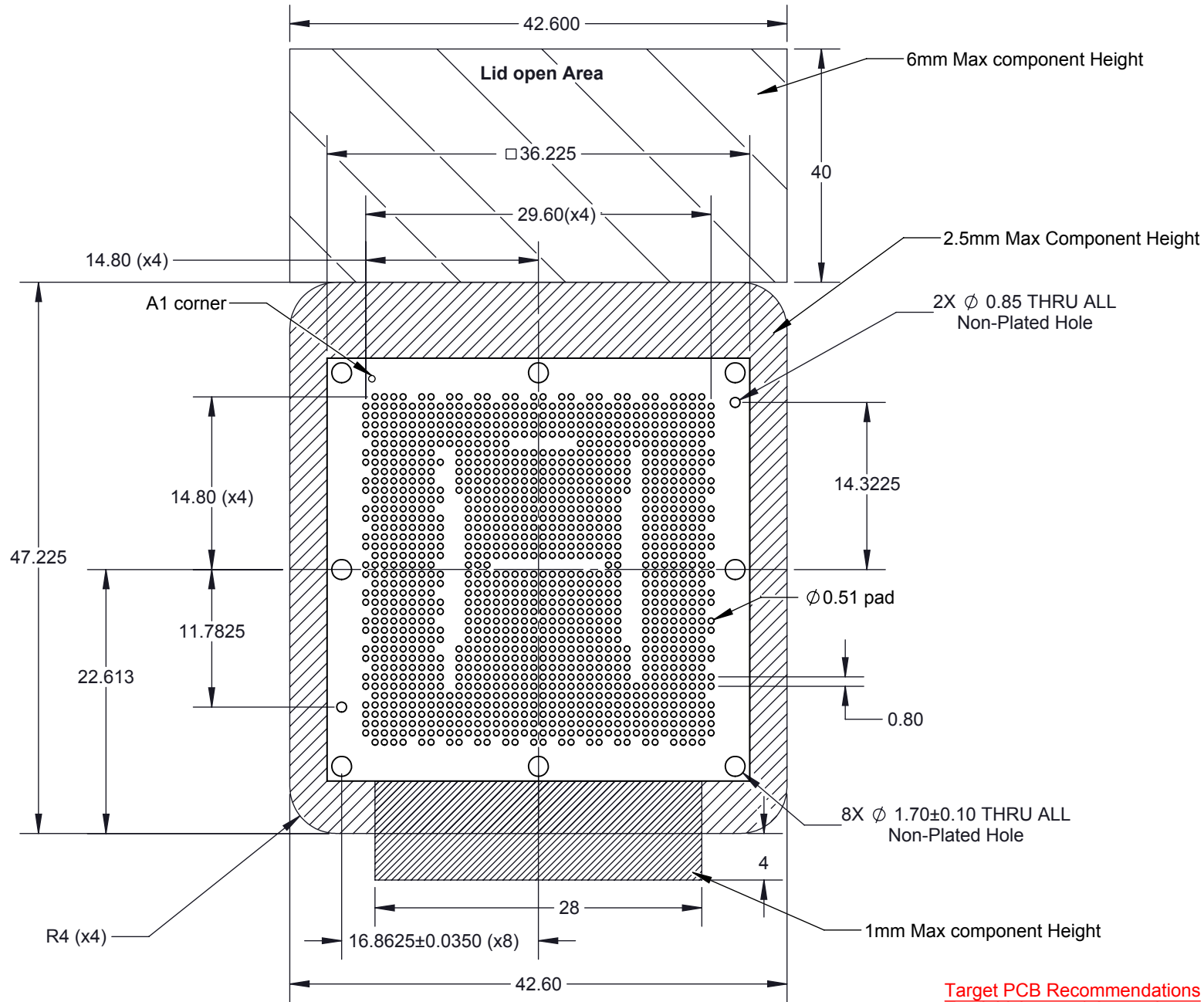


Description: Socket Drawing

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.

 <p>SM-BGA-9024 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>Material: Material <not specified> Finish: Weight: 178.19</p>	STATUS: Released	SHEET: 1 OF 5	REV. A
		DRAWN BY: V. Panavala	SCALE: 1:1	
		FILE: SM-BGA-9024 Dwg	DATE: 2/6/2013	




Target PCB Recommendations
 Total thickness: 1.6mm min.
 Plating: Gold or Solder finish
 PCB Pad height: same or higher than solder mask

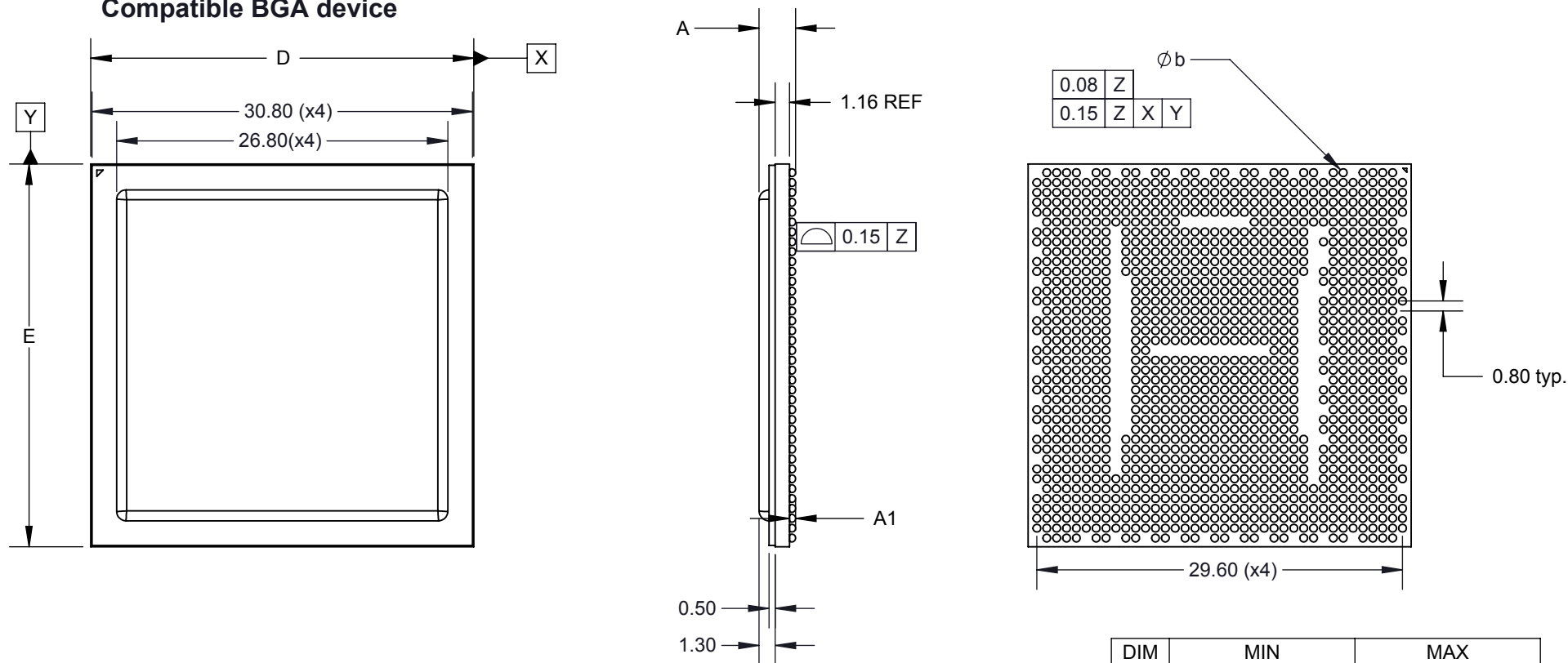
Description: Recommended PCB layout

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.

 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	SM-BGA-9024 Drawing	Material: Material <not specified> Finish: Weight: 178.19	STATUS: Released	SHEET: 2 OF 5	REV. A
			DRAWN BY: V. Panavala	SCALE: 2:1	
				FILE: SM-BGA-9024 Dwg	DATE: 2/6/2013

Compatible BGA device



DIM	MIN	MAX
A	1.00	4.00
A1	0.5	0.6
b	0.45	0.55
D	31.00 BSC	
E	31.00 BSC	
e	0.80	


38x38 Array

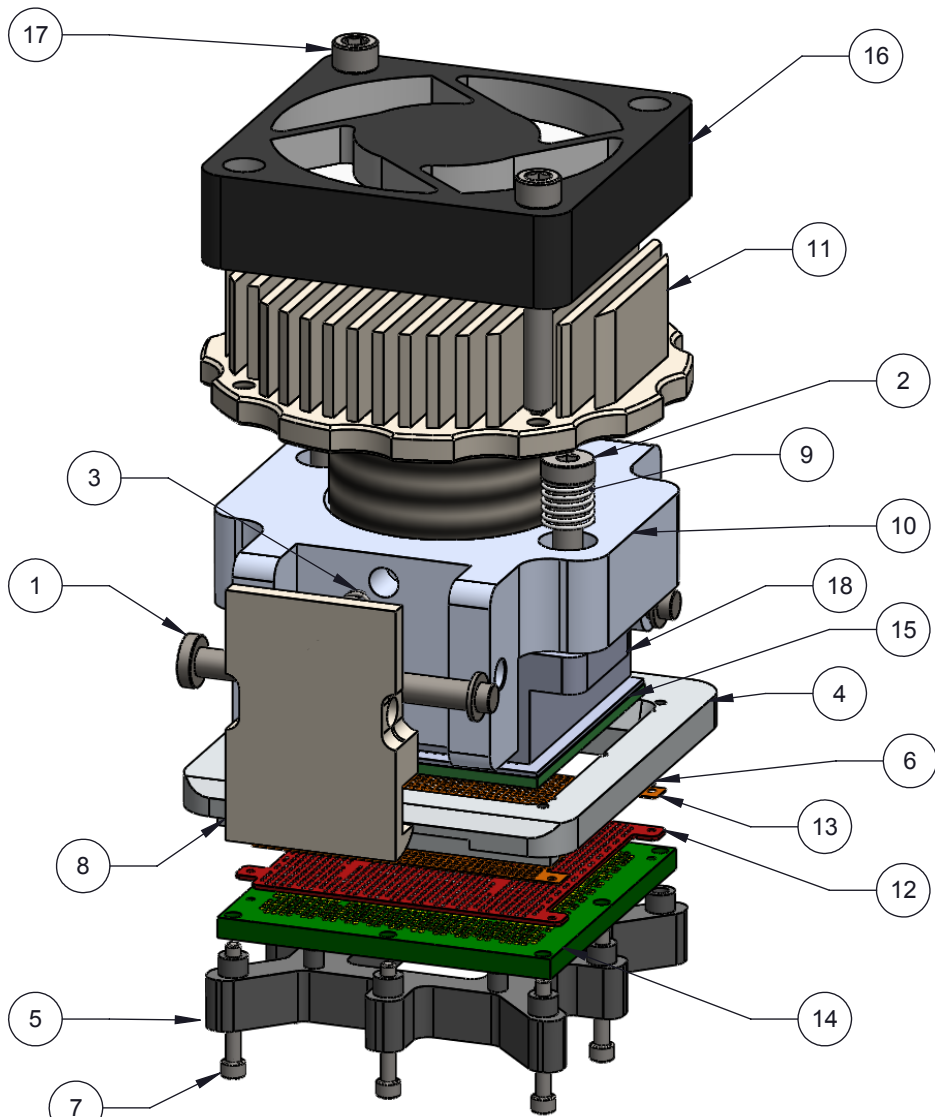
1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.
4. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
5. Parallelism measurement shall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

Description: Compatible BGA Device

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

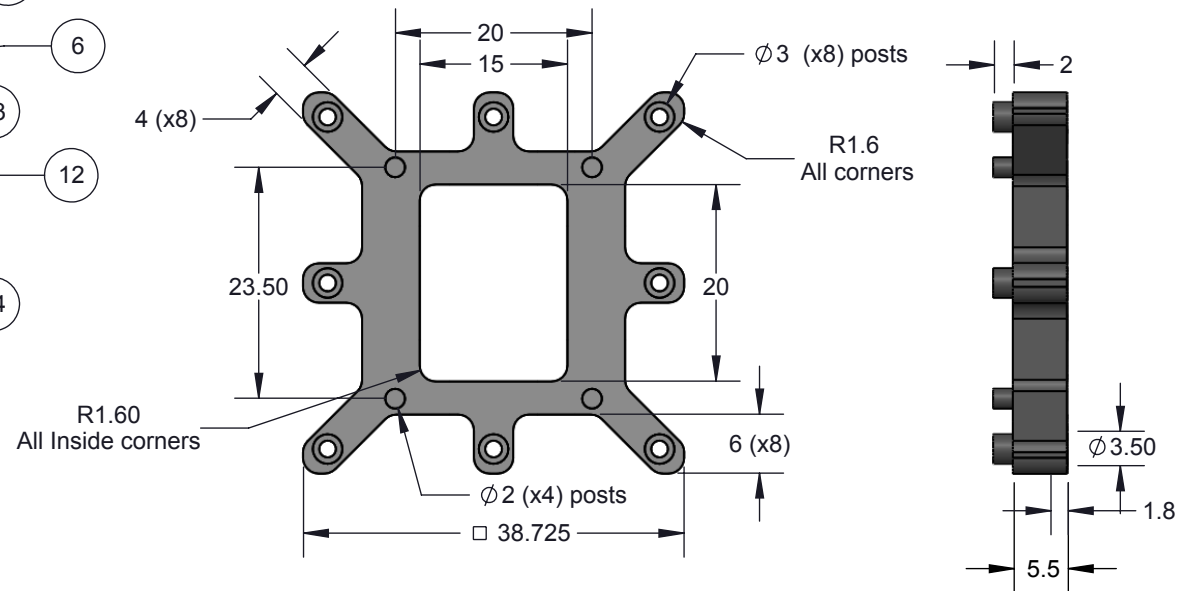
Tolerances: Hole diameters $\pm 0.03\text{mm}$ [$\pm 0.001''$], Pitches (from true position) $\pm 0.025\text{mm}$ [$\pm 0.001''$], substrate thickness tolerance $\pm 10\%$, all other tolerances $\pm 0.13\text{mm}$ [$\pm 0.005''$] unless stated otherwise. Materials and specifications are subject to change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

 <p>SM-BGA-9024 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>Material: Material <not specified> Finish: Weight: 178.19</p>	STATUS: Released	SHEET: 3 OF 5	REV. A
		DRAWN BY: V. Panavala	SCALE: 1:1	
		FILE: SM-BGA-9024 Dwg	DATE: 2/6/2013	



#19 NOT SHOWN

ITEM NO.	Description	Material
1	Hinge Pin and Snap Ring, 3mm OD, 30mm long, 1045 Stl, Blk Oxide	AISI 1045 Steel, cold drawn
2	Screw, M3 x 12mm, Low Head Cap, SS	18-8 Stainless Steel
3	Precision Compression Spring, Zinc-Plated Music Wire, 1/2" Length, 0.12" OD, .016" Wire	Zinc Plated Music Wire
4	SM Socket Base clamshell 31mm	7075-T6 Aluminum Alloy
5	CBT Black Anodized backing plate 31mm	7075-T6 Aluminum Alloy
6	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
7	#0-80 x 0.5, SH Cap Screw	Material <not specified>
8	Latch	7075-T6 Aluminum Alloy
9	Spring Clamshell lid assembly	Steel Music Wire
10	Socket Lid	7075-T6 Aluminum Alloy
11	Heat sink Compression Screw M24 threads	7075-T6 Aluminum Alloy
12	BGA1290 31x31mm, 0.8mm pitch, 38x38 array	Silmat
13	Ball guide BGA1290 31x31mm, 0.8mm pitch, 38x38 array	Kapton Polyimide/Cirlex
14	PCB 31x31mm, 0.8mm pitch, 38x38 array BGA1290	FR4
15	BGA1290 31x31mm, 0.8mm pitch, 38x38 array	FR4 Standard
16	Fan 40X10MM 12VDC 1.6W 9.9CFM	Material <not specified>
17	Screw, #4-40 X 7/8", Cap	Alloy Steel
18	Compression plate 31mm no shift with thermocouple hole	7075-T6 Aluminum Alloy
19	Alignment Pin 1/32" dia. x 1/8" lng	Chrome Stainless Steel




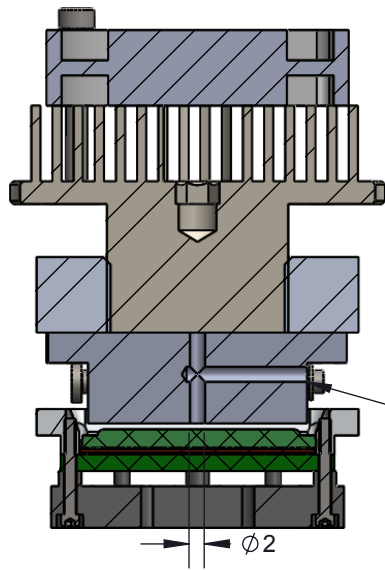
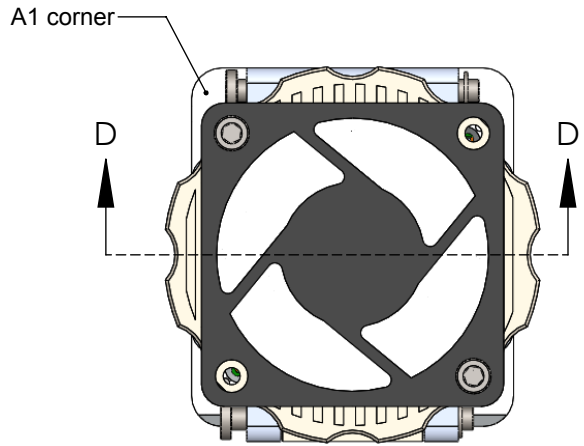
Description: Socket assembly

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

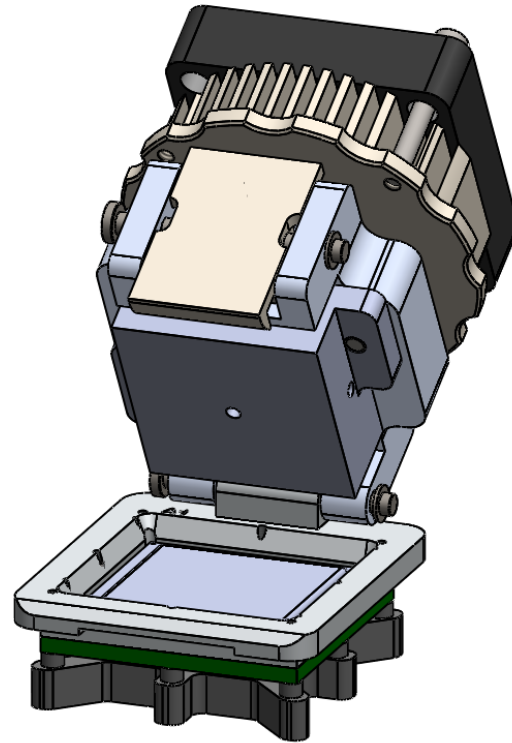
Tolerances: Hole diameters $\pm 0.03\text{mm}$ [$\pm 0.001"$], Pitches (from true position) $\pm 0.025\text{mm}$ [$\pm 0.001"$], substrate thickness tolerance $\pm 10\%$, all other tolerances $\pm 0.13\text{mm}$ [$\pm 0.005"$] unless stated otherwise. Materials and specifications are subject to change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

Insulation Plate Specification

 SM-BGA-9024 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Material <not specified> Finish: Weight: 178.19	STATUS: Released	SHEET: 4 OF 5	REV. A
		ENG: REQ. ENG. INITIALS	SCALE: 1.3:1	
		FILE: SM-BGA-9024 Dwg	DATE: 2/6/2013	




SECTION D-D



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.

 <p>SM-BGA-9024 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>Material: Material <not specified> Finish: Weight: 178.19</p>	STATUS: Released	SHEET: 5 OF 5	REV. A
		DRAWN BY: V. Panavala	SCALE: 1:1	
		FILE: SM-BGA-9024 Dwg	DATE: 2/6/2013	