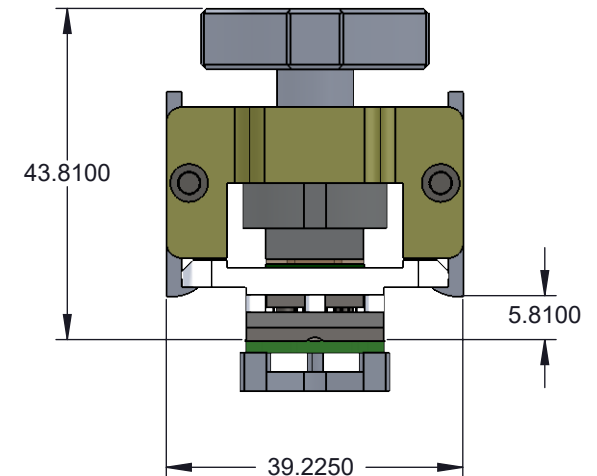
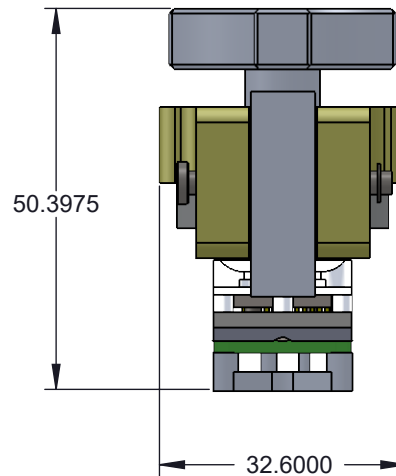
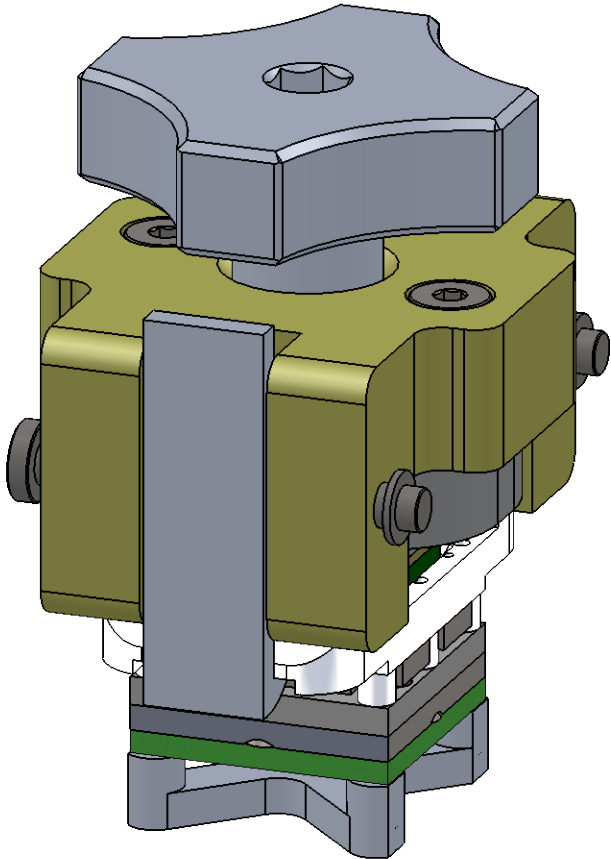


# CBT-BGA DIRECT MOUNT, SOLDERLESS SOCKET FOR BURN-IN AND TEST APPLICATIONS

## Features

- Wide temperature range (-55C to +180C).
- High current capability (up to 8A).
- 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 Socket, 13mm x 13mm

Primary dimension units are millimeters, Secondary dimension units are [inches].

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-6014 Specification



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

Material: N/A  
Finish: N/A  
Weight: 74.29

STATUS: Released

DRAWN BY: M. Raske

FILE: CBT-BGA-6014 Dwg

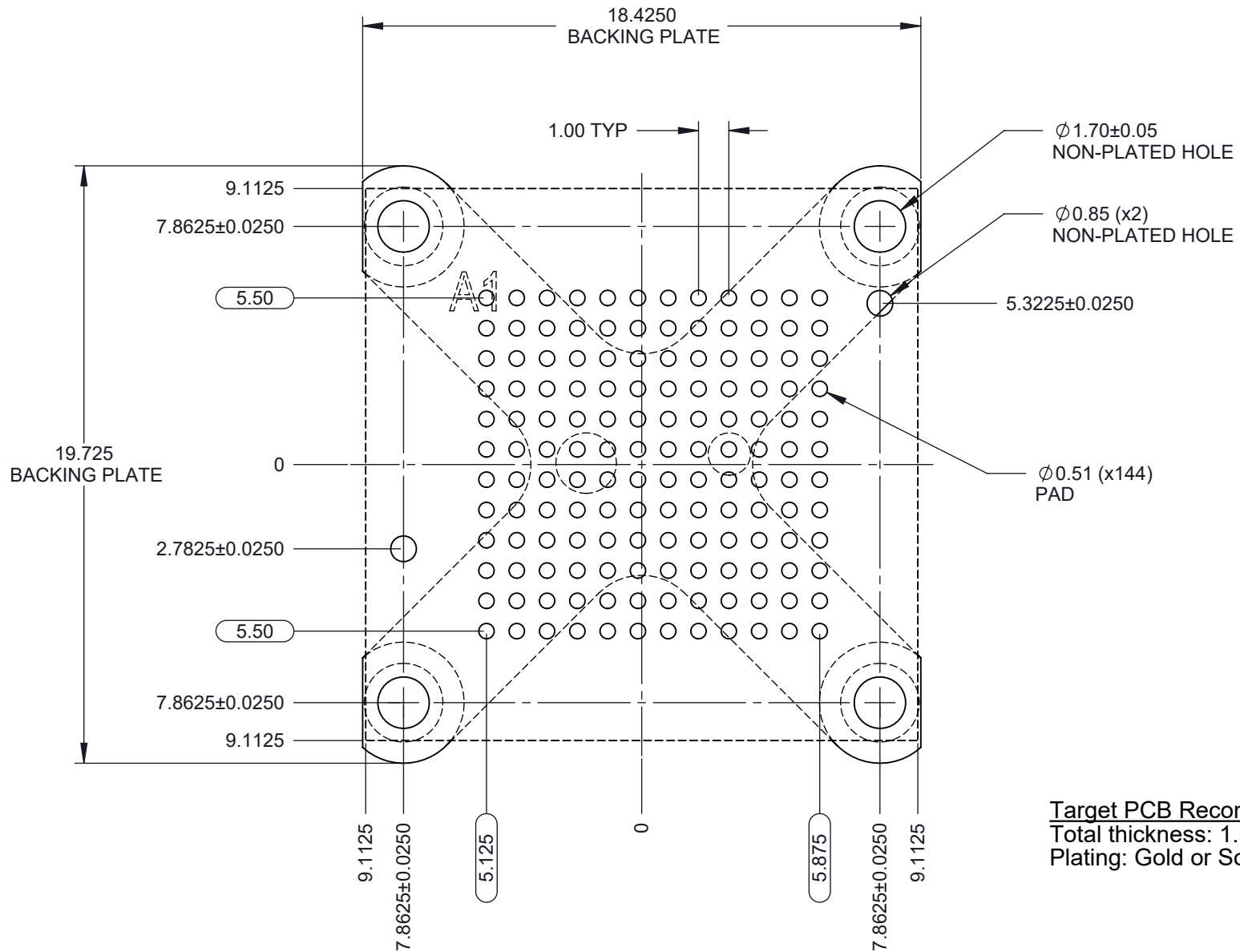
SHEET: 1 OF 4

SCALE: 1:1

DATE: 8/1/2012

REV. B

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



**Target PCB Recommendations**  
 Total thickness: 1.5mm min.  
 Plating: Gold or Solder finish

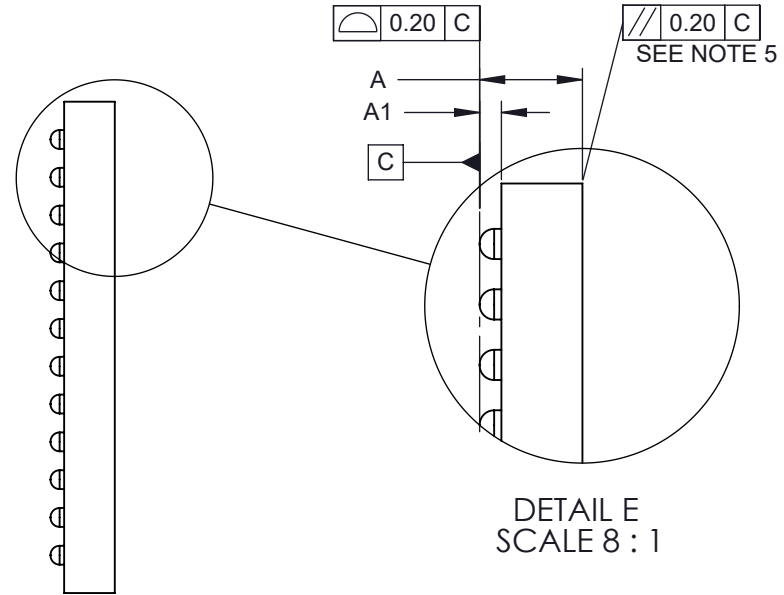
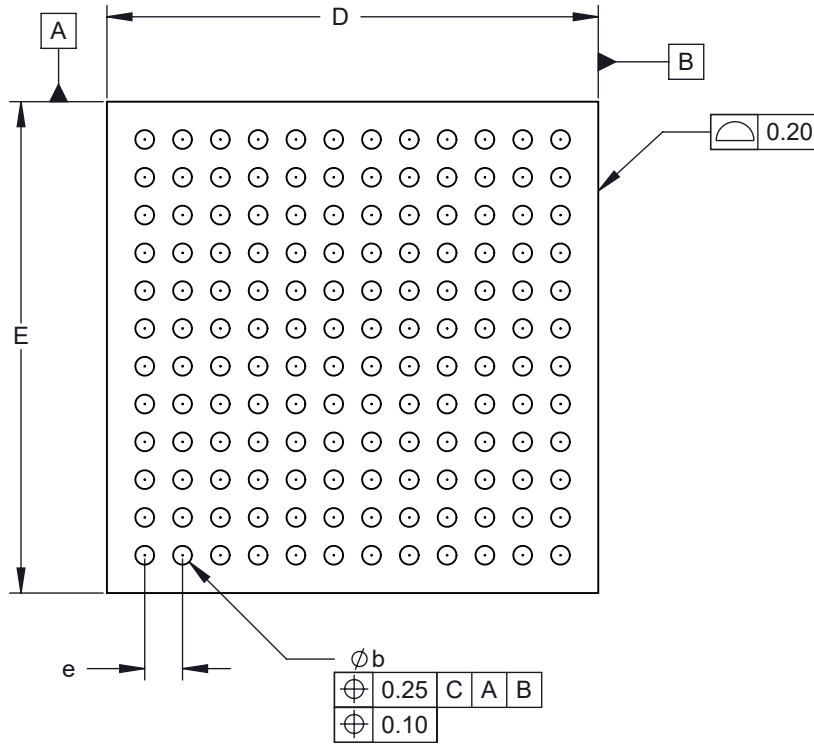
**Description: Recommended PCB layout**

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.

<p><b>CBT-BGA-6014 Specification</b></p> <p>Ironwood Electronics, Inc.          Tele: (800) 404-0204          www.ironwoodelectronics.com</p>	<p>Material: N/A          Finish: N/A          Weight: 74.29</p>	<p>STATUS: Released          DRAWN BY: M. Raske          FILE: CBT-BGA-6014 Dwg</p>	<p>SHEET: 2 OF 4          SCALE: 5:1          DATE: 8/1/2012</p>	<p>REV. B</p>
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# Ironwood Package Code: BGA144C2



$\varnothing$	0.25	C	A	B
$\varnothing$	0.10			


DIM	MIN	MAX
A	2.9	3.5
A1	0.4	0.6
b	0.5	0.7
D	12.95	13.05
E	12.95	13.05
e	1.0	

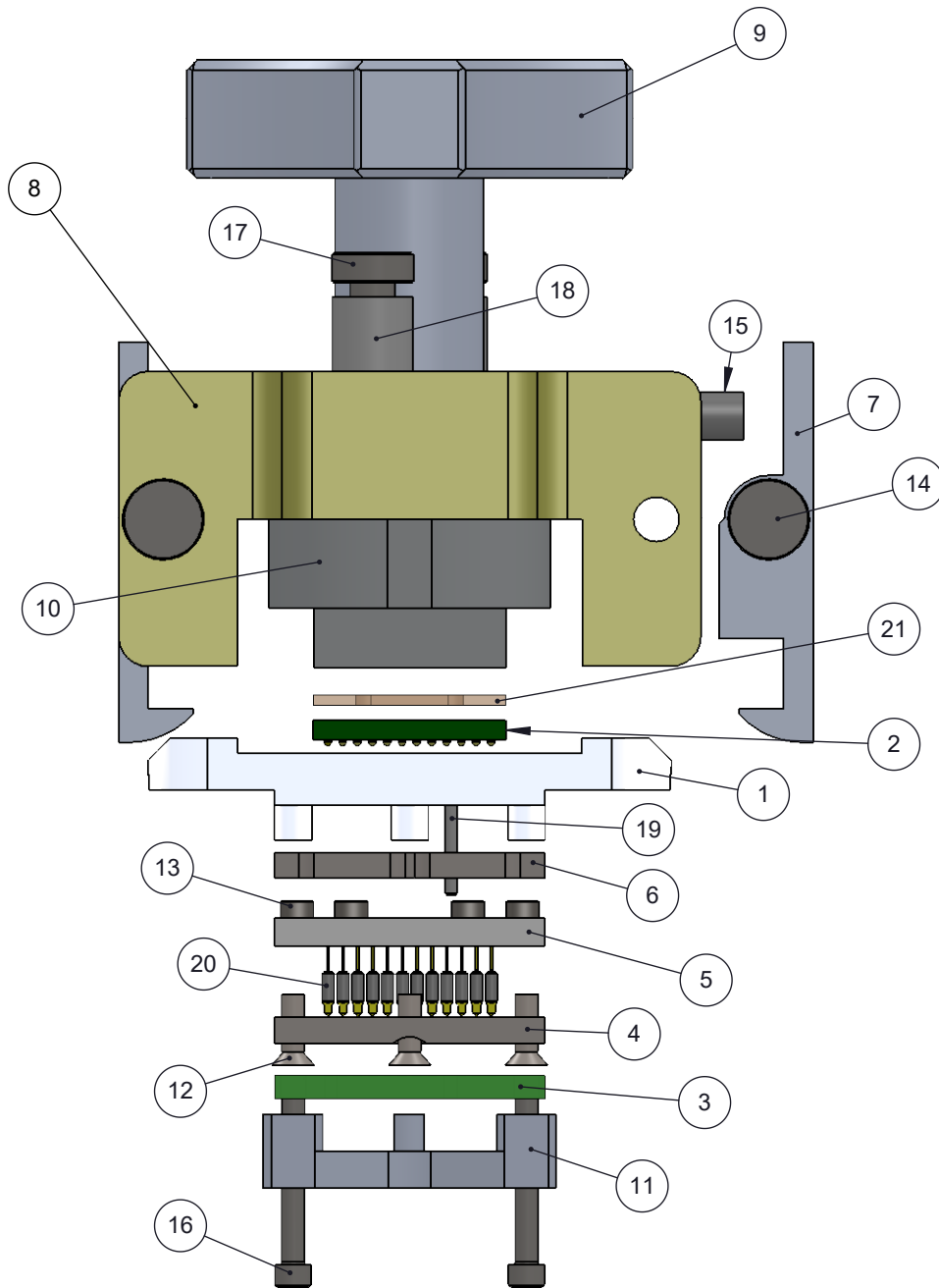
1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.
4. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
5. Parallelism measurement shall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

## Description: BGA

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

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

 <b>CBT-BGA-6014 Specification</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 74.29	STATUS: Released	SHEET: 3 OF 4	REV. B
		DRAWN BY: M. Raske	SCALE: 5:1	
		FILE: CBT-BGA-6014 Dwg	DATE: 8/1/2012	



ITEM NO.	DESCRIPTION	Material
1	CBT Socket Base 13mm	7075-T6 Aluminum Alloy
2	BGA chip 13mm 1mm	Material <not specified>
3	SBT-BGA-6034 PCB	FR4
4	CBT-BGA, bottom guide, 13mm IC, 12x12 array	PEEK Ceramic filled
5	CBT-BGA, middle guide, 13mm IC, 12x12 array	PEEK Ceramic filled
6	CBT-BGA, floating guide, 13mm IC, 12x12 array	PEEK Ceramic filled
7	Latch 10-17mm clamshell	7075-T6 Aluminum Alloy
8	Socket Lid clamshell double latch 17mm	7075-T6 Aluminum Alloy
9	M10 Compression Screw	7075-T6 Aluminum Alloy
10	CBT-BGA13mm dbl latch compression plate	7075-T6 (SN)
11	13x13mm Clamshell Backing Plate	7075-T6 Aluminum Alloy
12	Screw, #0-80 X .188", Flat, SS	Stainless Steel (18-8)
13	Floating Guide Spring	Alloy Steel (SS)
14	Hinge Pin and Snap Ring, 3mm OD, 25mm 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	#0-80 x 0.5, SH Cap Screw	Alloy Steel
17	Screw, M3 x 12mm, Low Head Cap, SS	18-8 Stainless Steel
18	Spring Clamshell lid assembly	Steel Music Wire
19	Dowel Pin, 1/32" x 3/8", SS	Chrome Stainless Steel
20	Pogo Pin, 1mm Pitch SBT BGA pin	
21	IC Frame	Ultem 1000


PIN DETAIL

Rev	Date	Initials	Description
A	-	-	Original
B	12/15/14	MT/MR	Updated latch. Updated compression screw. call for details.

**Description: Skt, Insulation Plate, Pin Det**

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

Tolerances: Hole diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001"$ ], 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-6014 Specification		Material: N/A	STATUS: Released	SHEET: 4 OF 4	REV. B
 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Finish: N/A	DRAWN BY: M. Raske	SCALE: 2:1		
	Weight: 74.29	FILE: CBT-BGA-6014 Dwg	DATE: 8/1/2012		