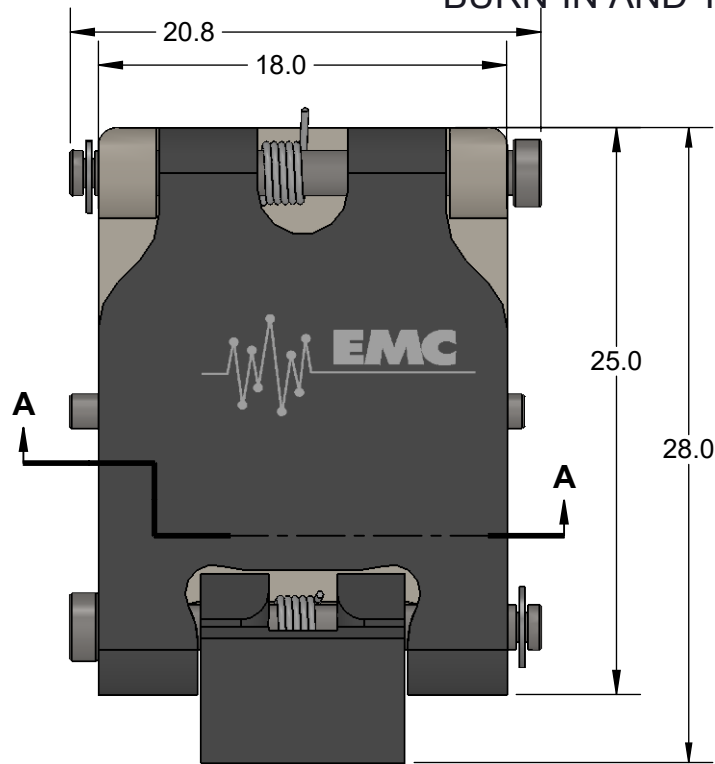
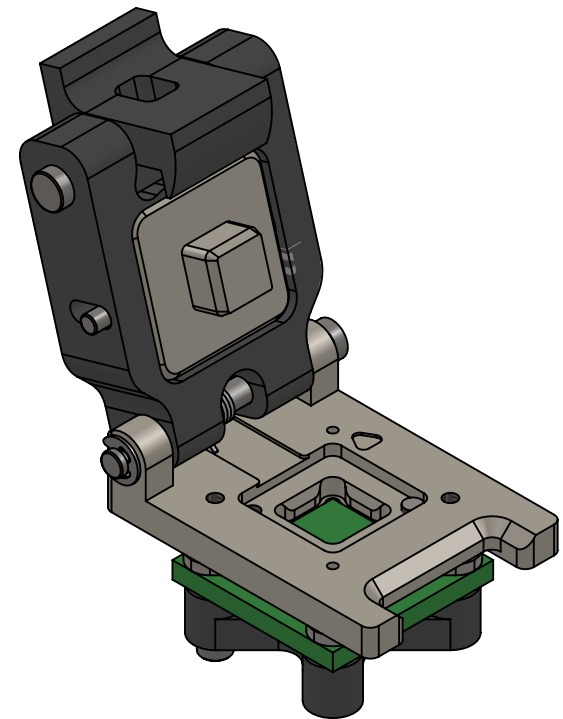
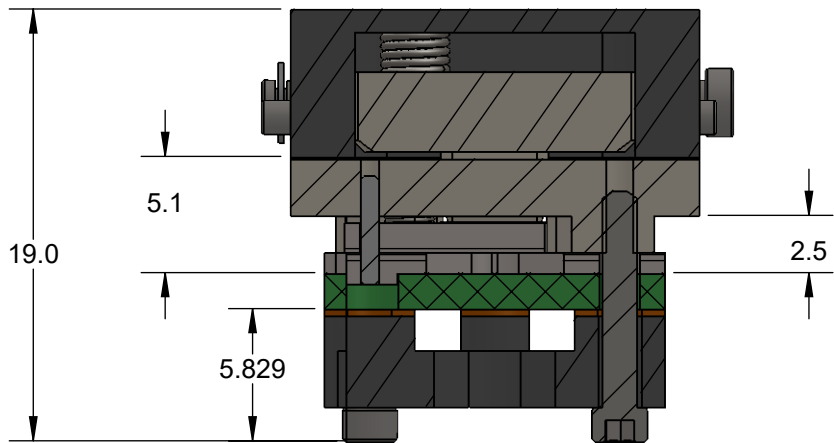


# SBT-BGA DIRECT MOUNT, SOLDERLESS SOCKET FOR BURN-IN AND TEST APPLICATIONS



## FEATURES:

- Wide temperature range (-55C to +155C )
- High current capability (up to 1.0A )
- 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-BGA256 16x16 array 0.3mm pitch Snap Lid

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.

### SG-BGA-6457 Drawing



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

Material: N/A  
Finish: N/A  
Weight: 12.69

STATUS: Released

ENG: J. Vavra

FILE: CBT-BGA-3001 Dwg

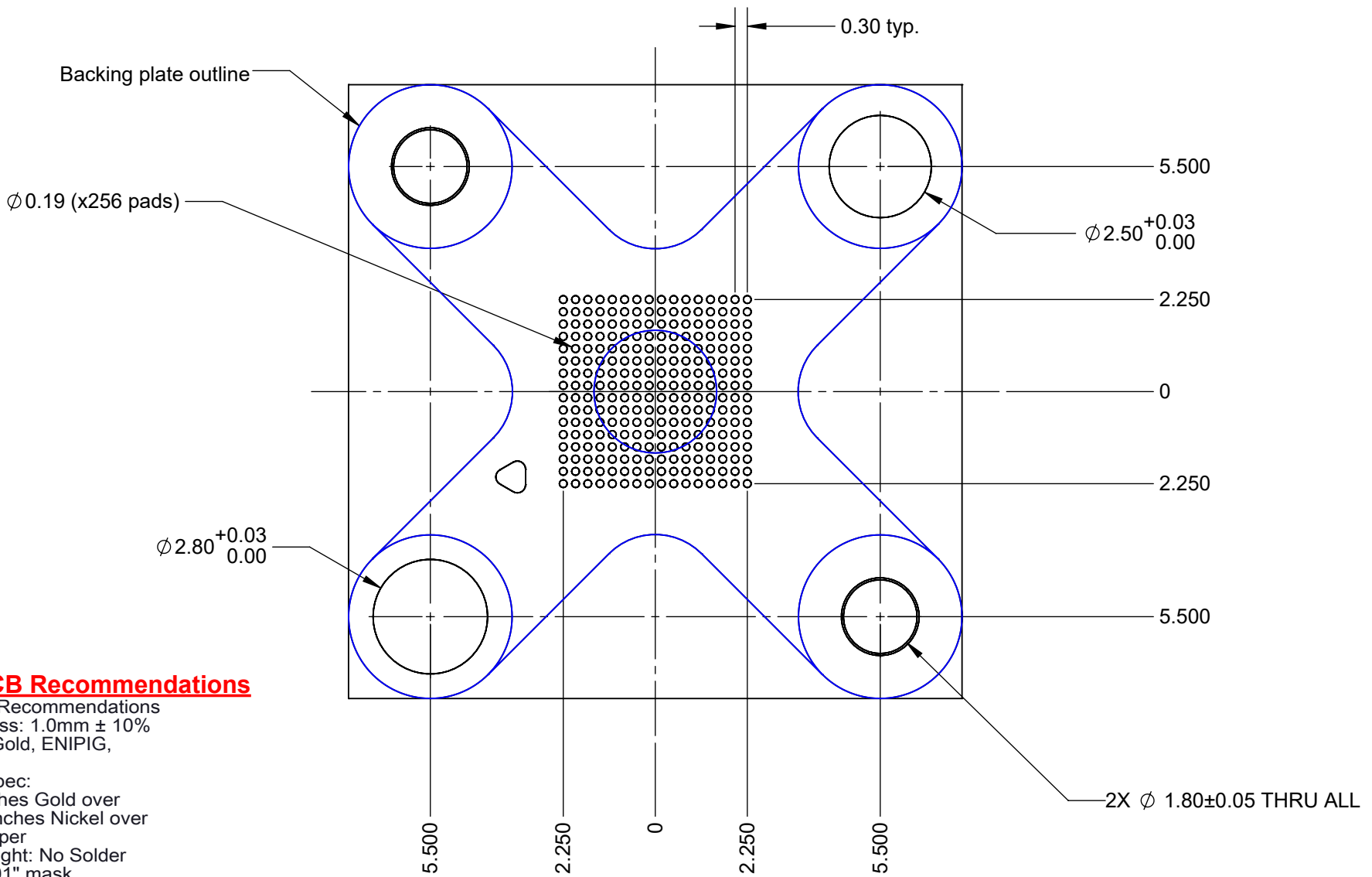
SHEET: 1 OF 4

DRAWN BY: M. Raske

DATE: 11/9/2016

REV. A

SCALE: 3:1




### Target PCB Recommendations

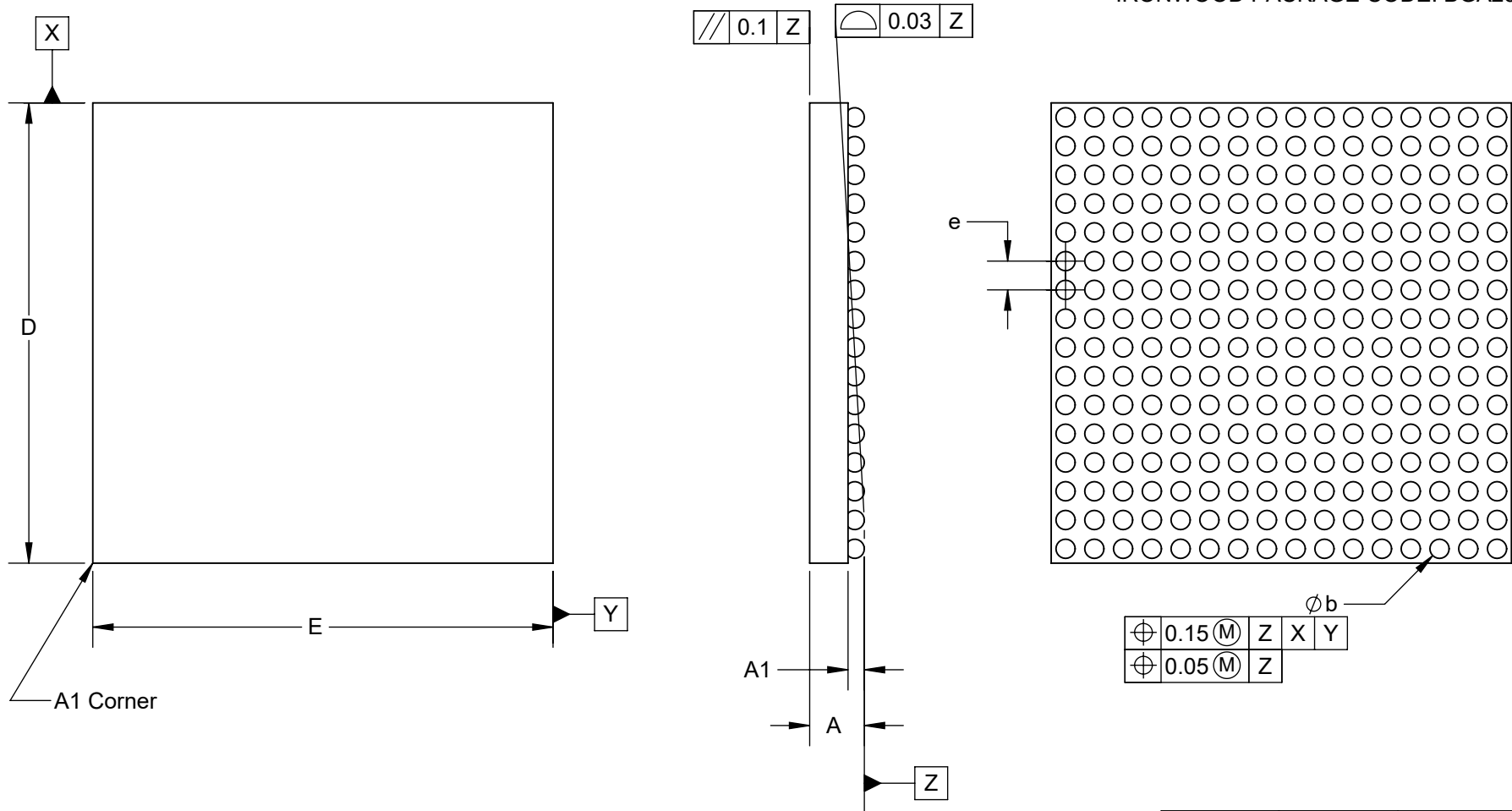
Target PCB Recommendations  
 Total thickness: 1.0mm ± 10%  
 Pads: Hard Gold, ENIPIG,  
 RoHS HASL  
 Hard Gold spec:  
 50 Micro-Inches Gold over  
 200 Micro-Inches Nickel over  
 1/2-1 Oz copper  
 PCB Pad height: No Solder  
 mask or 0.001" mask  
 thickness is acceptable.  
 Copper defined solder mask  
 and SMOBC is recommended

### Description: Recommended PCB Layout

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

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

 <b>SG-BGA-6457 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 12.69	STATUS: Released	SHEET: 2 OF 4	REV. A
		ENG: J. Vavra	DRAWN BY: M. Raske	SCALE: 7:1
		FILE: CBT-BGA-3001 Dwg	DATE: 11/9/2016	



$\oplus 0.15$ (M)	Z	X	Y
$\oplus 0.05$ (M)	Z		


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.

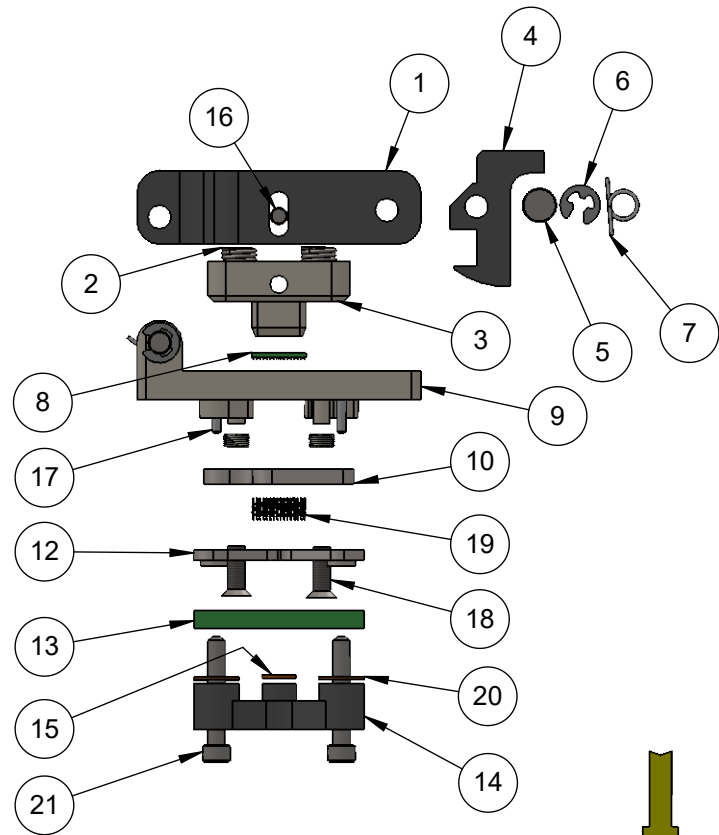
**Description: Compatible BGA**

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.

DIM	Minimum	Maximum
A	-	0.57
A1	0.15	0.18
b	0.195	0.255
D	4.8 BSC	
E	4.8 BSC	
e	0.30 BSC	
ARRAY	16 x 16	
PIN COUNT		256

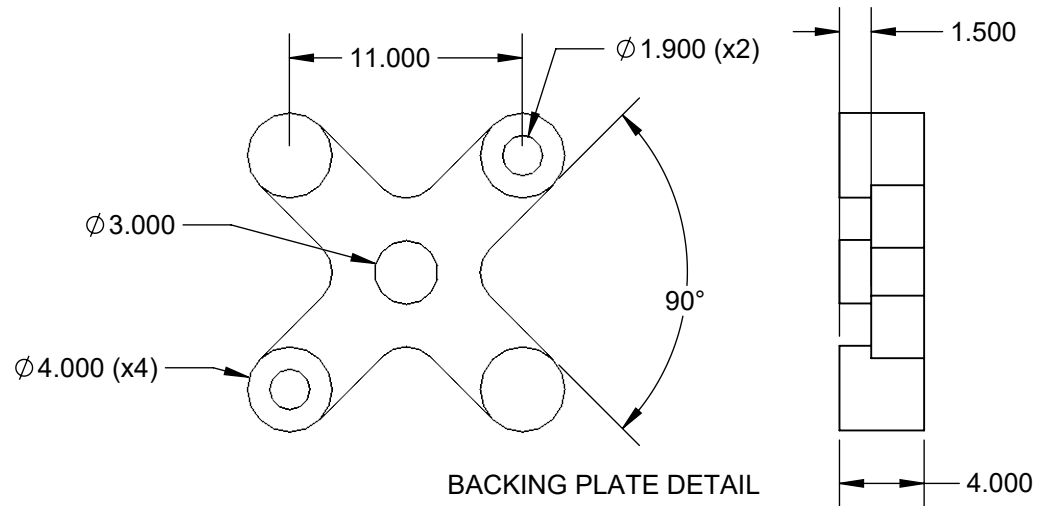
 <b>SG-BGA-6457 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 12.69	STATUS: Released	SHEET: 3 OF 4	REV. A
		ENG: J. Vavra	DRAWN BY: M. Raske	SCALE: 15:1
		FILE: CBT-BGA-3001 Dwg	DATE: 11/9/2016	



ITEM NO.	DESCRIPTION	Material	Simple/QTY.
1	10mm Snap Clamshell Socket Lid	7075-T6 Aluminum Alloy	1
2	Comp Spring 3.05mm OD, 2 lbs, 1/4" In 0.088" comp ht	Alloy Steel (SS)	4
3	Compression Plate	7075-T6 Aluminum Alloy	1
4	Clamshell Latch Snap type 9mm wide	7075-T6 Alumium Alloy	1
5	2mm diameter Hinge Pin, 20 mm long	Alloy Steel	2
6	Snap ring for 2mm Hinge pin 0.15" OD		2
7	Torsion Spring, 180 0.109" OD, Ccw/Rh	Steel Music Wire	2
8	TCHIP BGA256S 4.8x4.8mm 0.30mm pitch	FR4 High temp	1
9	Clamshell socket base with posts, 4.8mm	7075-T6 Aluminum Alloy	1
10	Floating Guide BGA256 0.30mm pitch	PEEK	1
11	Floating Guide Spring	Alloy Steel (SS)	2
12	Bottom Guide BGA256 0.30mm pitch	PEEK	1
13	Target PCB	FR4 High temp	1
14	"X" shaped Backing Plate for 4.8mm chip	7075-T6 Aluminum Alloy	1
15	Insulating washer, 3mm OD.	Kapton Polyimide/Cirlex	1
16	Dowel Pin, M1.5 X 20mm LG, 18-8 SS	AISI 347 Annealed Stainless Steel (SS)	1
17	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel	2
18	#0-80, 90 deg., head pin guide screw, Peek material	PEEK unfilled	2
19	Stamped Pin, 0.30mm SBT-BGA	N/A	256
20	Insulating washer, 4mm OD.	Kapton Polyimide/Cirlex	4
21	18-8 Stainless Steel Socket Head Cap Screw 0-80 3/8" length	Stainless Steel (18-8)	2




**PIN Detail  
25:1 scale**



### Description: Socket Assy, Insulation 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>SG-BGA-6457 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 12.69	STATUS: Released	SHEET: 4 OF 4	REV. A
		ENG: J. Vavra	DRAWN BY: M. Raske	SCALE: 2:1
		FILE: CBT-BGA-3001 Dwg	DATE: 11/9/2016	