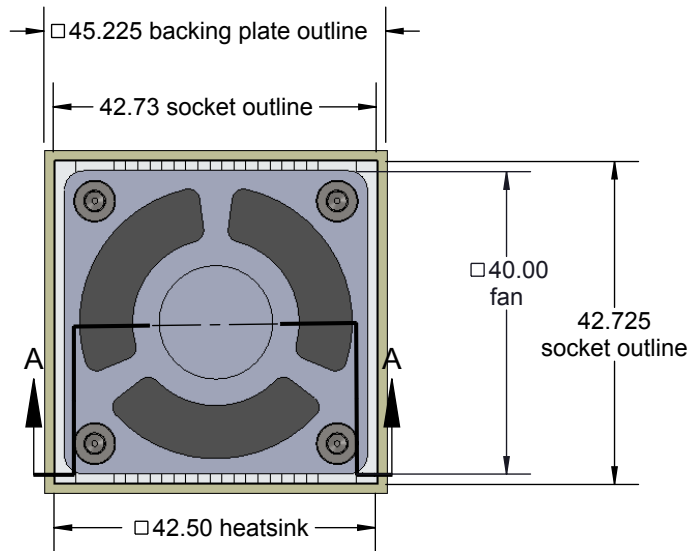


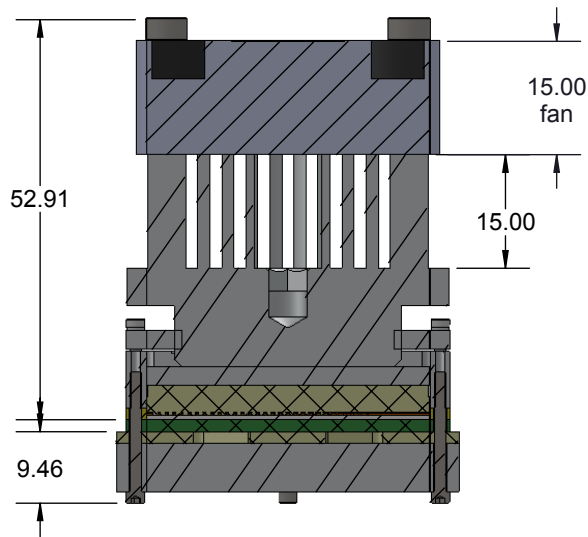
Silver Ball Matrix Socket

Features

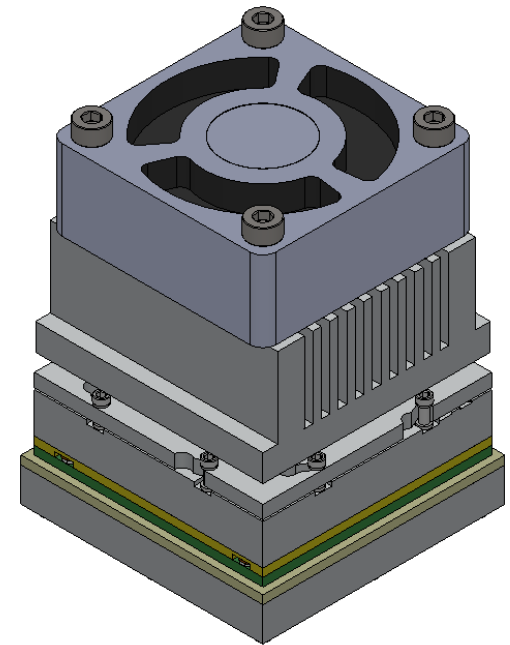
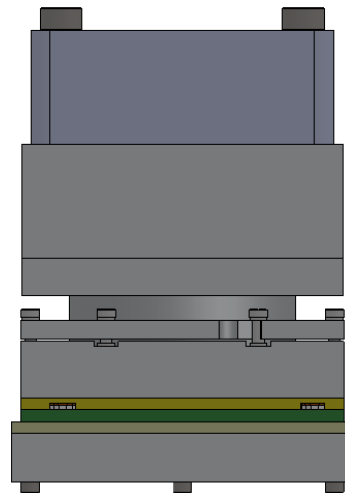
- Wide temperature range (-55C to +150C).
- Current capability is 4A per pin.
- Excellent signal integrity at high frequencies.
- Low and stable contact resistance for reliable production yield.
- Highly compliant to accommodate wide co-planarity variations.
- Automated probe manufacturing enables low cost and short lead time.



Recommended torque is 40 in lb.
Remove the fan. Apply 40 in lb torque. Then, attach the fan to the heatsink.




SECTION A-A

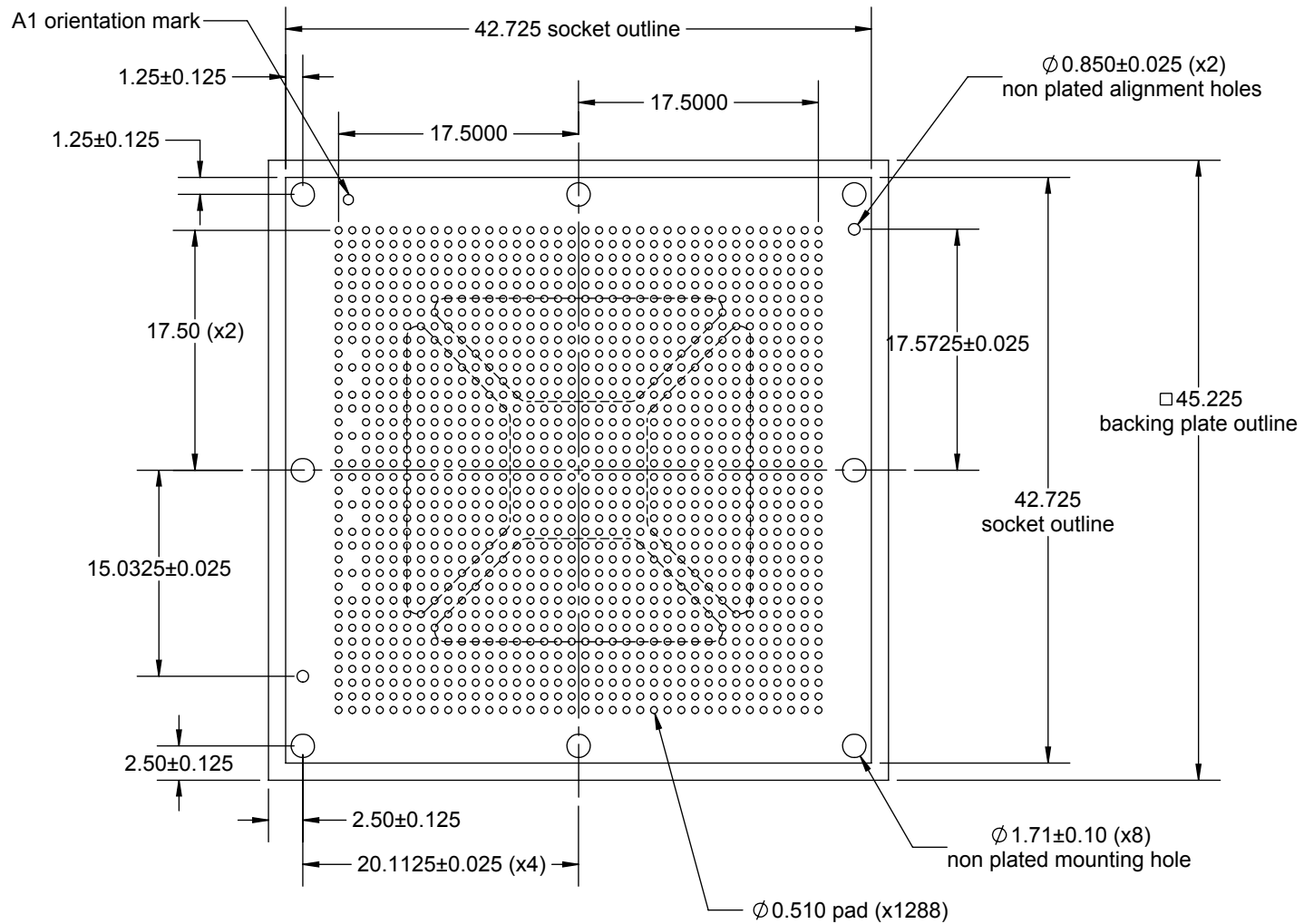


Description: SM socket for 37.5x37.5mm 36x36 1mm pitch BGA1288

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.

 SM-BGA-9037 Drawing ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 186.16	STATUS: Released	SHEET: 1 OF 5	REV. B
		ENG: E. Smolentseva	DRAWN BY: M. Raske	SCALE: 1:1
		FILE: SM-BGA-9037 Dwg	DATE: 10/08/2013	




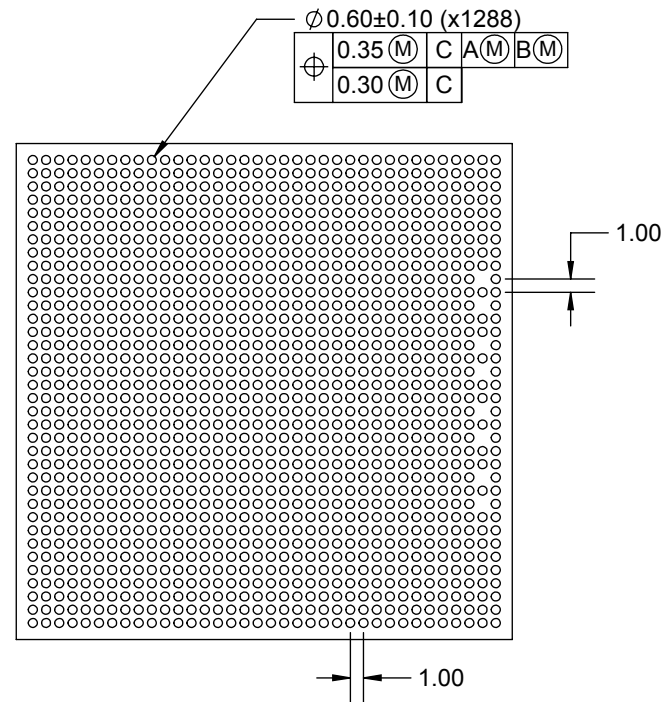
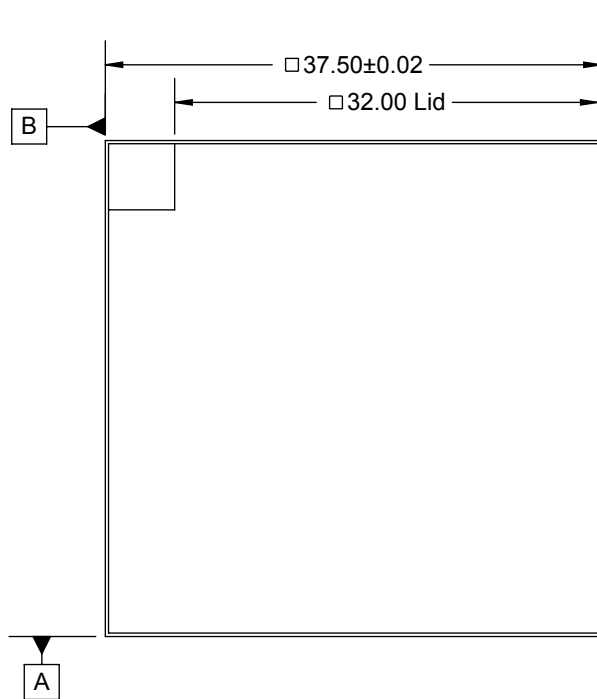
Target PCB Recommendations

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

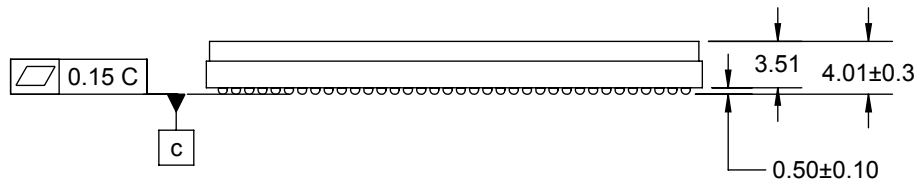
Description: Recommended PCB Layout

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.
 Tolerances: Hole diameters $\pm 0.0254\text{mm}$ [$\pm 0.001"$], 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.

 SM-BGA-9037 Drawing ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 186.16	STATUS: Released	SHEET: 2 OF 5	REV. B
		ENG: E. Smolentseva	DRAWN BY: M. Raske	SCALE: 2:1
		FILE: SM-BGA-9037 Dwg	DATE: 10/08/2013	



Ironwood Package Code: BGA1288A




Dimensions are in millimeters.

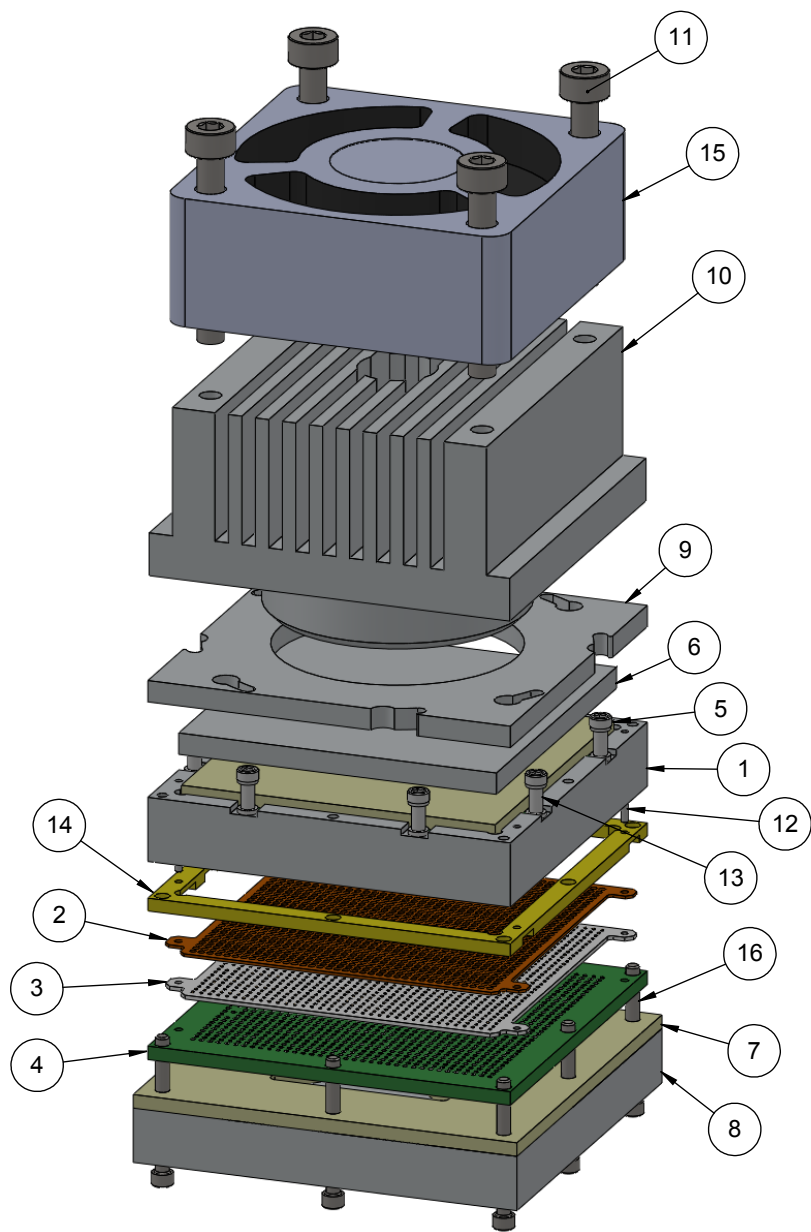
1. Interpret dimensions and tolerances per ASME Y14.5M-1994.
2. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane C.
3. Datum C (seating plane) is defined by the spherical crowns of the solder balls.
4. Parallelism measurement shall exclude any effect of mark on top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

Description: Compatible Device

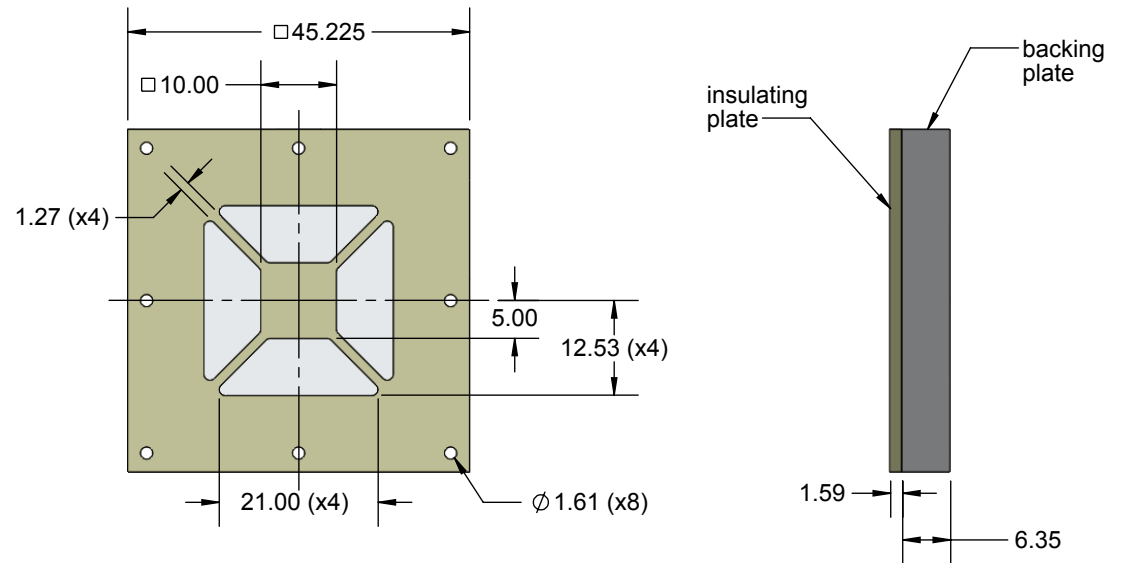
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

Tolerances: Hole diameters ±0.0254mm [±0.001"]. Pitches (from true position) ±0.0762mm [±0.003"], substrate thickness tolerance ±10%, all other tolerances ±0.127mm [±0.005"] unless stated otherwise. Materials and specifications are subject to change without notice.

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			<p>ENG: E. Smolentseva</p>	<p>DRAWN BY: M. Raske</p>	<p>SCALE: 1.75:1</p>
			<p>FILE: SM-BGA-9037 Dwg</p>	<p>DATE: 10/08/2013</p>	




ITEM NO.	DESCRIPTION	Material
1	SM socket base, 37.5x37.5mm IC	7075-T6 Alumium Alloy
2	Ball guide for 37.5x37.5mm 36x36 1mm pitch BGA	Kapton Polyimide/Cirlex
3	Silmat for 37.5mm, 36x36 1mm pitch BGA1288	Silmat
4	Customer's target PCB for 37.5x37.5mm, 36x36 1mm pitch BGA	FR4 Standard
5	Customer's BGA device 37.5x37.5mm, 36x36 1mm pitch	FR4 Standard
6	Compression Plate 37.5mm IC	7075-T6 Alumium Alloy
7	Insulation Plate 37.5mm IC	FR4 Standard
8	Backing Plate	7075-T6 Alumium Alloy
9	Ghz Swivel Socket Lid 37.5mm IC	7075-T6 Aluminum Alloy
10	Heatsink compression Screw	7075-T6 Alumium Alloy
11	Screw, M3 x 0.5mm, 22mm lg, Low Head Cap, SS	
12	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
13	#0-80 Shoulder Screw, 0.090" thread length	Stainless Steel (303)
14	IC guide for 37.5x37.5mm device	Torlon 4203
15	Fan 40x40x15mm, 12V, 0.368 m3/min, 4 wire PWM; speed sensor (Tach)	Plastic UL: 94V-0
16	#0-80 X .625 LG, SOC HD CAP SCREW, ALLOY STL, BLK OXIDE	Alloy Steel

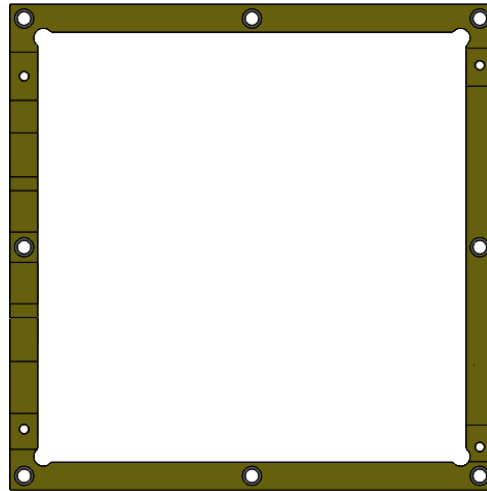
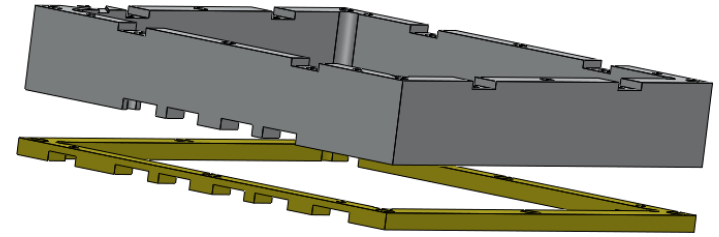
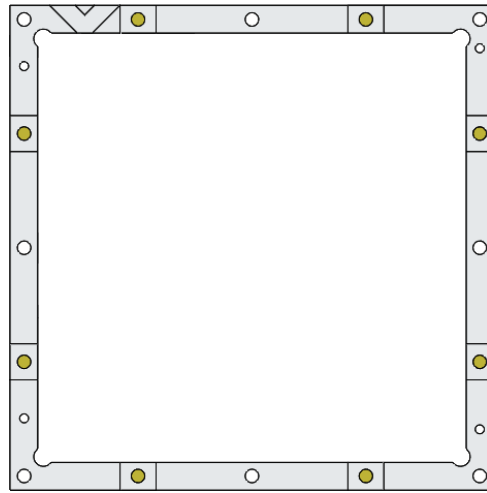
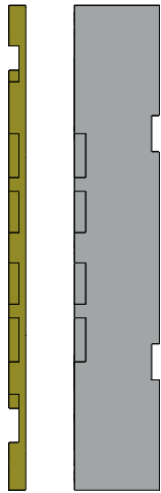


Description: Skt, Backing Plate Detail

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

Tolerances: Hole diameters $\pm 0.0254\text{mm}$ [± 0.001 "]. Pitches (from true position) $\pm 0.0762\text{mm}$ [± 0.003 "], substrate thickness tolerance $\pm 10\%$, all other tolerances $\pm 0.127\text{mm}$ [± 0.005 "] unless stated otherwise. Materials and specifications are subject to change without notice.

 SM-BGA-9037 Drawing ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 186.16	STATUS: Released ENG: E. Smolentseva FILE: SM-BGA-9037 Dwg	SHEET: 4 OF 5 DRAWN BY: M. Raske DATE: 10/08/2013	REV. B SCALE: 1.2:1




Description: Socket Base + IC Guide 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) $\pm 0.0762\text{mm}$ [$\pm 0.003"$], 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.

Rev	Date	Initials	Description
A	10/08/13	MR	Original
B	02/19/15	DH	Changed IC Guide material from Ultem to Torlon

 SM-BGA-9037 Drawing ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 186.16	STATUS: Released	SHEET: 5 OF 5	REV. B
		ENG: E. Smolentseva	DRAWN BY: M. Raske	SCALE: 1.5:1
		FILE: SM-BGA-9037 Dwg	DATE: 10/08/2013	