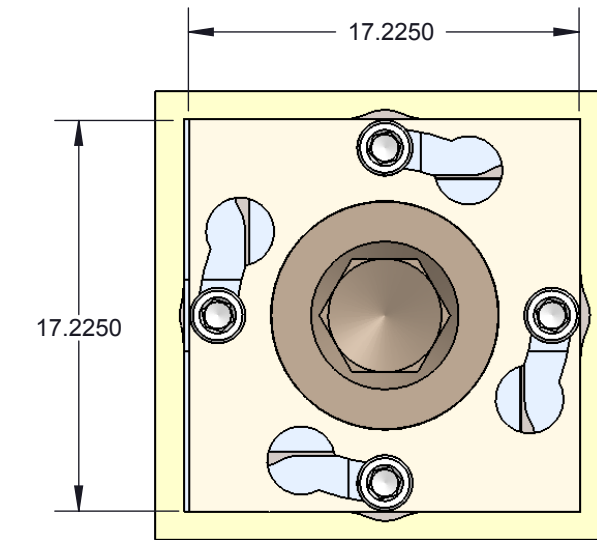


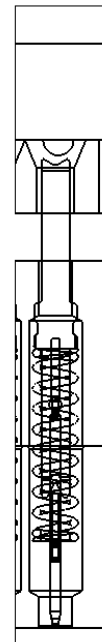
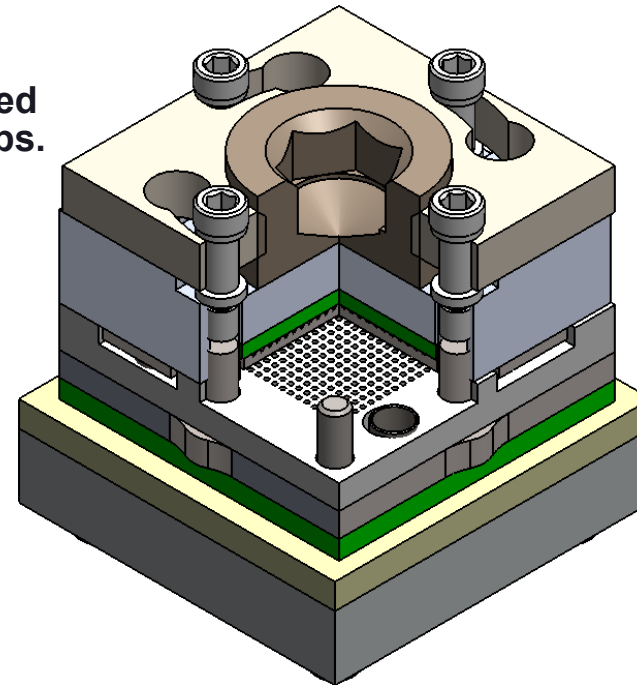
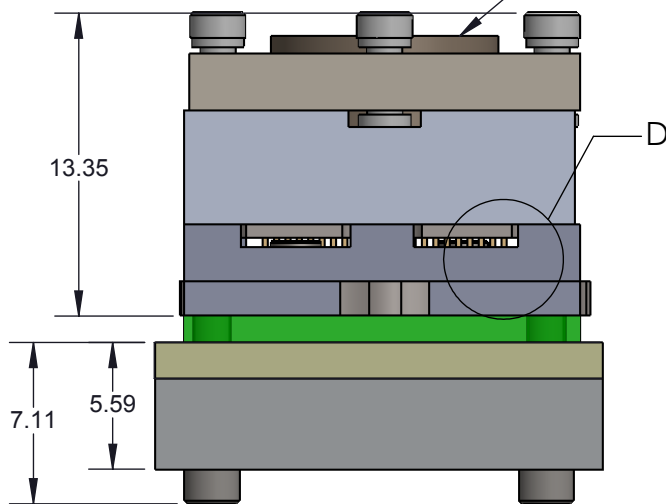
SBT-BGA DIRECT MOUNT, SOLDERLESS SOCKET FOR BURN-IN AND TEST APPLICATIONS

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.**



**DETAIL D
SCALE 16 : 1**

Description: SBT-BGA Socket, 12 X 12, 0.5mm, 22 X 22 Array

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-7000 Drawing



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

Material: Material <not specified>
Finish:
Weight: 13.02

STATUS: Released

ENG: V. Panavala

FILE: SBT-BGA-7000

SHEET: 1 OF 5

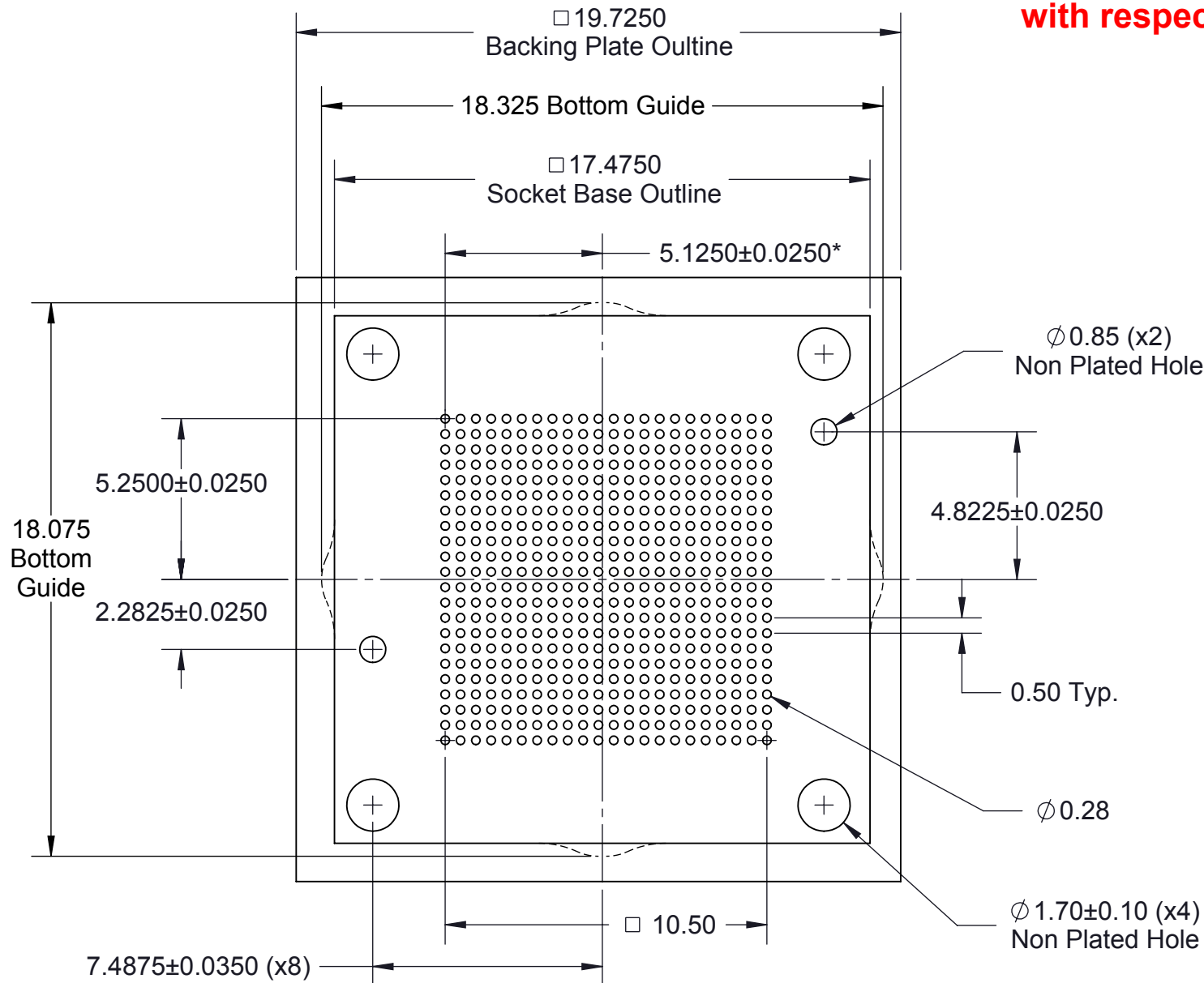
DRAWN BY: V. Panavala

DATE: 11/12/10

REV. G

SCALE: 3:1

***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.

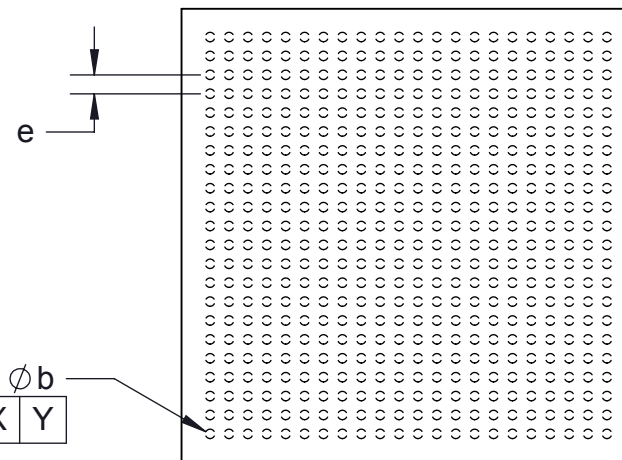
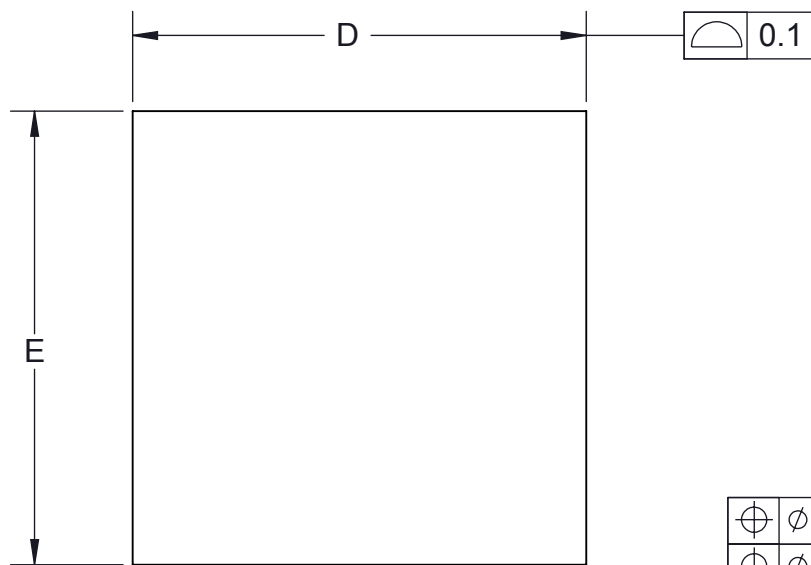
Target PCB Recommendations

Total thickness: 1.6mm min.

Plating: Gold or Solder finish

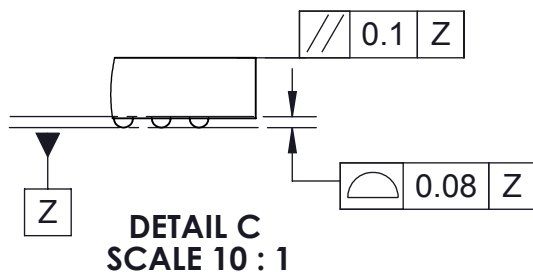
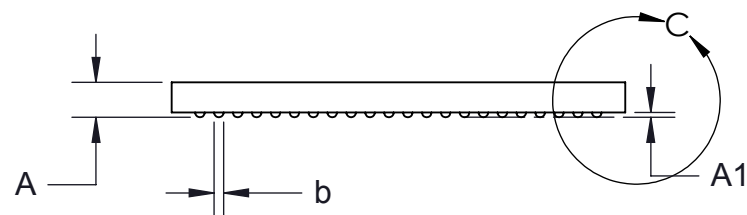
PCB Pad height: Same or higher than solder mask

SBT-BGA-7000 Drawing		Material: Material <not specified>	STATUS: Released	SHEET: 2 OF 5	REV. G
	Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Finish:	ENG: V. Panavala	DRAWN BY: V. Panavala	SCALE: 5:1
		Weight: 13.02	FILE: SBT-BGA-7000	DATE: 11/12/10	



$\oplus$	ϕ 0.05	Z	X	Y
$\oplus$	ϕ 0.05	Z		

22x22 Full Array



Ironwood package code: BGA484M

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	0.2	0.4
b	0.25	0.4
D	12.0 BSC	
E	12.0 BSC	
e	0.5 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-7000 Drawing



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

Material: Material <not specified>
Finish: none
Weight: 0.12

STATUS: Released

ENG: V. Panavala

FILE: SBT-BGA-7000

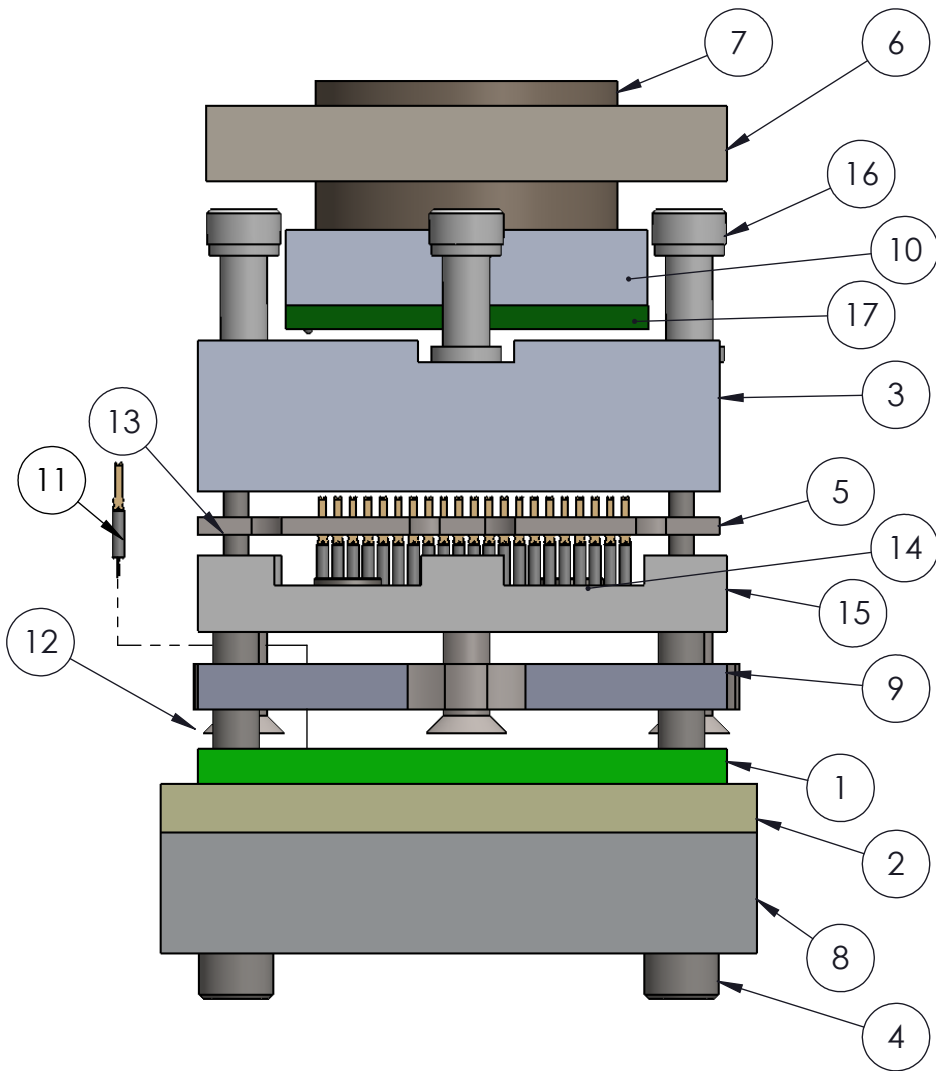
SHEET: 3 OF 5

DRAWN BY: V. Panavala

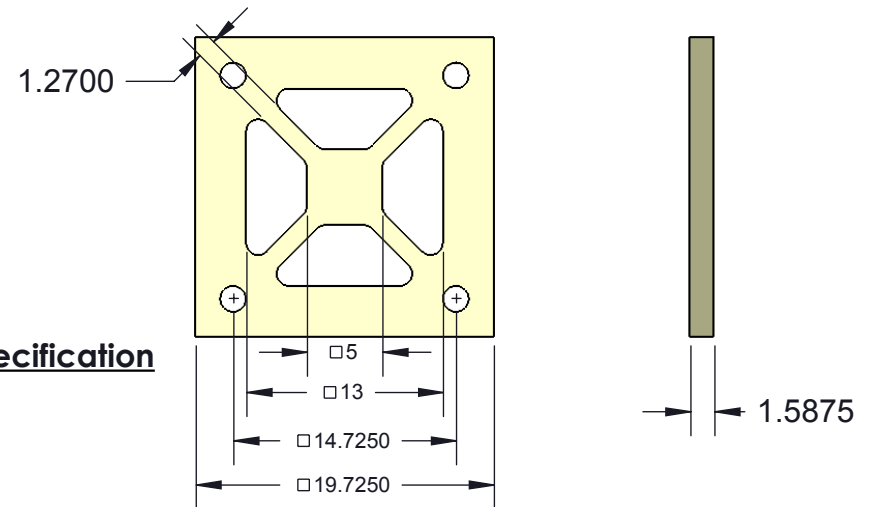
DATE: 11/12/10

REV. G

SCALE: 5:1



ITEM NO.	Description	Material
1	Target PCB 0.5mm pitch 22x22 array	Material <not specified>
2	Insulation Plate	FR4 High temp
3	SBT Socket Base 12mm Ni plated 0.25mm shift	7075-T6 Aluminuim
4	#0-80 x 0.5, SH Cap Screw	Alloy Steel
5	Floating Guide 12x12mm 0.5mm pitch 22x22 array	PEEK Ceramic filled
6	SBT Nickel plated socket Lid, 12x12mm	7075-T6 Aluminum Alloy
7	Compression Screw M10	7075-T6 Alumium Alloy
8	SBT/CBT Ni Plated 12mm Backing Plate	7075-T6, Plate (SS)
9	Bottom Guide 12mm 0.5mm pitch 22x22 array	PEEK Ceramic filled
10	Compression Plate	7075-T6 Aluminum Alloy
11	SBT Pin, SBT-BGA 0.5mm-0.8mm	
12	#0-80, 90 deg., head pin guide screw, Peek material 5.5715mm overall Length	PEEK unfilled
13	Dowel pin, 1/32" X 1/4", SS	Stainless Steel (18-8)
14	Floating Guide Spring	Alloy Steel (SS)
15	Middle Pogo Guide 12x12mm 0.5mm pitch 22x22 array	PEEK Ceramic filled
16	#0-80 Shoulder Screw, 0.062" thread length	Stainless Steel (303)
17	BGA with 484 pin with 0.5mm Pitch	Material <not specified>



Insulation Plate Specification

Description: Socket Material Info

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-7000 Drawing



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

Material: Material <not specified>
Finish:
Weight: 13.02

STATUS: Released
ENG: V. Panavala
FILE: SBT-BGA-7000

SHEET: 4 OF 5
DRAWN BY: V. Panavala
DATE: 11/12/10

REV. G
SCALE: 1:1

Rev	Date	Initials	Description
A	11/12/10	VP	Original
B	11/16/10	MT	Updated part
C	01/11/12	MT/MR	Replaced M2717 with M2630
D	07/17/13	DH	Skipped rev
E	07/17/13	DH	Replaced M2716 with M1082
F	02/19/14	DH	Changed current rating of pin
G	3/11/15	RP/MR	Changed spring pin and guides to new design. Changed dowel pin protrusion length. Contact Ironwood for details.

Description: Modifications

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.

without notice.					
SBT-BGA-7000 Drawing		Material: Finish: Weight:	STATUS: Released	SHEET: 5 OF 5	REV. G
	Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com		ENG: V. Panavala	DRAWN BY: V. Panavala	SCALE: 1:1
			FILE: SBT-BGA-7000	DATE: 11/12/10	