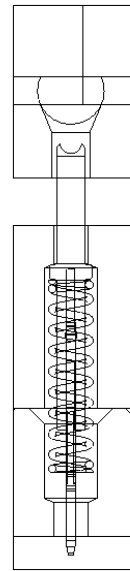
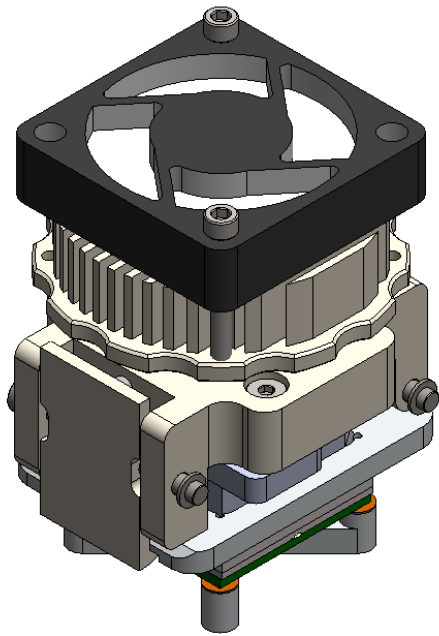


SBT Clamshell Socket

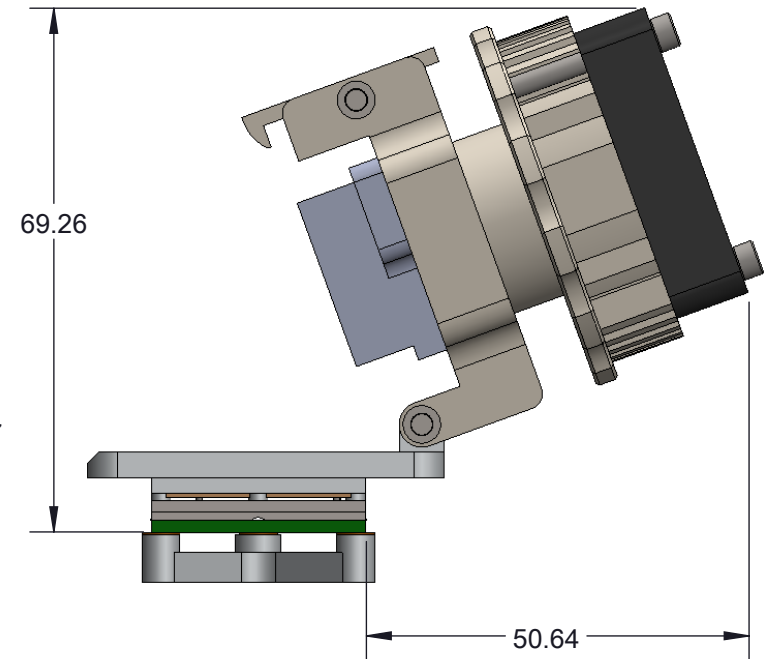
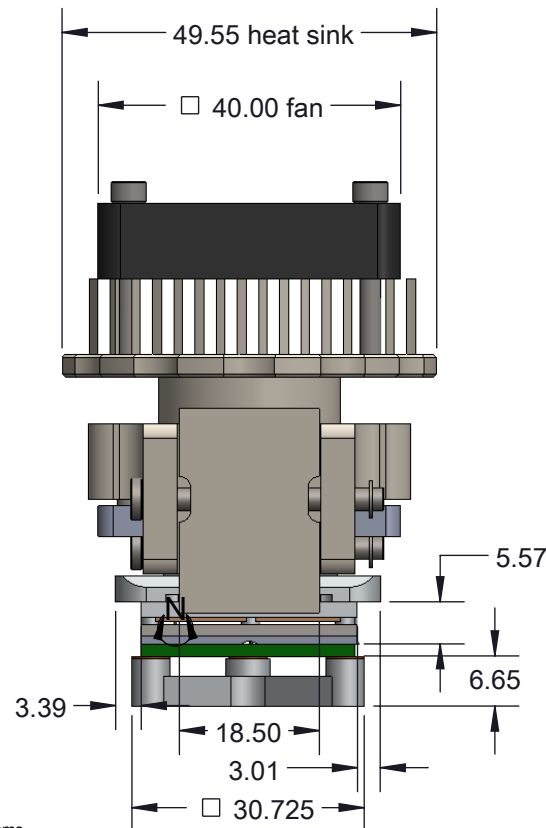
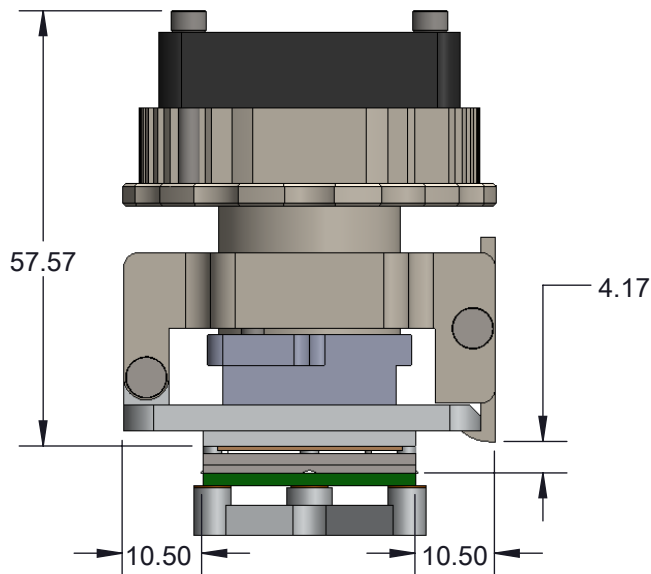
Features

- Wide temperature range (-55C to +180C).
- High current capability (up to 4A).
- Excellent signal integrity at high frequencies.
- Low and stable contact resistance for reliable production yield.
- Highly compliant to accommodate wide co-planarity variations.
- Automated probe manufacturing enables low cost and short lead time.




DETAIL N
SCALE 16 : 1

Recommended torque is 8.5 - 10.75 in lb.

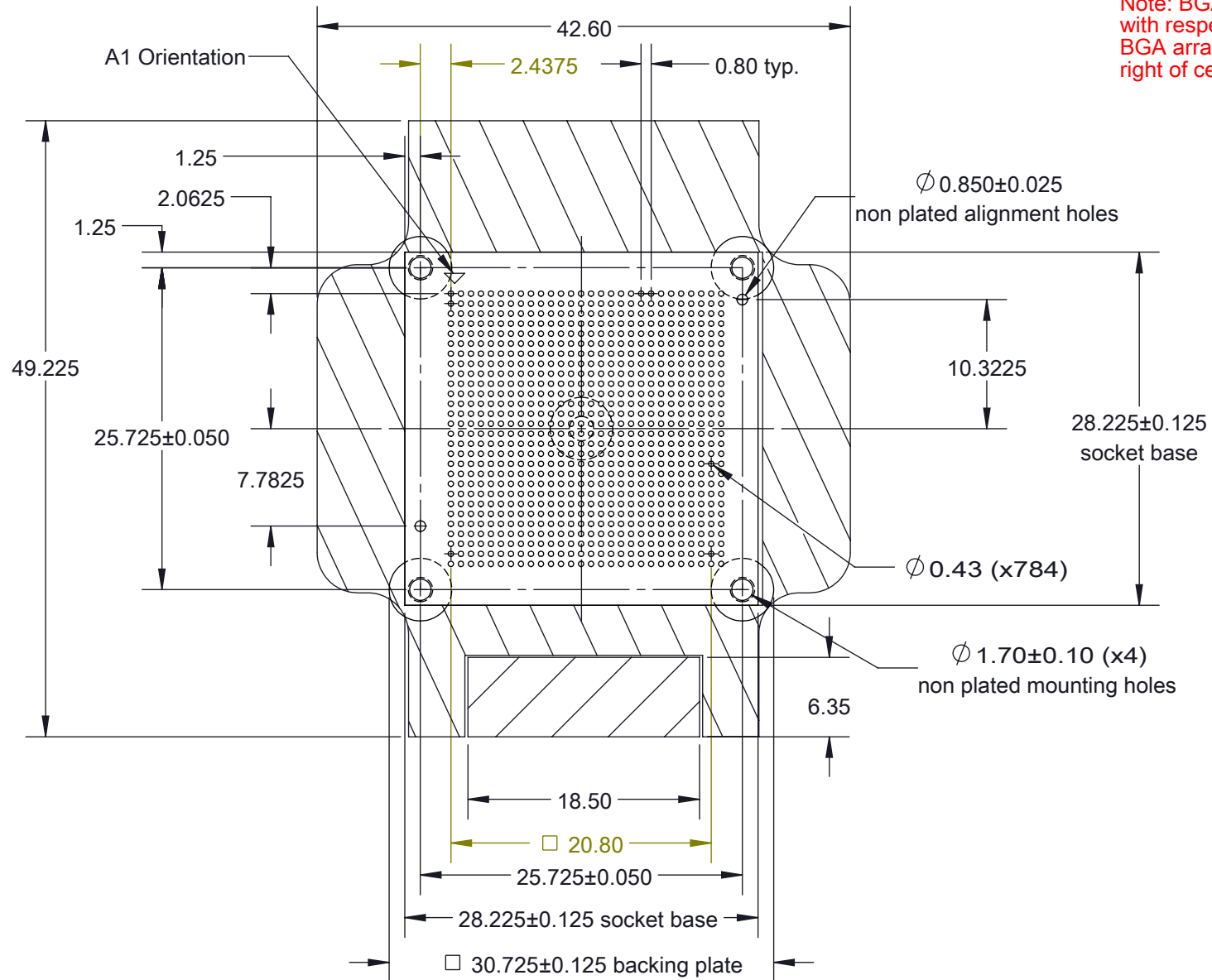


Description: Socket Specification

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.

 CBT-BGA-6032 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Material <not specified> Finish: -- Weight: 164.76	STATUS: Released ENG: V. Panavala FILE: CBT-BGA-6032	SHEET: 1 OF 5 DRAWN BY: V. Panavala DATE: 4/24/13	REV. A SCALE: 1:1

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




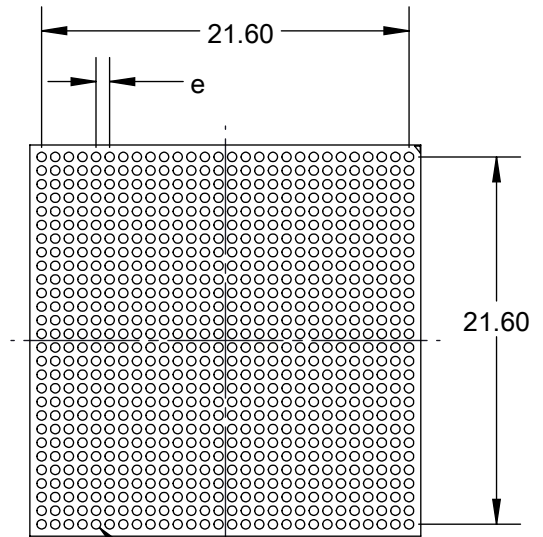
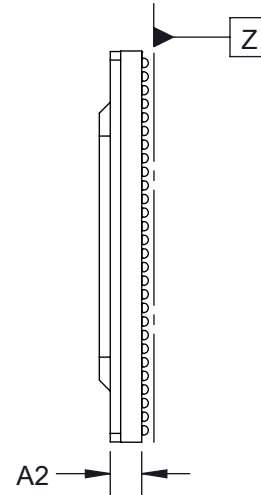
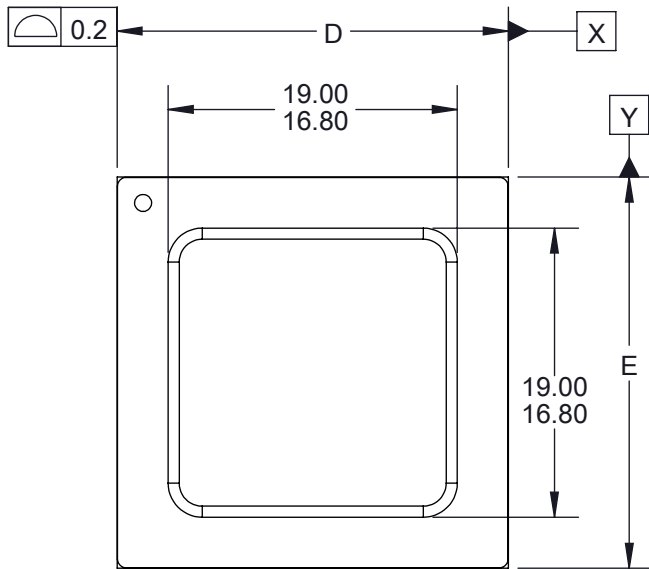
Description: Recommended PCB Layout

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

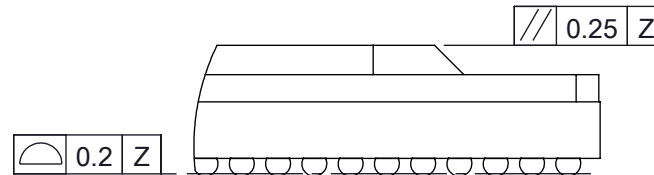
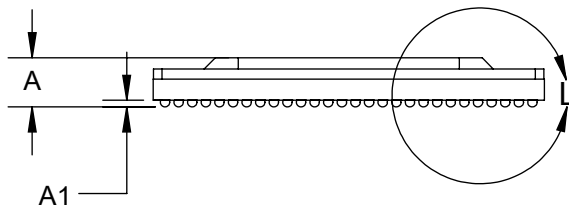
Tolerances: Hole diameters $\pm 0.03\text{mm}$ [$\pm 0.001"$], Pitches (from true position) $\pm 0.025\text{mm}$ [$\pm 0.001"$], substrate thickness tolerance $\pm 10\%$, all other tolerances $\pm 0.13\text{mm}$ [$\pm 0.005"$] unless stated otherwise. Materials and specifications are subject to change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

Target PCB Recommendations
 Total thickness: 1.6mm min.
 Plating: Gold or Solder finish
 PCB Pad height: same or higher than solder mask

 CBT-BGA-6032 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Material <not specified> Finish: -- Weight: 164.76	STATUS: Released ENG: V. Panavala FILE: CBT-BGA-6032	SHEET: 2 OF 5 DRAWN BY: V. Panavala DATE: 4/24/13	REV. A SCALE: 2:1



\oplus	ϕ 0.25 (M)	X	Y	Z
\oplus	ϕ 0.10 (M)	Z		



DETAIL L
SCALE 6 : 1


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

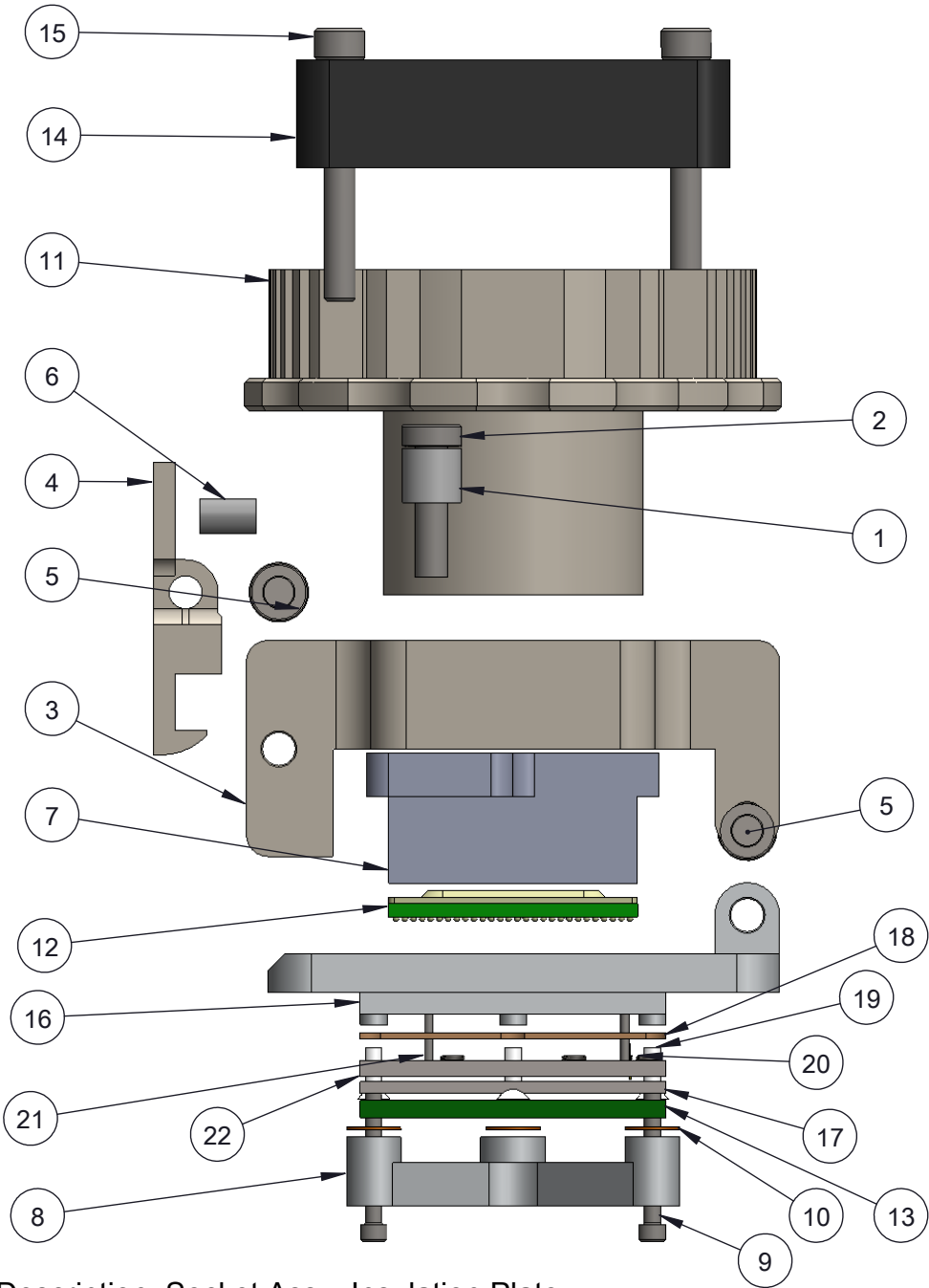
DIM	Minimum	Maximum
A	2.266	2.766
A1	0.3	0.5
b	0.4	0.60
D	23.00 BSC	
E	23.00 BSC	
e	0.8 BSC	
ARRAY	28 X 28	
PIN COUNT		784

Description: Compatible BGA

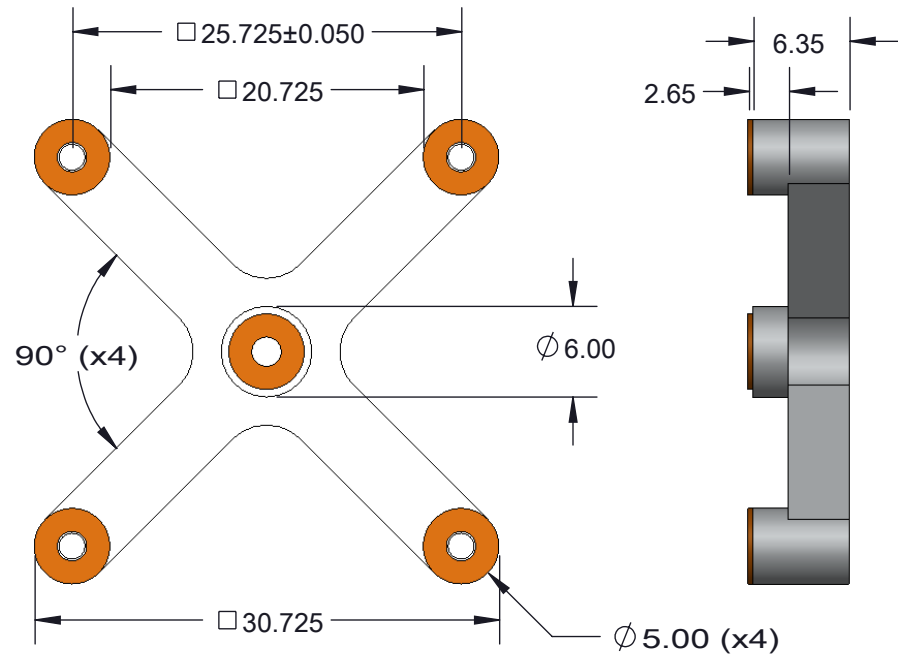
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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.

 CBT-BGA-6032 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Material <not specified> Finish: -- Weight: 164.76	STATUS: Released ENG: V. Panavala FILE: CBT-BGA-6032	SHEET: 3 OF 5 DRAWN BY: V. Panavala DATE: 4/24/13	REV. A SCALE: 2.25:1




ITEM NO.	DESCRIPTION	Material
1	Spring Clamshell lid assembly	Steel Music Wire
2	Screw, M3 x 12mm, Low Head Cap, SS	18-8 Stainless Steel
3	Socket Lid	7075-T6 Aluminum Alloy
4	Latch	7075-T6 Aluminum Alloy
5	Hinge Pin and Snap Ring, 3mm OD, 30mm long, 1045 Stl, Blk Oxide	AISI 1045 Steel, cold drawn
6	Precision Compression Spring, Zinc-Plated Music Wire, 1/2" Length, .12" OD, .016" Wire	Zinc Plated Music Wire
7	CBT 23mm Compression plate Ni Plated	7075-T6 Aluminum Alloy
8	Backing PLate	7075-T6 Aluminum Alloy
9	#0-80 x 0.5, SH Cap Screw	Alloy Steel
10	Insulating washer, 5mm OD.	Kapton Polyimide/Cirlex
11	Heat sink Compression Screw M24 threads	7075-T6 Aluminum Alloy
12	Customer's BGA IC	FR4 Standard
13	Customer's target PCB for 23x23mm 28x28 0.8mm pitch BGA684	FR4 Standard
14	Fan 40X10MM 12VDC 1.6W 9.9CFM	Material <not specified>
15	Screw, #4-40 X 7/8", Cap	Alloy Steel
16	CBT Socket Base Clamshell 23mm IC W/posts 0.375mm offset	7075-T6 Aluminum Alloy
17	Bottom Pogo pin Guide 23x23mm 0.8mm 28x28 array	PEEK Ceramic filled
18	Floating Guide 23x23mm 0.8mm 28x28 array	Semitron MDS 100
19	#0-80 X .188" LG FL HD, Slotted, Polypropylene	PP Homopolymer
20	Floating Guide Spring	Alloy Steel (SS)
21	Dowel pin, 1/32" X 1/4", SS	Stainless Steel (18-8)
22	Middle Pogo Guide 23x23mm 0.8mm 28x28 array	PEEK Ceramic filled
23	Pogo Pin, SBT-BGA 0.5mm-0.8mm	

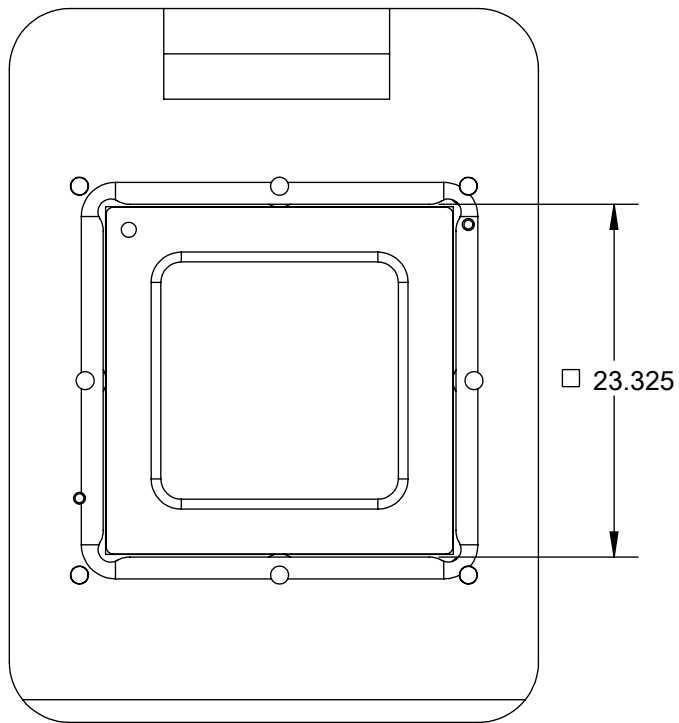


Description: Socket Assy, Insulation Plate

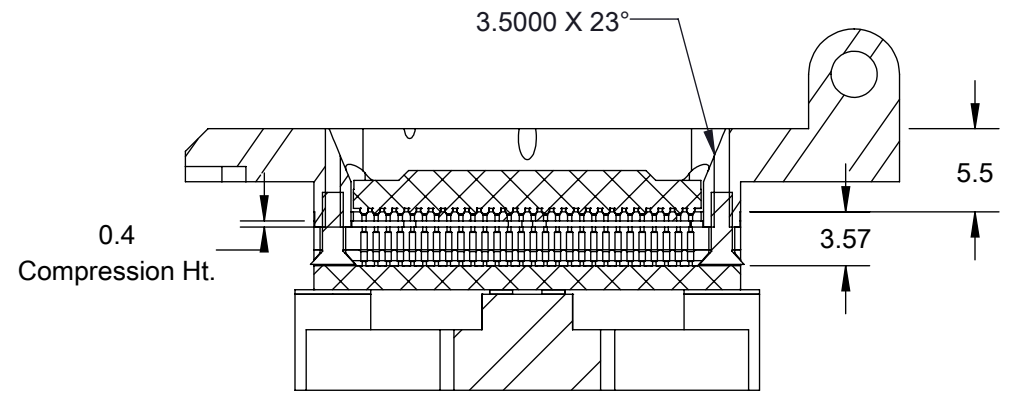
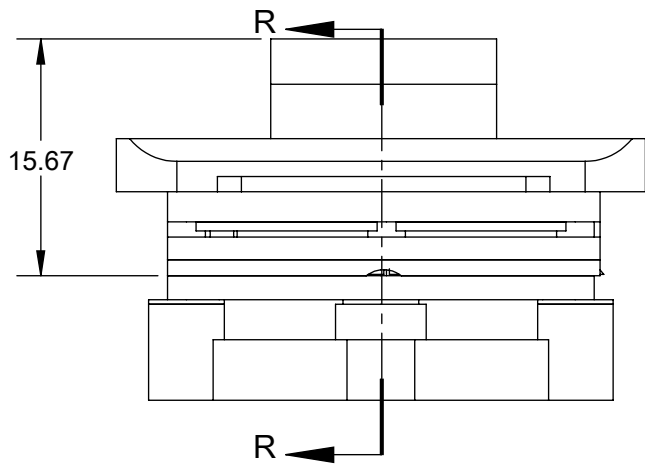
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.
 Tolerances: Hole diameters ±0.03mm [±0.001"], Pitches (from true position) ±0.025mm [±0.001"], substrate thickness tolerance ±10%, all other tolerances ±0.13mm [±0.005"] unless stated otherwise. Materials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

Insulation Plate Specification

 CBT-BGA-6032 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Material <not specified> Finish: -- Weight: 164.76	STATUS: Released ENG: V. Panavala FILE: CBT-BGA-6032	SHEET: 4 OF 5 DRAWN BY: V. Panavala DATE: 4/24/13	REV. A SCALE: 2:1
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Recommended Force 23.5 Kgs



SECTION R-R

Description: Socket Specification(2)

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.

 CBT-BGA-6032 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Material <not specified> Finish: -- Weight: 164.76	STATUS: Released ENG: V. Panavala FILE: CBT-BGA-6032	SHEET: 5 OF 5 DRAWN BY: V. Panavala DATE: 4/24/13	REV. A SCALE: 2:1