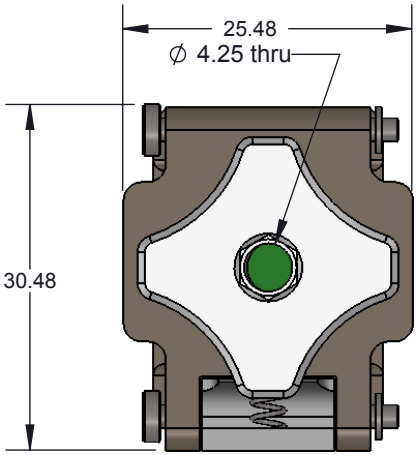
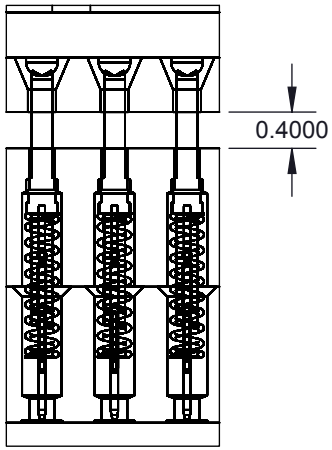
CBT-BGA DIRECT MOUNT, SOLDERLESS SOCKET FOR BURN-IN AND TEST APPLICATIONS

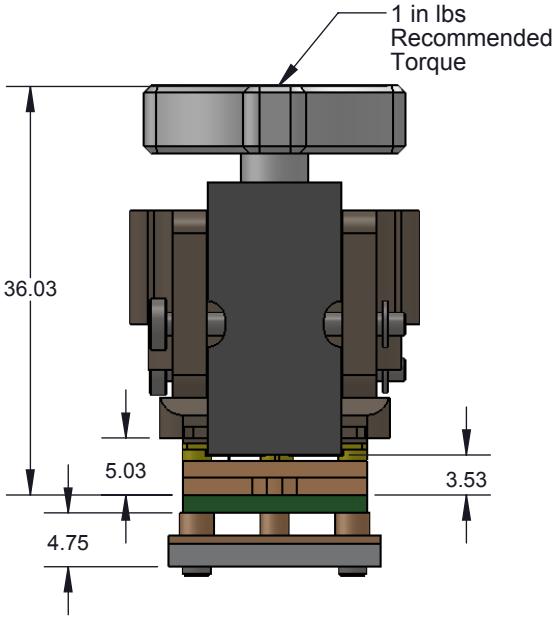


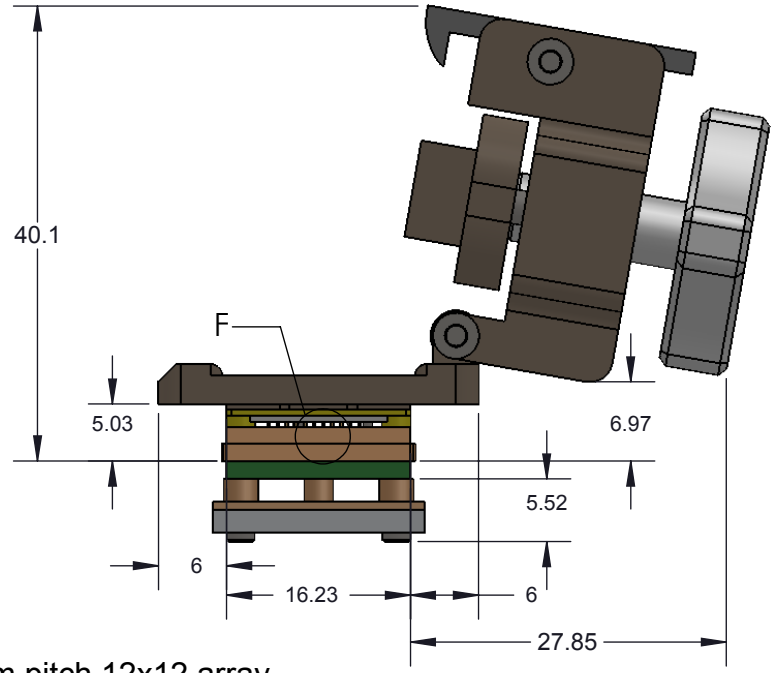


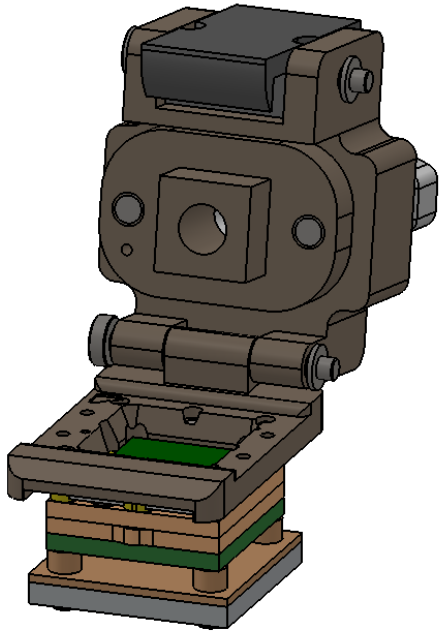
DETAIL F
SCALE 12 : 1

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





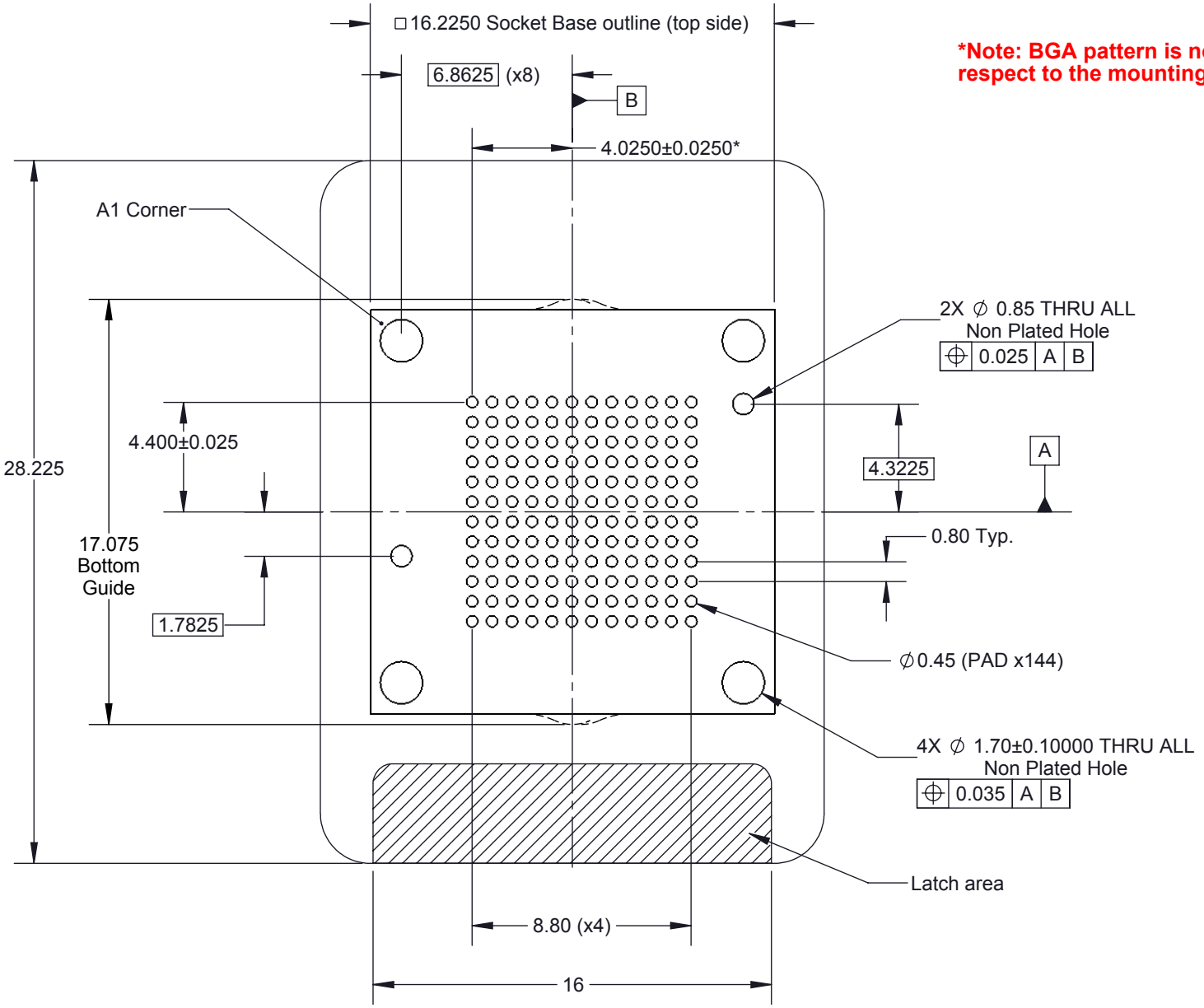


Description: CBT-BGA144 11x11mm 0.8mm pitch 12x12 array

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.

CBT-BGA-6025 Drawing	Material: N/A Finish: N/A Weight: 39.51	STATUS: Released	SHEET: 1 OF 5	REV. C
Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com		ENG: V. Panavala	DRAWN BY: V. Panavala	SCALE: 3:2
		FILE: CBT-BGA-6025	DATE: 8/27/2012	



***Note: BGA pattern is not symmetrical with respect to the mounting holes**

Description: Recommended PCB Layout

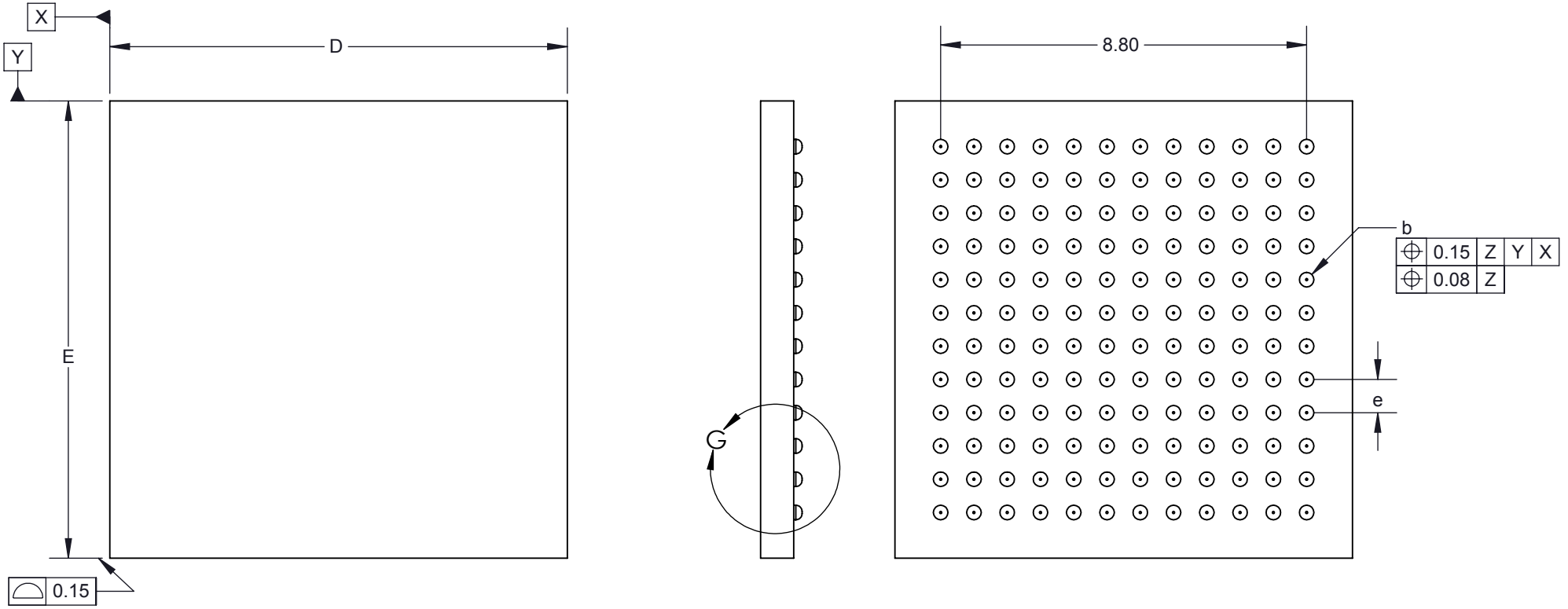
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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.

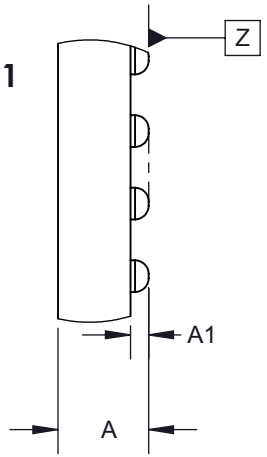
Target PCB Recommendations
Total thickness: 1.6mm min.
Plating: Gold or Solder finish

CBT-BGA-6025 Drawing	Material: N/A Finish: N/A Weight: 39.51	STATUS: Released	SHEET: 2 OF 5	REV. C
Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com		ENG: V. Panavala	DRAWN BY: V. Panavala	SCALE: 4:1
		FILE: CBT-BGA-6025	DATE: 8/27/2012	

Ironwood Package Code: BGA144K



DETAIL G
SCALE 12 : 1



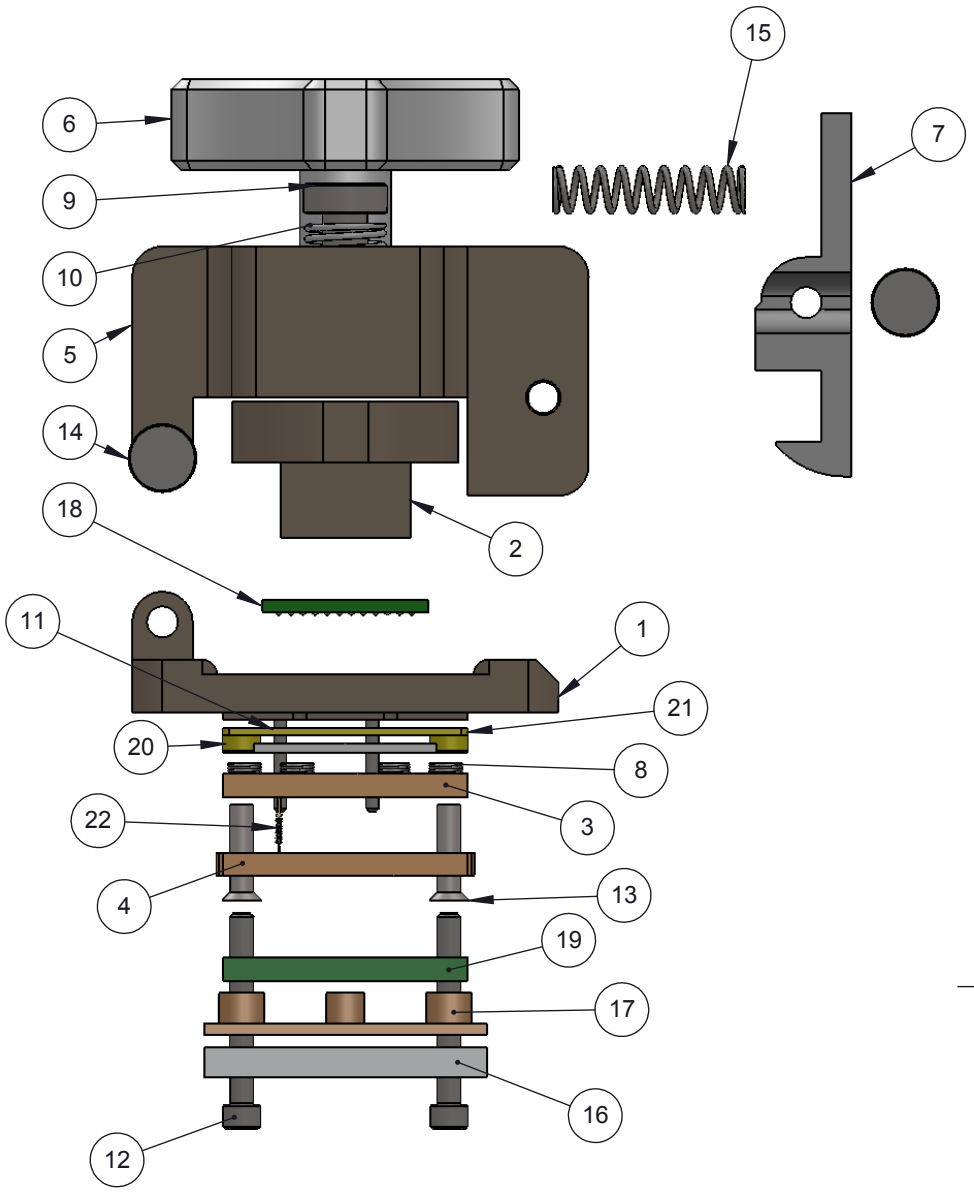
DIM	Minimum	Maximum
A		2.1
A1	0.28	
b	0.20	0.5
D	11 BSC	
E	11 BSC	
e	0.8 BSC	
PIN COUNT		144

Description: Compatible BGA

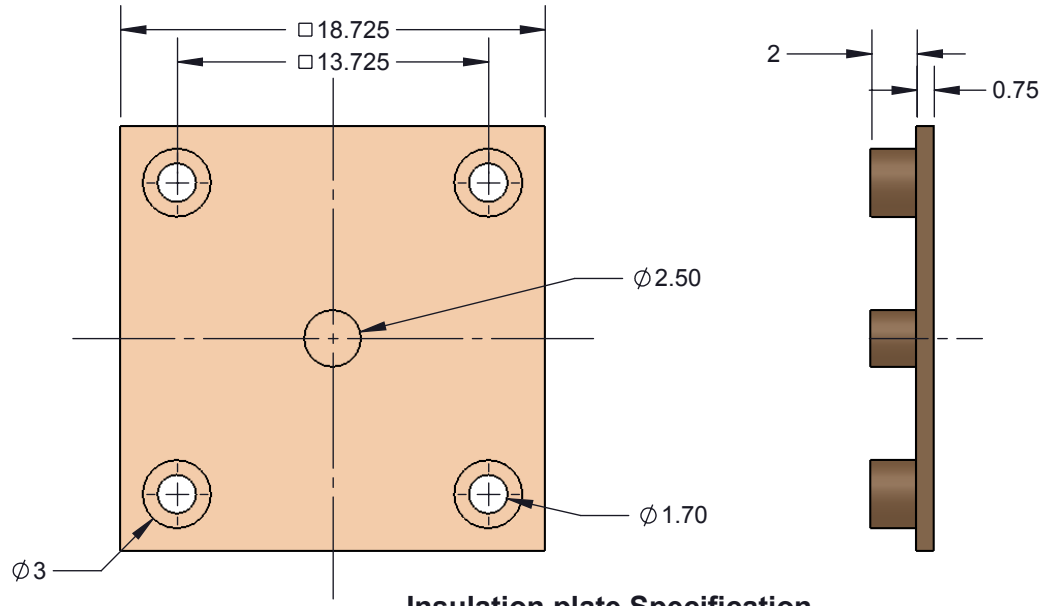
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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.

CBT-BGA-6025 Drawing	Material: N/A Finish: N/A Weight: 39.51	STATUS: Released	SHEET: 3 OF 5	REV. C
Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com		ENG: V. Panavala	DRAWN BY: V. Panavala	SCALE: 7:1
		FILE: CBT-BGA-6025	DATE: 8/27/2012	



ITEM NO.	DESCRIPTION	Material
1	CBT Socket Base 11mm	7075-T6 Aluminum Alloy
2	CBT Compression Plate 10mm IC	7075-T6 Aluminum Alloy
3	Middle guide BGA144 0.8mm pitch 12x12 array	Semitron MDS 100
4	Bottom guide BGA144 0.8mm pitch 12x12 array	Semitron MDS 100
5	Clam Shell Socket Lid 10mm IC	7075-T6 Aluminum Alloy
6	M6x1 fluted knob compression screw 4.25mm thru hole	7075-T6 Aluminum Alloy
7	Latch 6- 10mm Ni plated	7075-T6 Aluminum Alloy
8	Floating Guide Spring	Alloy Steel (SS)
9	Screw, M3 x 12mm, Low Head Cap, SS	18-8 Stainless Steel
10	Spring Clamshell lid assembly	Steel Music Wire
11	Dowel pin, 1/32" X 1/4", SS	Stainless Steel (18-8)
12	#0-80 x 0.5, SH Cap Screw	Alloy Steel
13	#0-80X0.25", 90 deg., head pin guide screw, Peek material	PEEK unfilled
14	Hinge Pin and Snap Ring, 2mm OD, 19mm long, SS	Stainless Steel (ferritic)
15	Precision Compression Spring, Zinc-Plated Music Wire, 1/2" Length, .12" OD, .016" Wire	Zinc Plated Music Wire
16	Backing Plate 11mm IC mmm thick,	7075-T6 Alumium Alloy
17	5 post Insulation Plate 11mm IC	Ultem 1000
18	BGA144 IC 11mm 0.8mm 12x12 array	Material <not specified>
19	PCB 0.8mm pitch 12x12 array	High Temp FR4
20	Floating guide BGA144 0.8mm pitch 12x12 array	PEEK Ceramic filled
21	IC Guide 11mm IC with posts	Torlon 4203
22	SBT Pin, SBT-BGA 0.5mm-0.8mm	



Insulation plate Specification

Description: Socket Assy, detail

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.

CBT-BGA-6025 Drawing	Material: N/A Finish: N/A Weight: 39.51	STATUS: Released	SHEET: 4 OF 5	REV. C
Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com		ENG: V. Panavala	DRAWN BY: V. Panavala	SCALE: 2:1
		FILE: CBT-BGA-6025	DATE: 8/27/2012	

Rev	Date	Initials	Description
A	08/27/12	VP	Original
B	02/18/14	DH	Changed current rating of pin
C	3/25/15	RP/MR/DH	1) Changed spring pin and guides to new design, dowel pin protrusion adjusted, if needed, metal screws replaced with plastic screws, if needed. Contact Ironwood for details. 2) Changed IC guide material from Ultem to torlon

Description: Revision History

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.

CBT-BGA-6025 Drawing	Material:	STATUS: Released	SHEET: 5 OF 5	REV. C
Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Finish: Weight:	ENG: V. Panavala	DRAWN BY: V. Panavala	SCALE: 2:1
		FILE: CBT-BGA-6025	DATE: 8/27/2012	