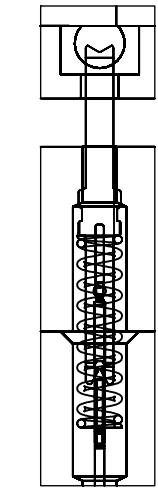
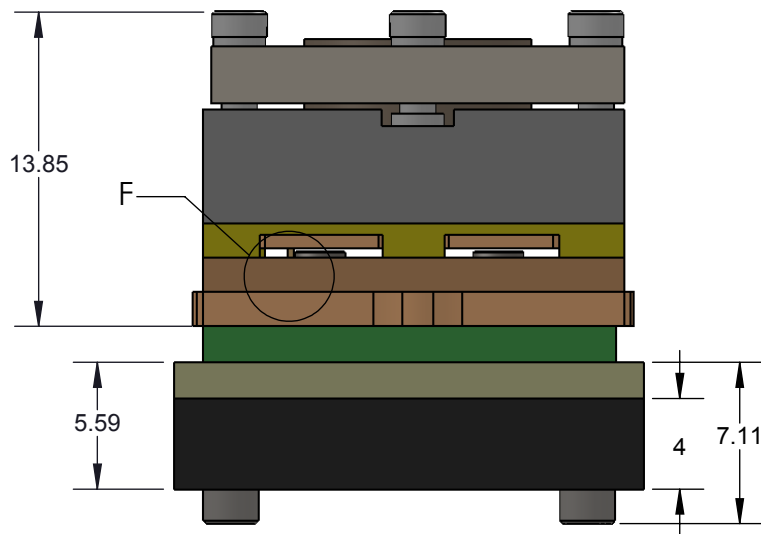
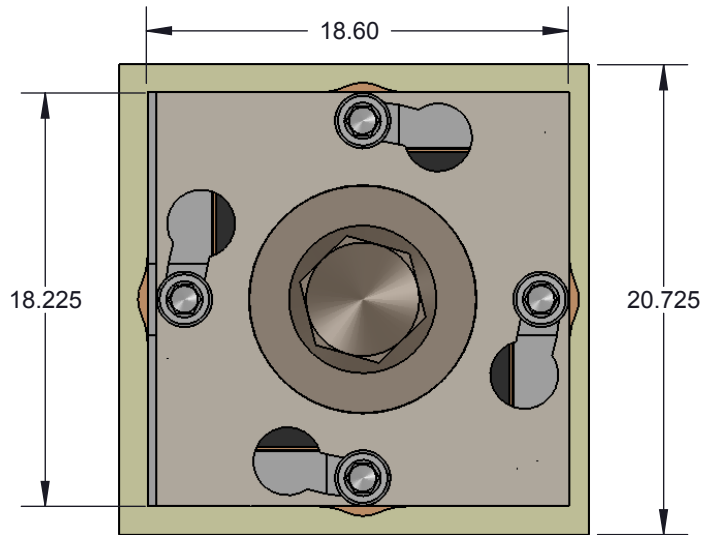


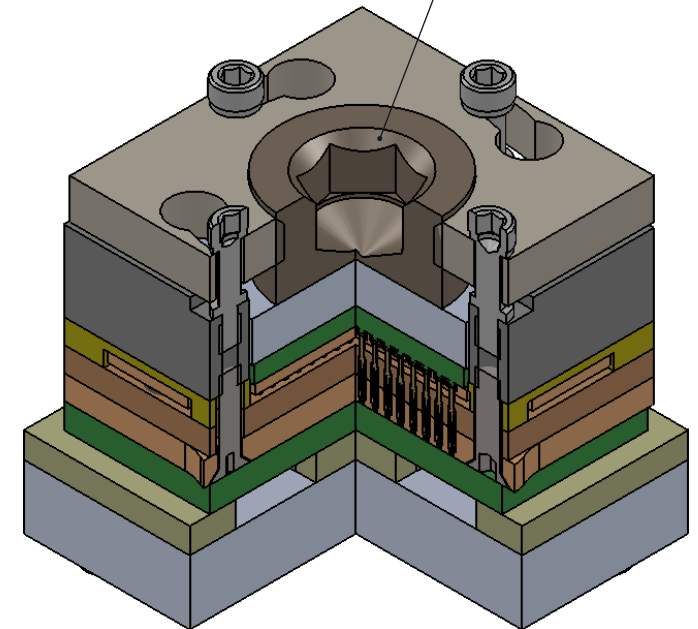
SBT-BGA DIRECT MOUNT, SOLDERLESS SOCKET FOR BURN-IN AND TEST APPLICATIONS



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


Recommended Torque 3 in.lbs.



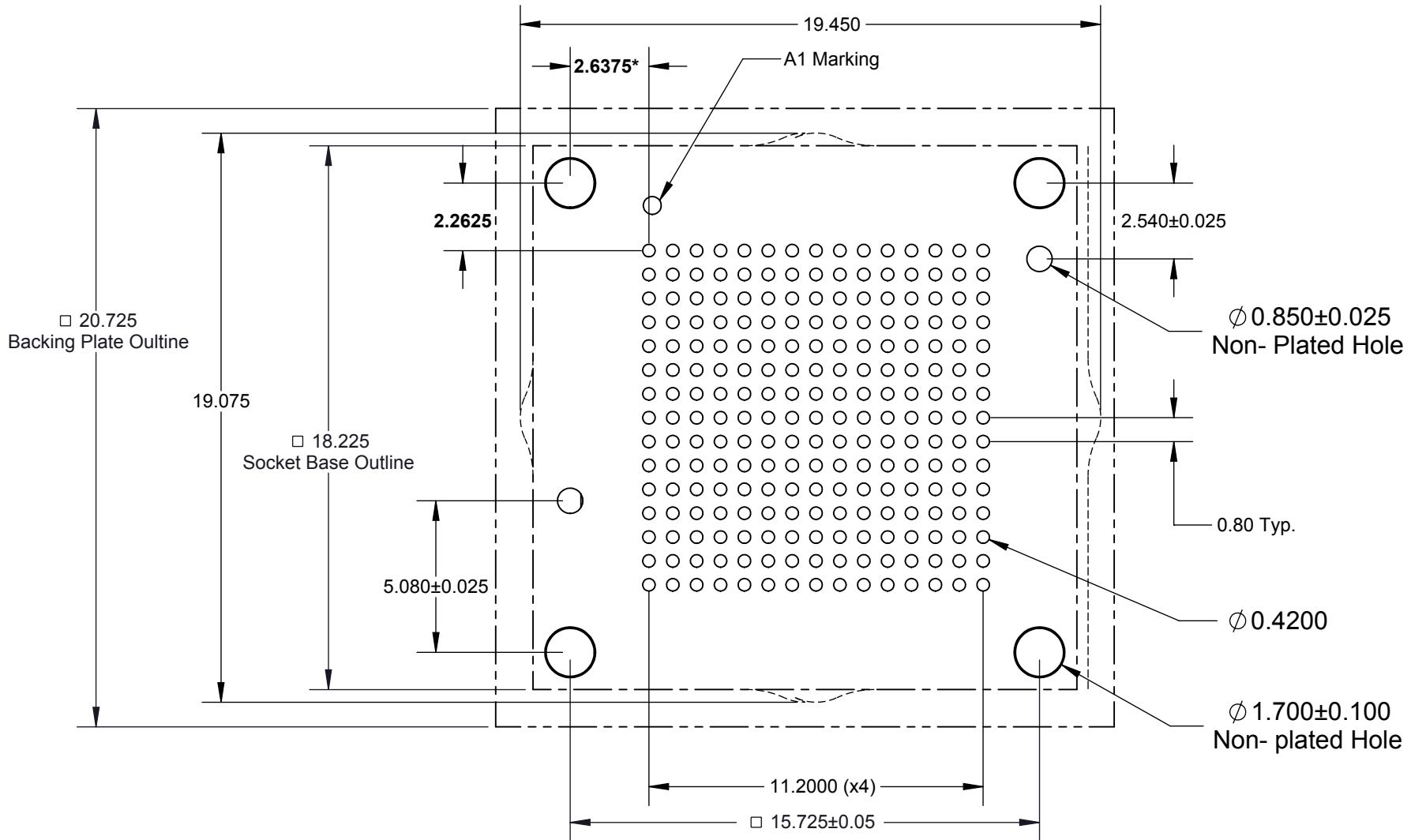
Description: Skt Assy

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.

 <p>SBT-BGA-6503 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>Material: N/A Finish: N/A Weight: 15.01</p>	<p>STATUS: Released ENG: V. Panavala FILE: SBT-BGA-6503</p>	<p>SHEET: 1 OF 5 DRAWN BY: V. Panavala DATE: 5/29/14</p>	<p>REV. C SCALE: 3:1</p>


***Note: BGA pattern is not symmetrical with respect to the mounting holes.**



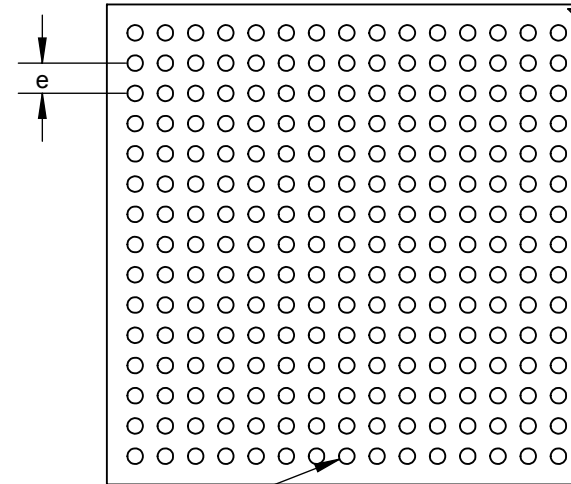
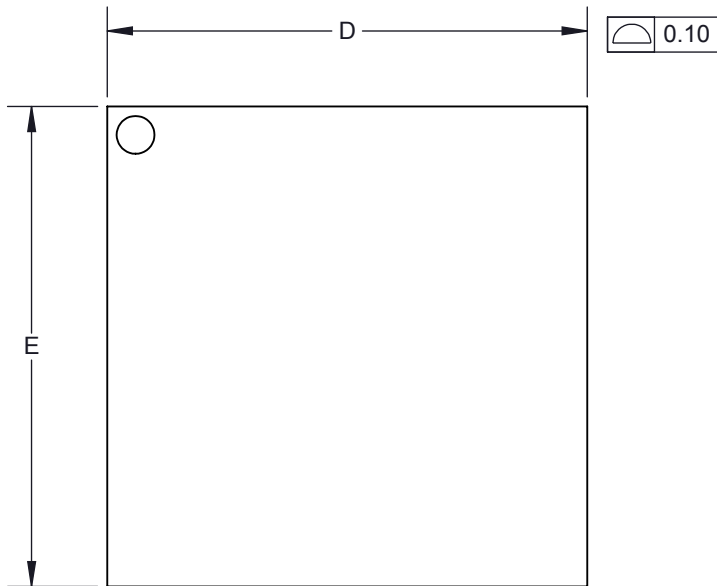
Description: Recommended PCB Layout

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.

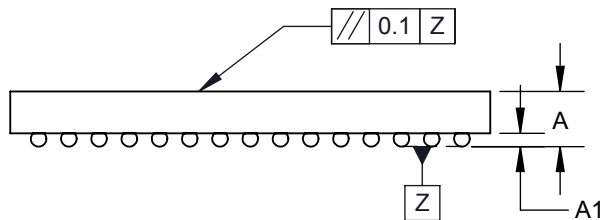
Target PCB Recommendations
 Total thickness: 1.6mm min.
 Plating: Gold or Solder finish
 PCB Pad height: Same or higher than solder mask

 SBT-BGA-6503 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 15.01	STATUS: Released	SHEET: 2 OF 5	REV. C
		ENG: V. Panavala	DRAWN BY: V. Panavala	SCALE: 5:1
		FILE: SBT-BGA-6503	DATE: 5/29/14	

Ironwood Package Code: BGA225E



⊕	∅ 0.05	Z	X	Y
⊕	∅ 0.05	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.

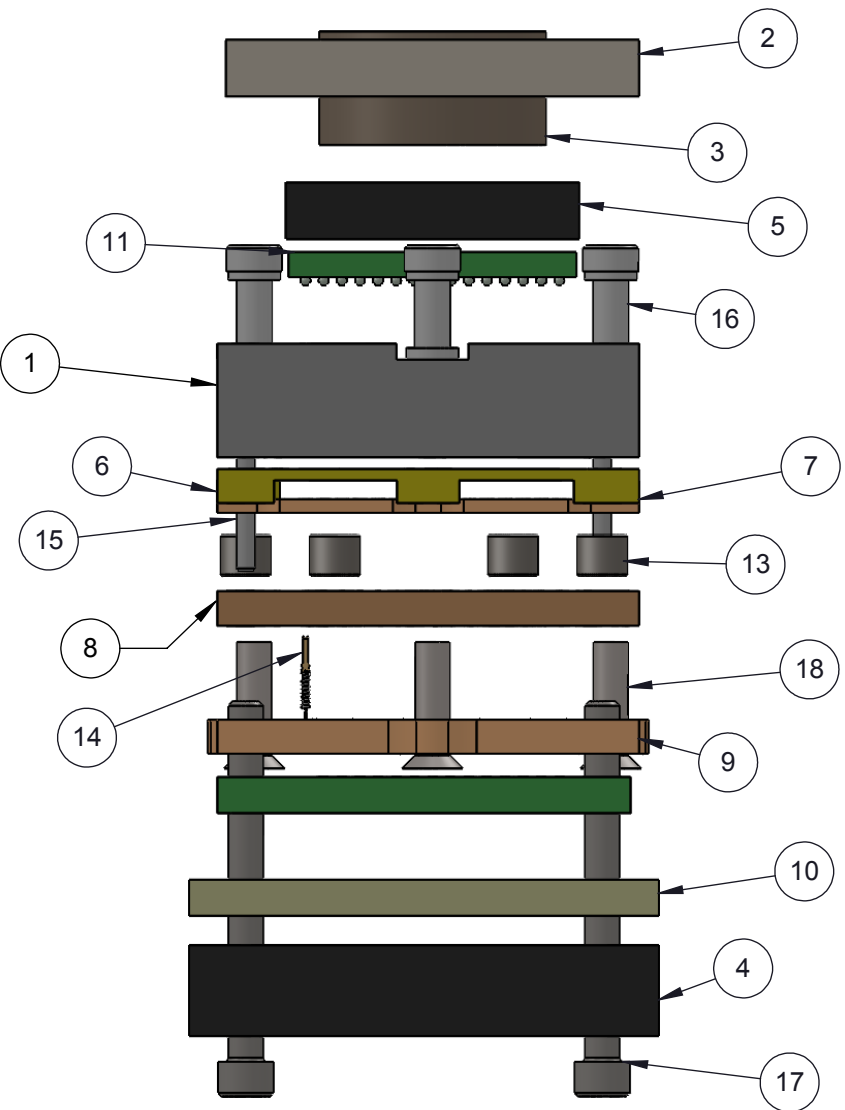
DIM	Minimum	Maximum
A		3.25
A1	0.16	0.40
b	0.25	0.55
D	13.0 BSC	
E	13.0 BSC	
e	0.8 BSC	

Description: 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.

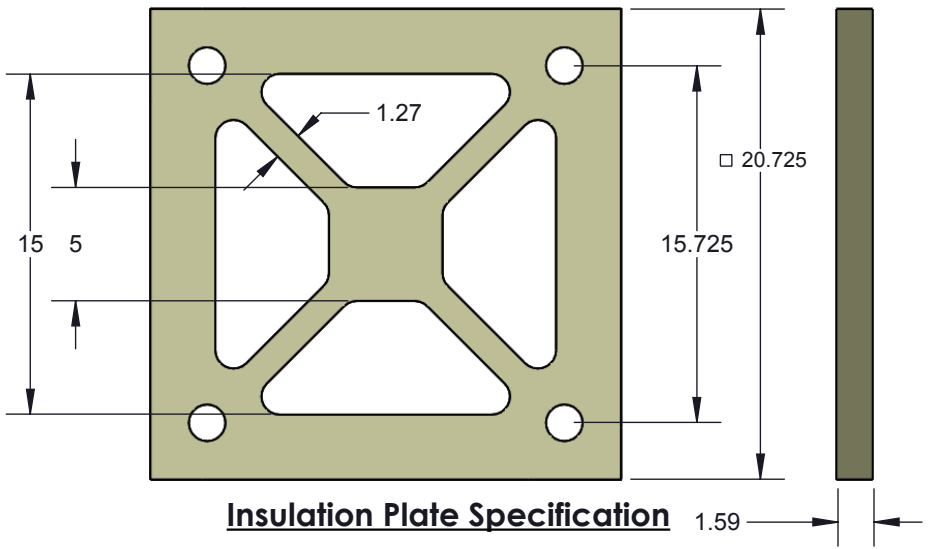
 SBT-BGA-6503 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 15.01	STATUS: Released ENG: V. Panavala FILE: SBT-BGA-6503	SHEET: 3 OF 5 DRAWN BY: V. Panavala DATE: 5/29/14	REV. C SCALE: 5:1



ITEM NO.	Description	Material
1	Socket Base, SBT-BGA 13 X 13; 0.375 shift	7075-T6 Aluminum Alloy
2	SBT Ni plt socket lid 13mm	7075-T6 Aluminum Alloy
3	Compression Screw M10	7075-T6 Alumium Alloy
4	Backing Plate 13 X 13	7075-T6 Aluminum Alloy
5	Compression Plate, 12.95 X 12.95	7075-T6 Aluminum Alloy
6	SBT-BGA IC guide 13x13mm	Torlon 4203
7	Floating Guide - 15x15 array, 0.8mm pitch, 0.375 shift	Semitron MDS 100
8	Middle Pogo Guide - 15x15 , 0.8mm pitch, 0.375 shift	Semitron MDS 100
9	Bottom Pogo Guide - 15x15 array, 0.8mm pitch, 0.375 shift	Semitron MDS 100
10	Insulation Plate	FR4
11	Test CHIP 15x15 array, 0.8mm pitch	FR4 High temp
12	Target PCB 15x15 array, 0.8mm pitch	FR4 High temp
13	Floating Guide Spring	Alloy Steel (SS)
14	SBT Pin, SBT-BGA 0.5mm-0.8mm	
15	Dowel Pin, 1/32" x 3/8", SS	Chrome Stainless Steel
16	#0-80 Shoulder Screw, 0.062" thread length	Stainless Steel (303)
17	#0-80 X .625 LG, SOC HD CAP SCREW, ALLOY STL, BLK OXIDE	Alloy Steel
18	#0-80, 90 deg., head pin guide screw, Peek material 5.5715mm overall Length	PEEK unfilled




Pin Detail Scale 16:1



Insulation Plate Specification

Description: Socket Material Info

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.


 SBT-BGA-6503 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 15.01	STATUS: Released ENG: V. Panavala FILE: SBT-BGA-6503	SHEET: 4 OF 5 DRAWN BY: V. Panavala DATE: 5/29/14	REV. C SCALE: 3:1
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Rev	Date	Initials	Description
A	05/29/14	VP	Original
B	12/23/14	DH	Changed IC Guide material from Ultem to tordon
C	2/27/15	RP/MR	P-P196A was P-P149A, R3200 was R1391

Description: Revision

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>SBT-BGA-6503 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>Material: Finish: Weight:</p>	STATUS: Released	SHEET: 5 OF 5	REV. C
		ENG: V. Panavala	DRAWN BY: V. Panavala	SCALE: 3:1
		FILE: SBT-BGA-6503	DATE: 5/29/14	