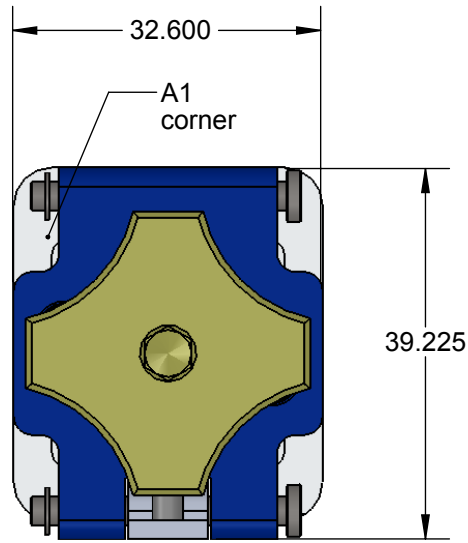
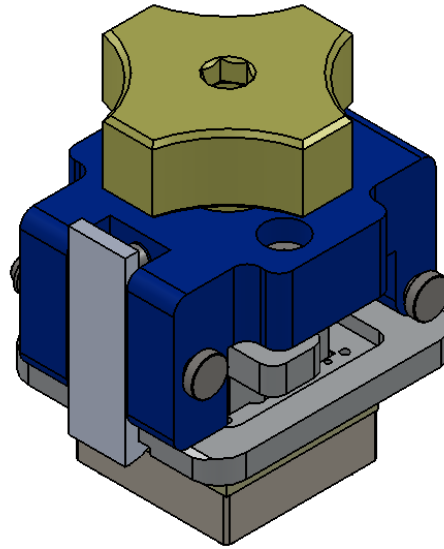


# XG-BGA Socket - Direct mount, solderless

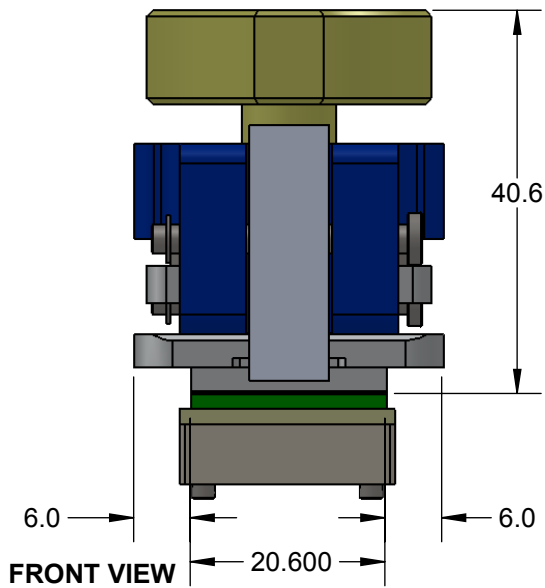


TOP VIEW

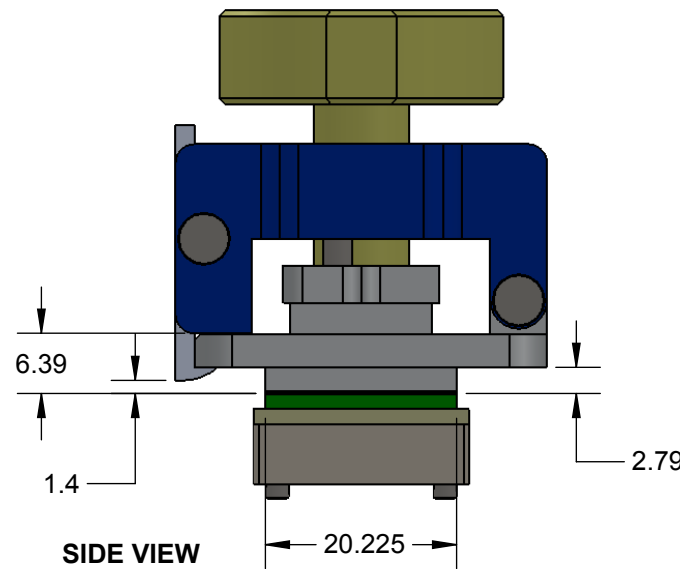


## FEATURES:

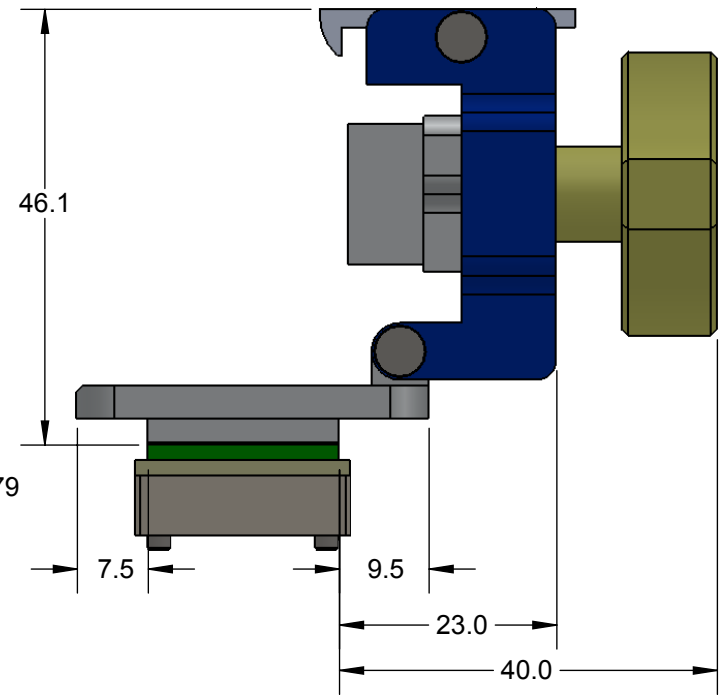
- Wide temperature range (-40C to +120C )
- High current capability (up to 5A )
- Excellent signal integrity at high frequencies
- Low and stable contact resistance for reliable production yield
- Highly compliant to accommodate wide co-planarity variations



FRONT VIEW




SIDE VIEW

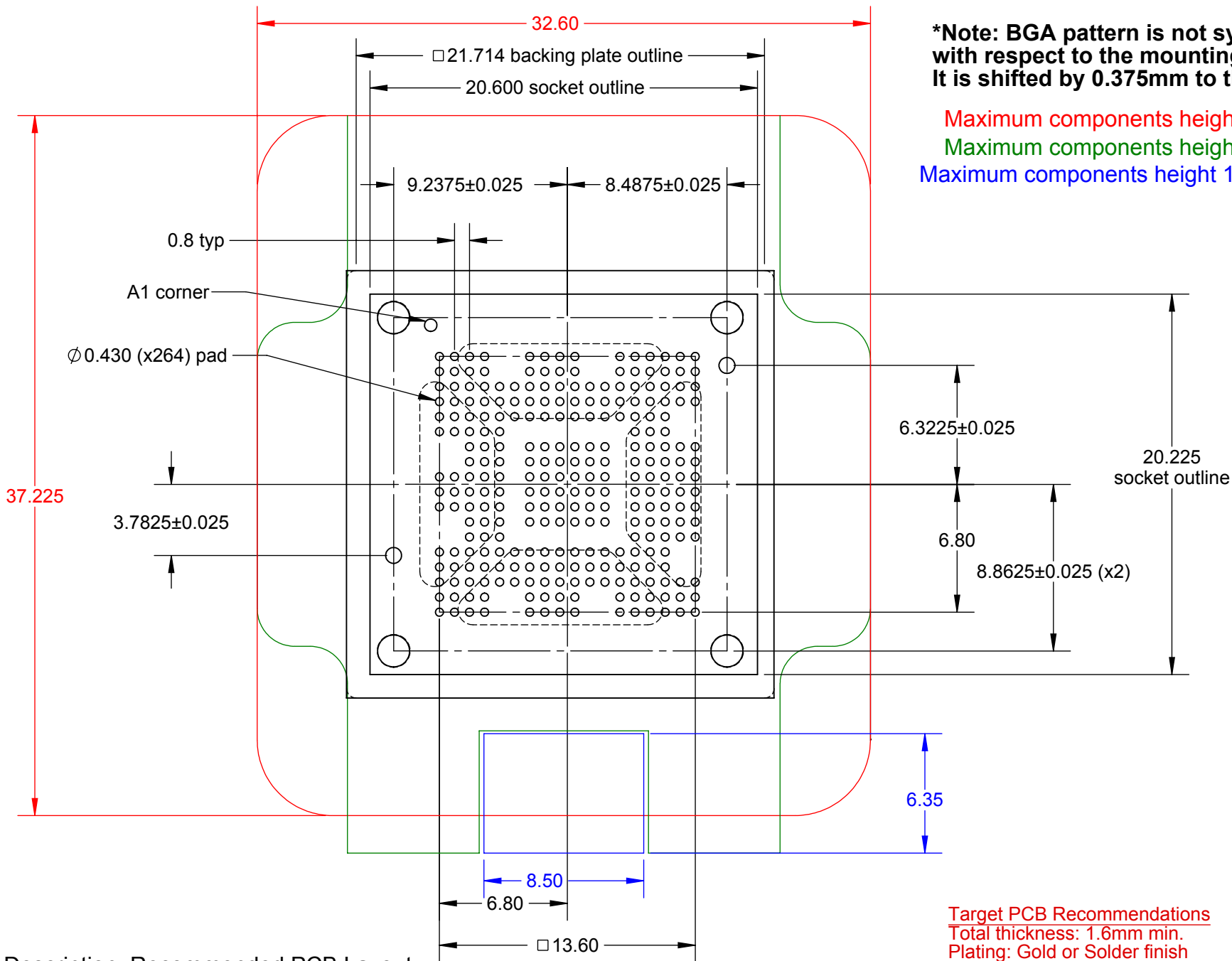


Description: XG socket for 15x15mm, 18x18 0.8mm pitch BGA264

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>XG-BGA-4012 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>Material: N/A Finish: N/A Weight: 86.25</p>	<p>STATUS: Released ENG: E. Smolentseva FILE: XG-BGA-4012</p>	<p>SHEET: 1 OF 4 DRAWN BY: E. Smolentseva DATE: 4/4/13</p>	<p>REV. A SCALE: 1.25:1</p>
--	--	---	--	---------------------------------




**\*Note: BGA pattern is not symmetrical with respect to the mounting holes. It is shifted by 0.375mm to the center of right.**

Maximum components height 2.8mm  
 Maximum components height 6.4mm  
 Maximum components height 1.4mm

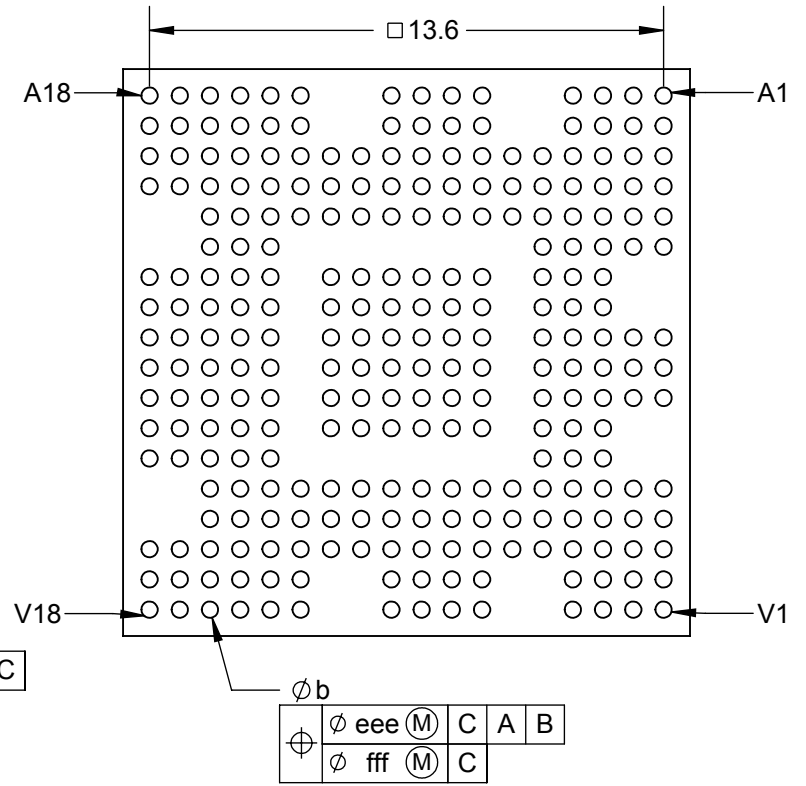
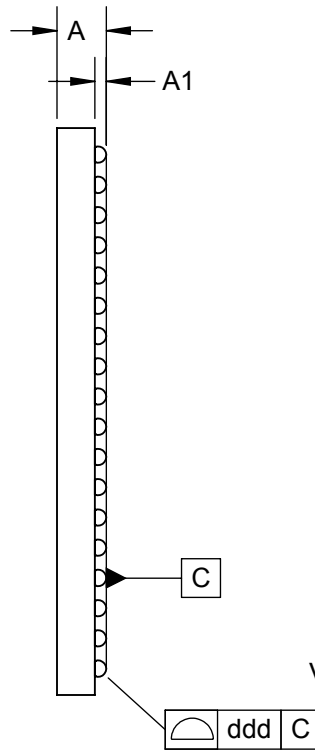
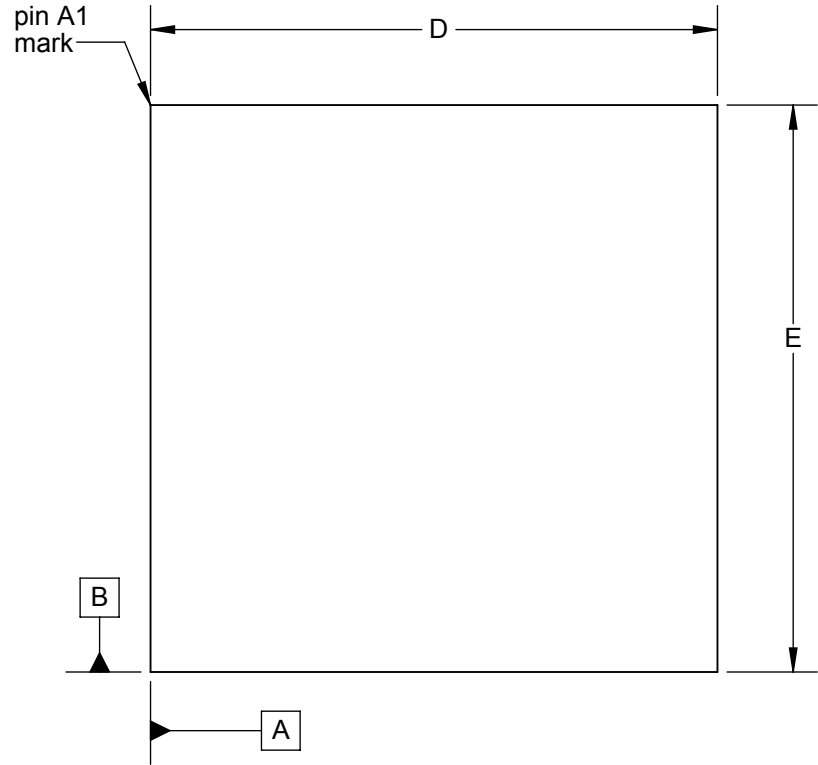
**Target PCB Recommendations**  
 Total thickness: 1.6mm min.  
 Plating: Gold or Solder finish  
 PCB Pad height: Same or higher than solder mask

**Description: Recommended PCB Layout**

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.  
 Tolerances: Hole diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001"$ ], 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>XG-BGA-4012 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 86.25	STATUS: Released ENG: E. Smolentseva FILE: XG-BGA-4012	SHEET: 2 OF 4 DRAWN BY: E. Smolentseva DATE: 4/4/13	REV. A SCALE: 3.5:1

**Ironwood Package Code: BGA264A**



$\phi$	eee (M)	C	A	B
$\phi$	fff (M)	C		


DIM	Minimum	Maximum
A		1.70
A1	0.25	0.35
b	0.35	0.45
D	15±0.15	
E	15±0.15	
e	0.80 BSC	
ARRAY	18 x 18	
PIN COUNT		264
ddd		0.10
eee		0.15
fff		0.08

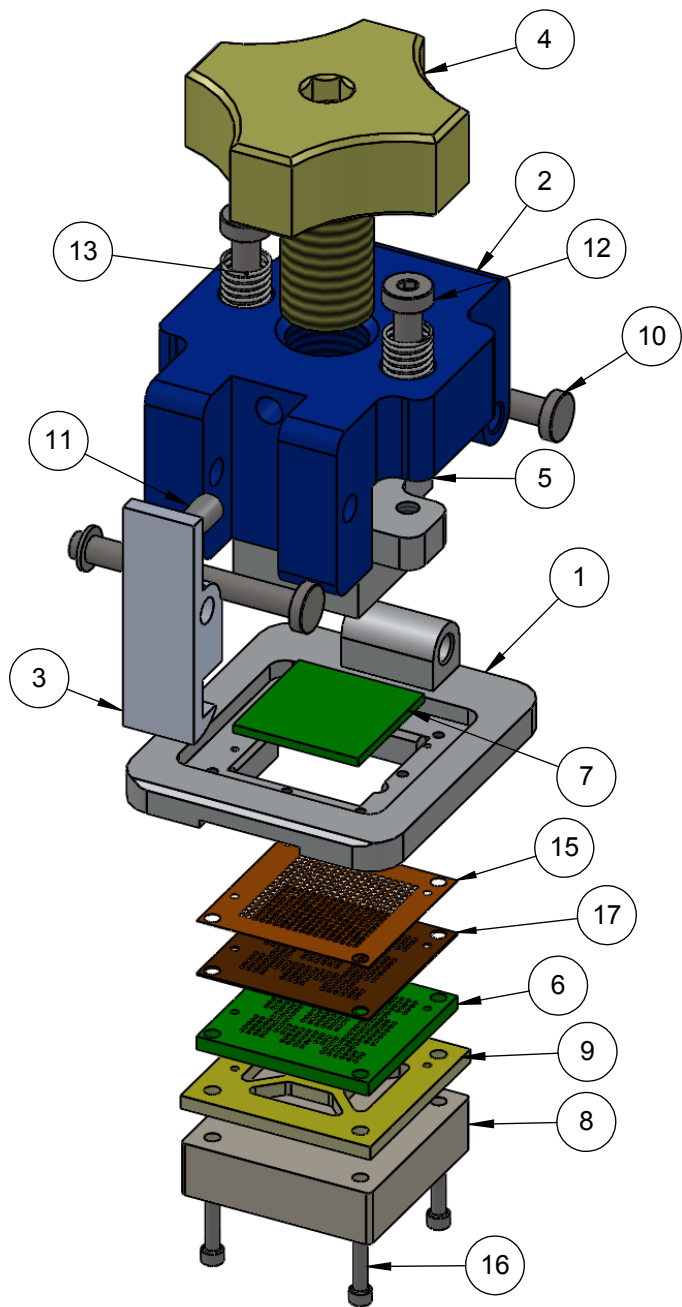
1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane A.
4. Datum C (seating plane) is defined by the spherical crowns of the solder balls.
5. Parallelism measurement shall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

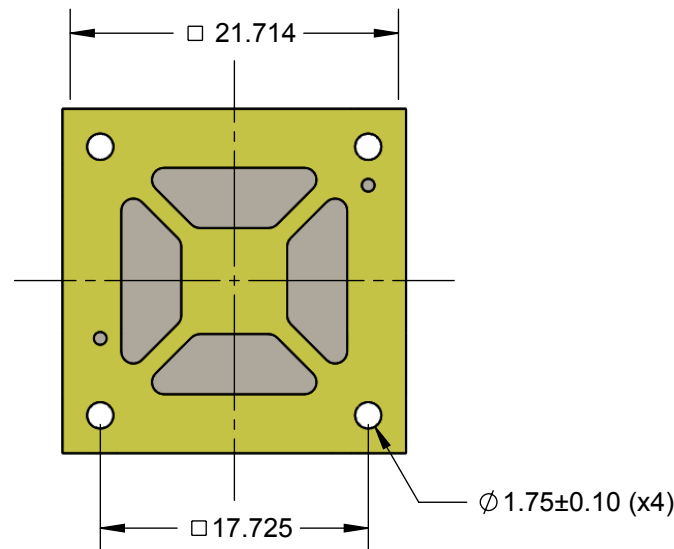
Tolerances: Hole diameters ±0.03mm [±0.001"], Pitches (from true position) ±0.025mm [±0.001"], substrate thickness tolerance ±10%, all other tolerances ±0.13mm [±0.005"] unless stated otherwise. Materials and specifications are subject to change without notice.

 <b>XG-BGA-4012 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 86.25	STATUS: Released ENG: E. Smolentseva FILE: XG-BGA-4012	SHEET: 3 OF 4 DRAWN BY: E. Smolentseva DATE: 4/4/13	REV. A SCALE: 5:1

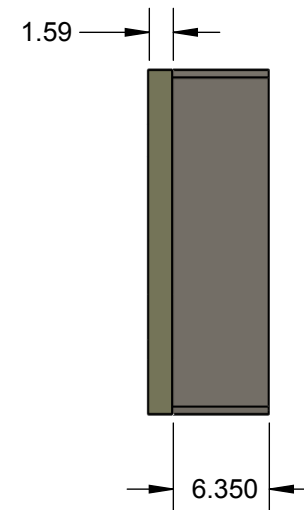


ITEM NO.	DESCRIPTION	Material
1	Socket Base	7075-T6 Aluminum Alloy
2	Clam Shell	7075-T6 Aluminum Alloy
3	Latch 10-17mm clamshell	7075-T6 Aluminum Alloy
4	COMPRESSION SCREW, 17MM X M10	7075-T6 Aluminum Alloy
5	Compression Plate	7075-T6 Aluminum Alloy
6	Customer's target PCB	Material <not specified>
7	Customer's BGA device	Material <not specified>
8	SBT/CBT Ni Plated 15mm Backing Plate	7075-T6 Alumium Alloy
9	Insulation Plate	FR4
10	Hinge Pin and Snap Ring, 3mm OD, 25mm long, SS	Stainless Steel (ferritic)
11	Precision Compression Spring, Zinc-Plated Music Wire, 1/2" Length, .12" OD, .016" Wire	Zinc Plated Music Wire
12	Screw, M3 x 12mm, Low Head Cap, SS	18-8 Stainless Steel
13	Spring Clamshell lid assembly	Steel Music Wire
14	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
15	Ball Guide	Kapton Polyimide/Cirlex
16	#0-80 x 0.5, SH Cap Screw	Alloy Steel
17	C-flex, 15x15mm 18x18 0.8mm pitch BGA264	Cflex

Custom Insulating Plate




Insulating and Backing Plate (not to 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>XG-BGA-4012 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 86.25	STATUS: Released	SHEET: 4 OF 4	REV. A
		ENG: E. Smolentseva	DRAWN BY: E. Smolentseva	SCALE: 1.25:1
		FILE: XG-BGA-4012	DATE: 4/4/13	