# SBT-QFE144 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.



**DETAIL B** SCALE 16:1





SIDE VIEW

**SECTION A-A** 

# Description: SBT version of SG-QFE-7006

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.

SBI-QFE-3005 Drawing	Material: N/A			
Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Finish: N/A Weight: 42.24			



STATUS: Released	SHEET: 1 OF 5	REV. C
ENG: J. Vavra	DRAWN BY: M. Raske	SCALE: 2:1
FILE: SBT-QFE-3005 Dwg	DATE: 11/19/2014	

Note: QFP pattern is not symmetrical with repect to the mounting holes. It is shifted by 0.25mm to the right of center.



Target PCB Recommendations Total thickness: 1.5mm min. Plating: Gold or Solder finish

#### Description: Recommended PCB layout

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

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5	BT-QFE-3005 Drawing	Material: N/A	STATUS: Released	SHEET: 2 OF 5	REV. C
Δ	Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Finish: N/A Weight: 42.24	ENG: J. Vavra	DRAWN BY: M. Raske	SCALE: 3:1
			FILE: SBT-QFE-3005 Dwg	DATE: 11/19/2014	



## **Description:** Compatible IC

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.

S	BT-QFE-3005 Drawing	Material: N/A	STATUS: Released	SHEET: 3 OF 5	REV. C
	Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Finish: N/A Weight: 42.24	ENG: J. Vavra	DRAWN BY: M. Raske	SCALE: 4:1
$\odot$			FILE: SBT-QFE-3005 Dwg	DATE: 11/19/2014	



ITEM NO.	DESCRIPTION	Material
1	Socket Base	7075-T6 Alumium Alloy
2	Socket Lid, 25x25mm IC size	7075-T6 Aluminum Alloy
3	Backing Plate 25x25mm	7075-T6 Aluminum Alloy
4	Insualtion Plate 25x25mm IC	FR4
5	Dowel pin, 1/32" X 1/4", SS	Stainless Steel (18-8)
6	#0-80 Shoulder Screw, 2.29mm thread length	Stainless Steel (303)
7	Compression Screw, M18	7075-T6 Aluminum Alloy
8	#0-80 x 0.5, SH Cap Screw	Alloy Steel
9	Test Board QFE144 0.5mm pitch	FR4 High temp
10	Compression Plate	Ultem 1000
11	Bottom Guide, QFE144 0.5mm pitch	Semitron MDS 100
12	Floating Guide QFE144 0.5mm pitch	Semitron MDS 100
13	Tchip, QFP144 from Cadence for C13872	
14	Socket Base Frame QFE144 20x20mm	Torlon 4203
15	Floating Guide Spring	Alloy Steel (SS)
16	#0-80, 90 deg., head pin guide screw, Peek material	PEEK unfilled
17	Stamped Pin, 0.4mm SBT-LGA/QFN	N/A



## Description: Skt, Insulation Plate, Pin Det

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams. <u>Tolerances</u>; 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.

S	BT-QFE-3005 Drawing	Material: N/A	STATUS: Released	SHEET: 4 OF 5	REV. C
Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Finish: N/A Weight: 42.24	ENG: J. Vavra	DRAWN BY: M. Raske	SCALE: 1.5:1	
	www.ironwoodelectronics.com		FILE: SBT-QFE-3005 Dwg	DATE: 11/19/2014	



			Rev	Date	Initials	Description	
Description: Thermal Pad Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams. <u>Tolerances</u> ; 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.		Α	11/19/1	4 MR	Original		
			В	07/17/1	5 DH	Updated PCB layout page	
			C 8/21/15		5 MR	Updated to newer pogo pin: P-P184A	
SBT-QFE-3005 Drawing Material: N/A		STATUS: Released		S	SHEET: 5 OF 5		REV. C
Ironwood Electronics, Inc. Finish: N/A	ENG: J. Vavra		С	DRAWN BY: M. Raske		SCALE: 7:1	
www.ironwoodelectronics.com	TOUGHL TELET	FILE: SBT-QFE-3005 Dwg		C	DATE: 11/19/2014		