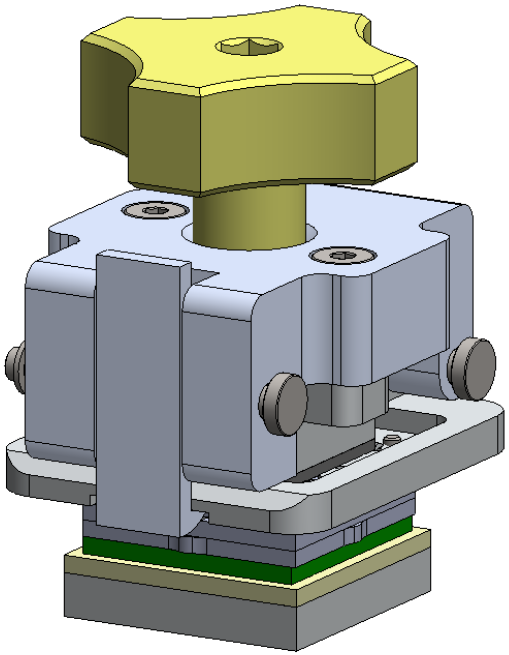
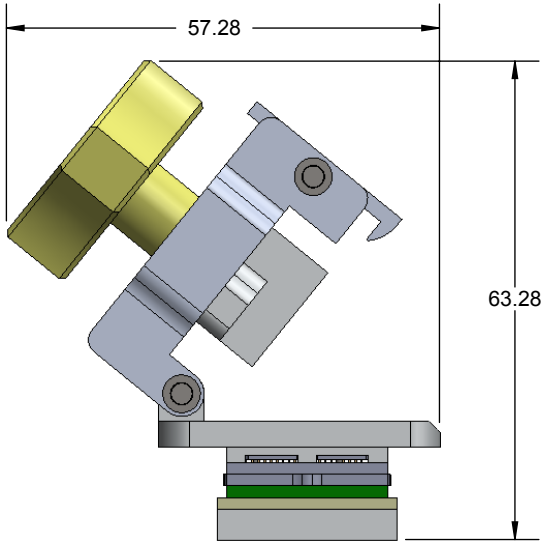
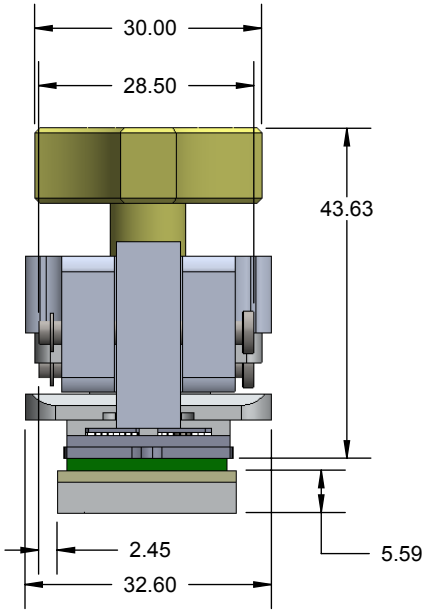
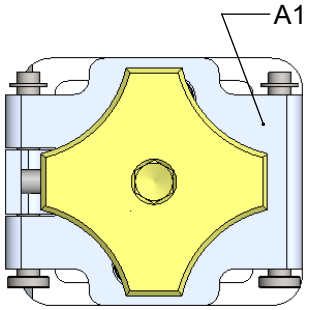
CBT-BGA DIRECT MOUNT, SOLDERLESS SOCKET FOR BURN-IN AND TEST APPLICATIONS

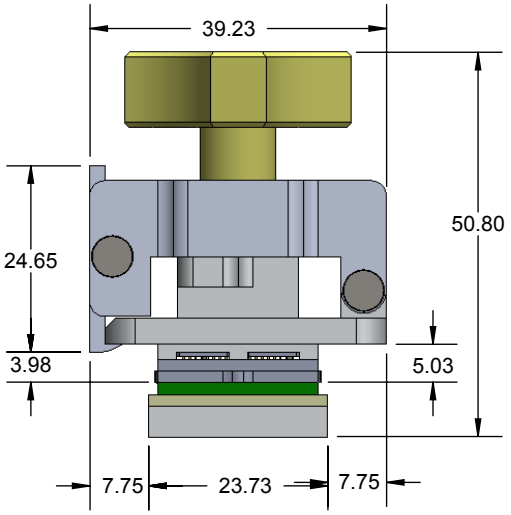


FEATURES:
Wide temperature range (-55C to +180C)
High current capability (up to 4A)
Excellent signal integrity at high frequencies
Low and stable contact resistance for reliable production yield
Highly compliant to accommodate wide co-planarity variations
Automated probe manufacturing enables low cost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







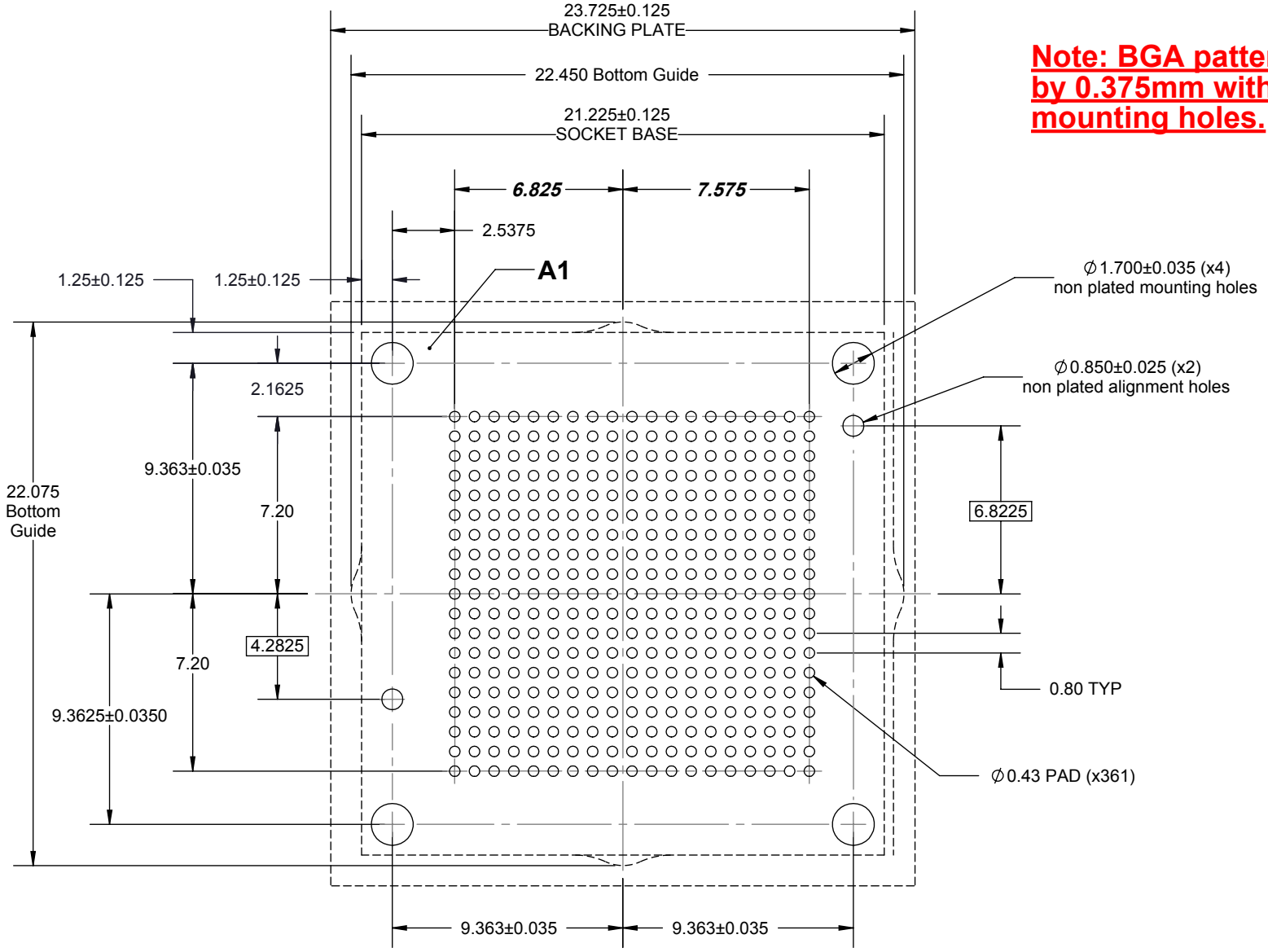


Description: CBT Socket for 16mm X 16mm, 19x19 array, 0.8mm pitch BGA361

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-6020 Drawing	Material: Material <not specified>	STATUS: Released	SHEET: 1 OF 5	REV. D
Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Finish: Weight: 79.64	ENG: E. Smolentseva	DRAWN BY: M. Raske	SCALE: 1:1
		FILE: CBT-BGA-6020 Dwg	DATE: 08/02/2012	



Note: BGA pattern is shifted to the right by 0.375mm with respect to the mounting holes.

Target PCB Recommendations

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

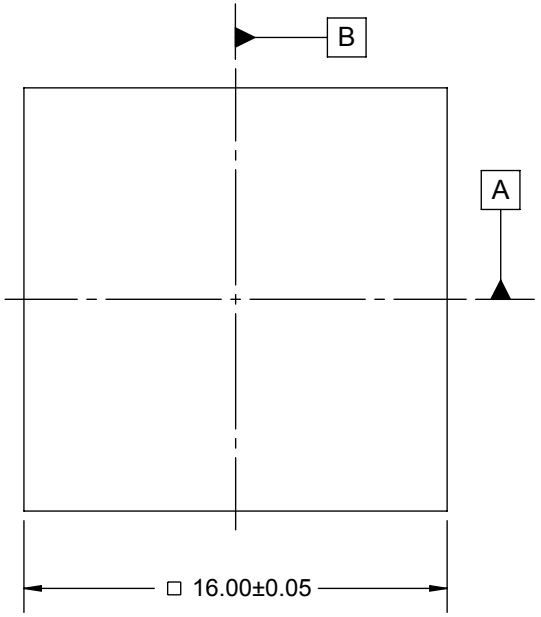
Description: Recommended PCB Layout

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

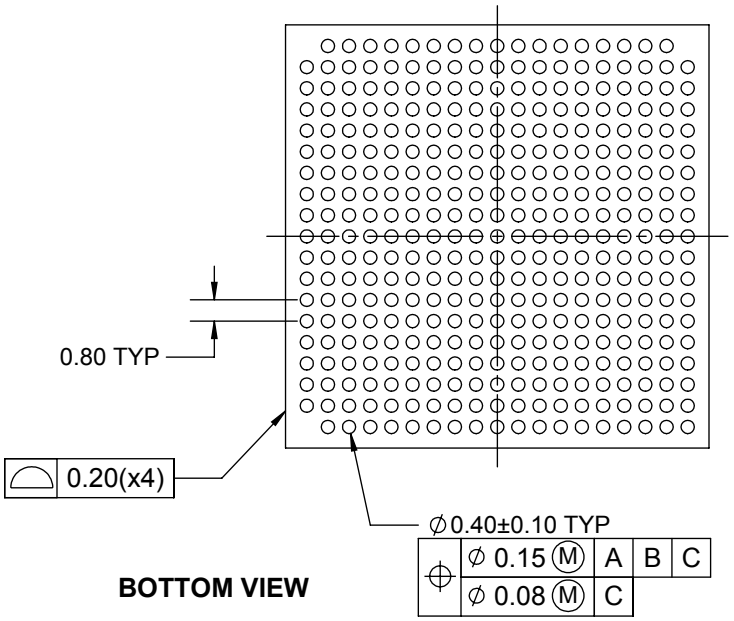
Tolerances: Hole diameters ±0.03mm [±0.001"], Pitches (from true position) ±0.025mm [±0.001"], substrate thickness tolerance ±10%, all other tolerances ±0.13mm [±0.005"] unless stated otherwise. Materials and specifications are subject to change without notice.

CBT-BGA-6020 Drawing	Material: Material <not specified>	STATUS: Released	SHEET: 2 OF 5	REV. D
Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Finish: Weight: 79.64	ENG: E. Smolentseva	DRAWN BY: M. Raske	SCALE: 4:1
		FILE: CBT-BGA-6020 Dwg	DATE: 08/02/2012	

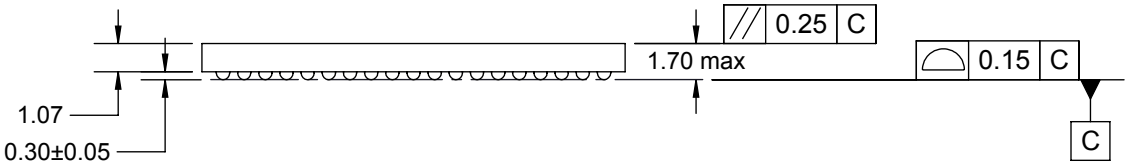
Ironwood Package code: BGA361E



TOP VIEW



BOTTOM VIEW



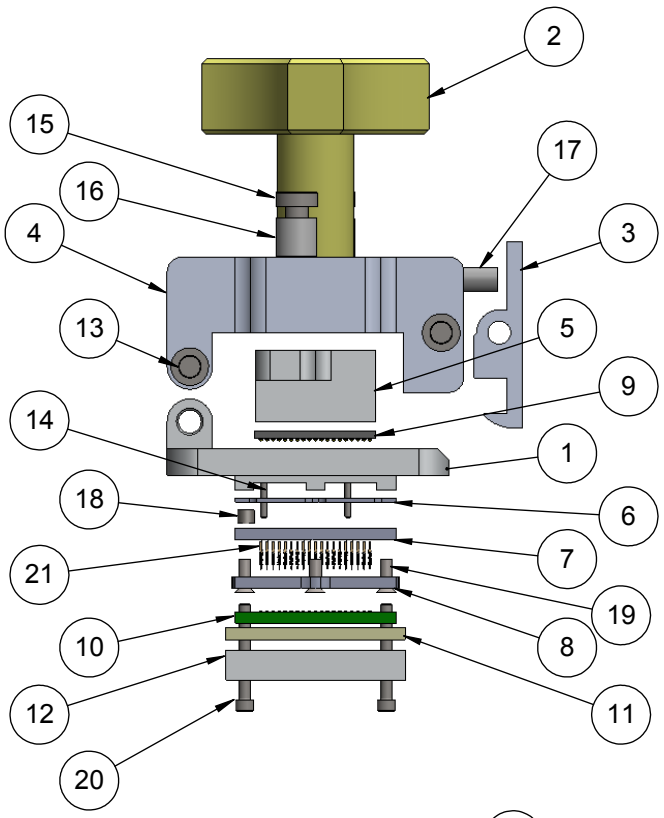
1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane C.
4. Datum C (seating plane) is defined by the spherical crowns of the solder balls.
5. Parallelism measurement shall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

Description: Compatible BGA

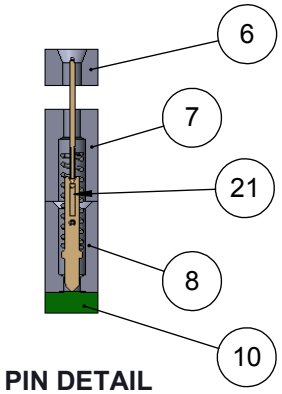
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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.

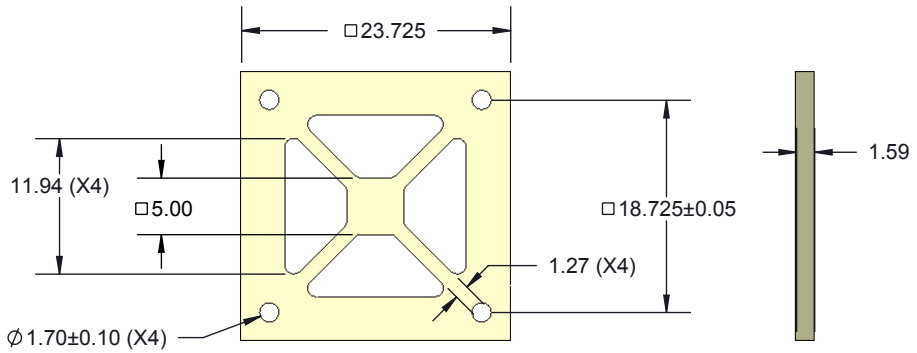
CBT-BGA-6020 Drawing	Material: Material <not specified>	STATUS: Released	SHEET: 3 OF 5	REV. D
Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Finish: Weight: 79.64	ENG: E. Smolentseva	DRAWN BY: M. Raske	SCALE: 3.5:1
		FILE: CBT-BGA-6020 Dwg	DATE: 08/02/2012	



ITEM NO.	DESCRIPTION	Material
1	CBT Socket Base 16mm IC 0.375mm shift W/posts	7075-T6 Alumium Alloy
2	COMPRESSION SCREW, 17MM X M10	7075-T6 Aluminum Alloy
3	Clamshell Latch	7075-T6 Aluminum Alloy
4	Clam shell lid for 17mm IC	7075-T6 Aluminum Alloy
5	CBT Compression Plate 16mm IC w/ 6mm thru hole	7075-T6 Aluminum Alloy
6	Floating Guide 19x19 array 0.8mm pitch	PEEK Ceramic filled
7	Middle guide for 16x16mm, 19x19 0.8mm pitch BGA361	PEEK Ceramic filled
8	Bottom guide for 16x16mm, 19x19 0.8mm pitch BGA361	PEEK Ceramic filled
9	BGA361 16x16mm 19x19 0.8mm pitch	Material <not specified>
10	Customer's target PCB for 16x16mm, 19x19 0.8mm pitch BGA	FR4 Standard
11	Insulating plate for 19mm IC socket	FR4 Standard
12	Backing Plate	7075-T6 Aluminum Alloy
13	Hinge Pin and Snap Ring, 3mm OD, 25mm long, SS	Stainless Steel (ferritic)
14	Dowel pin, 1/32" X 1/4", SS	Stainless Steel (18-8)
15	Screw, M3 x 12mm, Low Head Cap, SS	18-8 Stainless Steel
16	Spring Clamshell lid assembly	Steel Music Wire
17	Precision Compression Spring, Zinc-Plated Music Wire, 1/2" Length, .12" OD, .016" Wire	Zinc Plated Music Wire
18	Floating Guide Spring	Alloy Steel (SS)
19	#0-80, 90 deg., head pin guide screw, Peek material	PEEK unfilled
20	#0-80 x 0.5, SH Cap Screw	18-8 Stainless Steel
21	SBT Pin, SBT-BGA 0.5mm-0.8mm	



PIN DETAIL



INSULATION PLATE

Description: Socket Assy exploded view

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-6020 Drawing	Material: Material <not specified>	STATUS: Released	SHEET: 4 OF 5	REV. D
Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Finish: Weight: 79.64	ENG: E. Smolentseva	DRAWN BY: M. Raske	SCALE: 3:2
		FILE: CBT-BGA-6020 Dwg	DATE: 08/02/2012	

Rev	Date	Initials	Description
A	02/10/12	ELS	Original
B	08/02/12	MR	Reoiented compression plate
C	02/18/14	DH	Chanaged current rating of pin
D	3/27/15	RP/MR	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.

Description: revision

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.

RoHS

CBT-BGA-6020 Drawing	Material:	STATUS: Released	SHEET: 5 OF 5	REV. D
Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Finish: Weight:	ENG: E. Smolentseva	DRAWN BY: M. Raske	SCALE: 1:1
		FILE: CBT-BGA-6020 Dwg	DATE: 08/02/2012	