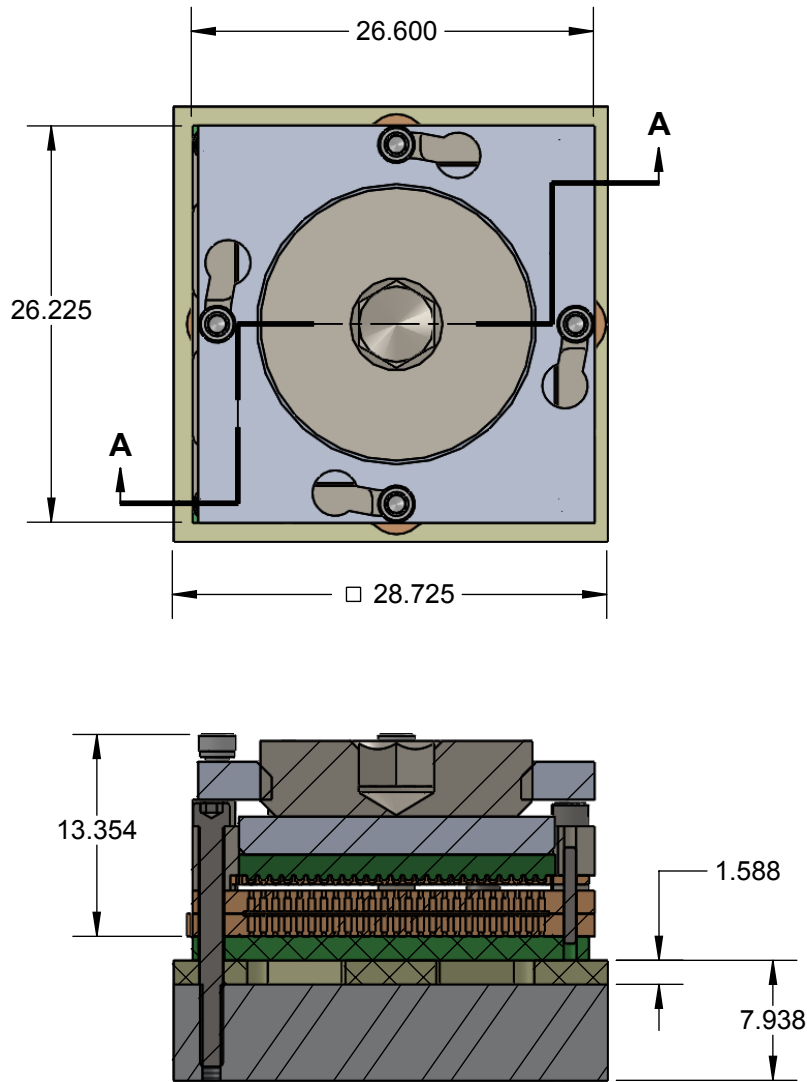


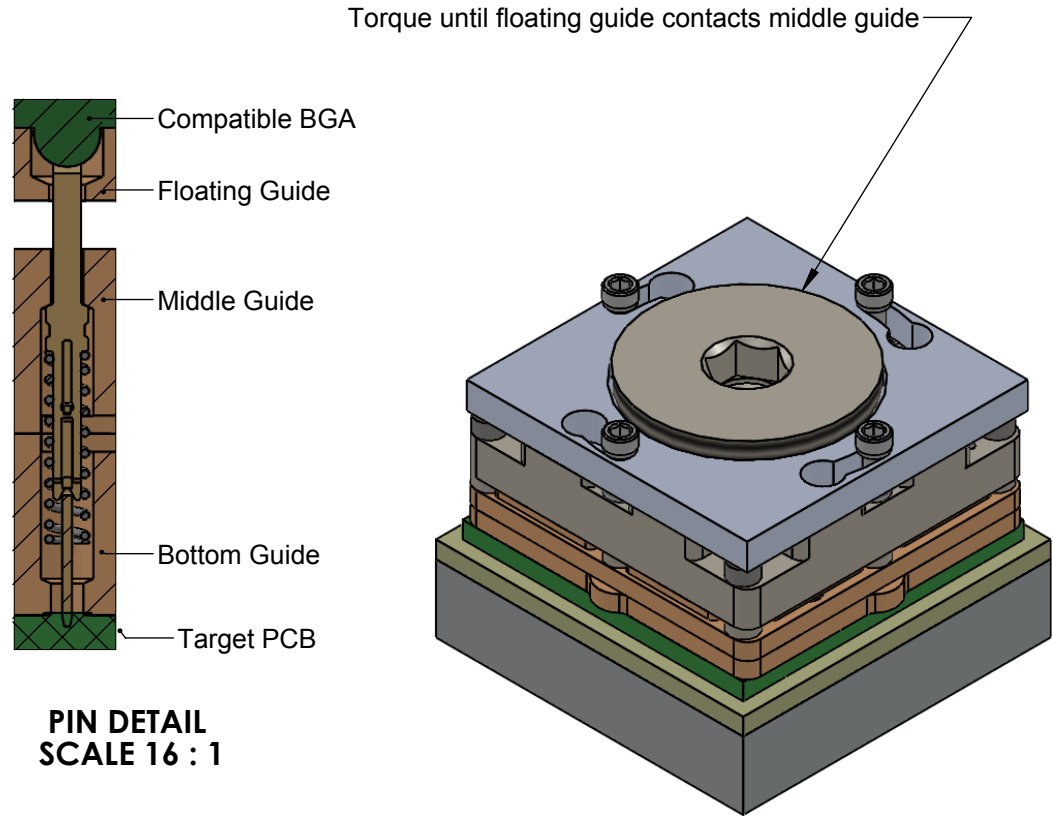
# SBT-BGA DIRECT MOUNT, SOLDERLESS SOCKET FOR BURN-IN AND TEST APPLICATIONS

## 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




**SECTION A-A**



## Description: SBT-BGA624 25x25 array 0.8mm pitch

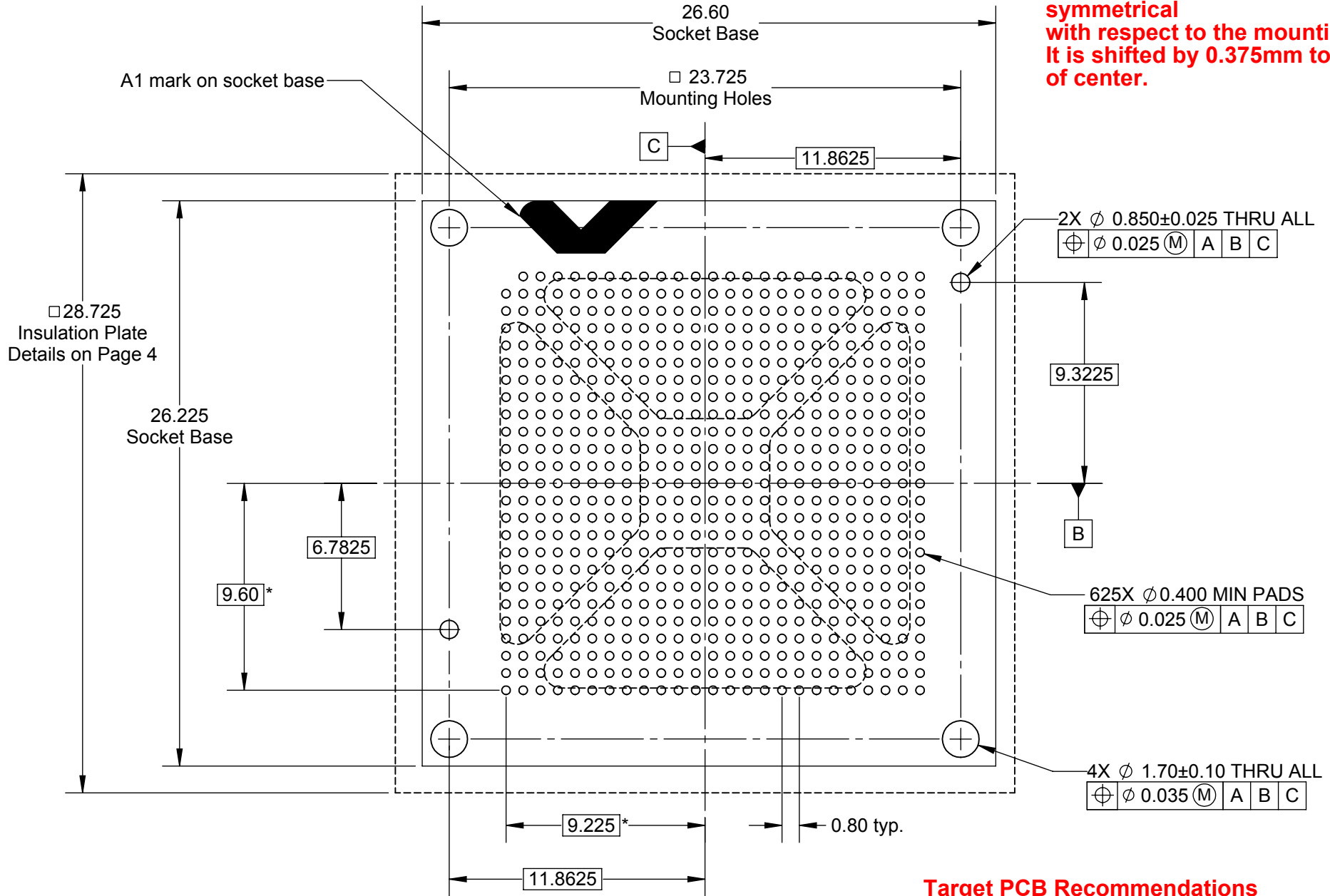
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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>SBT-BGA-6520 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	Material: N/A	STATUS: Released	SHEET: 1 OF 4	REV. A
	Finish: N/A	ENG: B. Schatz	DRAWN BY: M. Raske	SCALE: 2:1
	Weight: 34.49	FILE: SBT-BGA-6520 Dwg	DATE: 10/21/2014	

DATUM "A" IS TOP SIDE OF BOARD

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




**Description: Recommended PCB Layout**

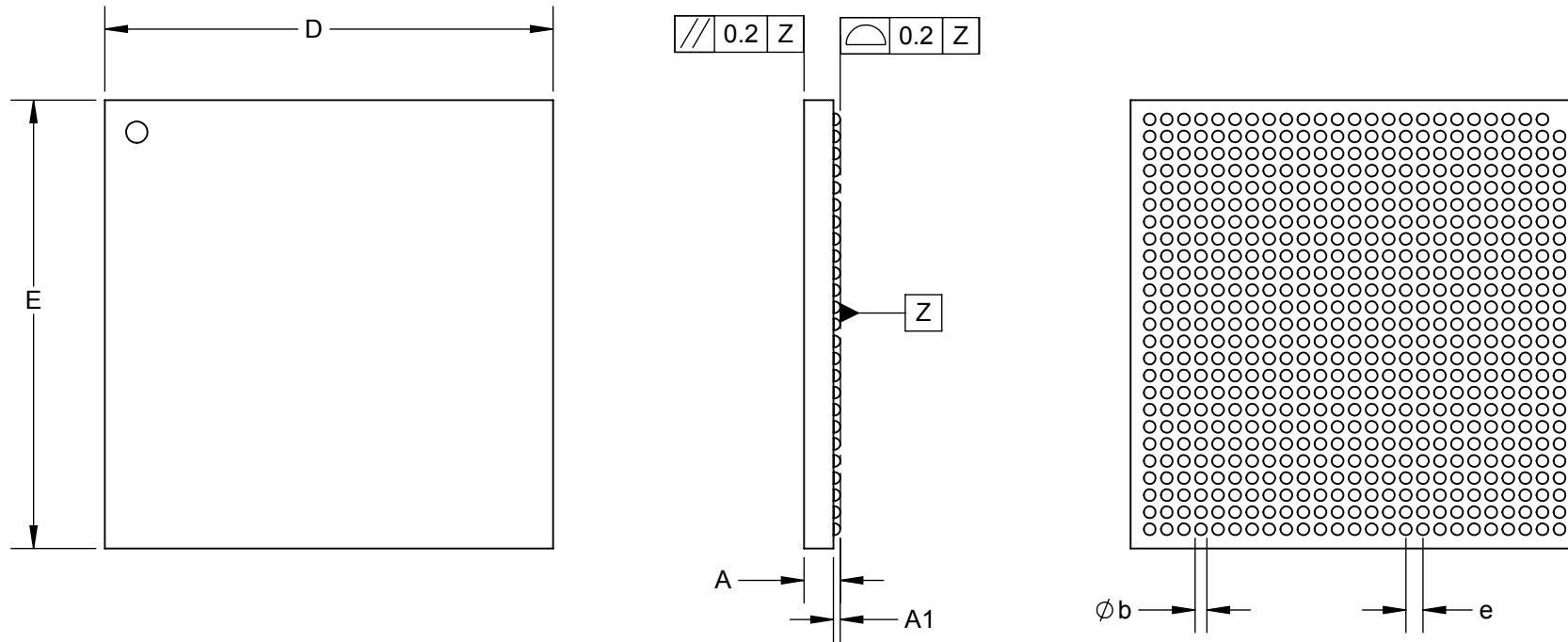
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.  
 Tolerances: Hole diameters  $\pm 0.0254\text{mm}$  [ $\pm 0.001"$ ], Pitches (from true position)  $\pm 0.0762\text{mm}$  [ $\pm 0.003"$ ], substrate thickness tolerance  $\pm 10\%$ , all other tolerances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

**Target PCB Recommendations**

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

 <p><b>SBT-BGA-6520 Drawing</b>                  Ironwood Electronics, Inc.                  Tele: (800) 404-0204                  www.ironwoodelectronics.com</p>	Material: N/A Finish: N/A Weight: 34.49	STATUS: Released ENG: B. Schatz FILE: SBT-BGA-6520 Dwg	SHEET: 2 OF 4 DRAWN BY: M. Raske DATE: 10/21/2014	REV. A SCALE: 4:1

# Ironwood Package Code: BGA624B




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.

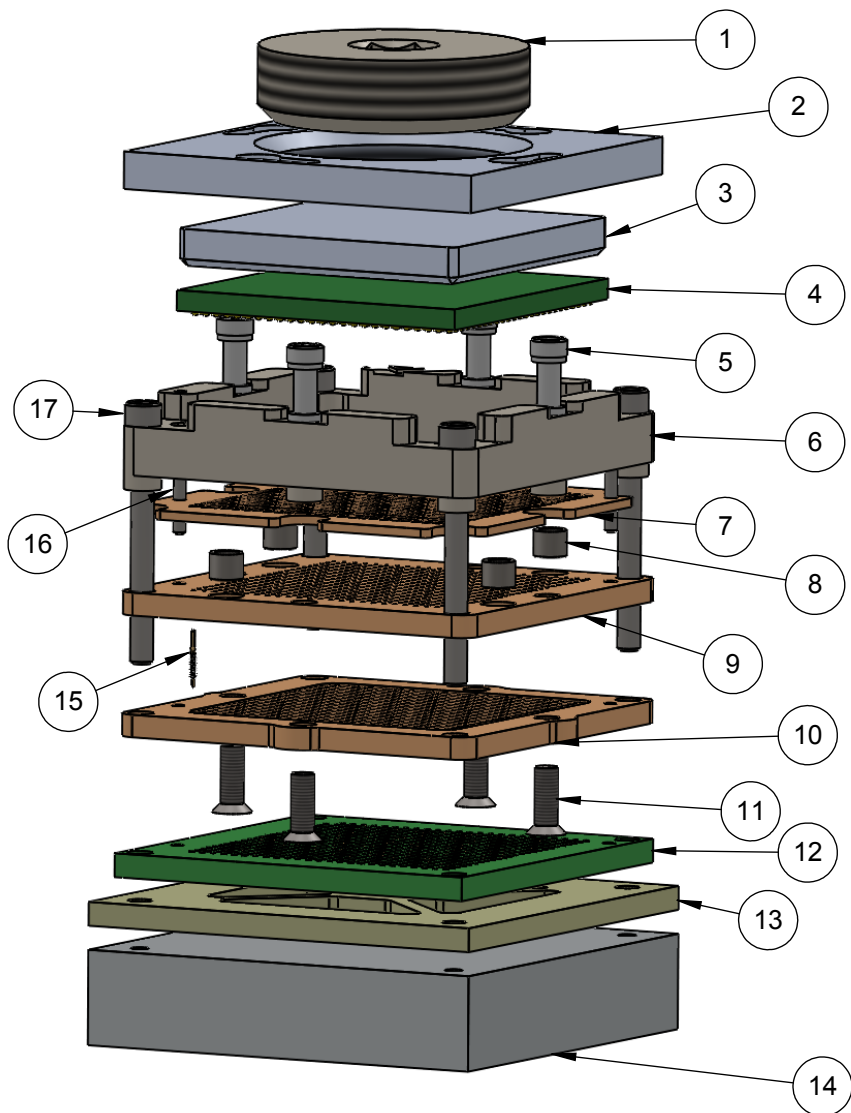
DIM	Minimum	Maximum
A	-	2.5
A1	0.3	0.5
b	0.4	0.6
D	20.8	21.2
E	20.8	21.2
e	0.80 BSC	
ARRAY	25 x 25	
PIN COUNT	624	

## 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.

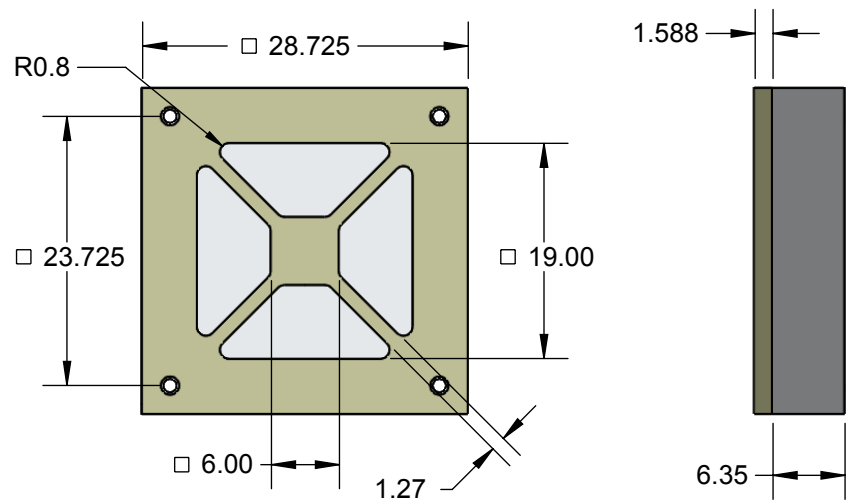
 <b>SBT-BGA-6520 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 34.49	STATUS: Released ENG: B. Schatz FILE: SBT-BGA-6520 Dwg	SHEET: 3 OF 4 DRAWN BY: M. Raske DATE: 10/21/2014	REV. A SCALE: 3:1



PIN DETAIL



ITEM NO.	DESCRIPTION	Material
1	Compression Screw	Aluminum Alloy
2	Socket Lid	Aluminum Alloy
3	Compression PLate	Aluminum Alloy
4	Test chip	N/A
5	Shoulder Screw	Stainless Steel
6	Socket Base	Aluminum Alloy
7	Floating Guide	Semitron MDS 100
8	Floating Guide Spring	Stainless Steel
9	Middle Guide	Semitron MDS 100
10	Bottom Guide	Semitron MDS 100
11	Pin Guide Screw	PEEK unfilled
12	Target PCB	N/A
13	Insulation plate	FR4
14	Backing Plate	Alumium Alloy
15	Stamped Spring Pin	BeCu NiAu plating
16	Dowel pin	Stainless Steel
17	Mounting Screw	Stainless Steel




INSULATION AND BACKING PLATE DETAIL

**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.

 <p><b>SBT-BGA-6520 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>Material: N/A Finish: N/A Weight: 34.49</p>	STATUS: Released	SHEET: 4 OF 4	REV. A
		ENG: B. Schatz	DRAWN BY: M. Raske	SCALE: 2:1
		FILE: SBT-BGA-6520 Dwg	DATE: 10/21/2014	