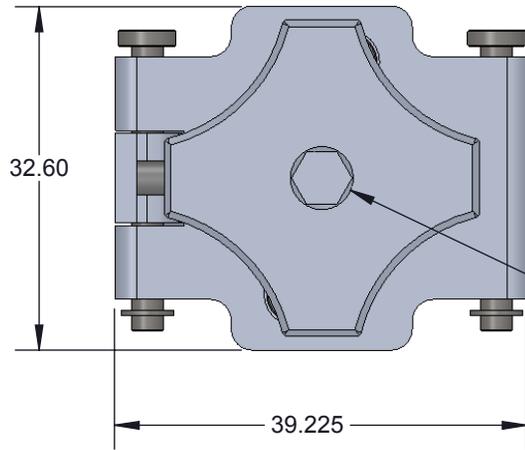


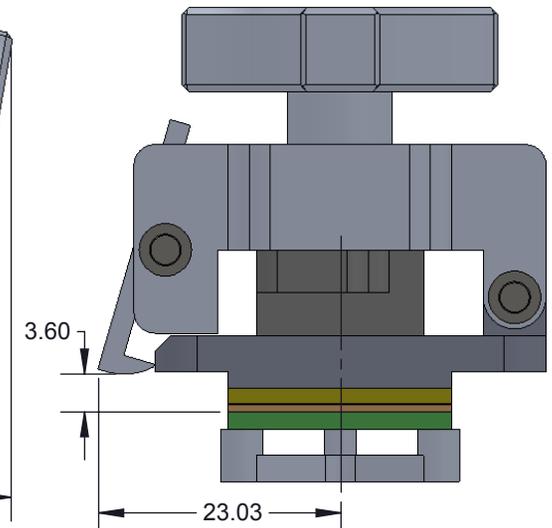
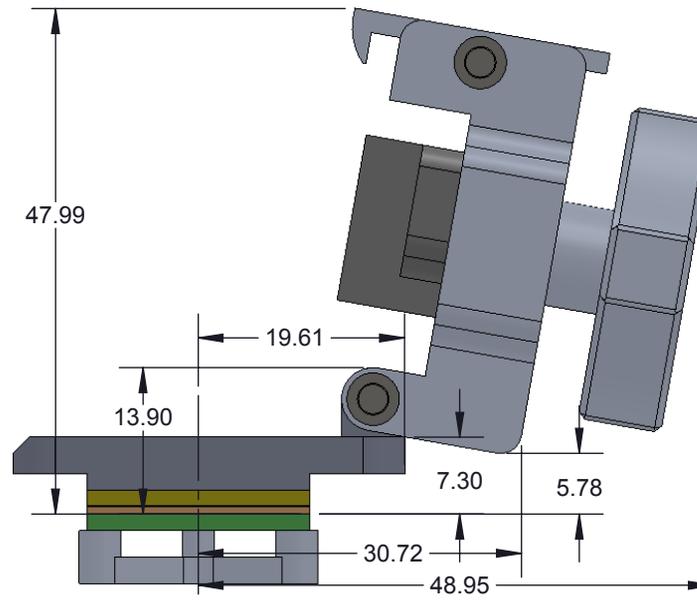
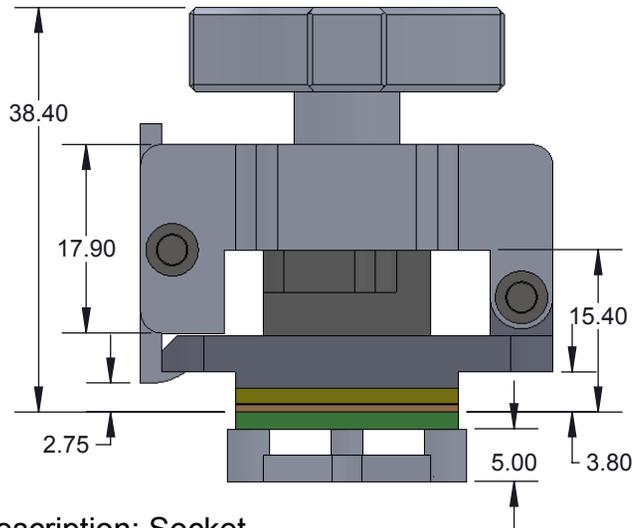
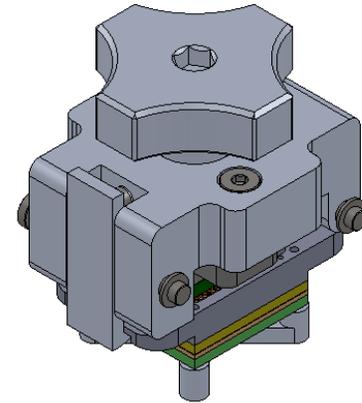
Clamshell GHz Socket - Direct mount, solderless

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
- Clamshell lid



Recommended Torque = 1 in-lbs



Description: Socket

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.

CG-BGA-4018 Drawing



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Tele: (800) 404-0204
www.ironwoodelectronics.com

Material: Material <not specified>
Finish:
Weight: 67.28

STATUS: Released

ENG: S. Huang

FILE: CG-BGA-4018 Dwg

SHEET: 1 OF 5

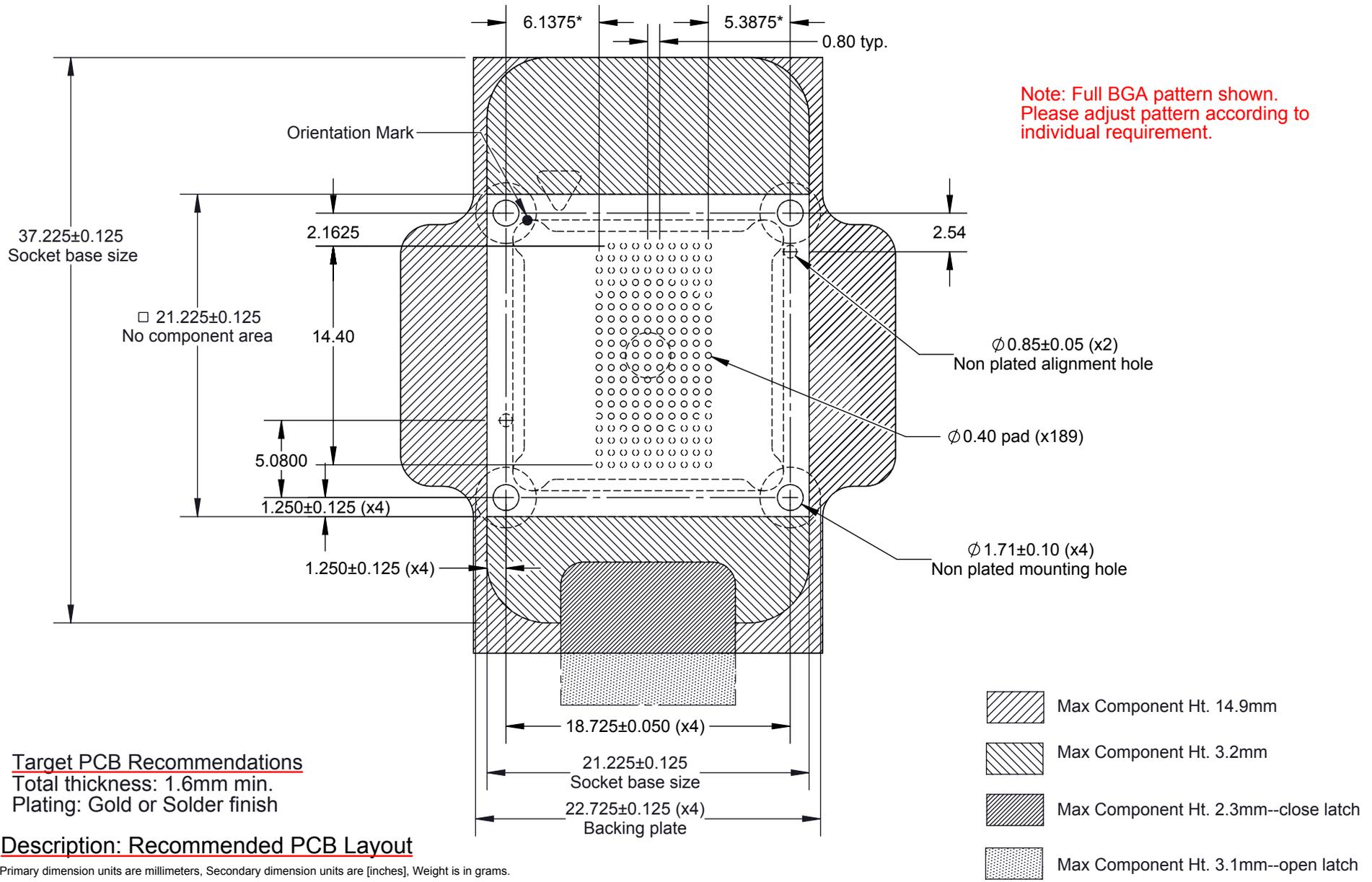
DRAWN BY: S. Huang

DATE: 02/15/2015

REV. B

SCALE: 1.4:1

***Note: BGA pattern is not symmetrical with respect to the mounting holes. The pattern is shifted to the right of center by 0.375mm.**



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

Target PCB Recommendations

Total thickness: 1.6mm min.
Plating: Gold or Solder finish

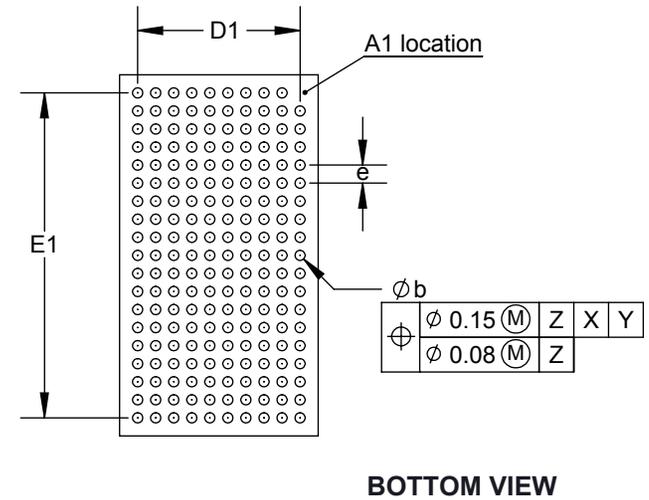
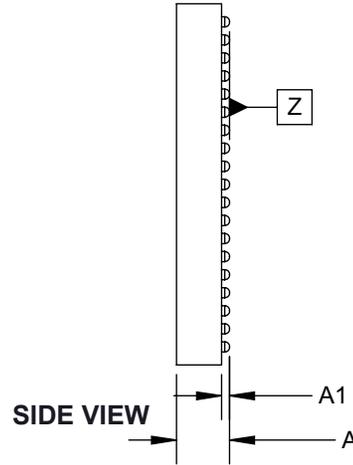
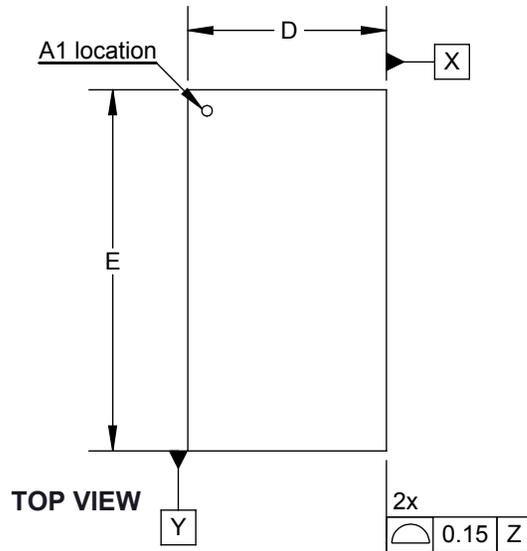
Description: Recommended PCB Layout

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

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

 <p>CG-BGA-4018 Drawing ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	Material: Material <not specified>	STATUS: Released	SHEET: 2 OF 5	REV. B	
	Finish: Weight: 67.28	ENG: S. Huang	DRAWN BY: S. Huang	SCALE: 2.8:1	
		FILE: CG-BGA-4018 Dwg	DATE: 02/15/2015		

Ironwood package code: BGA189A1



1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5-1994.
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.

DIM	MIN	MAX
A		2.75
A1	0.36	
b	0.45	
D	8.80	
D1	7.20	
E	16.00	
E1	14.40	
e	0.80	

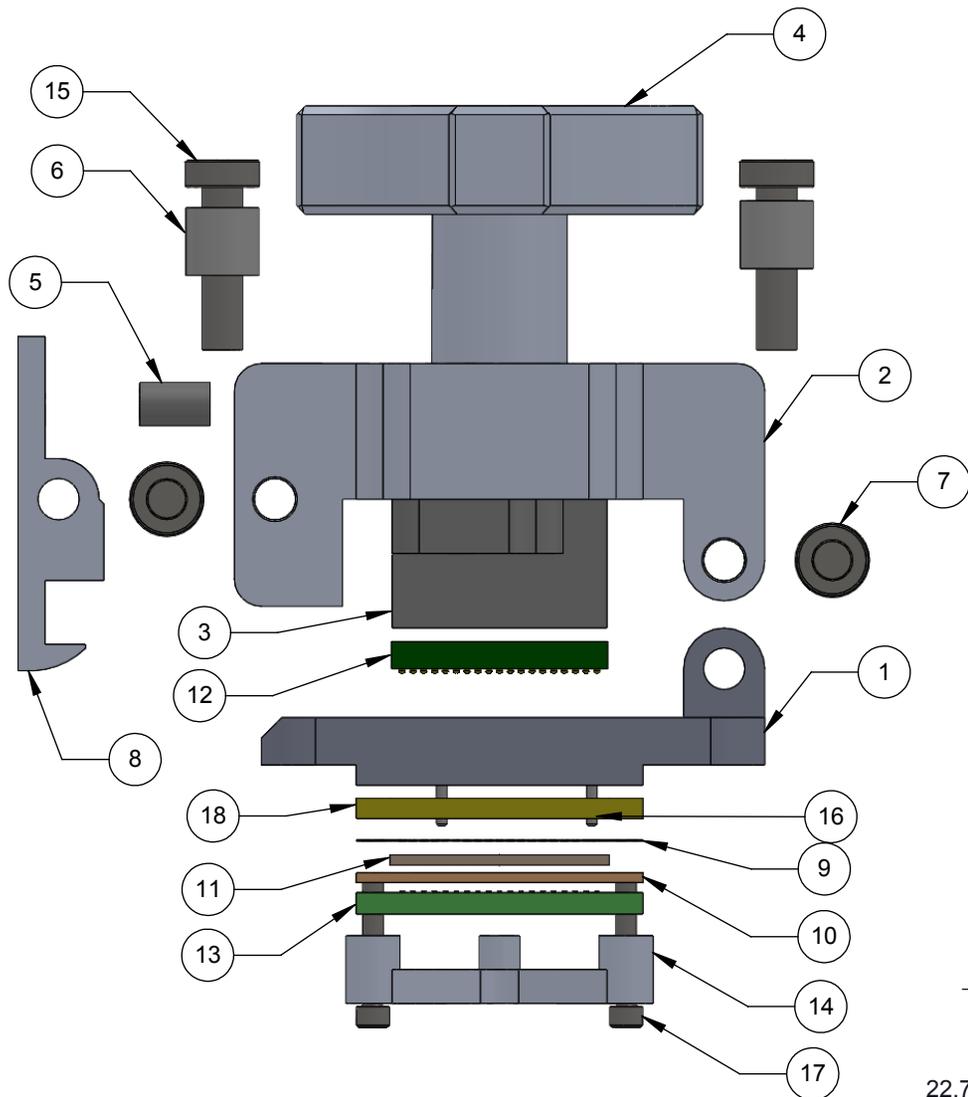
Array: 10x19

Description: Compatible BGA

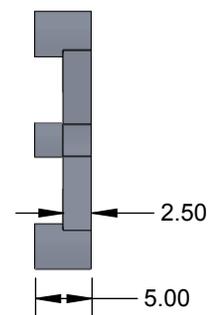
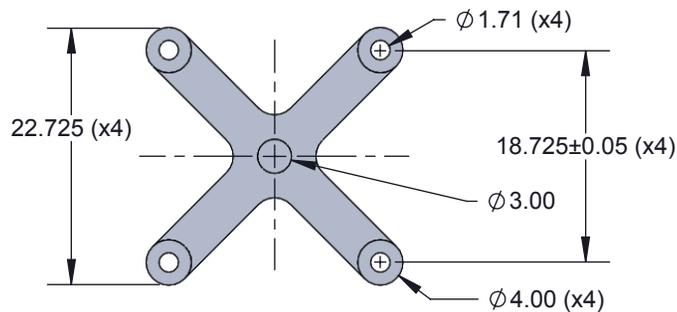
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

Tolerances: Hole diameters $\pm 0.0254\text{mm}$ [± 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.

<p>CG-BGA-4018 Drawing ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>Material: Material <not specified> Finish: Weight: 67.28</p>	STATUS: Released	SHEET: 3 OF 5	REV. B
		ENG: S. Huang	DRAWN BY: S. Huang	SCALE: 3:1
		FILE: CG-BGA-4018 Dwg	DATE: 02/15/2015	



ITEM NO.	Description	Material
1	CG Socket Base 16.325mm Pocket 18.725mm Holes	7075-T6 Aluminum Alloy
2	Clam shell lid for 17mm IC	7075-T6 Aluminum Alloy
3	Compression Plate	7075-T6 Alumium Alloy
4	M10 Comression Screw	7075-T6 Aluminum Alloy
5	Precision Compression Spring, Zinc-Plated Music Wire, 1/2" Length, .12" OD, .016" Wire	Zinc Plated Music Wire
6	Spring Clamshell lid assembly	Steel Music Wire
7	Hinge Pin and Snap Ring, 3mm OD, 25mm long, SS	Stainless Steel (ferritic)
8	Clamshell Latch	7075-T6 Aluminum Alloy
9	Ball Guide for 8.8X16mm 10X19 array 0.8mm pitch	Kapton Polyimide/Cirlex
10	Elastomer Guide 16mm IC	Ultem 1000
11	0.75mm thick 0.1mm pitch 63 deg angled elastomer	Silicon Rubber
12	BGA189 IC 0.8mm pitch 10x19 array	FR4
13	PCB BGA189 0.8mm pitch 10x19 array	Material <not specified>
14	16x16mm Clamshell Backing Plate	7075-T6 Aluminum Alloy
15	Screw, M3 x 12mm, Low Head Cap, SS	18-8 Stainless Steel
16	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
17	#0-80 X .375 LG, SOC HD CAP SCREW, ALLOY STL, BLK OXIDE	Alloy Steel
18	IC Guide 8.8x16mm IC	Torlon 4203



Description: Skt and Backing plate Detail

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

Tolerances: Hole diameters $\pm 0.0254\text{mm}$ [$\pm 0.001"$], 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.

Backing Plate Top View

Backing Plate Side View

 CG-BGA-4018 Drawing ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Material <not specified>	STATUS: Released	SHEET: 4 OF 5	REV. B	
	Finish: Weight: 67.28	ENG: S. Huang	DRAWN BY: S. Huang	SCALE: 1.8:1	
		FILE: CG-BGA-4018 Dwg	DATE: 02/15/2015		

Rev	Date	Initials	Description
A	02/27/13	MR	Original
B	02/04/15	DH	Changed IC Guide material from Ultem to torlon

Description: Revisions

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.

 CG-BGA-4018 Drawing ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Finish: Weight:	STATUS: Released	SHEET: 5 OF 5	REV. B
		ENG: S. Huang	DRAWN BY: S. Huang	SCALE: 1.8:1
		FILE: CG-BGA-4018 Dwg	DATE: 02/15/2015	