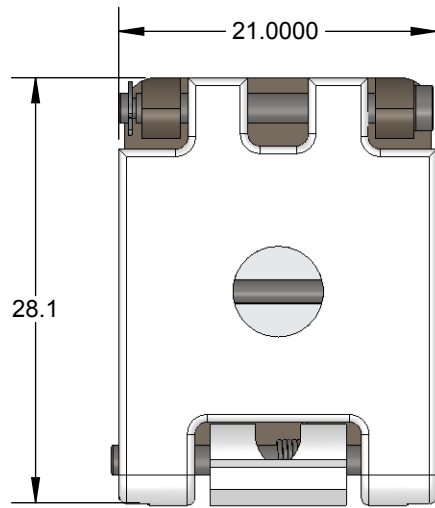


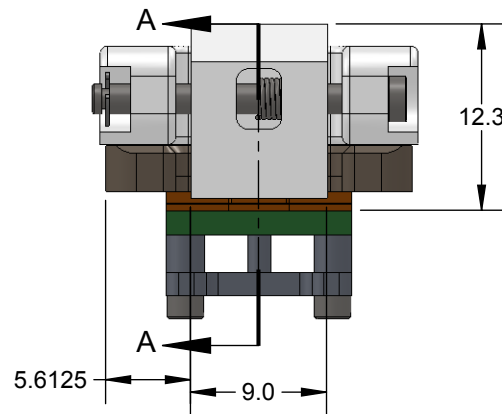
GHz BGA Socket - Direct mount, solderless

Features

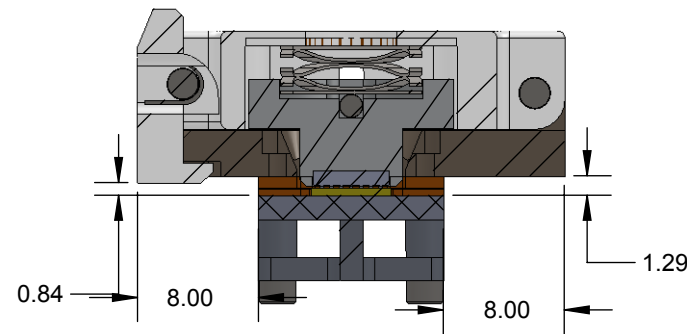
- Directly mounts to target PCB (needs tooling holes) with hardware
- High speed, reliable Elastomer connection
- Minimum real estate required
- Compression plate distributes forces evenly
- Ball guide prevents over compression of elastomer
- Easily operable snap socket spring lid



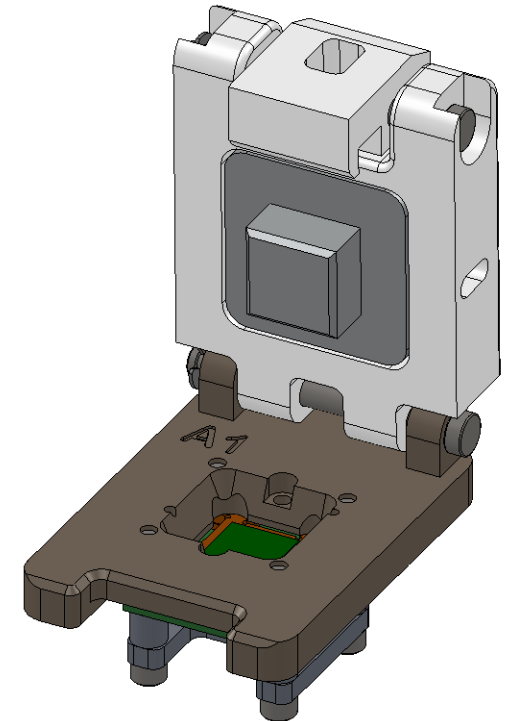
TOP VIEW



FRONT VIEW



SECTION A-A



Description: SG-BGA skt 5x5mm 0.65mm pitch 7x7 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.

CG-BGA-5020 Drawing



Ironwood Electronics, Inc.
Tele: (800) 404-0204
www.ironwoodelectronics.com

Material: N/A
Finish: N/A
Weight: 12.22

STATUS: Released

ENG: V. Panavala

FILE: CG-BGA-5020 Dwg

SHEET: 1 OF 4

DRAWN BY: M. Raske

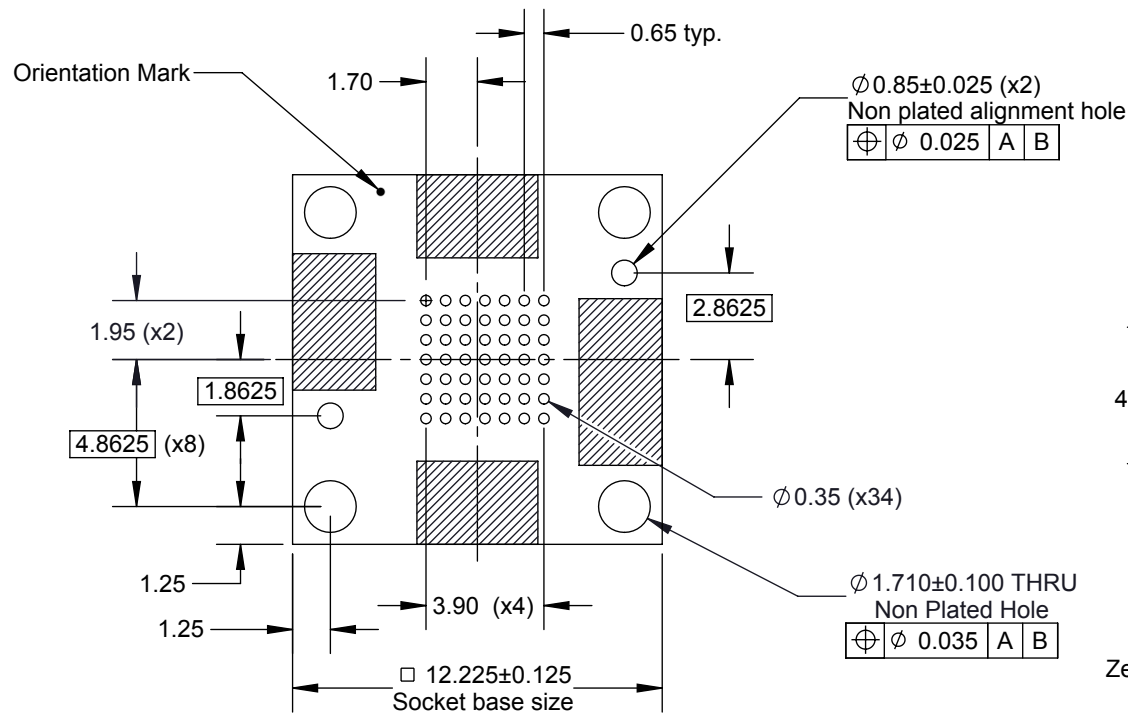
DATE: 11/20/2013

REV. A

SCALE: 2:1

***Note: BGA pattern is not symmetrical with respect to the mounting holes. The pattern is shifted to the right of center by 0.25mm.**

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



Target PCB Recommendations

Total thickness: 1.6mm min.

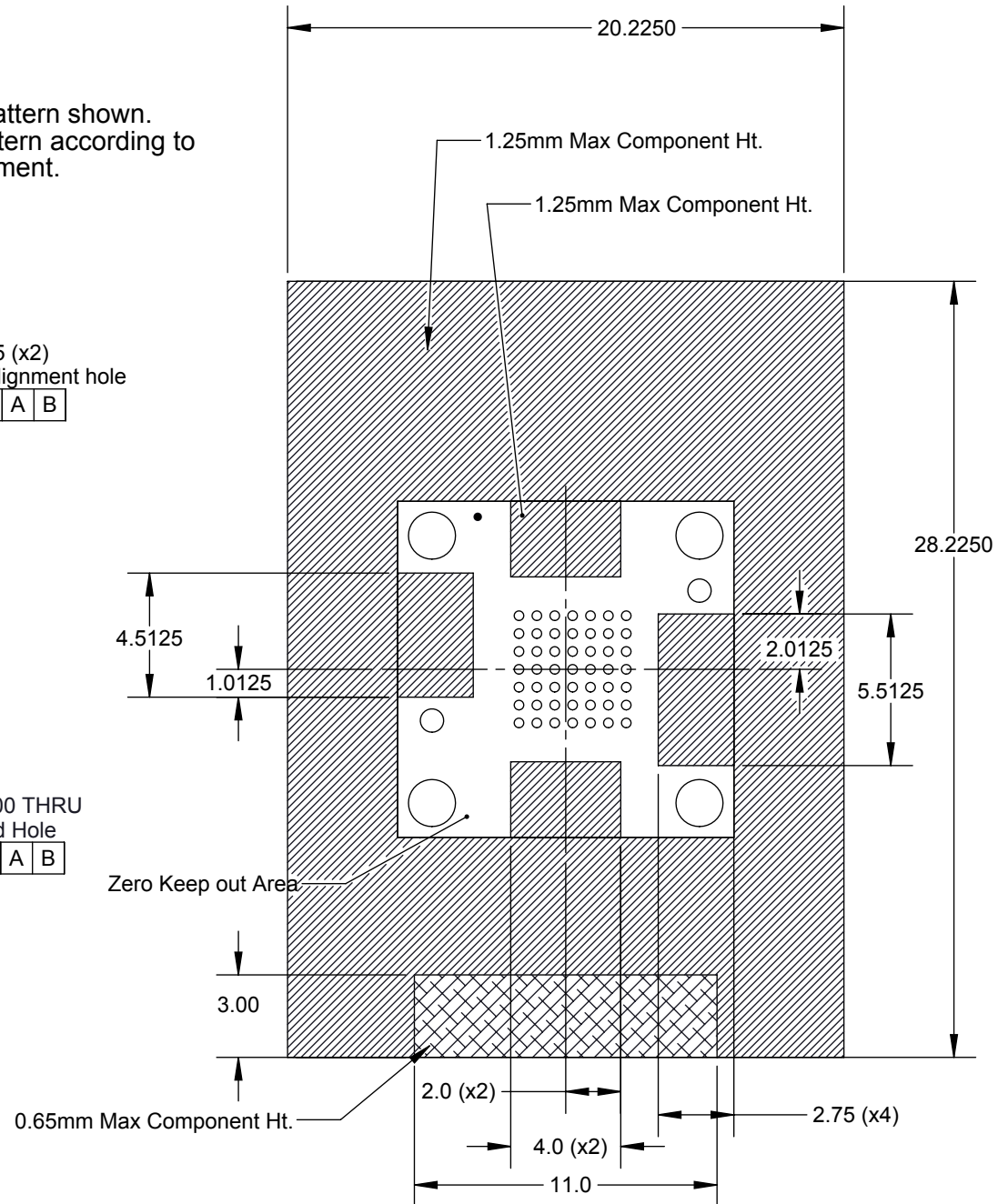
Plating: Gold or Solder finish


PCB Pad height: Same or higher than solder mask

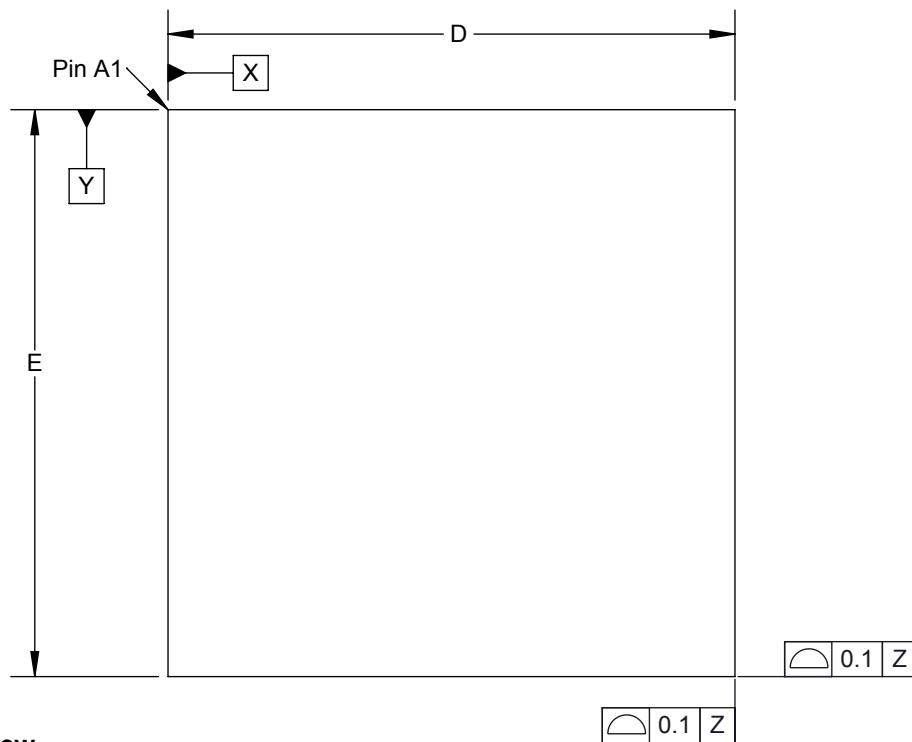
Description: Recommended PCB Layout

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

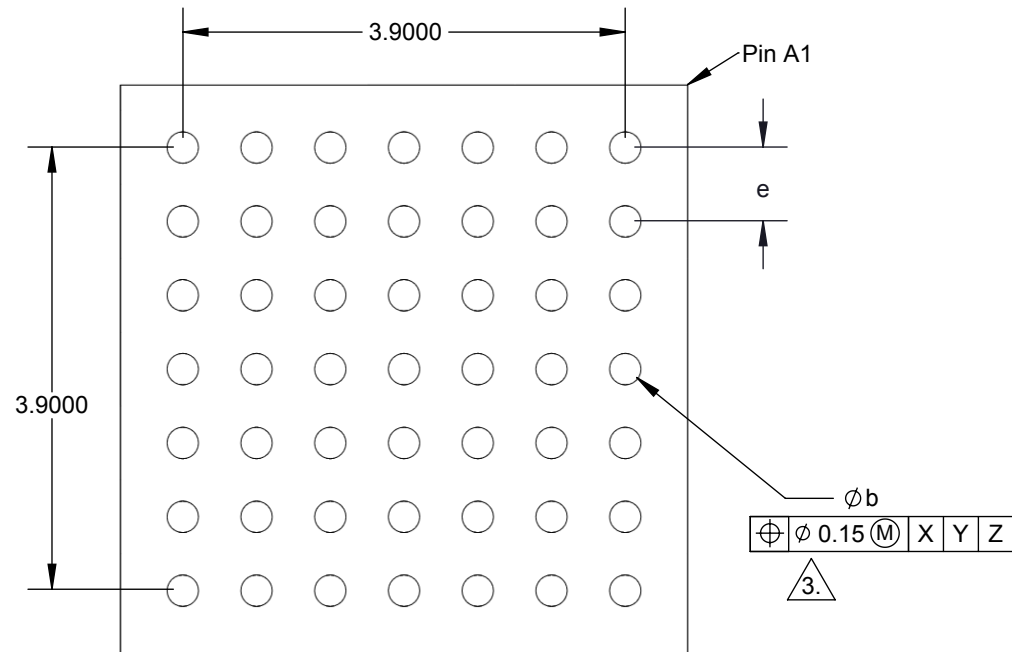
Tolerances: Hole diameters $\pm 0.03\text{mm}$ [$\pm 0.001"$], Pitches (from true position) $\pm 0.025\text{mm}$ [$\pm 0.001"$], substrate thickness tolerance $\pm 10\%$, all other tolerances $\pm 0.13\text{mm}$ [$\pm 0.005"$] unless stated otherwise. Materials and specifications are subject to change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



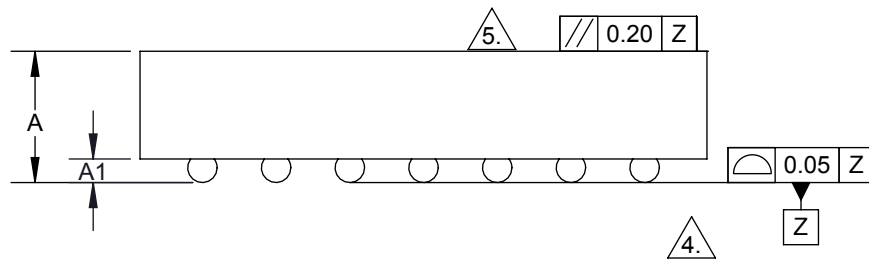
CG-BGA-5020 Drawing  Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 12.22	STATUS: Released ENG: V. Panavala FILE: CG-BGA-5020 Dwg	SHEET: 2 OF 4 DRAWN BY: M. Raske DATE: 11/20/2013	REV. A SCALE: 4:1
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Top View



Bottom View



Side View

Ironwood Package Code: BGA49D

DIM	MIN	MAX
A		1.5
A1	0.17	
b	0.25	0.35
D	5.00	
E	5.00	
e	0.65 BSC	

Array: 7x7


Dimensions are in millimeters.

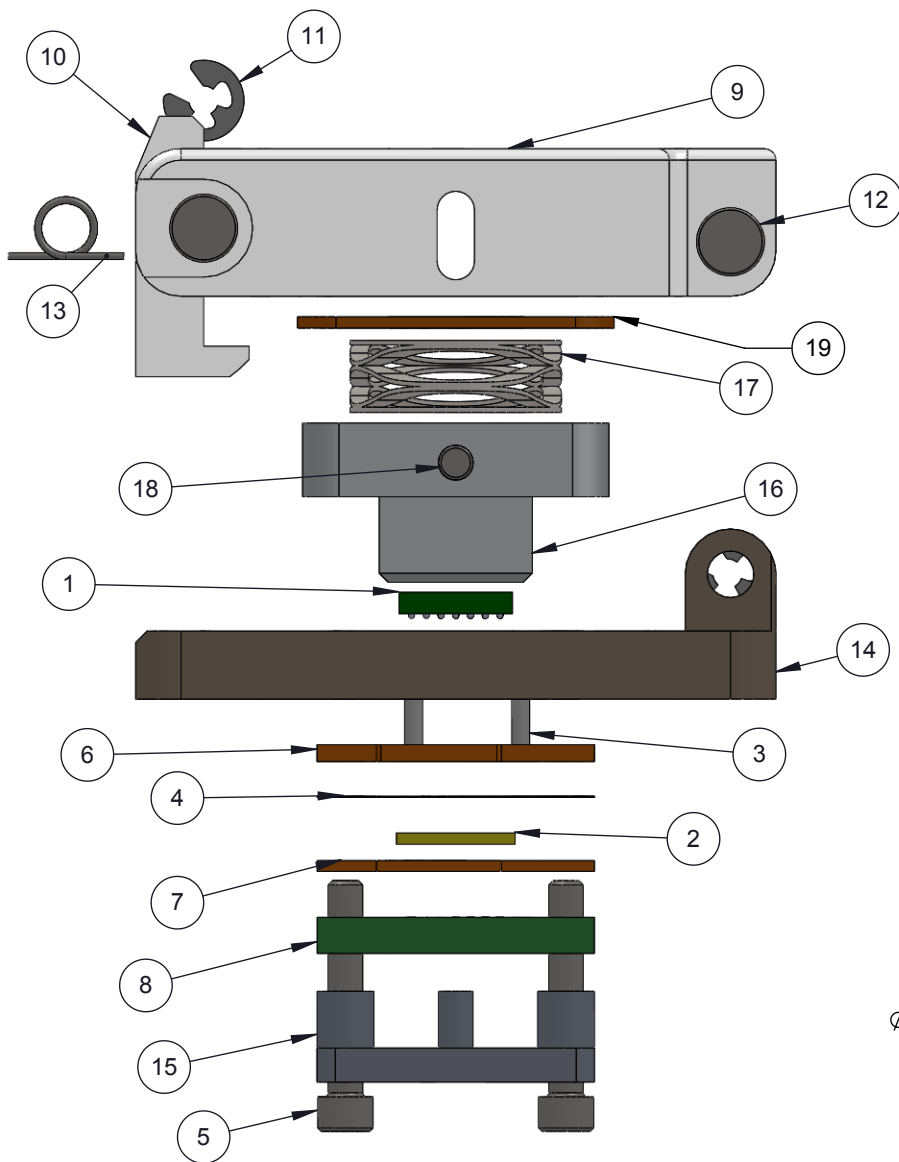
1. Interpret dimensions and tolerances per ASME Y14.5M-1994.
2. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.
3. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
4. Parallelism measurement shall exclude any effect of mark on top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

Description: BGA

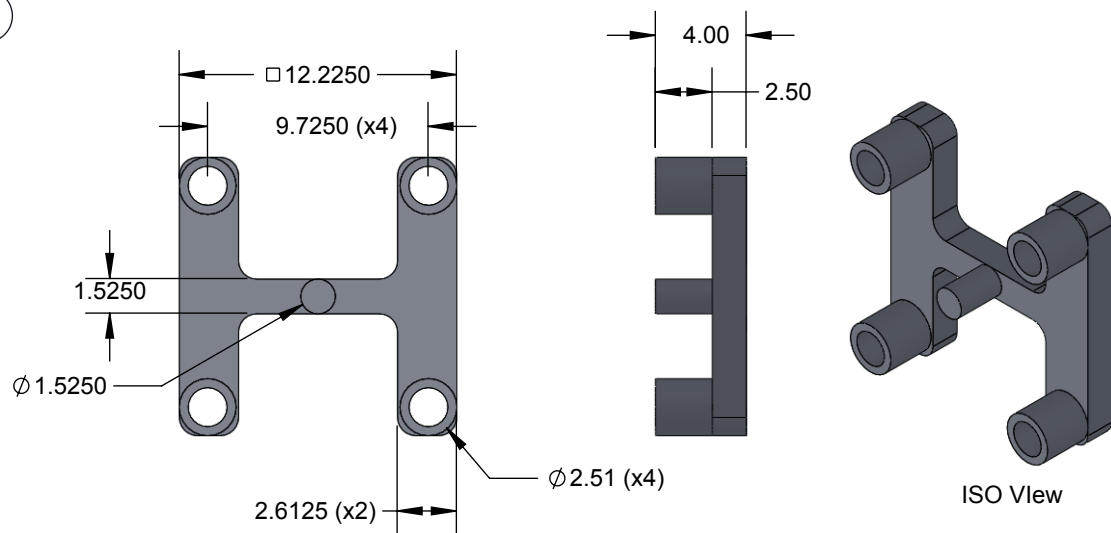
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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.

 CG-BGA-5020 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 12.22	STATUS: Released	SHEET: 3 OF 4	REV. A
		ENG: V. Panavala	DRAWN BY: M. Raske	SCALE: 15:1
		FILE: CG-BGA-5020 Dwg	DATE: 11/20/2013	



ITEM NO.	DESCRIPTION	Material
1	Test Chip 5x5mm 0.65mm pitch 7x7 array	Material <not specified>
2	0.5mm thick, 0.05x 0.05mm pitch, 50mm sqr, Z-axis conductive angled elastomer	20 Micron dia gold plated brass filaments arranged symettrically in a silicon rubber (63.5 degree angle), Thickness: 0.5mm
3	Alignment Pin 1/32" dia. x 1/8" lng	Chrome Stainless Steel
4	Ball Guide 0.65mm pitch 7x7 array	Kapton Polyimide/Cirlex
5	#0-80 X .375 LG, SOC HD CAP SCREW, ALLOY STL, BLK OXIDE	Alloy Steel
6	IC guide 5x5mm IC	Kapton Polyimide/Cirlex
7	Elastomer Guide 5x5mm	Kapton Polyimide/Cirlex
8	Target PCB 5x5mm 0.65mm pitch 7x7 array	FR4 Standard
9	12mm Plastic Snap Clamshell Socket Lid	PPS/Uitem
10	Clamshell Latch Snap Lid Socket (modified M2695 latch)	PPS/Uitem
11	Snap ring for 2mm Hinge pin 0.15" OD	
12	2mm diameter Hinge Pin, 20 mm long	Alloy Steel
13	Torsion Spring, 180 0.109" OD, Ccw/Rh	Steel Music Wire
14	Clamshell CG socket base 7x7mm	7075-T6 Aluminum Alloy
15	Clamshell Backing Plate, 7mm IC 5 post "H" shaped	7075-T6 Aluminum Alloy
16	Compression Plate 7x7mm	7075-T6 Alumium Alloy
17	Wave spring 4 lbs 0.375" OD 0.15" ln	Plain Carbon Steel
18	Dowel Pin, M1.5 X 20mm LG, 18-8 SS	AISI 347 Annealed Stainless Steel (SS)
19	Wave spring Spacer	Kapton Polyimide/Cirlex/ ultem




Description: SOCKET SPEC

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.

Backing plate specification

 CG-BGA-5020 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 12.22	STATUS: Released	SHEET: 4 OF 4	REV. A
		ENG: V. Panavala	DRAWN BY: M. Raske	SCALE: 3:1
		FILE: CG-BGA-5020 Dwg	DATE: 11/20/2013	