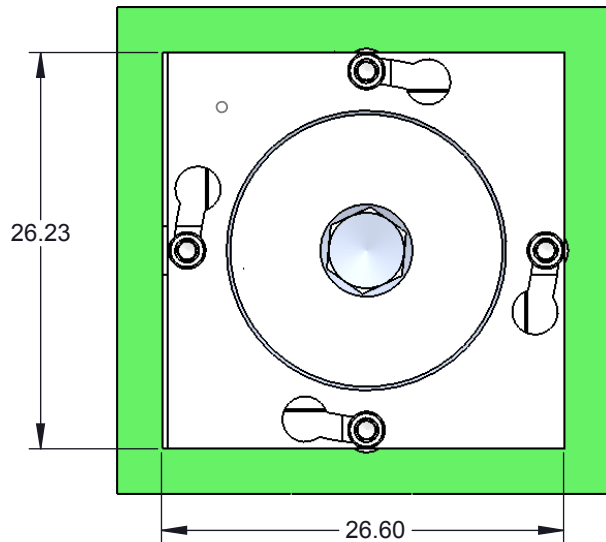
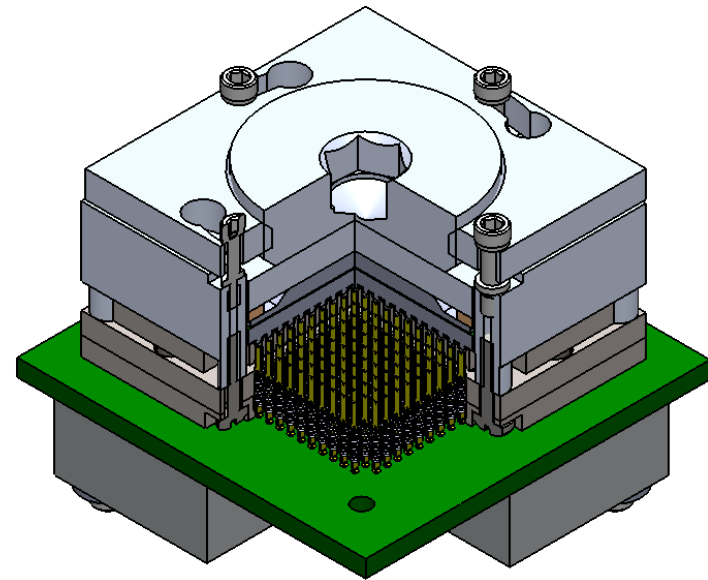
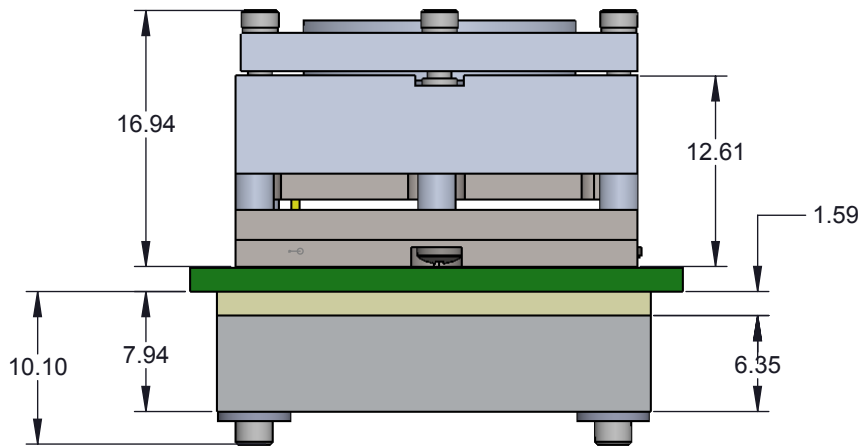


SBT-BGA DIRECT MOUNT, SOLDERLESS SOCKET FOR BURN-IN AND TEST APPLICATIONS



Features

- Wide temperature range (-55C to +180C).
- High current capability (up to 8A).
- Excellent signal integrity at high frequencies.
- Low and stable contact resistance for reliable production yield.
- Highly compliant to accommodate wide IC package co-planarity variations.
- Easily removable swivel lid



Recommended torque = 3 in-lbs onto compression screw

Description: SBT-BGA396, 21x21mm, 20x20 array 1.0mm pitch

Primary dimension units are millimeters, Secondary dimension units are [inches].

Tolerances: diameters $\pm 0.03\text{mm}$ [± 0.001 "], PCB perimeters $\pm 0.13\text{mm}$ [± 0.005 "], PCB thicknesses $\pm 0.18\text{mm}$ [± 0.007 "], pitches (from true position) $\pm 0.08\text{mm}$ [± 0.003 "], all other tolerances $\pm 0.13\text{mm}$ [± 0.005 "] unless stated otherwise. Materials and specifications are subject to change without notice.

SBT-BGA-6024 Drawing

STATUS: Released

SHEET 1 OF 6

REV. A



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

WEIGHT: 38.26
MATERIAL: N/A
FINISH: N/A

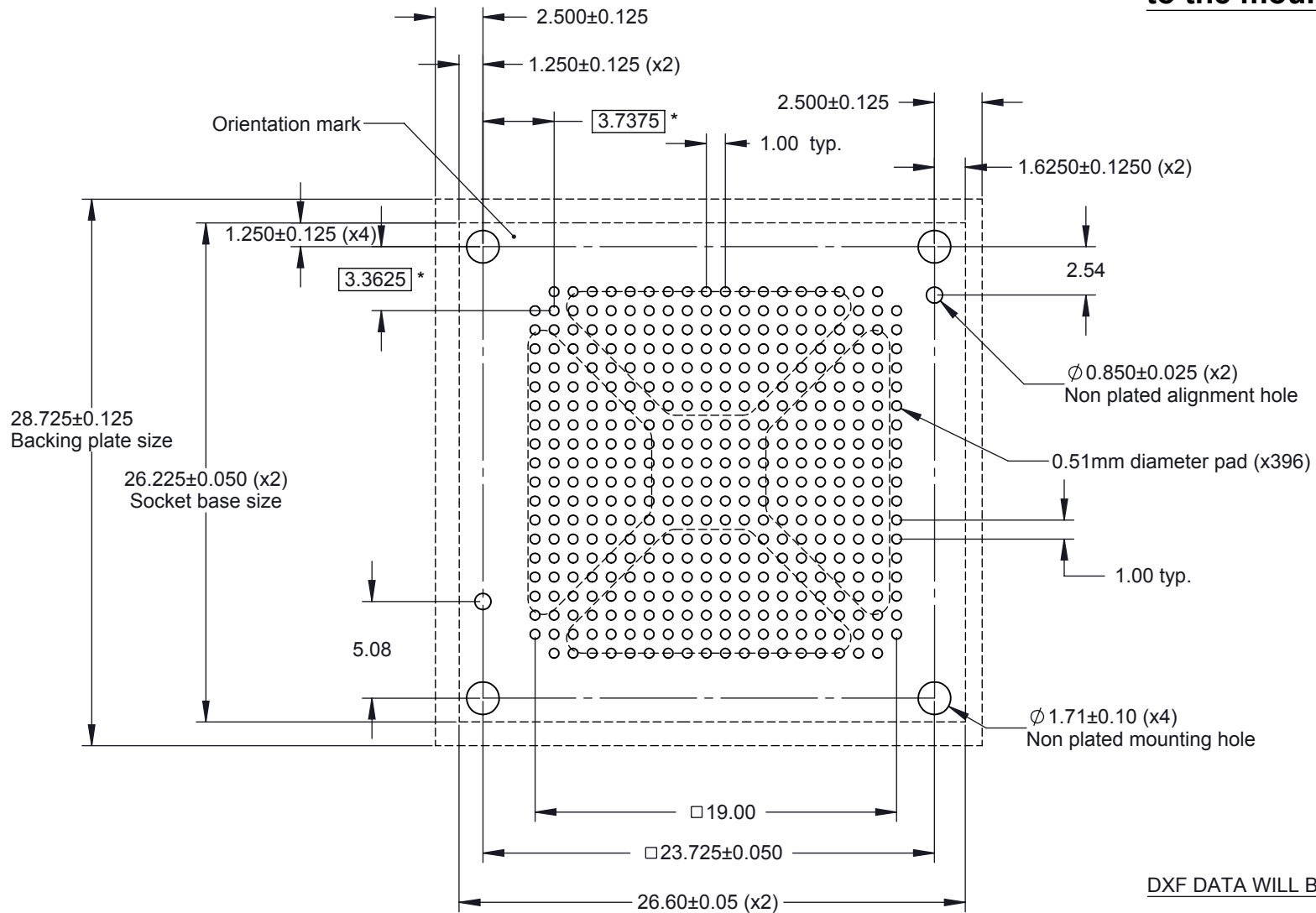
DRAWN BY: S. Huang

SCALE: 2:1

File: SBT-BGA-6024

DATE: 3/20/2012

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



DXF DATA WILL BE PROVIDED

Target PCB Recommendations
 Total thickness: 1.6mm min.
 Plating: Gold or Solder finish

Description: Recommended PCB layout

Primary dimension units are millimeters, Secondary dimension units are [inches].
 Tolerances: diameters $\pm 0.03\text{mm}$ [$\pm 0.001"$], PCB perimeters $\pm 0.13\text{mm}$ [$\pm 0.005"$], PCB thicknesses $\pm 0.18\text{mm}$ [$\pm 0.007"$], pitches (from true position) $\pm 0.08\text{mm}$ [$\pm 0.003"$], 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-6024 Drawing

STATUS: Released

SHEET 2 OF 6

REV. A



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

WEIGHT: 38.26
 MATERIAL: N/A
 FINISH: N/A

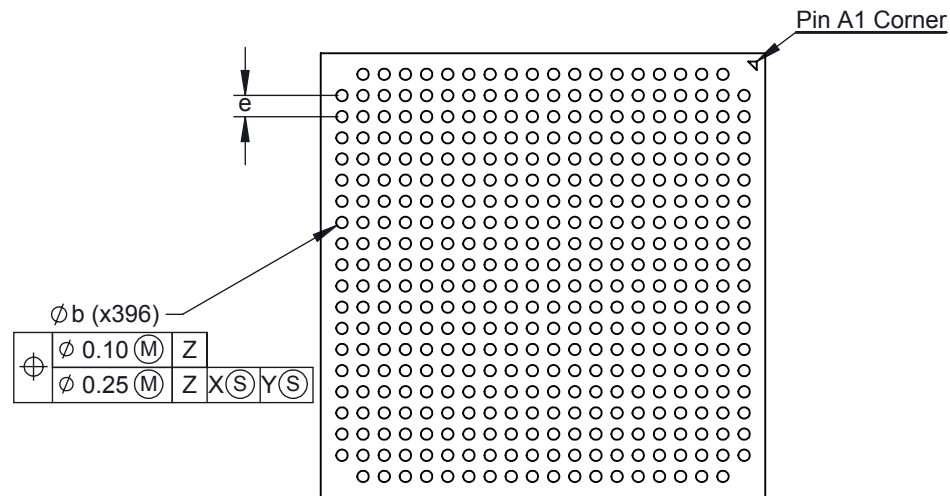
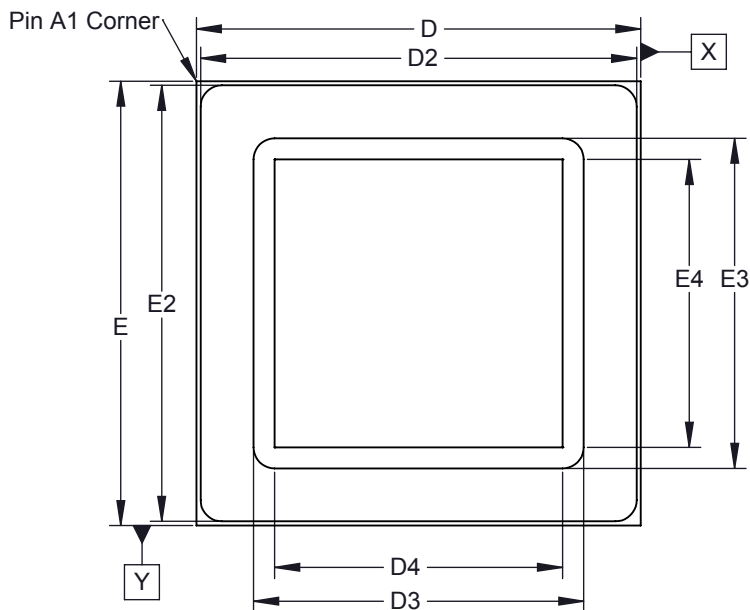
DRAWN BY: S. Huang

SCALE: 3:1

File: SBT-BGA-6024

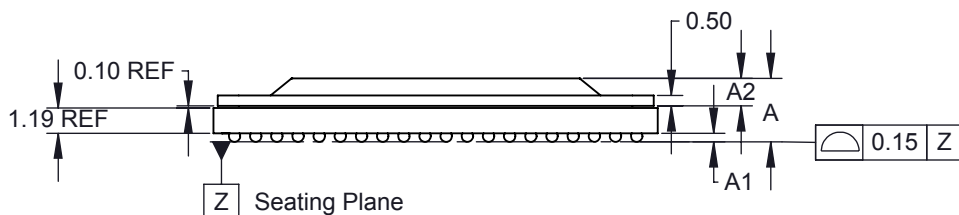
DATE: 3/20/2012

Ironwood Package Code: BGA396C1



Bottom View

Top View



Side View

DIM	MIN	MAX
A		3.25
A1	0.36	0.46
A2	1.25	1.35
b	0.44	0.64
D	20.90	21.10
D2	20.55	20.65
D3	15.6 REF	
D4	13.55	13.65
E	20.90	21.10
E2	20.55	20.65
E3	15.6 REF	
E4	13.55	13.65
e	1.0	

Array: 20x20

Dimensions are in millimeters.

1. Interpret dimensions and tolerances per ASME Y14.5M-1994.
2. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.
3. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
4. 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].

Tolerances: diameters $\pm 0.03\text{mm}$ [± 0.001 "], PCB perimeters $\pm 0.13\text{mm}$ [± 0.005 "], PCB thicknesses $\pm 0.18\text{mm}$ [± 0.007 "], pitches (from true position) $\pm 0.08\text{mm}$ [± 0.003 "], all other tolerances $\pm 0.13\text{mm}$ [± 0.005 "] unless stated otherwise. Materials and specifications are subject to change without notice.

SBT-BGA-6024 Drawing

STATUS: Released

SHEET 3 OF 6

REV. A



Ironwood Electronics, Inc.
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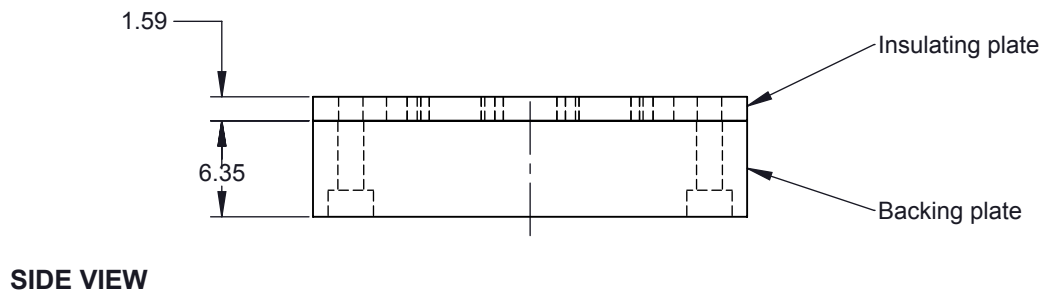
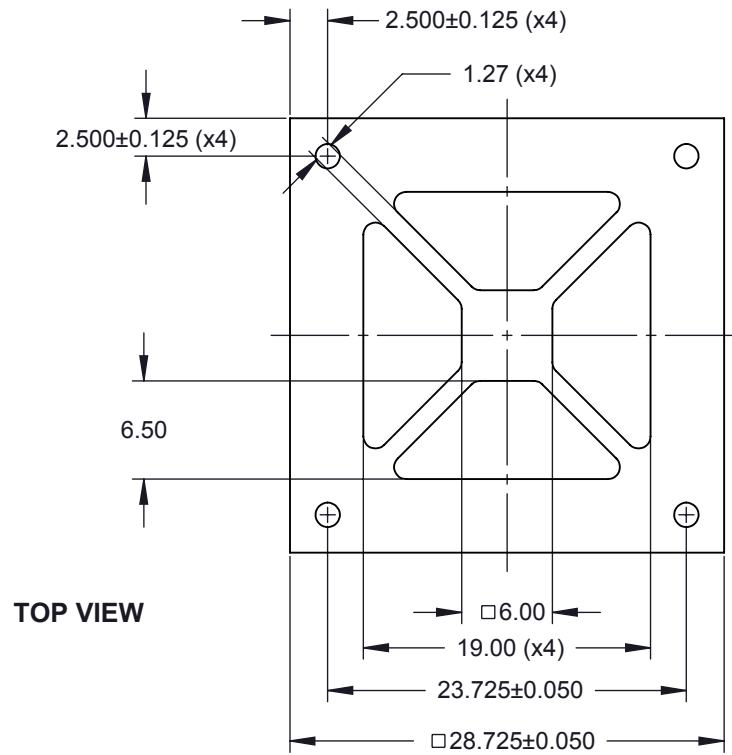
WEIGHT: 38.26
MATERIAL: N/A
FINISH: N/A

DRAWN BY: S. Huang

SCALE: 2.8:1

File: SBT-BGA-6024

DATE: 3/20/2012



Description: Backing Plate

Primary dimension units are millimeters, Secondary dimension units are [inches].

Tolerances: diameters $\pm 0.03\text{mm}$ [± 0.001 "], PCB perimeters $\pm 0.13\text{mm}$ [± 0.005 "], PCB thicknesses $\pm 0.18\text{mm}$ [± 0.007 "], pitches (from true position) $\pm 0.08\text{mm}$ [± 0.003 "], all other tolerances $\pm 0.13\text{mm}$ [± 0.005 "], unless stated otherwise. Materials and specifications are subject to change without notice.

SBT-BGA-6024 Drawing

STATUS: Released

SHEET 4 OF 6

REV. A



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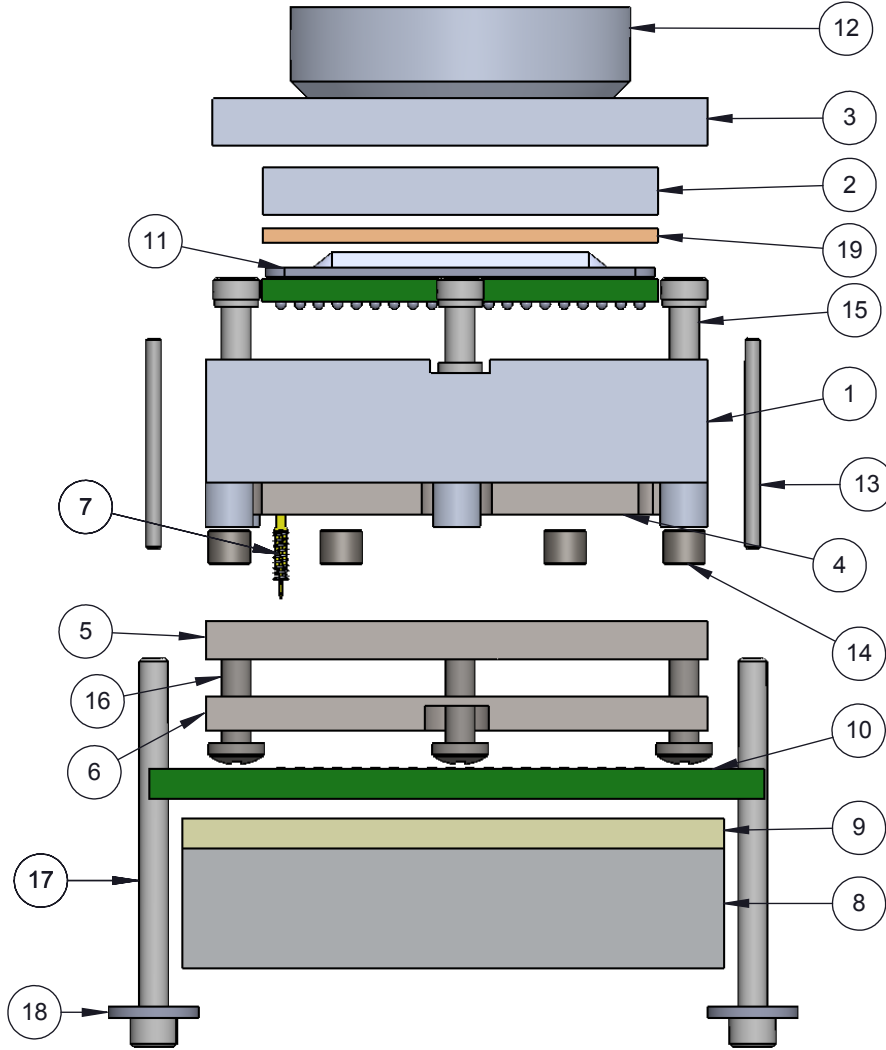
WEIGHT: 38.26
MATERIAL: N/A
FINISH: N/A

DRAWN BY: S. Huang

SCALE: 1:1

File: SBT-BGA-6024

DATE: 3/20/2012



ITEM NO.	DESCRIPTION	Material
1	SBT socket base for 21x21mm IC 0.375mm shift	7075-T6 Aluminum Alloy
2	Compression PLate, 20.95 X 20.95	7075-T6 Aluminum Alloy
3	SBT socket lid for 21mm IC	7075-T6 Aluminum Alloy
4	Floating Guide 20x20 array 1mm pitch	PEEK Ceramic filled
5	Middle Guide 20x20 array 1mm pitch	PEEK Ceramic filled
6	Bottom Guide 20x20 array 1mm pitch	PEEK Ceramic filled
7	Pogo Pin, 1mm Pitch SBT BGA pin	
8	CBT/SBT Backing plate 21mm Ni plated	7075-T6, Plate (SS)
9	Insulation plate, 21x21mm IC	High Temp FR4
10	Customer's target PCB for 21x21mm, 20x20 array 1mm pitch BGA396	FR4
11	BGA 21x21mm 20x20 1mm Pitch	Material <not specified>
12	Compression Screw, M18	7075-T6 Aluminum Alloy
13	Dowel Pin, 1/32" dia, 7/16" Long, 18-8 SS	Chrome Stainless Steel
14	Floating Guide Spring	Alloy Steel (SS)
15	#0-80 Shoulder Screw, 0.062" thread length	Stainless Steel (303)
16	Screw, #0-80 x .25", Pan, SS	Material <not specified>
17	#0-80 X .75 LG, SOC HD CAP SCREW, 18-8 SS	Stainless Steel (18-8)
18	Washer, #0 x .025", Nylon	Nylon 6/6
19	IC Frame for 21mm IC	Ultem 1000



SBT Pin 10:1 scale

Description: Socket detail, Pin

Primary dimension units are millimeters, Secondary dimension units are [inches].

Tolerances: diameters $\pm 0.03\text{mm}$ [± 0.001 "], PCB perimeters $\pm 0.13\text{mm}$ [± 0.005 "], PCB thicknesses $\pm 0.18\text{mm}$ [± 0.007 "], pitches (from true position) $\pm 0.08\text{mm}$ [± 0.003 "], all other tolerances $\pm 0.13\text{mm}$ [± 0.005 "] unless stated otherwise. Materials and specifications are subject to change without notice.

SBT-BGA-6024 Specification

STATUS: Released

SHEET 5 OF 6

REV. A



Ironwood Electronics, Inc.
 Tele: (800) 404-0204
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Material: N/A
 Finish: N/A
 Weight: 38.26

DRAWN BY: S. Huang

SCALE: 2.5:1

File: SBT-BGA-6024

DATE: 3/20/2012

Rev	Date	Initials	Description
A	-	-	Original

DESCRIPTION: Modifications

Primary dimension units are millimeters, Secondary dimension units are [inches].
Tolerances: diameters $\pm 0.03\text{mm}$ [$\pm 0.001\text{"}]$, all other tolerances $\pm 0.13\text{mm}$ [$\pm 0.005\text{"}]$ unless stated otherwise.
Materials and specifications are subject to change without notice.

SBT-BGA-6024 Drawing

STATUS: Released

SHEET: 6 OF 6

REV. A



Ironwood Electronics, Inc.
Tele: (800) 404-0204
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WEIGHT:
MATERIAL:
FINISH:

DRAWN BY:

SCALE: 1:1

File: SBT-BGA-6024

DATE: 3/22/2012