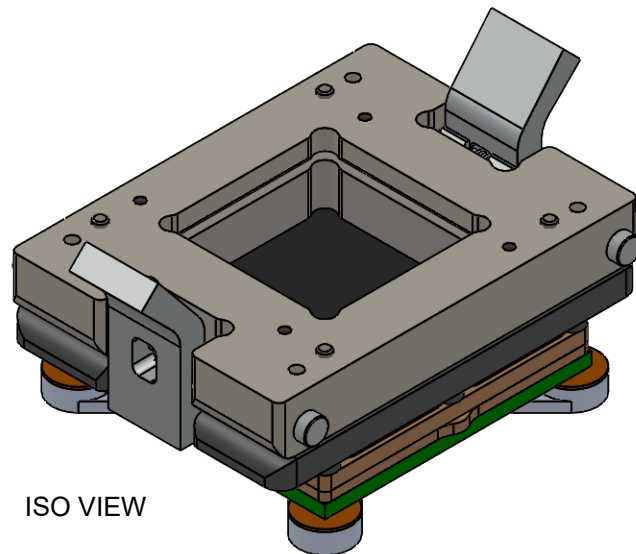


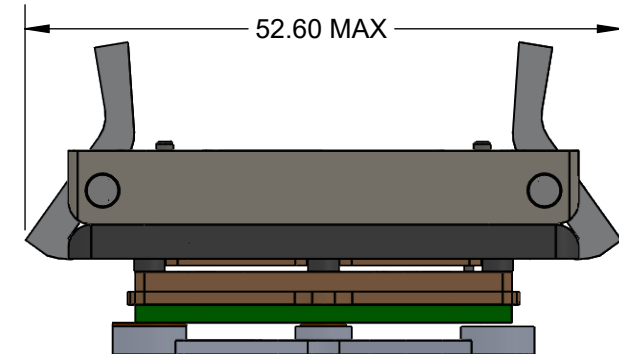
# OPEN TOP DUAL LATCH CBT-QFE DIRECT MOUNT, SOLDERLESS SOCKET FOR BURN-IN AND TEST APPLICATIONS



ISO VIEW

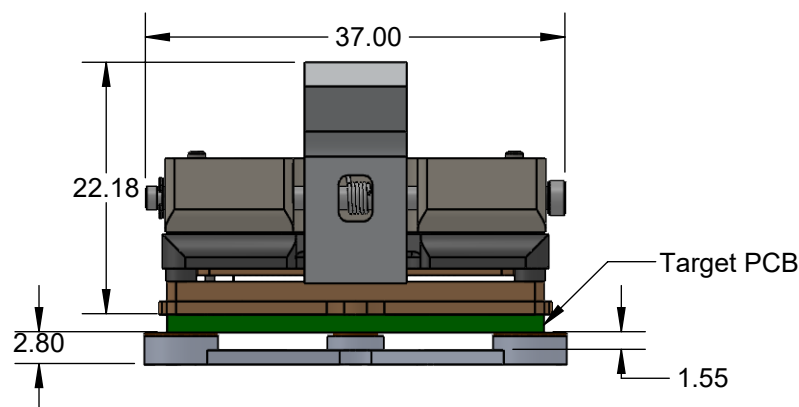
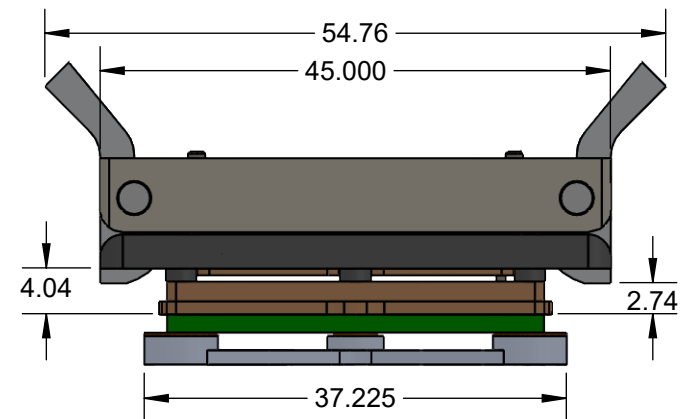
## FEATURES:

- 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



SIDE VIEW

LATCH - OPEN POSITION




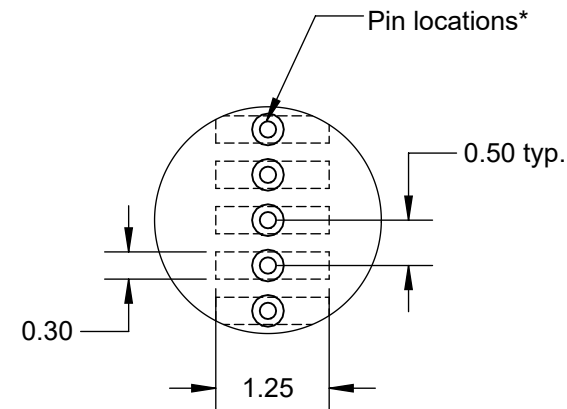
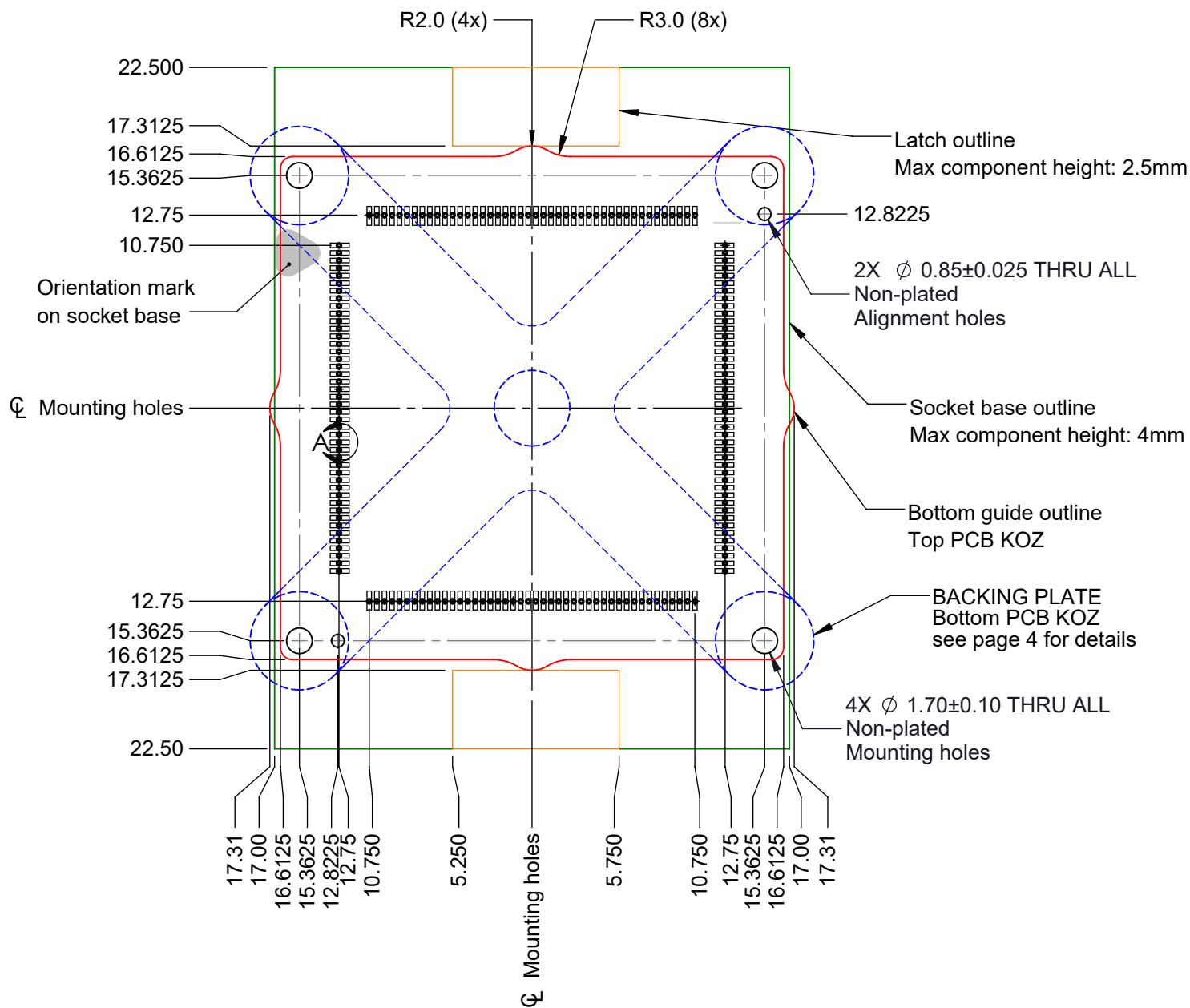
FRONT VIEW

**Description:** Open Top CBT socket for 0.5mm pitch 24mm sq 26mm tip-tip 176 pin QFP package

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.

<b>CBT-QFE-3012 Drawing</b>  Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 35.20	STATUS: Released ENG: E. Smolentseva FILE: CBT-QFE-3012 Dwg	SHEET: 1 OF 5 DRAWN BY: E. Smolentseva DATE: 05/17/2017	REV. A SCALE: 1.5:1



**DETAIL A**  
**SCALE 12 : 1**

## Description: Recommended PCB Layout


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

**Tolerances:** Hole diameters  $\pm 0.0254\text{mm}$  [ $\pm 0.001"$ ], Pitches (from true position)  $\pm 0.0762\text{mm}$  [ $\pm 0.003"$ ], substrate thickness tolerance  $\pm 10\%$ , all other tolerances  $\pm 0.127\text{mm}$  [ $\pm 0.005"$ ] unless stated otherwise. Materials and specifications are subject to change without notice.

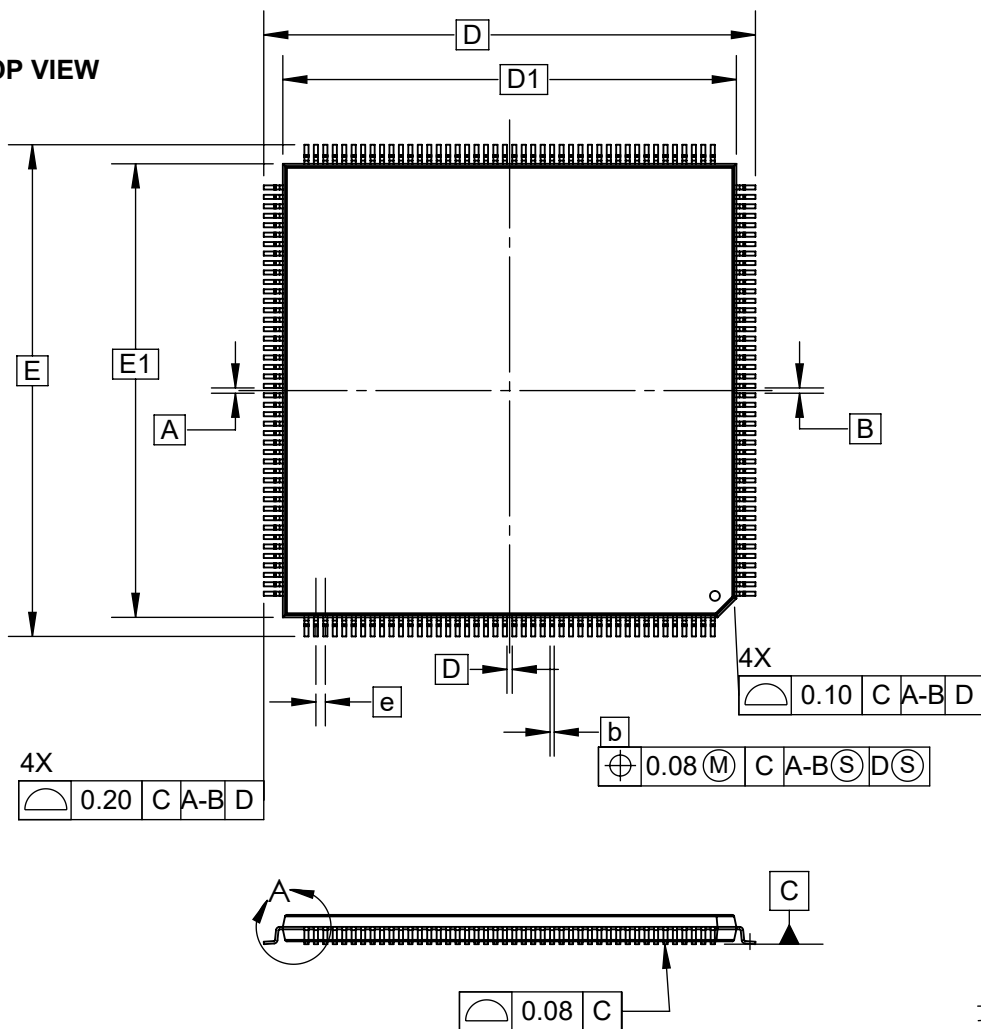
## Target PCB Design Recommendations:

Total thickness: 1.6mm - 3mm

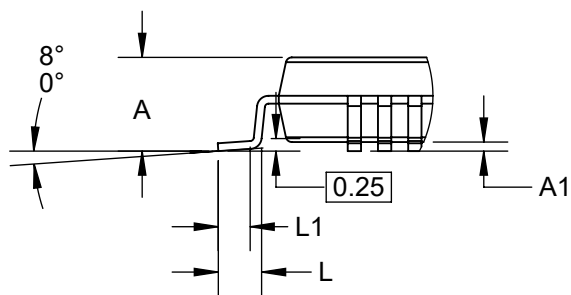
Plating: SnPb plating or Immersion Au or Immersion Ag.

<b>CBT-QFE-3012 Drawing</b>  Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 35.20	STATUS: Released	SHEET: 2 OF 5	REV. A
		ENG: E. Smolentseva	DRAWN BY: E. Smolentseva	SCALE: 2.5:1
		FILE: CBT-QFE-3012 Dwg	DATE: 05/17/2017	

TOP VIEW



	MIN	NOM	MAX
A			1.70
A1	0.05		0.15
b	0.17	0.22	0.27
c	0.09		0.20
D		26.00	
D1		24.00	
e		0.50	
E		26.00	
E1		24.00	
L	0.45	0.60	0.75
L1	0.30	0.50	0.70




DETAIL A  
SCALE 8 : 1

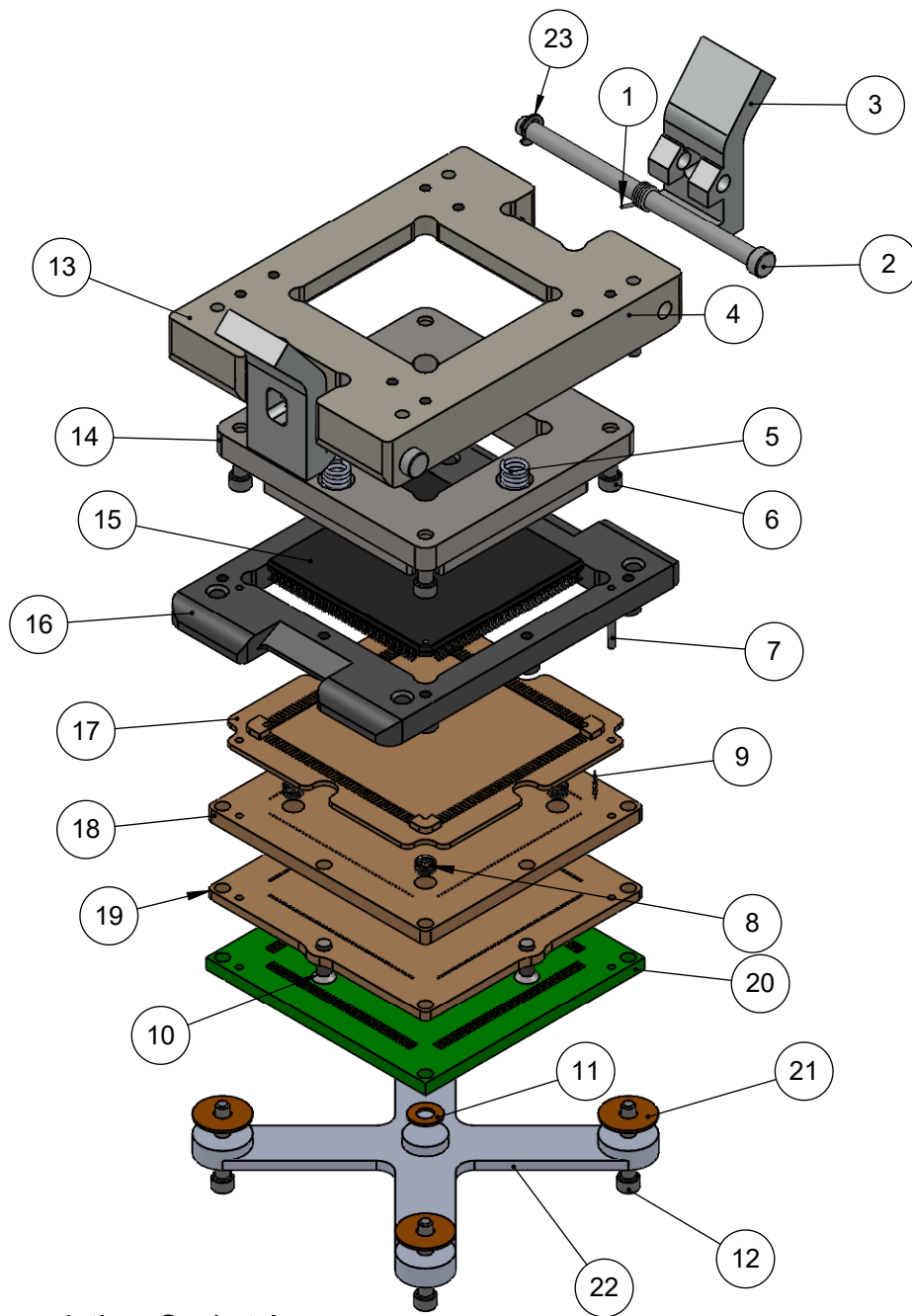
1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
5. Parallelism measurement shall exclude any effect of mark on top surface of package.

Description: Compatible Device

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.

 <p><b>CBT-QFE-3012 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>Material: N/A Finish: N/A Weight: 35.20</p>	STATUS: Released	SHEET: 3 OF 5	REV. A
		ENG: E. Smolentseva	DRAWN BY: E. Smolentseva	SCALE: 2.5:1
		FILE: CBT-QFE-3012 Dwg	DATE: 05/17/2017	




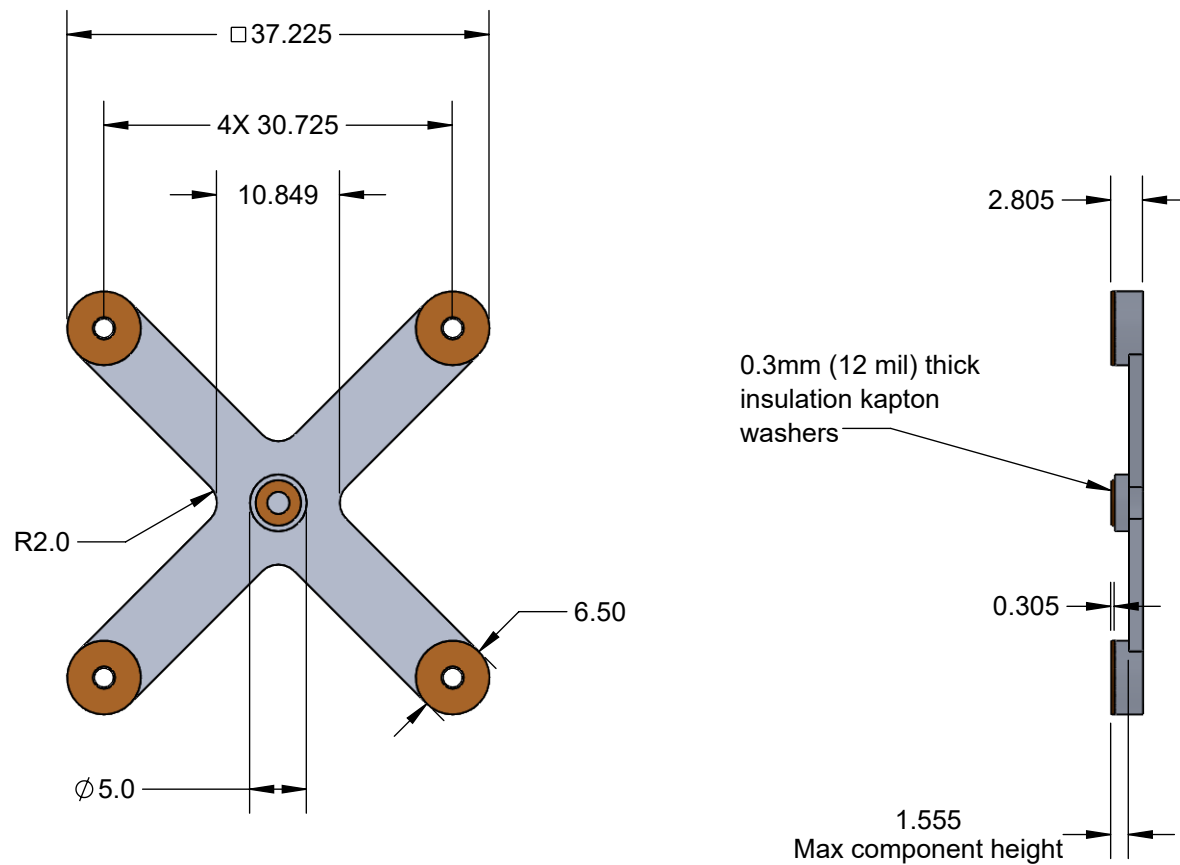
ITEM NO.	DESCRIPTION	Material
1	Coil spring	Steel
2	Hinge pin and snap ring	Steel
3	Latch	Aluminum
4	Lid alignment pins	Steel
5	Compression spring	Steel
6	Lid screws	Steel
7	Alignment pin	Steel
8	Floating guide spring	Steel
9	Spring pin	Au over Ni plated
10	Pin guide screw	High temp plastic
11	Insulating washer	High temp plastic
12	Mounting screw	Steel
13	Lid, double latch socket	7075-T6 Alumium Alloy
14	Compression plate	PEEK
15	QFE176 chip	
16	CBT socket base double latch	7075-T6 Alumium Alloy
17	Floating pin guide	Semitron MDS 100
18	Middle PIN guide	Semitron MDS 100
19	Bottom pin guide	Semitron MDS 100
20	Test PCB	Material <not specified>
21	Insulating washer, 6.5mm OD.	Kapton Polyimide/Cirlex
22	5 POST BACKING PLATE	7075-T6 Aluminum Alloy
23	Snap ring for 2mm Hinge pin 0.15\" OD	

## Description: Socket Assy

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.


<b>CBT-QFE-3012 Drawing</b>		STATUS: Released	SHEET: 4 OF 5	REV. A
 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A	ENG: E. Smolentseva	DRAWN BY: E. Smolentseva	SCALE: 1.25:1
	Finish: N/A	FILE: CBT-QFE-3012 Dwg	DATE: 05/17/2017	
	Weight: 35.20			



## Description: Backing plate

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.

<b>CBT-QFE-3012 Drawing</b>  Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 35.20	STATUS: Released	SHEET: 5 OF 5	REV. A
		ENG: E. Smolentseva	DRAWN BY: E. Smolentseva	SCALE: 2:1
		FILE: CBT-QFE-3012 Dwg	DATE: 05/17/2017	