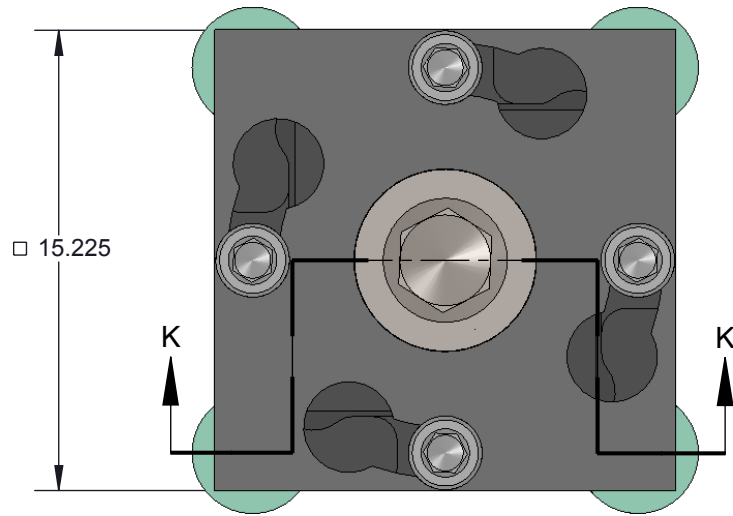


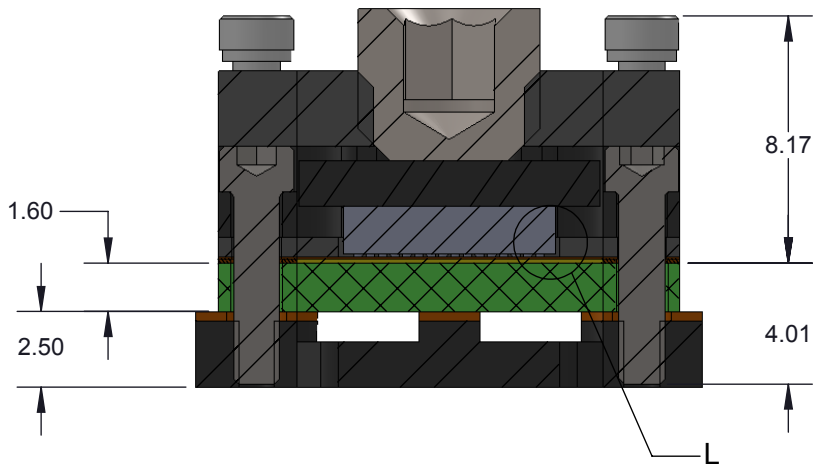
SG15-BGA DIRECT MOUNT, SOLDERLESS SOCKET FOR TEST APPLICATIONS

FEATURES:

- Directly mounts to target PCB (needs tooling holes) with hardware.
- Over 40GHz bandwidth @-1dB
- Low and stable contact resistance for reliable production yield.
- Self inductance under 0.025nH.
- Compression plate distributes forces evenly
- Easily removable swivel socket lid

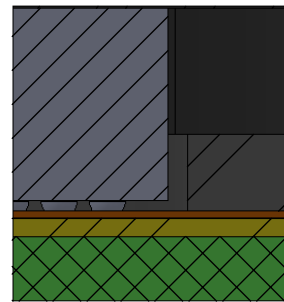
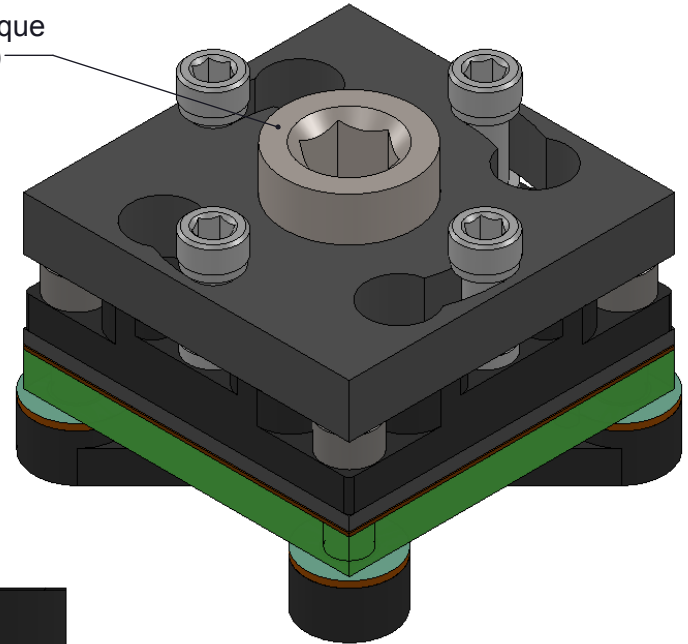


TOP VIEW



SECTION K-K

Recommended Torque
1.0 in lbs (16 In Oz)




DETAIL L
SCALE 16 : 1

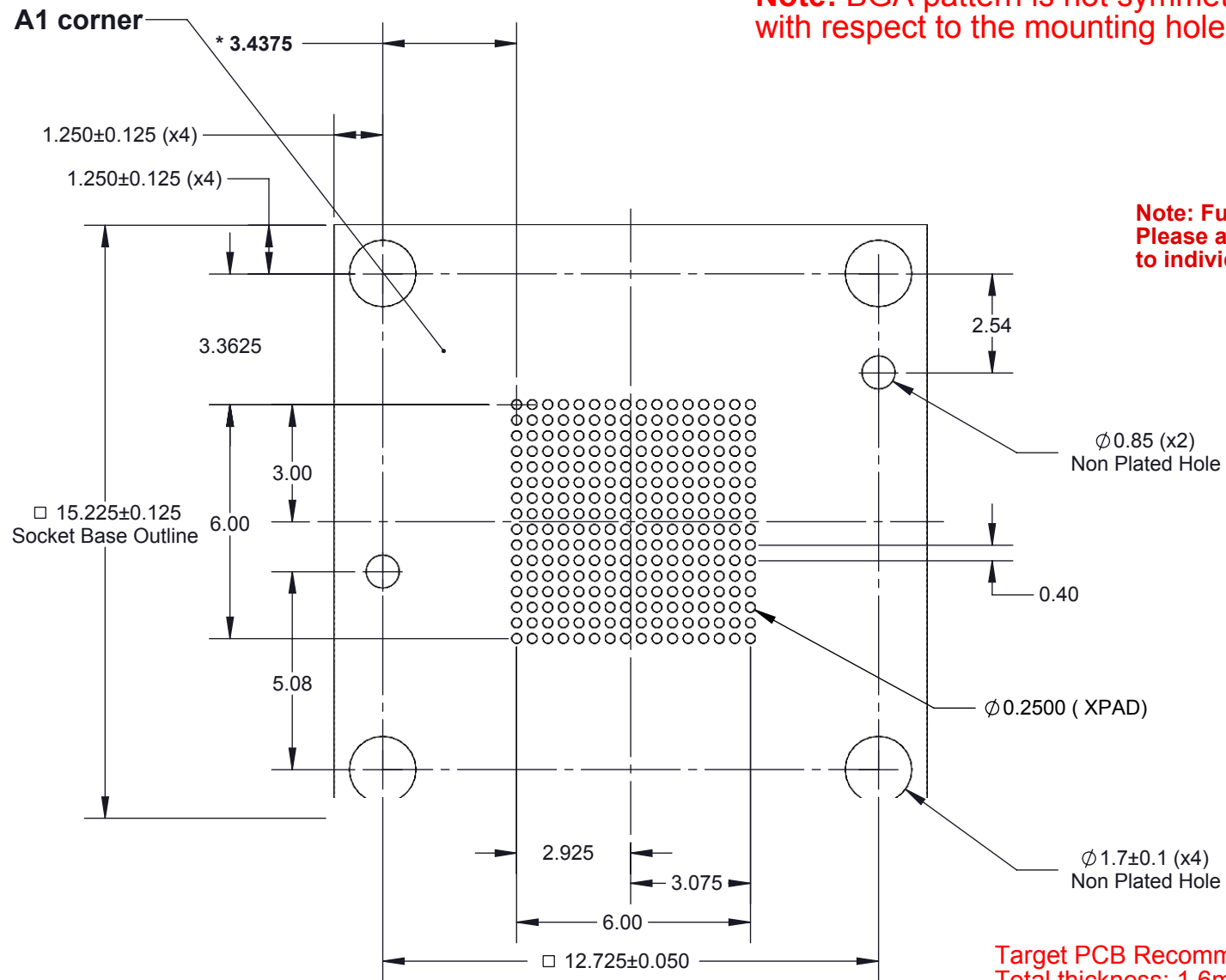
Description: SG15-BGA 7x7mm 0.4mm pitch 16x16 array

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.

 <p>©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>SG15-BGA-1002 Drawing</p>	<p>Material: Material <not specified> Finish: Weight: 5.53</p>	<p>STATUS: Released ENG: V. Panavala FILE: SG15-BGA-1002</p>	<p>SHEET: 1 OF 4 DRAWN BY: V. Panavala DATE: 1/17/15</p>	<p>REV. A SCALE: 4:1</p>
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Note: BGA pattern is not symmetrical with respect to the mounting holes, it is offset 0.075mm




Note: Full BGA pattern shown. Please adjust pattern according to individual requirements.

Target PCB Recommendations
 Total thickness: 1.6mm min.
 Plating: ENIG, Solder Finish, Hard Gold
 PCB Pad height: Same or 0.001"-0.002" lower than solder mask is acceptable
 Solder mask opening: 0.013"

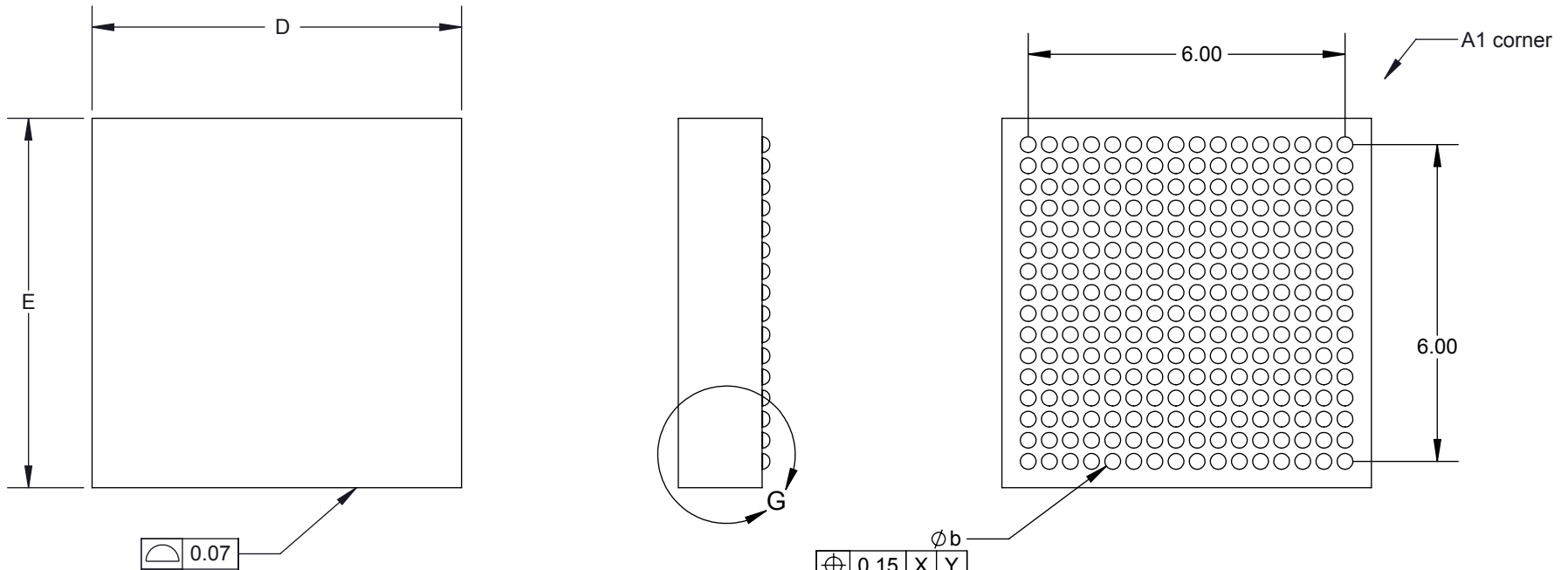
Description: Recommended PCB Layout

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.

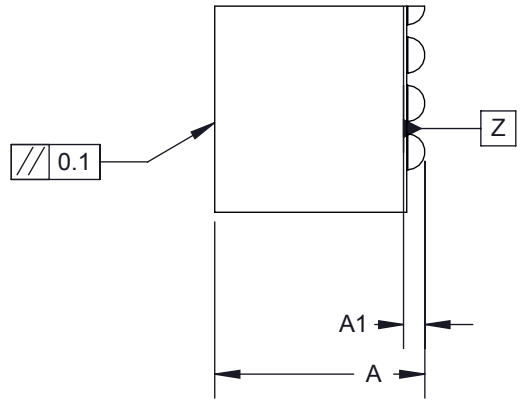
 SG15-BGA-1002 Drawing ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Material <not specified> Finish: Weight: 5.53	STATUS: Released ENG: V. Panavala FILE: SG15-BGA-1002	SHEET: 2 OF 4 DRAWN BY: V. Panavala DATE: 1/17/15	REV. A SCALE: 6:1
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IRONWOOD PACKAGE CODE: BGA256A



\oplus	0.15	X	Y
\oplus	0.05		

DIM	Minimum	Maximum
A	0.9	2.0
A1	0.14	0.24
b		0.30
D	7.0 BSC	
E	7.0 BSC	
e	0.4 BSC	
ARRAY	16X16	
PIN COUNT	256	




DETAIL G
SCALE 16 : 1

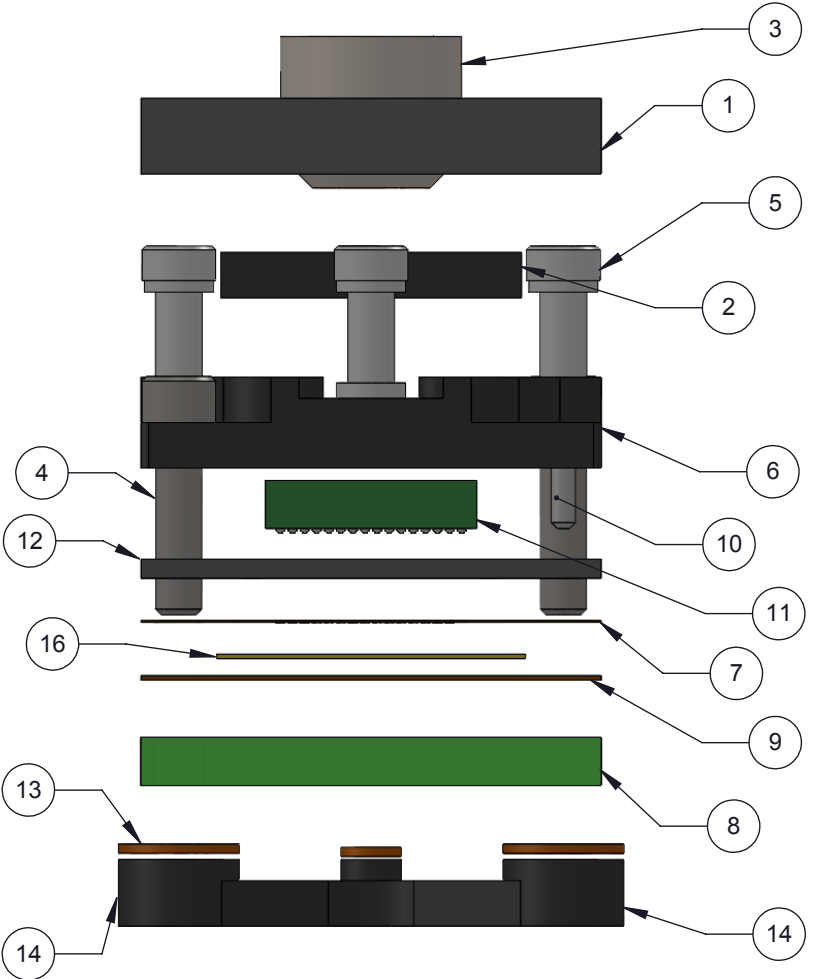
1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.
4. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
5. Parallelism measurement shall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

Description: Compatible BGA

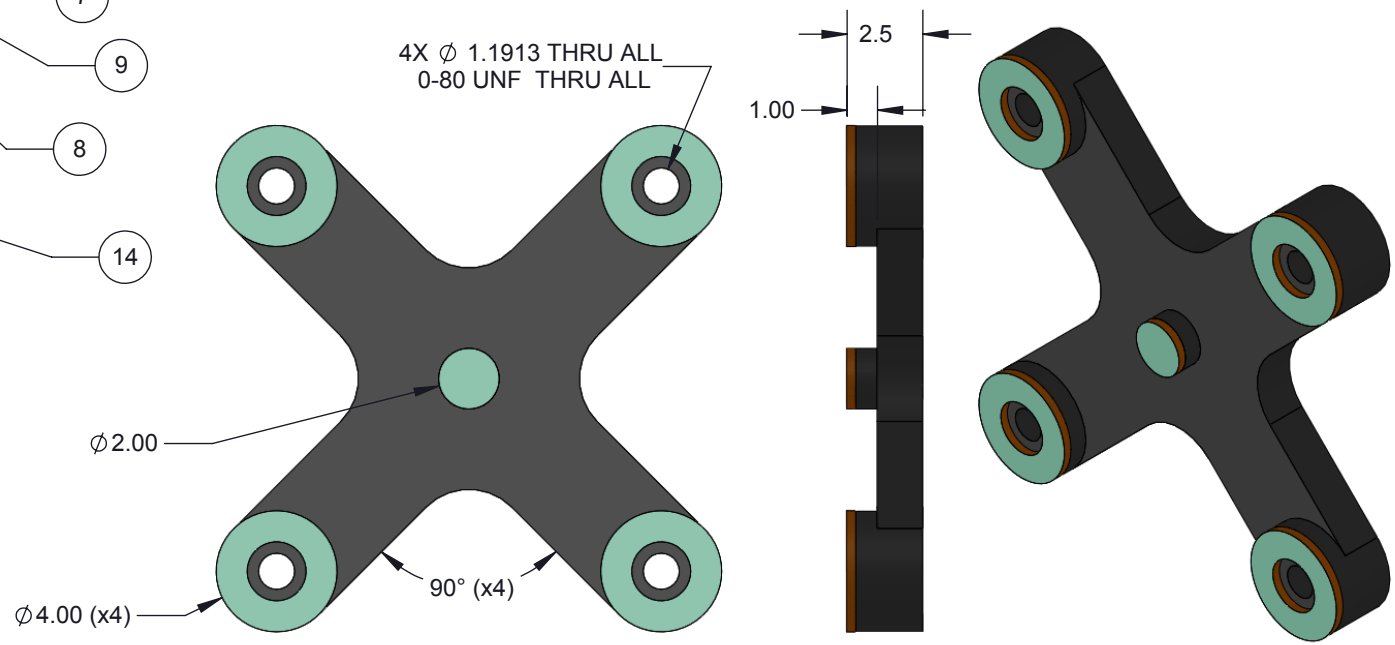
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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.

 <p>SG15-BGA-1002 Drawing ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>Material: Material <not specified> Finish: Weight: 5.53</p>	STATUS: Released	SHEET: 3 OF 4	REV. A
		ENG: V. Panavala	DRAWN BY: V. Panavala	SCALE: 8:1
		FILE: SG15-BGA-1002	DATE: 1/17/15	




ITEM NO.	DESCRIPTION	Material
1	Socket Lid	7075-T6 Aluminum Alloy
2	Compression Plate 9.95 x 1.5mm	7075-T6 Aluminum Alloy
3	Compression Screw M6x1	Stainless Steel (18-8)
4	#0-80 X .25 LG, SOC HD CAP SCREW, ALLOY STL, BLK OXIDE	Alloy Steel
5	#0-80 Shoulder Screw, 0.062" thread length	Stainless Steel (303)
6	GHz Socket Base 10mm IC 3mm Thk	7075-T6 Aluminum Alloy
7	Ball Guide	Kapton Polyimide/Cirlex
8	PCB 7x7mm 0.4mm pitch 16x16 array	FR4
9	Elastomer Guide for 10mm IC 0.15mm	Kapton Polyimide/Cirlex
10	Alignment Pin 1/32" dia. x 1/8" lng	Chrome Stainless Steel
11	Test Chip	Material <not specified>
12	IC Guide 7mm IC	Torlon 4203
13	Insulating washer, 4mm OD.	Kapton Polyimide/Cirlex
14	10x10mm 5 post backing plate	7075-T6 Aluminum Alloy
15	Insulating disk, 2mm OD with 2 mil thk Adesive	Kapton Polyimide/Cirlex
16	0.15mm thick, 0.05x 0.05mm pitch, 10mm sqr, Z-axis conductive angled elastomer	20 Micron dia gold plated brass filaments arranged symetrically in a silicon rubber (63.5 degree angle)



Description: Socket Specification

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.

Backing Plate Specification

 SG15-BGA-1002 Drawing ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Material <not specified> Finish: Weight: 5.53	STATUS: Released ENG: V. Panavala FILE: SG15-BGA-1002	SHEET: 4 OF 4 DRAWN BY: V. Panavala DATE: 1/17/15	REV. A SCALE: 4:1
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