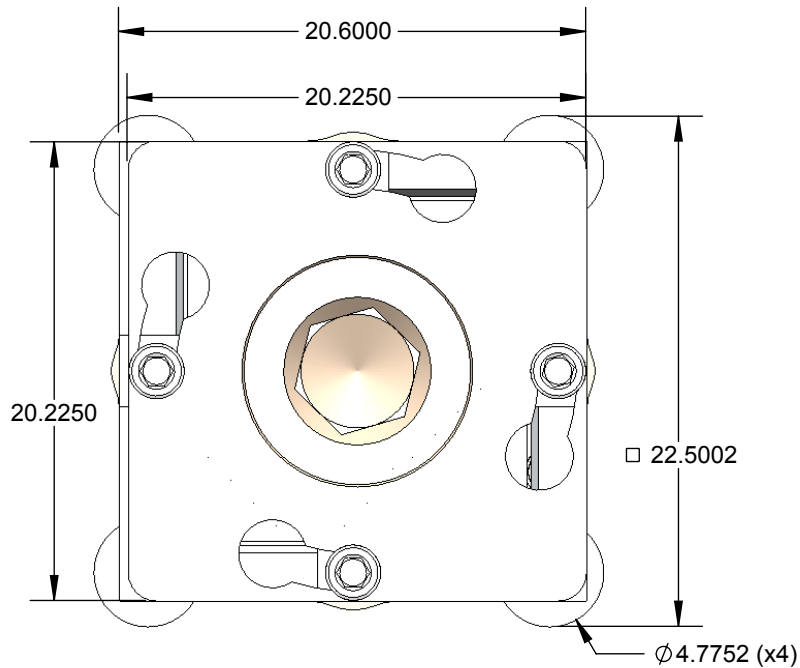
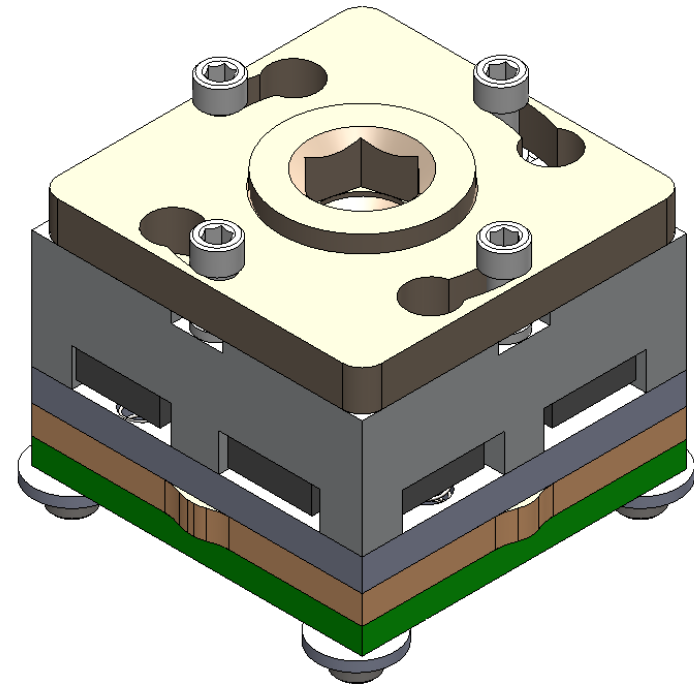
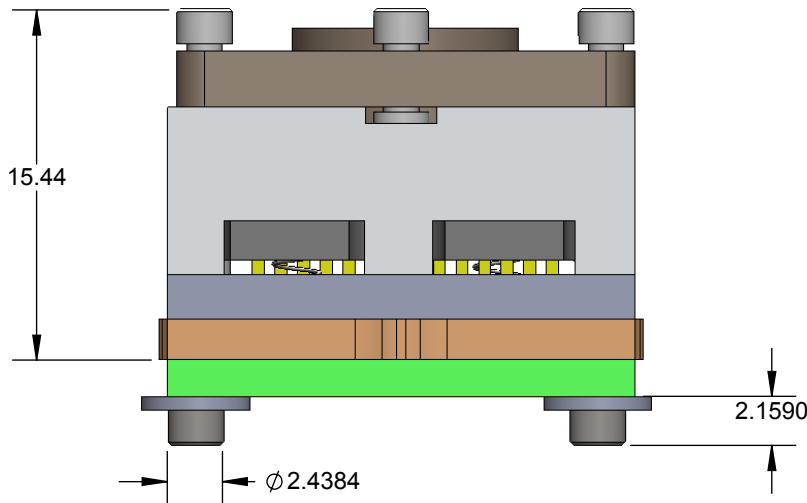


# SBT-BGA DIRECT MOUNT, SOLDERLESS SOCKET FOR BURN-IN AND TEST APPLICATIONS



## 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.



## Description: SBT-BGA Socket 15x15mm, 1mm, 14x14 array

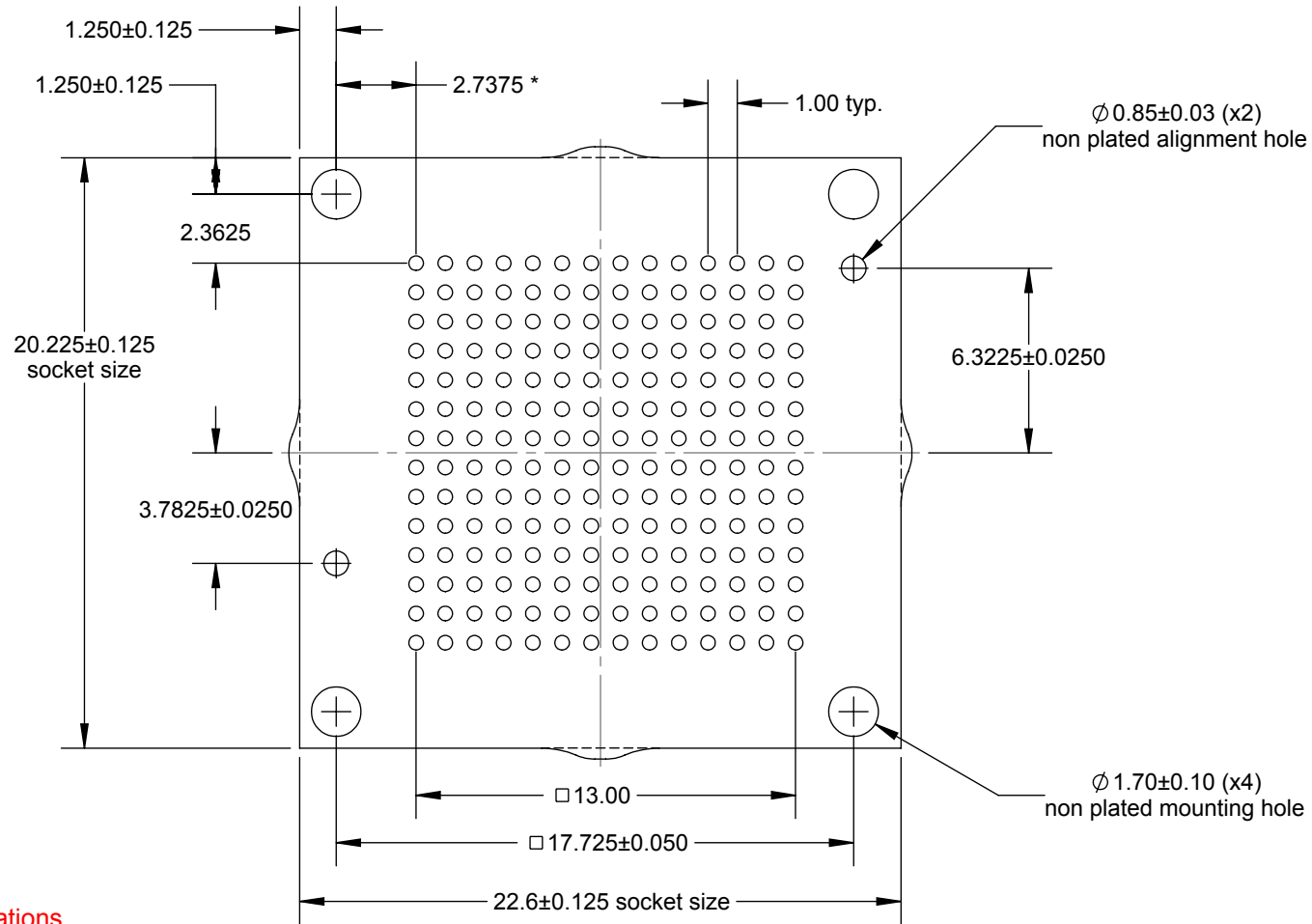
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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.

 <b>SBT-BGA-6011 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Material <not specified> Finish: Weight: 12.80	STATUS: Released ENG: V. Panavala FILE: SBT-BGA-6011	SHEET: 1 OF 4 DRAWN BY: V. Panavala DATE: 10/7/2011	REV. B SCALE: 3:1

# Recommended PCB Layout

**\*Note: BGA pattern is not symmetrical 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.

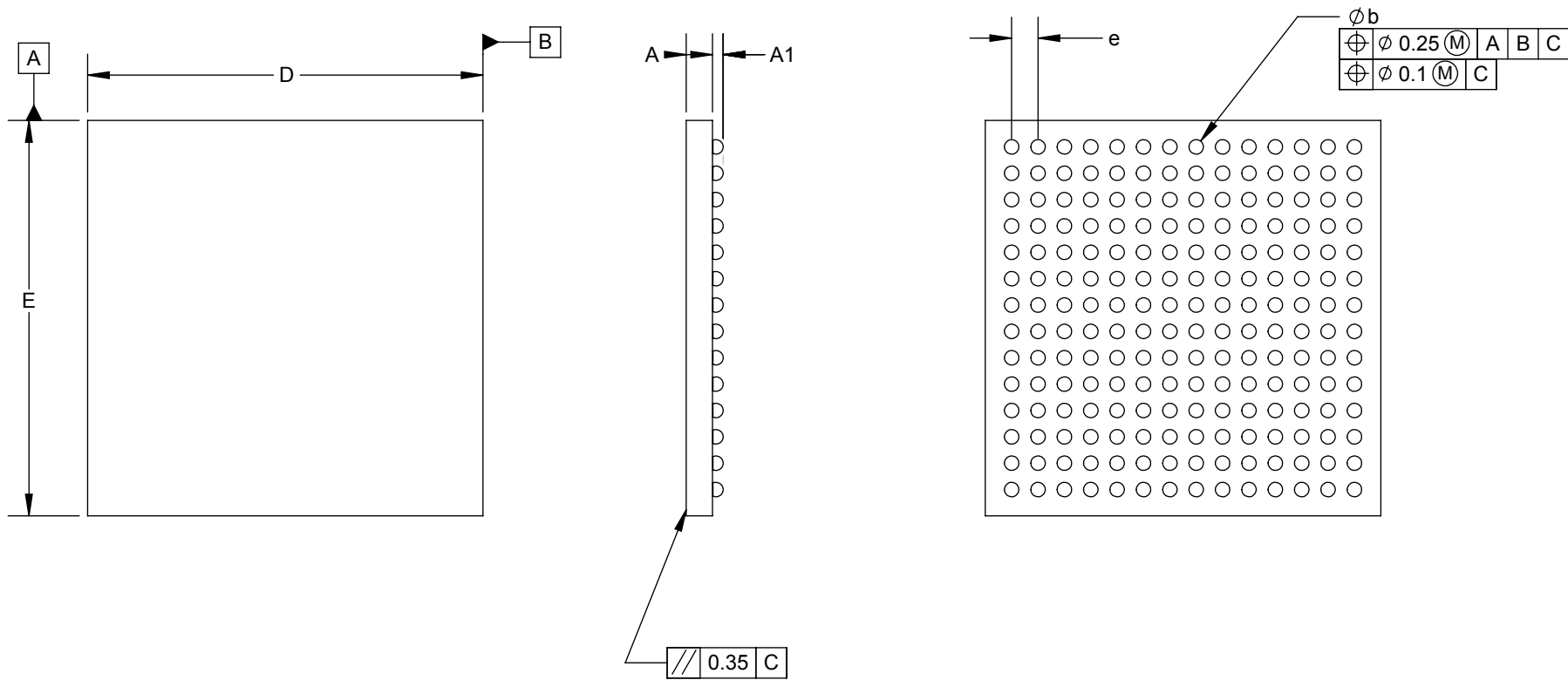
## Description: RECOMMENDED PCB LAYOUT

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

Tolerances: Hole diameters  $\pm 0.0254\text{mm}$  [ $\pm 0.001$ "]. 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.

 <b>SBT-BGA-6011 Drawing</b> ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Material <not specified> Finish: Weight: 12.80	STATUS: Released	SHEET: 2 OF 4	REV. B
		ENG: V. Panavala	DRAWN BY: V. Panavala	SCALE: 2:1
		FILE: SBT-BGA-6011	DATE: 10/7/2011	

# Compatible BGA IC




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.

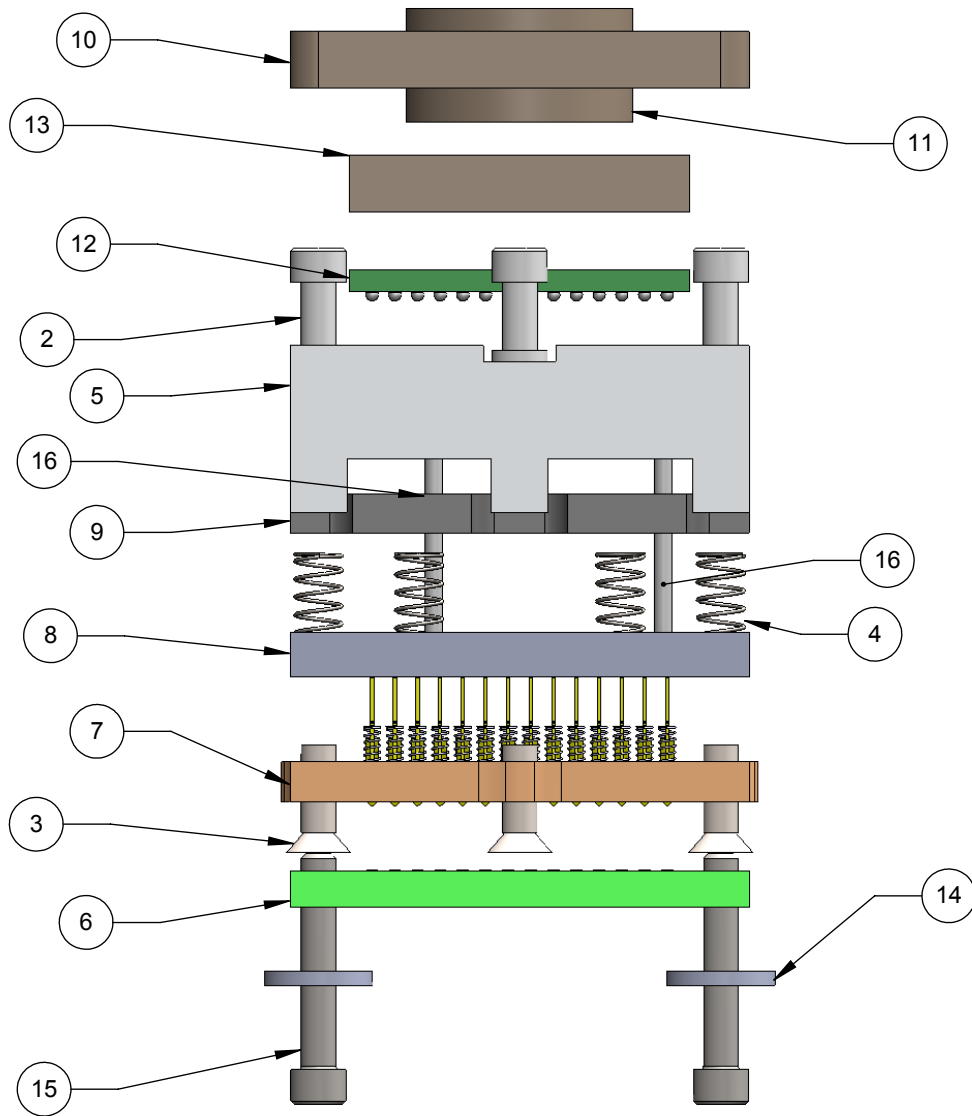
## Description: Compatible BGA IC

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.

DIM	Minimum	Maximum
A		2.5
A1	025	0.45
b	0.45	0.55
D	15mm $\pm$ 0.2mm	
E	15mm $\pm$ 0.2mm	
e	1.00 BSC	
ARRAY SIZE	14 X 14	
PIN COUNT	196	

 <b>SBT-BGA-6011 Drawing</b> ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Material <not specified> Finish: Weight: 12.80	STATUS: Released	SHEET: 3 OF 4	REV. B
		ENG: V. Panavala	DRAWN BY: V. Panavala	SCALE: 4:1
		FILE: SBT-BGA-6011	DATE: 10/7/2011	




ITEM NO.	Description	Material
1	Pogo Pin, 1mm Pitch SBT BGA pin	
2	#0-80 Shoulder Screw, 0.062" thread length	Stainless Steel (303)
3	Screw, #0-80 X .188", Flat, SS	Stainless Steel (18-8)
4	Floating Guide Spring	Alloy Steel (SS)
5	Socket Base, SBT BGA, 15x15mm, 0.375 shift, with posts	7075-T6 Aluminum Alloy
6	PCB BGA196 14x14 array 1mm pitch	High Temp FR4
7	Bottom Pogo Guide BGA196 1mm pitch 14x14 array	Semitron MDS 100
8	Middle Pogo Guide BGA196 1mm pitch 14x14 array	PEEK Ceramic filled
9	Floating Guide BGA196 1mm pitch 14x14 array	PEEK Ceramic filled
10	Socket Lid, 15mm	7075-T6 Aluminum Alloy
11	Compression Screw M10	7075-T6 Aluminum Alloy
12	BGA196 15mm 1mm pitch 14x14 array	High Temp FR4
13	Compression Plate, 15mm x 15mm	7075-T6 Aluminum Alloy
14	Washer, #0 x .025", Nylon	Nylon 6/6
15	#0-80 X .375 LG, SOC HD CAP SCREW, ALLOY STL, BLK OXIDE	Alloy Steel
16	Dowel Pin, 1/32" dia, 7/16" Long, 18-8 SS	Chrome Stainless Steel

## Description: ASSEMBLY DETAIL

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.

Rev	Date	Initials	Description
A	10/07/11	VP	Original
B	07/20/15	DH	Updated PCB layout page

 <b>SBT-BGA-6011 Drawing</b> ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Material <not specified> Finish: Weight: 12.80	STATUS: Released ENG: V. Panavala FILE: SBT-BGA-6011	SHEET: 4 OF 4 DRAWN BY: V. Panavala DATE: 10/7/2011	REV. B SCALE: 2:1