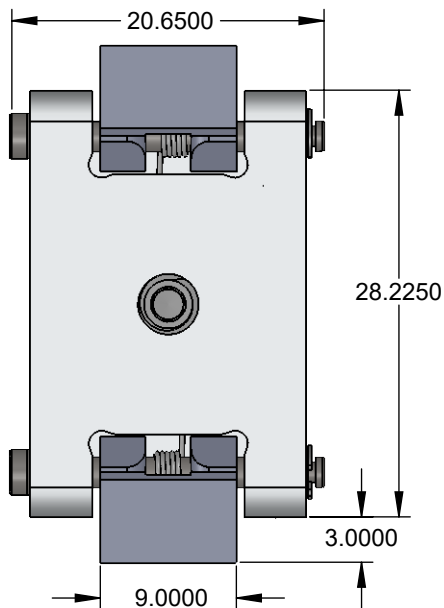
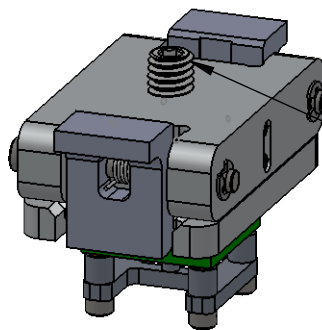


# SG15-BGA DIRECT MOUNT, SOLDERLESS SOCKET FOR BURN-IN AND TEST APPLICATIONS

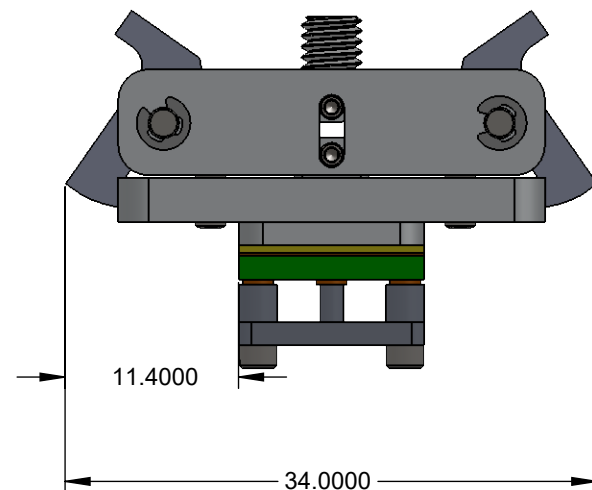
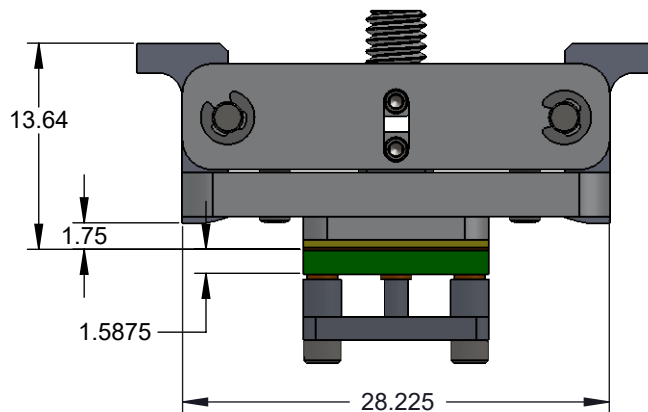
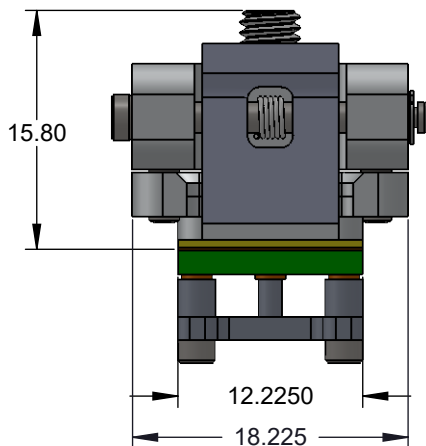


## Features

- Wide temperature range (-40C to +100C).
- High current capability (up to 2A).
- Excellent signal integrity at high frequencies.
- Low and stable contact resistance for reliable production yield.
- Highly compliant to accommodate wide co-planarity variations.




M4x0.7mm compression screw can adjust the compression force for the socket as 1/4 turn of screw = 0.78 lbs.



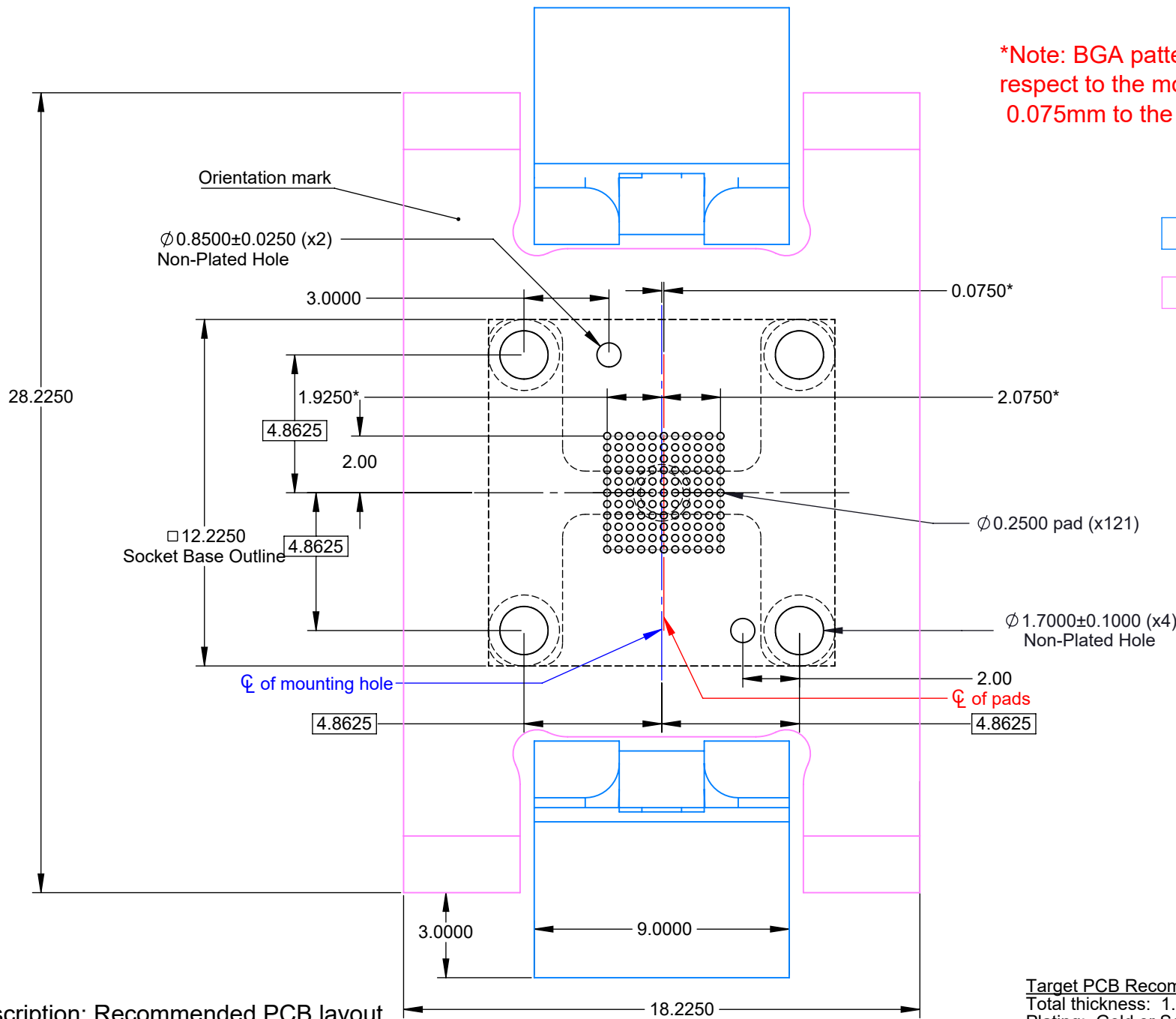
## Description: SG15-BGA socket for 5x5mm 0.4mm pitch BGA121 11x11array

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.

 <b>CG15-BGA-1001 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 14.80	STATUS: Released ENG: S. Huang FILE: CG15-BGA-1001 Dwg	SHEET: 1 OF 5 DRAWN BY: M. Raske DATE: 5/8/2018	REV. A SCALE: 4:2

\*Note: BGA pattern is not symmetrical with respect to the mounting holes. It is offset 0.075mm to the right of center.



**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.

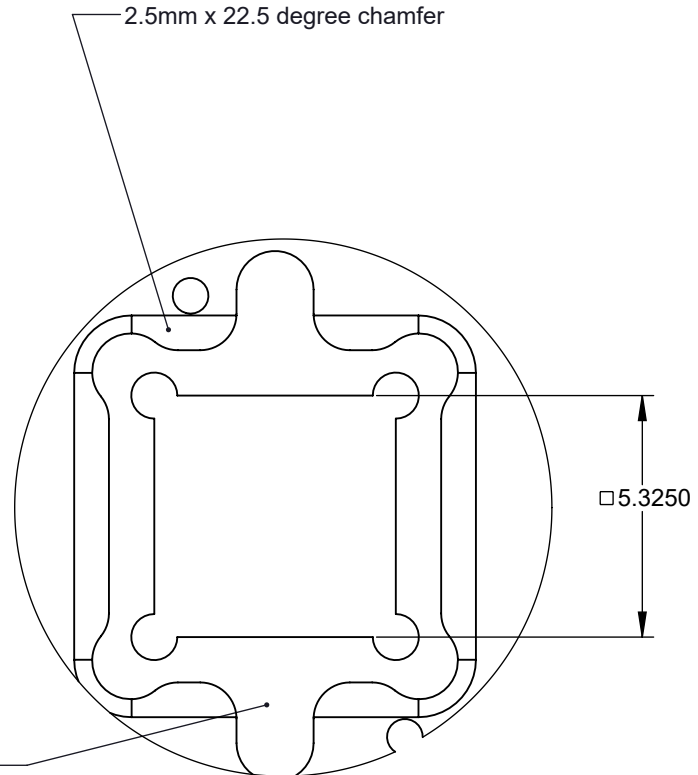
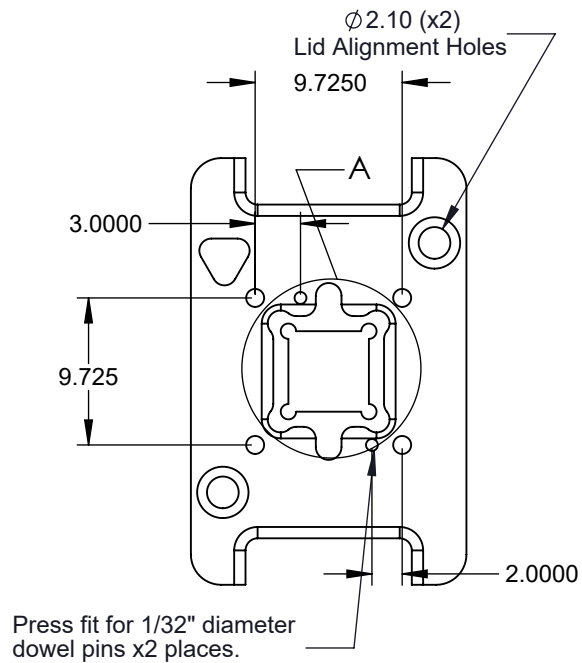
**Target PCB Recommendations**

Total thickness: 1.6mm min.

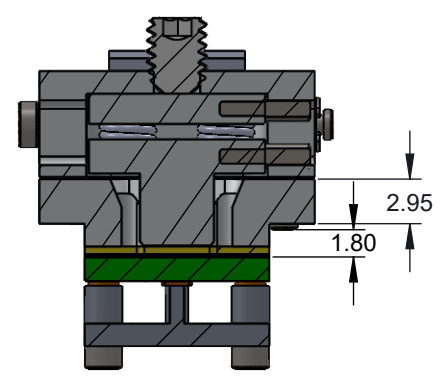
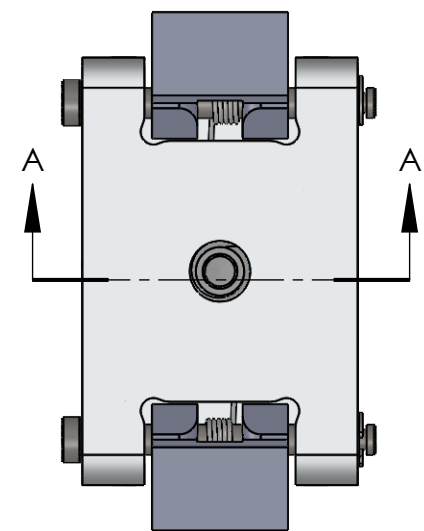
Plating: Gold or Solder finish

PCB Pad Height: Same or higher than solder mask

	<b>CG15-BGA-1001 Drawing</b> ©2018 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 14.80	STATUS: Released ENG: S. Huang FILE: CG15-BGA-1001 Dwg	SHEET: 2 OF 5 DRAWN BY: M. Raske DATE: 5/8/2018	REV. A SCALE: 5:1



**DETAIL A  
SCALE 6 : 1**




**SECTION A-A  
SCALE 2 : 1**

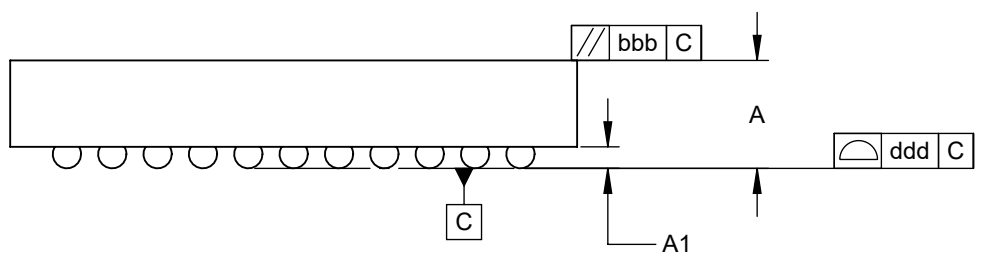
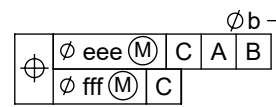
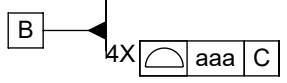
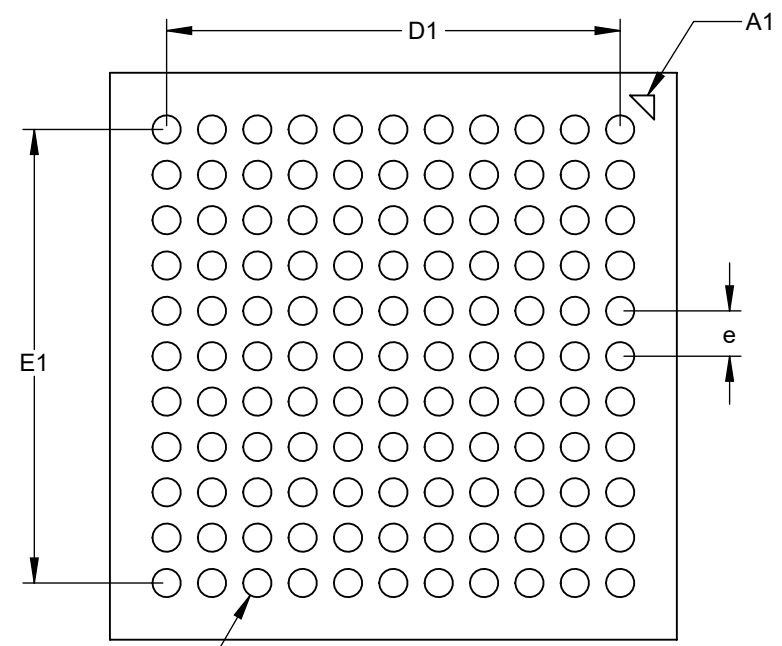
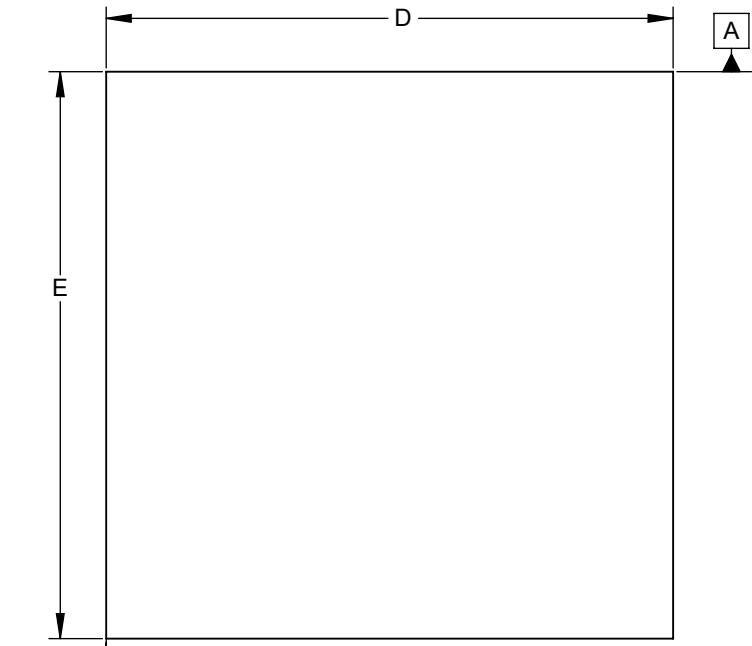
**Description: Cavity Detail**

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.

	<b>CG15-BGA-1001 Drawing</b>	Material: N/A Finish: N/A Weight: 14.80	STATUS: Released ENG: S. Huang FILE: CG15-BGA-1001 Dwg	SHEET: 3 OF 5 DRAWN BY: M. Raske DATE: 5/8/2018	REV. A SCALE: 2:1
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# IRONWOOD PACKAGE CODE: BGA121J




Dimension	Min	Nom	Max
A	-	-	1.2
A1	0.14	-	0.24
b	0.20	-	0.30
D	4.9	5.00	5.10
D1		4	
E	4.9	5.00	5.10
E1		4	
e		0.4	
aaa			0.10
bbb			0.10
ddd			0.08
eee			0.15
fff			0.08

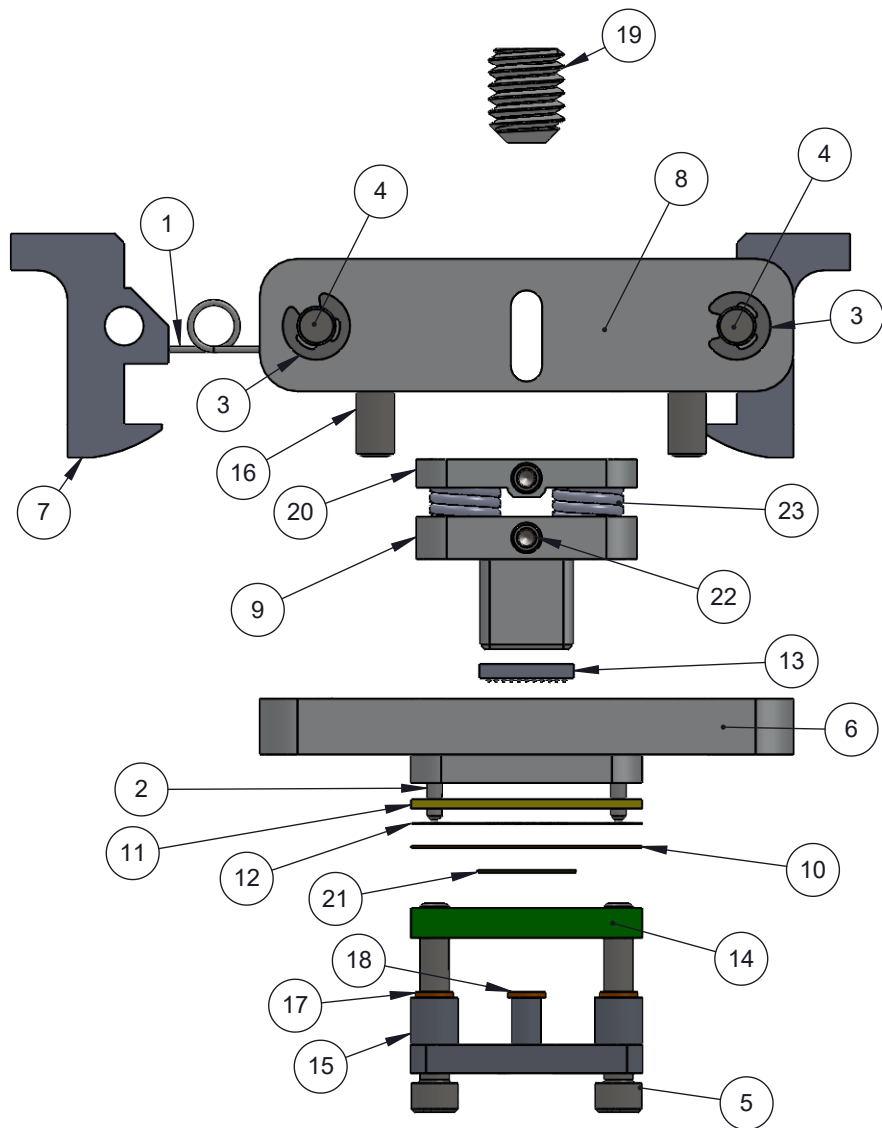
1. Dimensions are in millimeters.

Array: 11x11

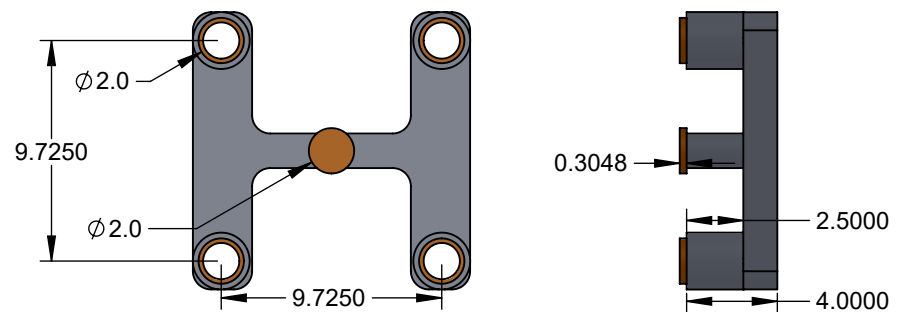
## Description: BGA121

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.

 ©2018 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	CG15-BGA-1001 Drawing	Material: N/A Finish: N/A Weight: 14.80	STATUS: Released	SHEET: 4 OF 5	REV. A	
			ENG: S. Huang	DRAWN BY: M. Raske	SCALE: 15:1	
			FILE: CG15-BGA-1001 Dwg	DATE: 5/8/2018		



ITEM NO.	DESCRIPTION	Material
1	Torsion Spring, 180 0.109" OD, Ccw/Rh	Steel Music Wire
2	Alignment Pin 1/32" dia. x 1/8" lng	Chrome Stainless Steel
3	Snap ring for 2mm Hinge pin 0.15" OD	
4	2mm diameter Hinge Pin, 20 mm long	Alloy Steel
5	#0-80 X .375 LG, SOC HD CAP SCREW, ALLOY STL, BLK OXIDE	Alloy Steel
6	Socket base double latch 7mm opening	7075-T6 Aluminum Alloy
7	Clamshell Latch Snap type 9mm wide	7075-T6 Alumium Alloy
8	CG Snap double latch socket lid for up to 7mm IC	7075-T6 Aluminum Alloy
9	Compression Plate Snap Lid	7075-T6 Aluminum Alloy
10	Elastomer Guide for 5mm IC	Kapton Polyimide/Cirlex
11	IC Guide	Torlon 4203
12	Ball Guide 0.4mm pitch 11x11 array	Kapton Polyimide/Cirlex
13	Test chip 5x5mm 0.4mm pitch 11x11 array	Material <not specified>
14	Target PCB 5x5mm 0.4mm pitch 11x11 array	Material <not specified>
15	Clamshell Backing Plate, 7mm IC 5 post "H" shaped	7075-T6 Aluminum Alloy
16	Dowel Pin M2x6mm	Stainless Steel (18-8)
17	Insulating washer, 2mm OD.	Kapton Polyimide/Cirlex
18	Insulating disk, 2mm OD with 2 mil thk Adesive	Kapton Polyimide/Cirlex
19	M4 5mm long 0.7mm pitch screw	Black-Oxide Alloy Steel
20	Compression plate spacer	7075-T6 Aluminum Alloy
21	0.15mm thick, 0.05x 0.05mm pitch, elastomer	20 Micron dia brass filaments in a silicon rubber, Thickness: 0.15mm
22	Shoulder Set Screw, 0-80x3mm Thread, 1.60mm Dia x 3.00mm Shoulder	Stainless Steel
23	316SS Comp. Spring .25" Length, .148" OD, .021" Wire Dia	Material <not specified>



## Description: Skt, Insulation Plate, Pin Det

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.

### CG15-BGA-1001 Drawing

Material: N/A  
Finish: N/A  
Weight: 14.80

STATUS: Released

SHEET: 5 OF 5

REV. A

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www.ironwoodelectronics.com

ENG: S. Huang

DRAWN BY: M. Raske

SCALE: 2.5:1

FILE: CG15-BGA-1001 Dwg

DATE: 5/8/2018

