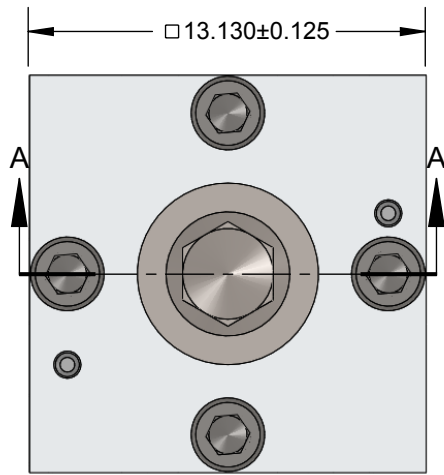


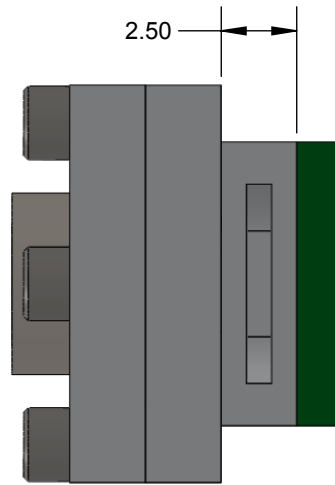
GHz BGA Socket - Epoxy mount, solderless

Features

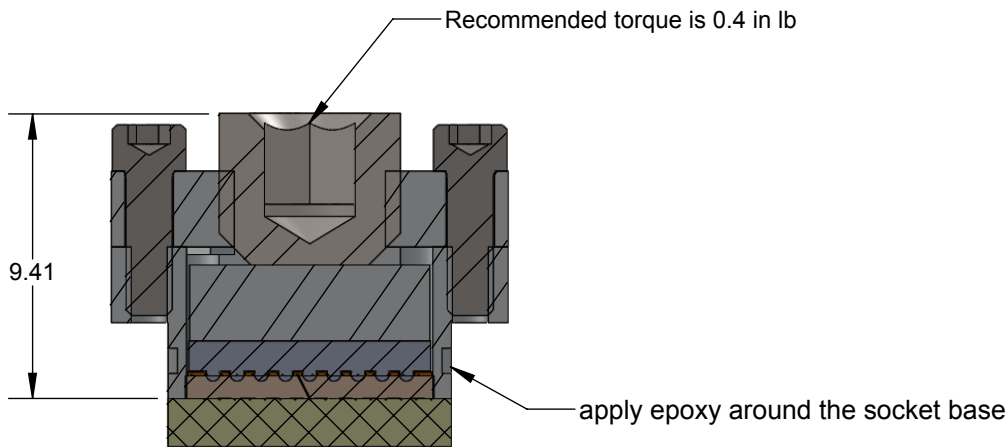
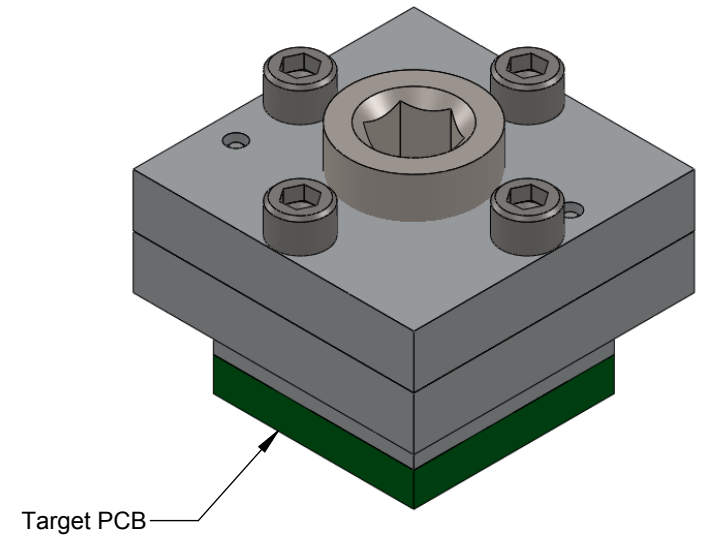
- Directly mounts to target PCB.
- High speed, reliable Elastomer connection
- Minimum real estate required
- Compression plate distributes forces evenly
- Easily removable socket lid



TOP VIEW



SIDE VIEW




SECTION A-A

Description: Epoxy Mount Socket for 8mm x 8mm 9x9 0.8mm pitch BGA

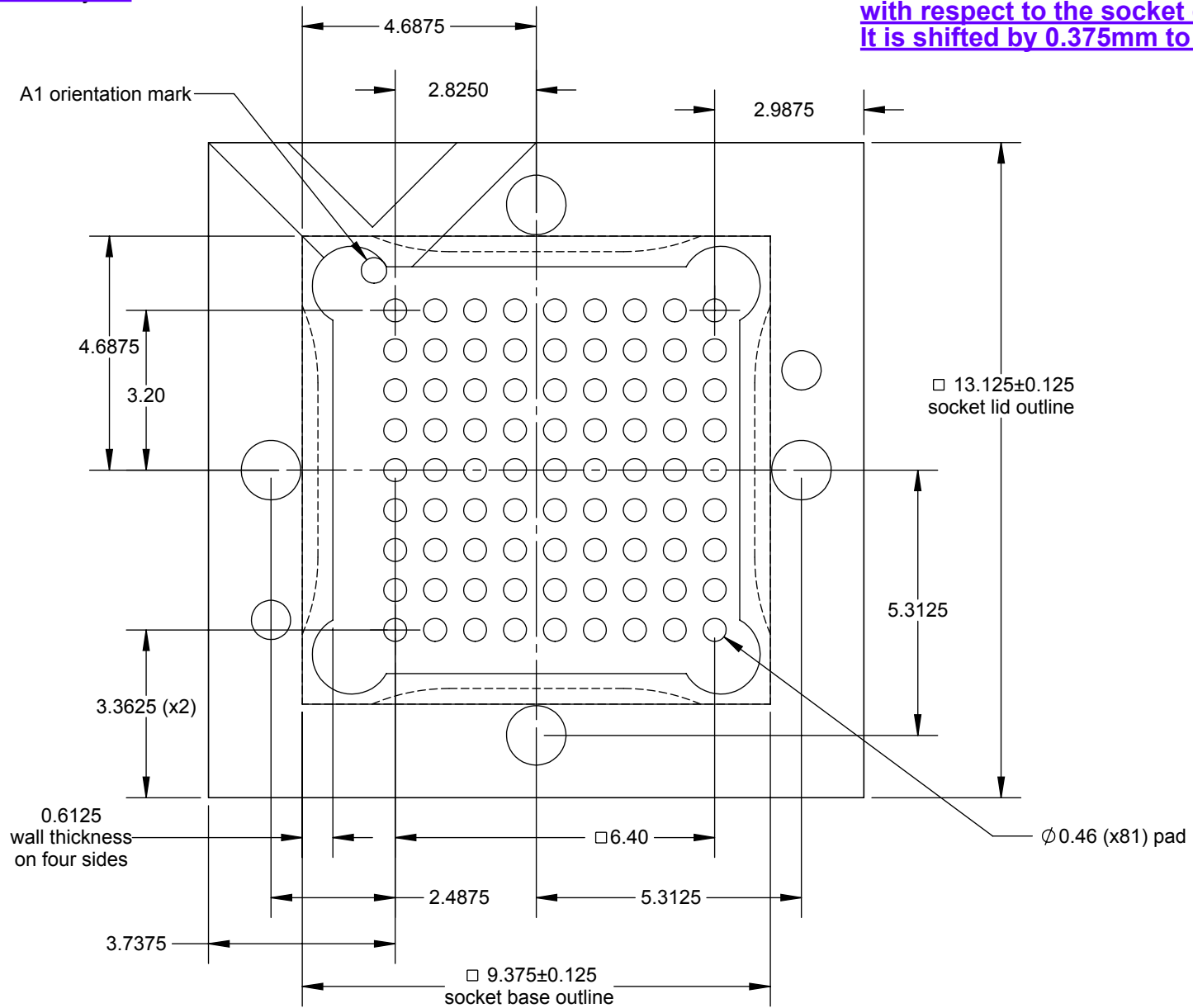
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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-6390 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 3.85	STATUS: Released ENG: E. Smolentseva FILE: SG-BGA-6390 Dwg	SHEET: 1 OF 5 DRAWN BY: M. Raske DATE: 09-09-2013	REV. B SCALE: 4:1

Recommended PCB Layout


***Note: BGA pattern is not symmetrical with respect to the socket outline. It is shifted by 0.375mm to the right.**



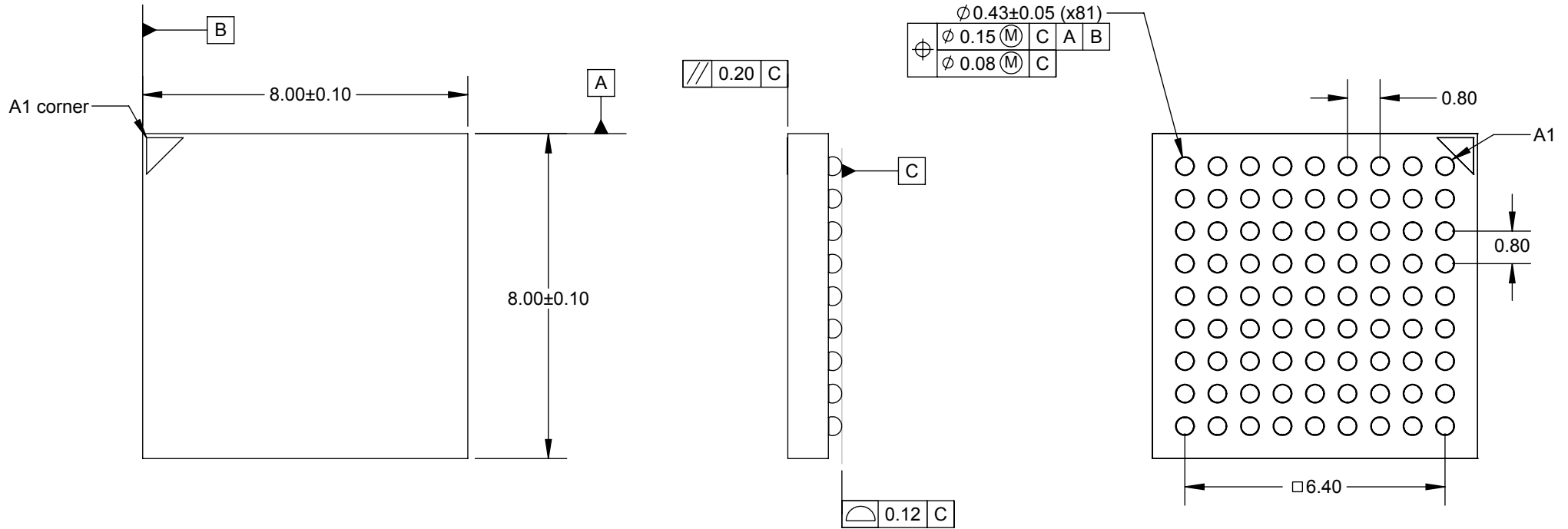
Description: Recommended PCB Layout

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.

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Ironwood Package Code BGA81G




Dimensions are in millimeters.

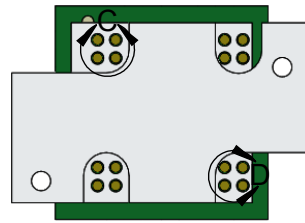
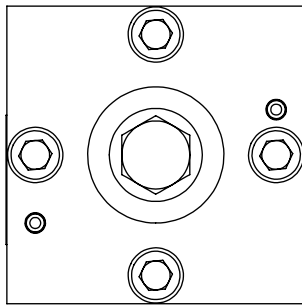
1. Interpret dimensions and tolerances per ASME Y14.5M-1994.
2. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane C.
3. Datum C (seating plane) is defined by the spherical crowns of the solder balls.
4. Parallelism measurement shall exclude any effect of mark on top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

Description: Compatible BGA IC

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

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

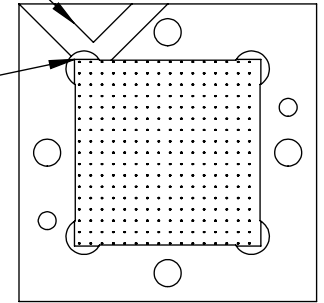
 SG-BGA-6390 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 3.85	STATUS: Released ENG: E. Smolentseva FILE: SG-BGA-6390 Dwg	SHEET: 3 OF 5 DRAWN BY: M. Raske DATE: 09-09-2013	REV. B SCALE: 7:1



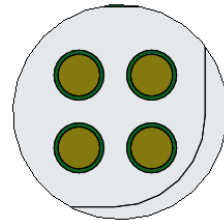
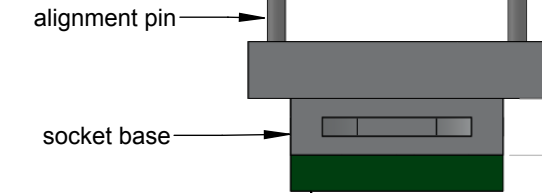
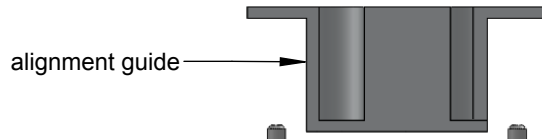
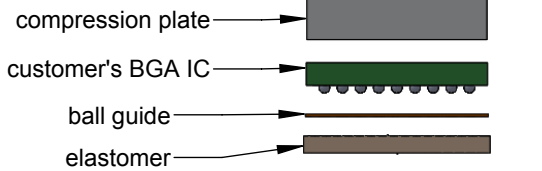
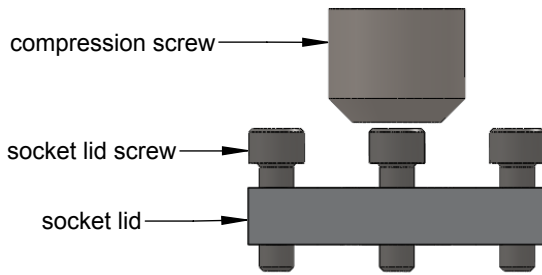
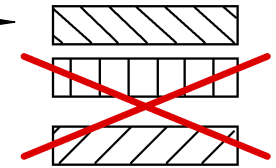
Top View Alignment Guide

Socket base orientation mark

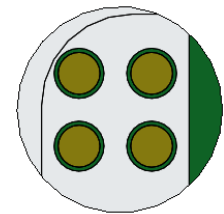
elastomer orientation mark (black corner)



When elastomer orientation mark is on upper left corner, side view of elastomer should be



DETAIL C
SCALE 12 : 1




DETAIL D
SCALE 12 : 1

User Instructions:

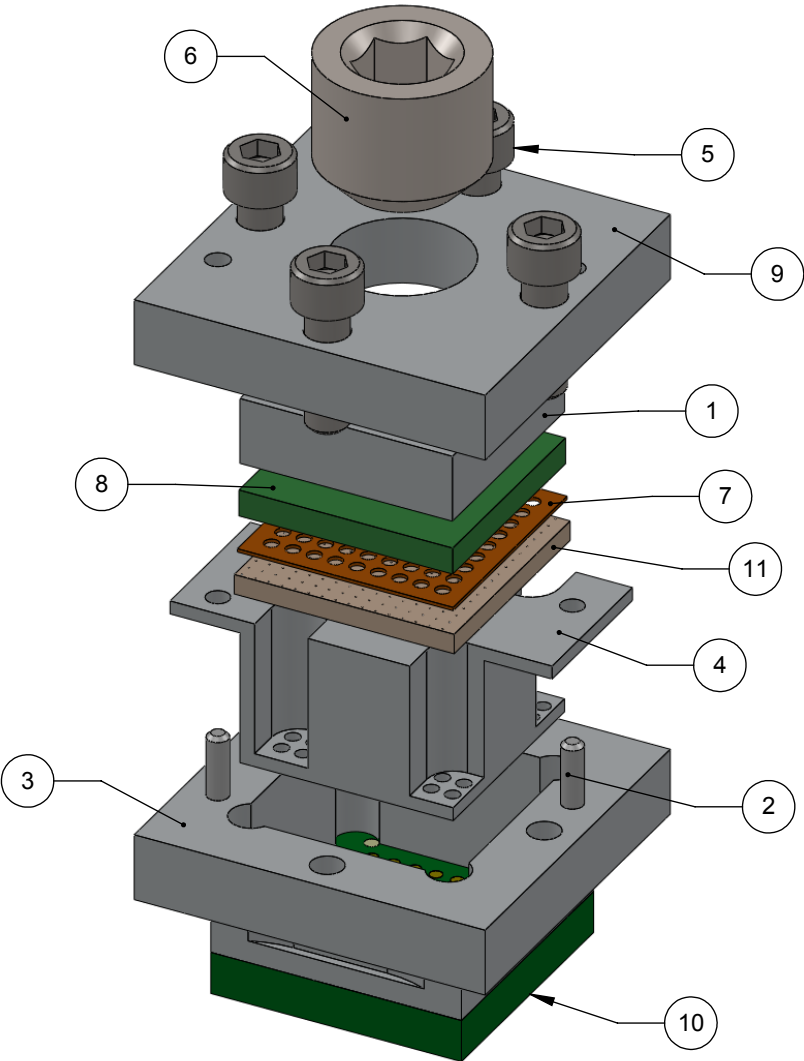
1. Insert alignment plate onto socket base using dowel pins. Place alignment plate + socket base assembly onto target board.
2. Clean the PCB to remove grease, oil, and flux.
3. Align holes on alignment plate with four corner pads on target board, hold socket base on to board tightly with finger and put a drop of super glue on each corner. Let it dry, remove the alignment plate, then run a bead of epoxy around socket base and let it cure until epoxy is hardened. Recommended epoxy: DP-420 Black (3M brand, 15 min work life). Other equivalent epoxies can be substituted. Cure minimum 24 hours at room temperature.
- Note: Do not oven cure.**
4. Place elastomer inside the socket base cavity (direction and orientation are critical) as shown above.
5. Place ball guide inside the socket base cavity.
6. Place BGA package and compression plate into the socket base cavity.
7. Assemble socket lid onto socket base with socket lid screws.
8. Assemble compression screw into socket lid and gradually apply 0.4 in lb torque.

Description: User Instructions

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-6390 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 3.85	STATUS: Released ENG: E. Smolentseva FILE: SG-BGA-6390 Dwg	SHEET: 4 OF 5 DRAWN BY: M. Raske DATE: 09-09-2013	REV. B SCALE: 3:1


ITEM NO.	DESCRIPTION	Material
1	Compression Plate 8x8mm IC Swivel Socket	7075-T6 Alumium Alloy
2	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
3	Socket Base	7075-T6 Aluminum Alloy
4	Alignment Plate	7075-T6 Aluminum Alloy
5	#0-80 X .188 LG, SOC HD CAP SCREW, ALLOY STL, BLK OXIDE	Alloy Steel
6	Compression Screw M6x1	Stainless Steel (18-8)
7	Ball guide for 8mm 9x9 array 0.8mm pitch IC	Kapton Polyimide
8	Customer's BGA device	Material <not specified>
9	Socket Lid	7075-T6 Aluminum Alloy
10	Customer's target PCB	FR4 Standard
11	0.75mm thick 0.1mm pitch 63 deg angled elastomer	Silicon Rubber



Rev	Date	Initials	Description
A	9/9/13	ELS	Original
B	01/08/14	JV	Updated DP420 instructions ECO1519

Description: Material info

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-6390 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 3.85	STATUS: Released	SHEET: 5 OF 5	REV. B
		ENG: E. Smolentseva	DRAWN BY: M. Raske	SCALE: 3:1
		FILE: SG-BGA-6390 Dwg	DATE: 09-09-2013	