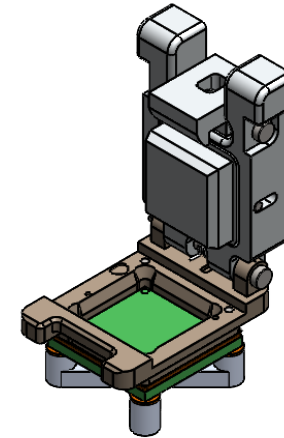
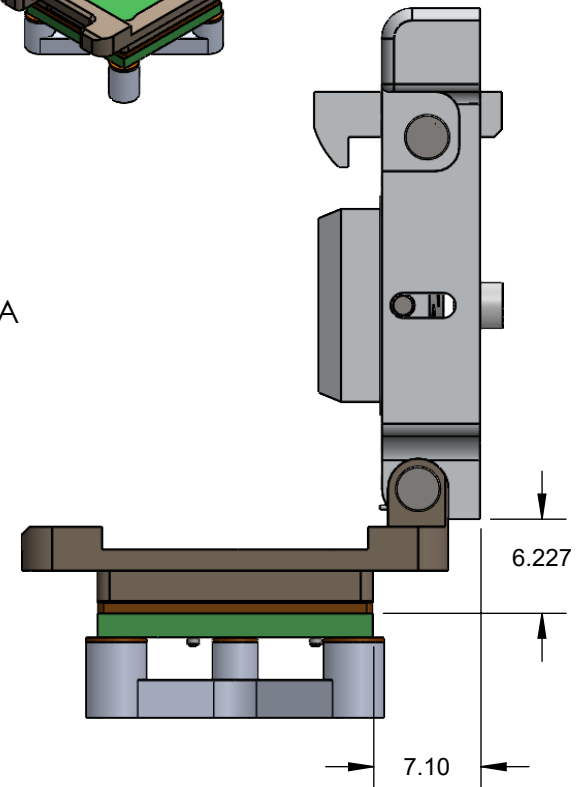
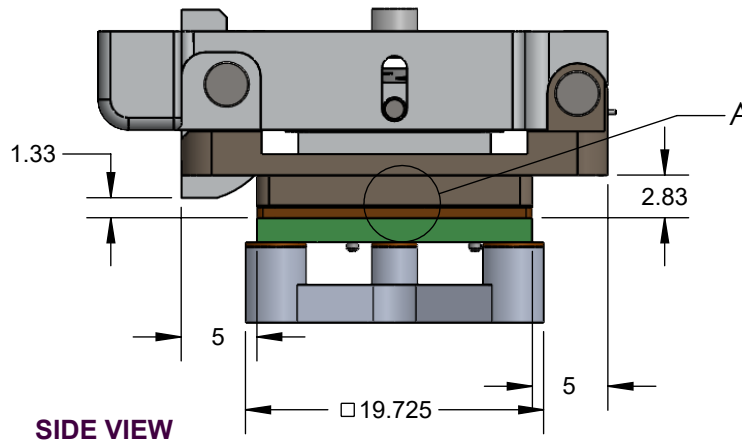
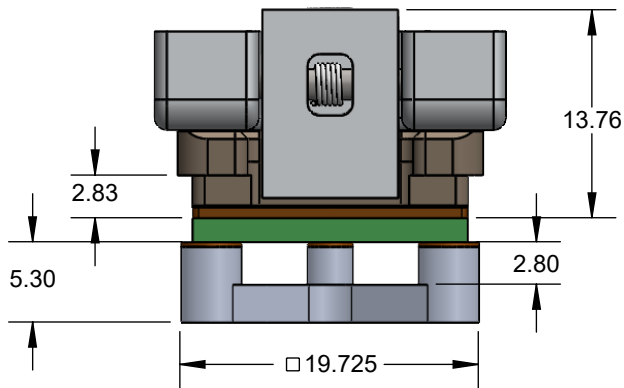


**DETAIL A
SCALE 16 : 1**




User Instructions:

1. Place the device inside the socket and close the lid.
2. If needed, turn the screw to add compression.

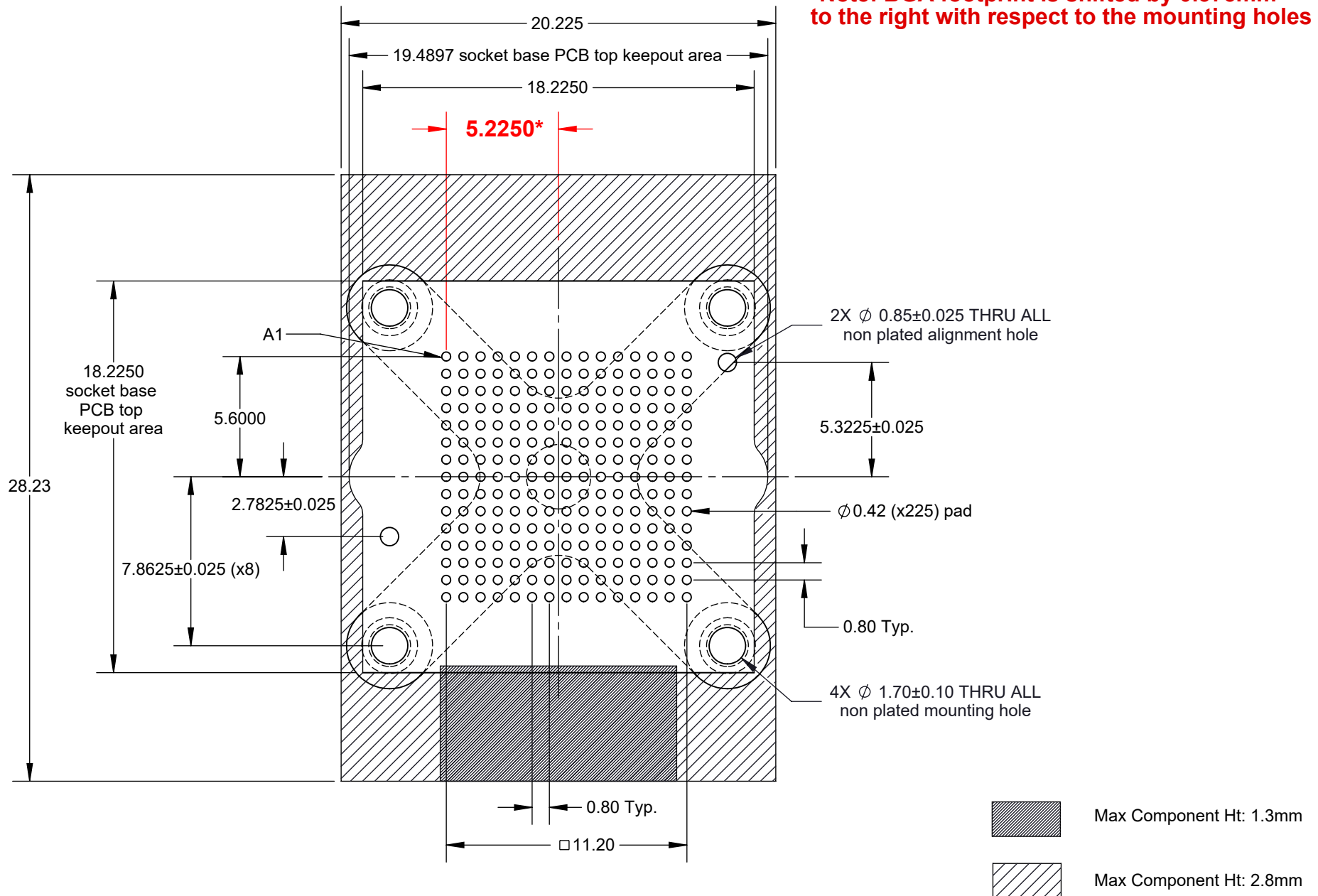


Description: CG-BGA225 13x13mm 0.8mm pitch 15x15 array

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

 <p>CG-BGA-4030 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>Material: N/A Finish: N/A Weight: 18.78</p>	<p>STATUS: Quality Approval Pending</p>	<p>SHEET: 1 OF 4</p>	<p>REV. A</p>
	<p>ENG: M. Raske</p>	<p>DRAWN BY: M. Raske</p>	<p>SCALE: 2:1</p>	
		<p>FILE: CG-BGA-4030 Dwg</p>	<p>DATE: 07/21/2020</p>	


***Note: BGA footprint is shifted by 0.375mm to the right with respect to the mounting holes**



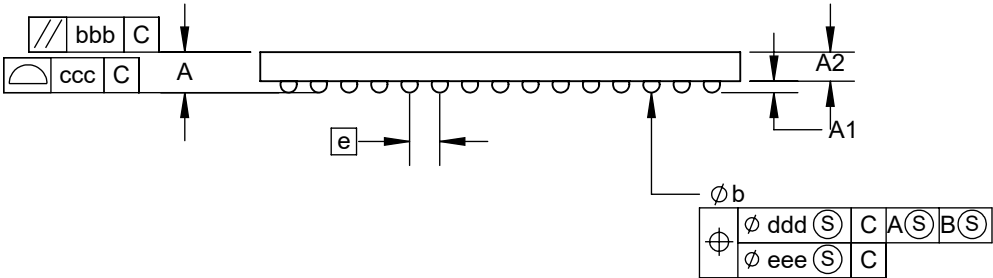
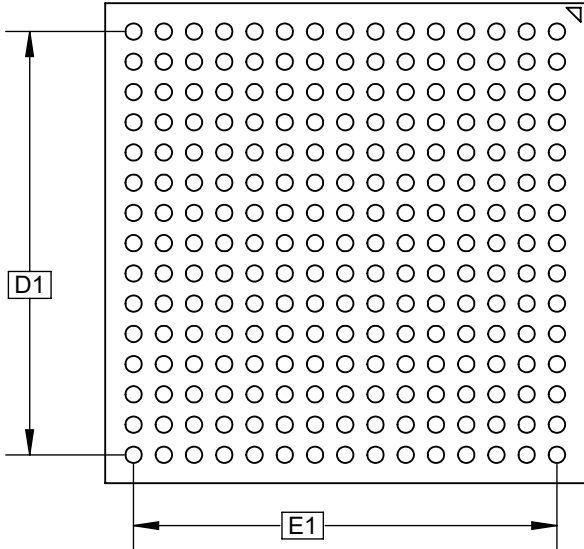
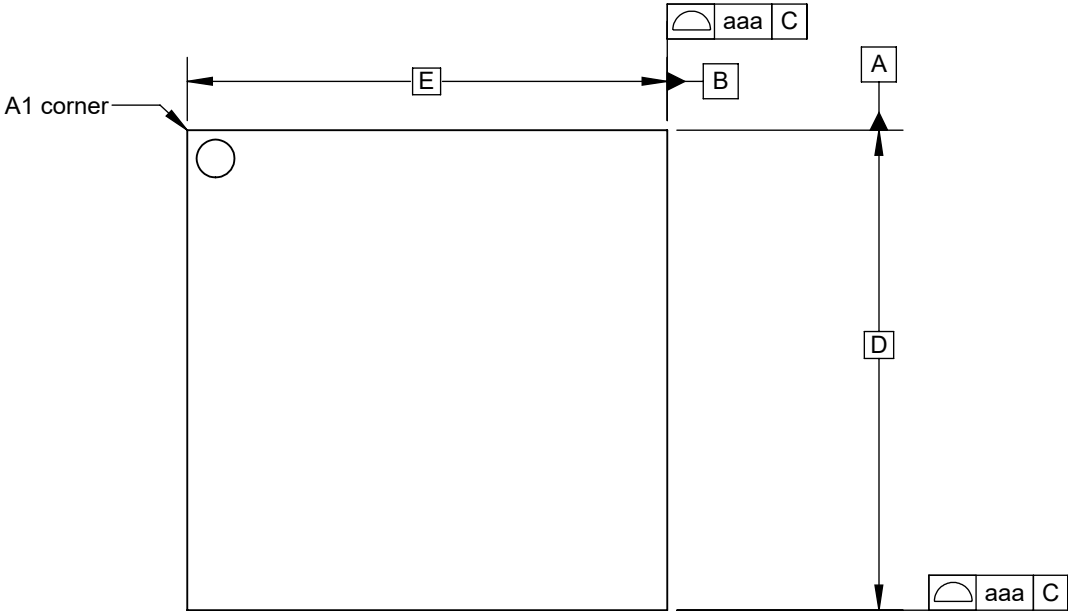
Description: Recommended PCB Layout

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.

 CG-BGA-4030 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 18.78	STATUS: Quality Approval Pending	SHEET: 2 OF 4	REV. A
		ENG: M. Raske	DRAWN BY: M. Raske	SCALE: 4:1
		FILE: CG-BGA-4030 Dwg	DATE: 07/21/2020	


Ironwood package code BGA225E

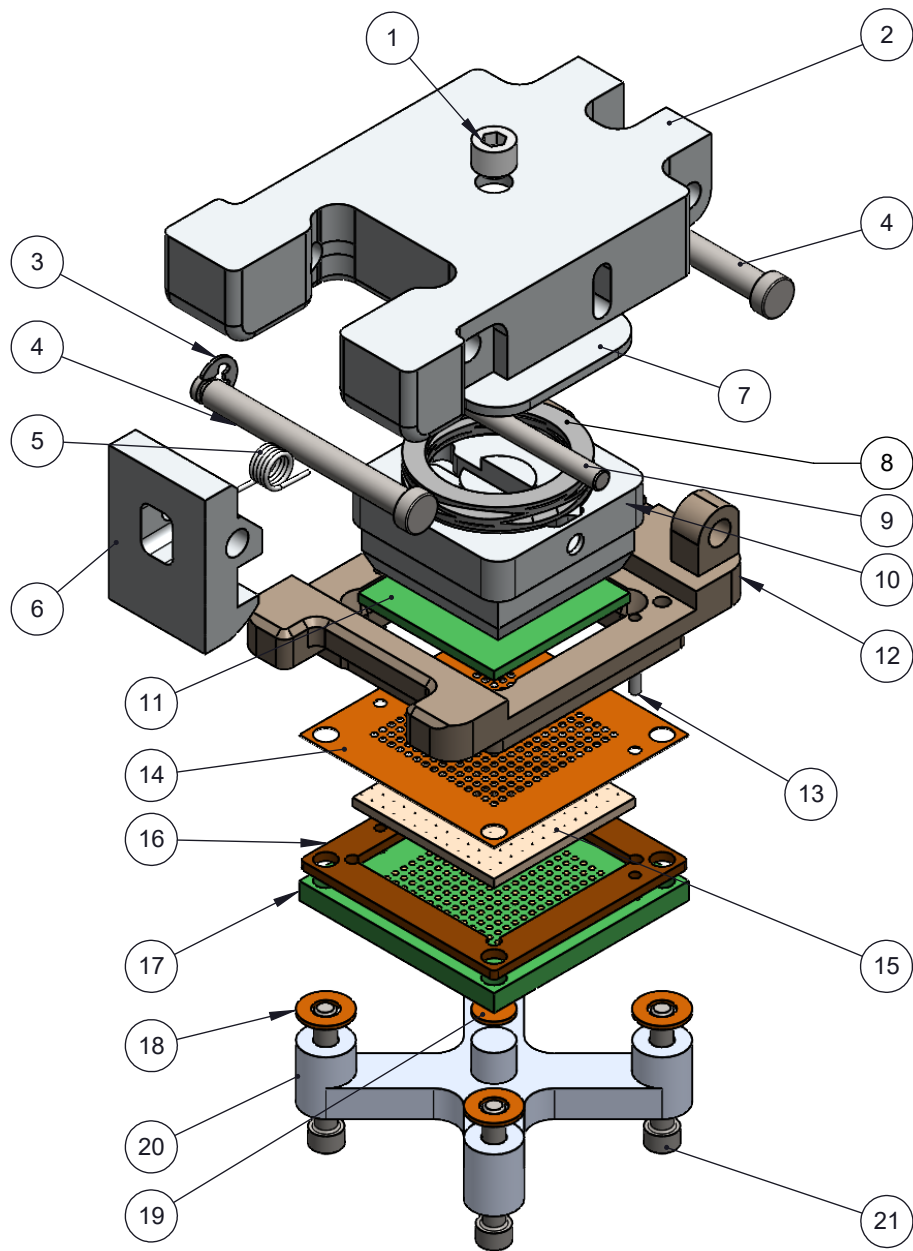


	MIN.	NOM.	MAX.
A			1.25
A1	0.25		0.35
A2	0.77	0.82	0.87
D		13.00	
D1		11.20	
E		13.00	
E1		11.20	
e		0.80	
b	0.35	0.40	0.45
aaa		0.10	
bbb		0.20	
ccc		0.12	
ddd		0.15	
eee		0.08	

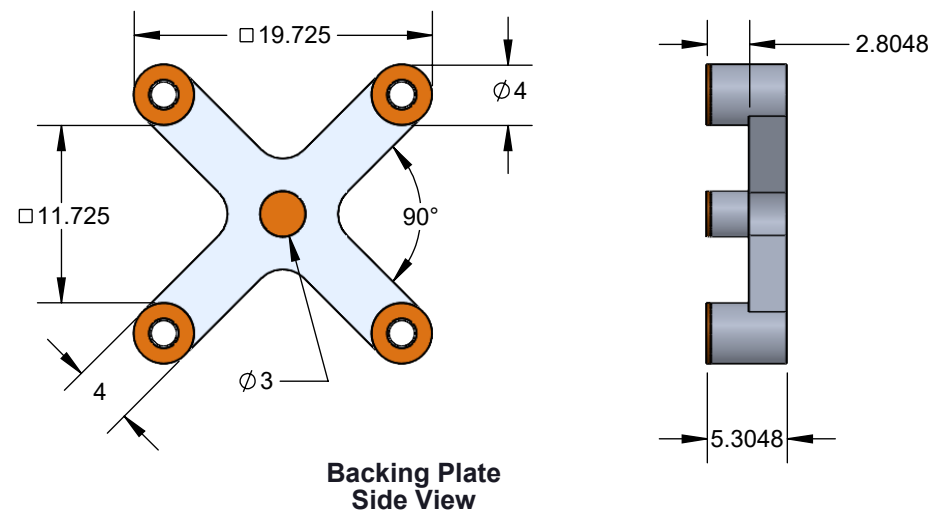
Description: Compatible BGA

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.

 CG-BGA-4030 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 18.78	STATUS: Quality Approval Pending	SHEET: 3 OF 4	REV. A
		ENG: M. Raske	DRAWN BY: M. Raske	SCALE: 5:1
		FILE: CG-BGA-4030 Dwg	DATE: 07/21/2020	



ITEM NO.	DESCRIPTION	Material
1	Set Screw M3 Size, 3mm Long, 0.5mm Pitch	Stainless Steel (316)
2	Clamshell snap Socket Lid 13mm IC	7075-T6 Aluminum Alloy
3	Snap ring for 2mm Hinge pin 0.15" OD	
4	2mm diameter Hinge Pin, 20 mm long	Alloy Steel
5	Torsion Spring, 180 0.109" OD, Ccw/Rh	Steel Music Wire
6	Clamshell Latch Snap Lid Socket	7075-T6 Aluminum Alloy
7	Spacer	7075-T6 Aluminum Alloy
8	Wave Spring 0.5" OD 0.18" H 143 lb/in	Carbon Steel SEA 1070-1090
9	Dowel Pin, M1.5 X 20mm LG, 18-8 SS	AISI 347 Annealed Stainless Steel (SS)
10	Compression Plate 13x13mm	7075-T6 Aluminum Alloy
11	Test CHIP 15x15 array, 0.8mm pitch	FR4 High temp
12	Clamshell socket base 13mm IC	7075-T6 Aluminum Alloy
13	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
14	Ball Guide 15x15 array, 0.8mm pitch	Kapton Polyimide/Cirlex
15	0.75mm thick 0.1mm pitch 63 deg angled elastomer	Silicon Rubber
16	Elastomer Guide 13x13mm	Kapton Polyimide/Cirlex/Ultem
17	Target PCB 15x15 array, 0.8mm pitch	FR4 High temp
18	Insulating washer, 4mm OD.	Kapton Polyimide/Cirlex
19	Insulating washer, 3mm OD.	Kapton Polyimide/Cirlex
20	13x13mm Clamshell Backing Plate	7075-T6 Aluminum Alloy
21	#0-80 X .375 LG, SOC HD CAP SCREW, ALLOY STL, BLK OXIDE	Alloy Steel




Description: Socket Assy, detail

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
Side View**

 CG-BGA-4030 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 18.78	STATUS: Quality Approval Pending	SHEET: 4 OF 4	REV. A
		ENG: M. Raske	DRAWN BY: M. Raske	SCALE: 2:1
		FILE: CG-BGA-4030 Dwg	DATE: 07/21/2020	