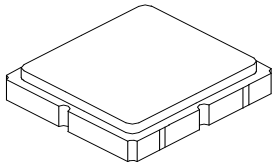
SF1184B-1

947.5 MHz SAW Filter

- ***RF Filter for GSM900***
- ***No Matching Circuit Required***
- ***3.0 x 3.0 x 1.3 mm Package***
- ***Complies with Directive 2002/95/EC (RoHS)***
- ***Moisture Sensitivity Level: 1***

RoHS Compliant



SM3030-6

Absolute Maximum Ratings

Rating	Value	Units
Maximum Input Power	+15	dBm
DC voltage between Terminals	-5 to +5	VDC
Operable Temperature Range	-45 to +125	°C
Specification Temperature Range	-30 to +85	°C

Electrical Characteristics

Characteristic		Sym	Notes	Min	Typ	Max	Units
Nominal Operating Frequency		f_C			947.5		MHz
Passband	Insertion Loss (935~960 MHz)	IL			2.7	3.5	dB
	Amplitude Ripple (935~960 MHz)				0.6	1.4	dB
Attenuation	D.C.~871 MHZ			50	62.1		dB
	890~915 MHZ			30	43.9		dB
	980~1025 MHZ			25	28.6		dB
	1025~2000 MHZ			45	54.1		dB
	2000~3000 MHZ			20	26.8		dB
VSWR (935~960 MHz)					1.6	2.3	dB
Temperature Coefficient					-36		ppm/°C
Impedance at Fc ; Input Z_{IN}					50		Ω
Output Z_{OUT}					50		Ω

Case Style	SM3030-6 3 x 3 mm Nominal Footprint
Lid Symbolization (Y=year, WW=week, S=Shift)	459, YWWS

Electrical Connections

Connection	Terminals
Input	2
Output	5
Ground	All others

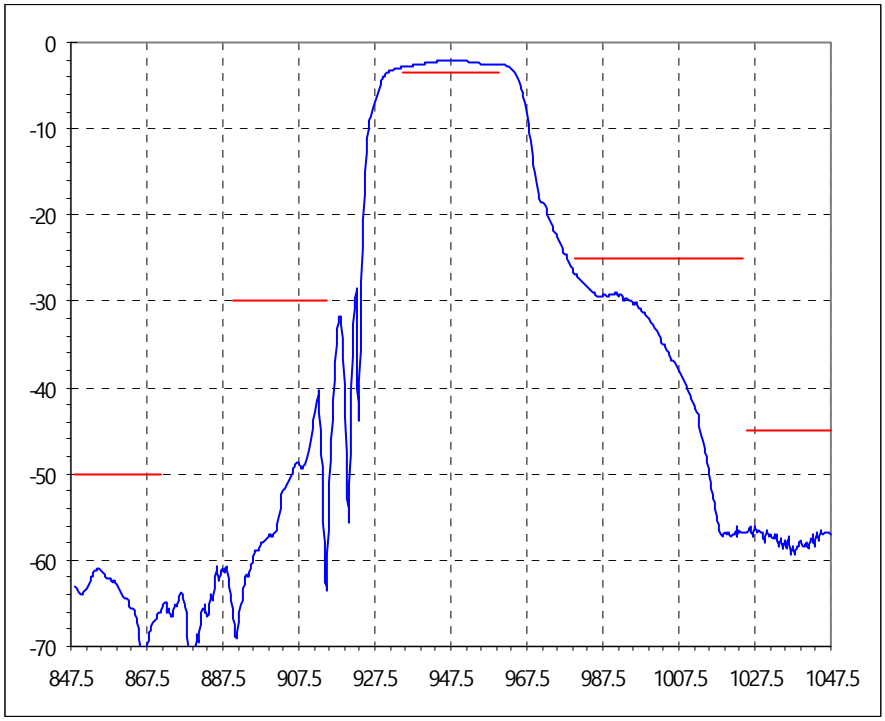
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

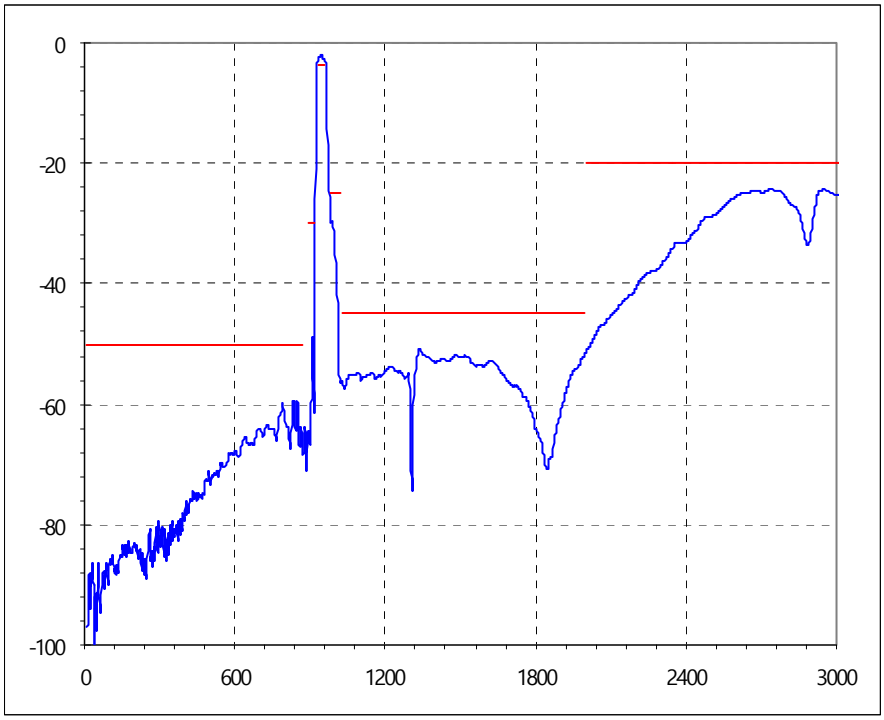
NOTES:

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

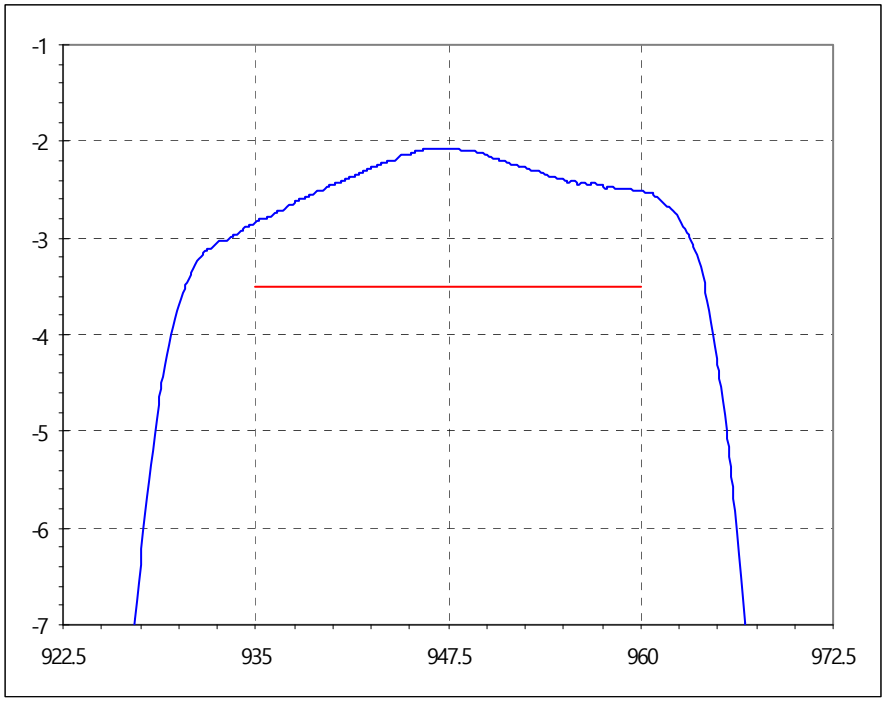
FREQUENCY CHRACTERISTICS:

1. wideband response:

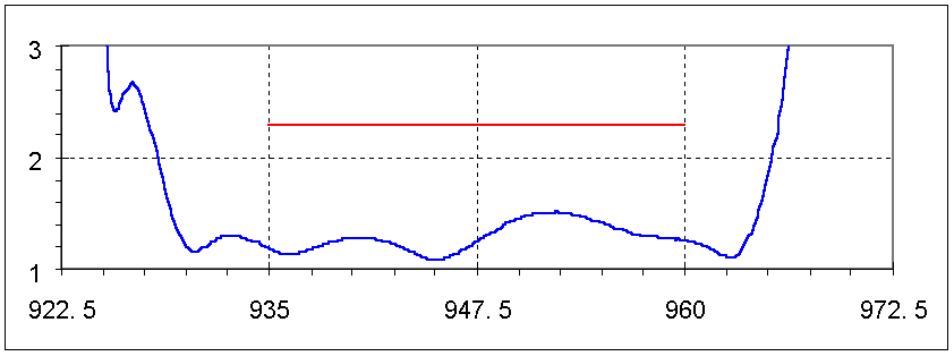




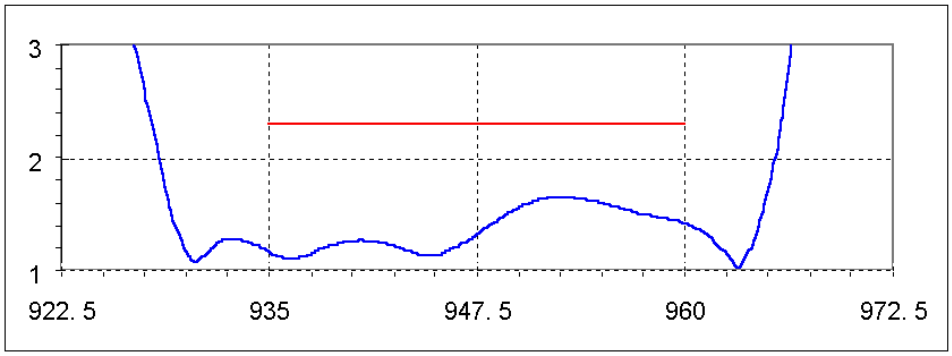
1. passband response:



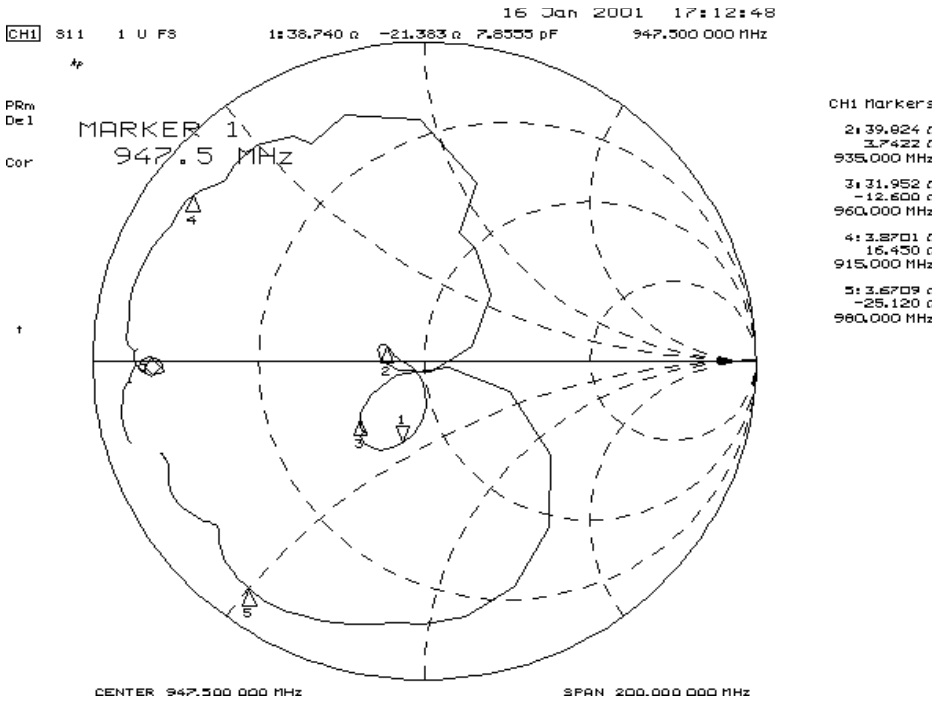
2. VSRW:



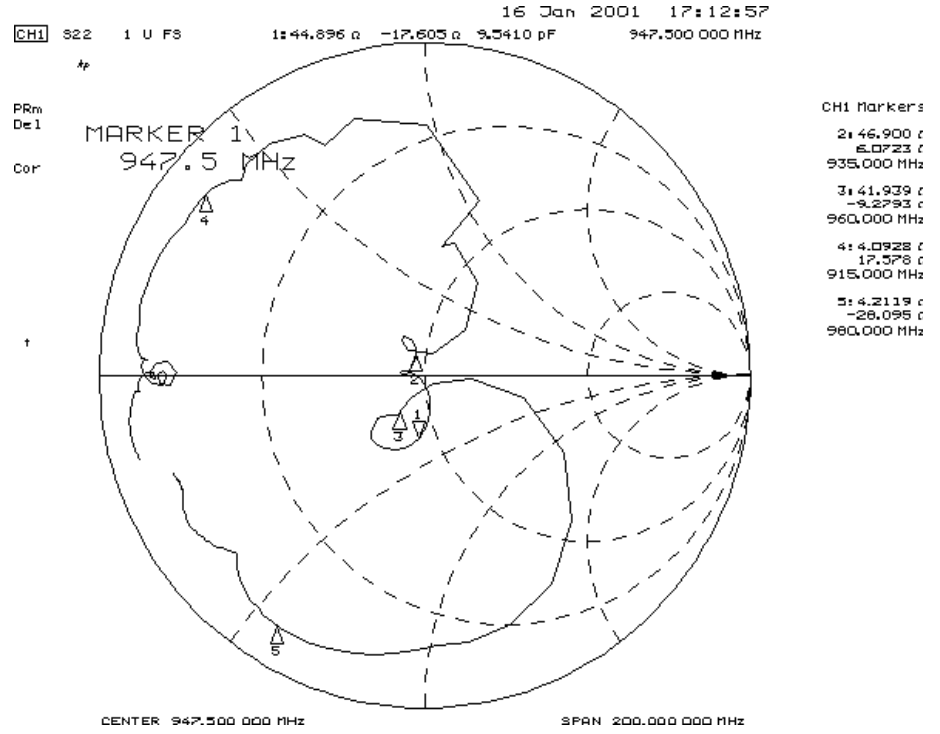
S22



3. Smith chart of S11:

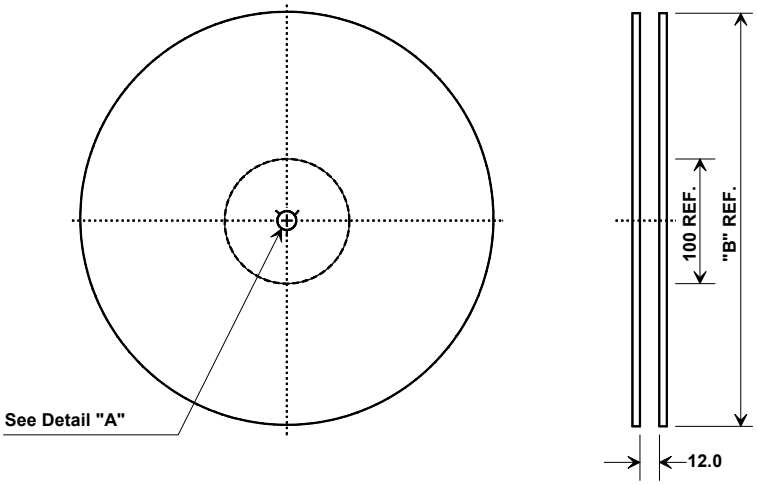


4. Smith chart of S22:

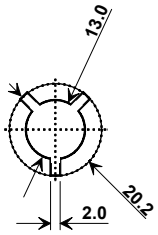


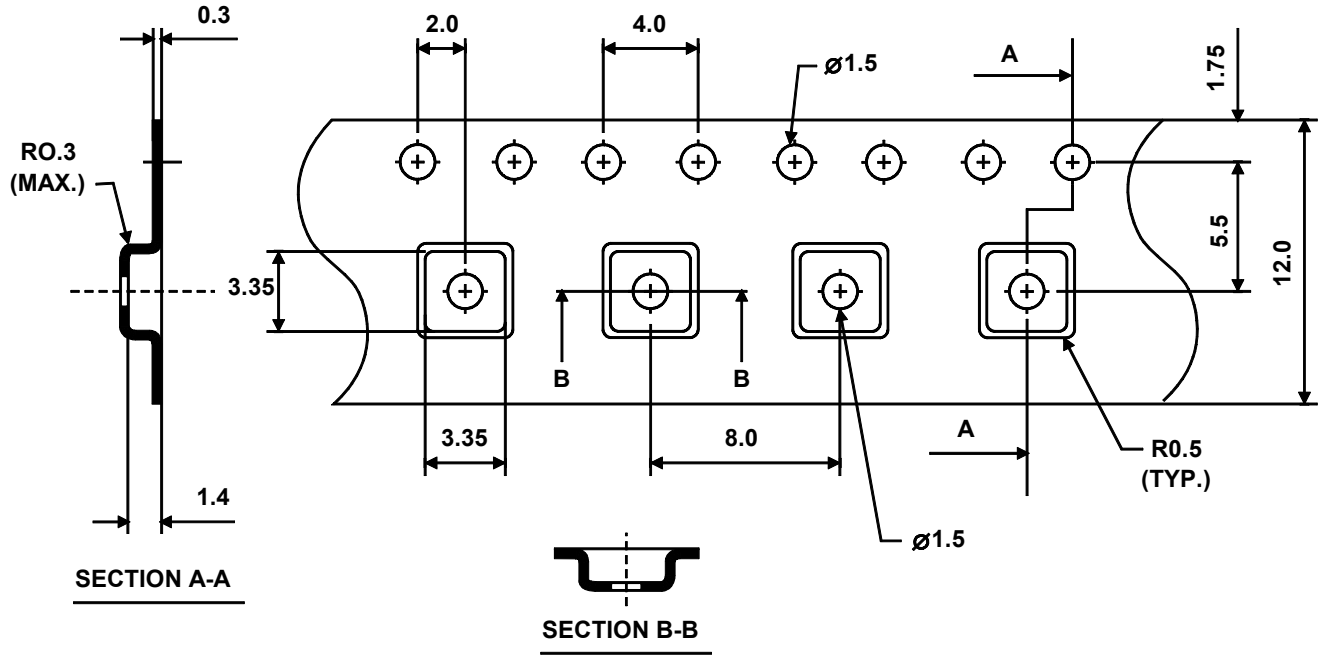
Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA-481



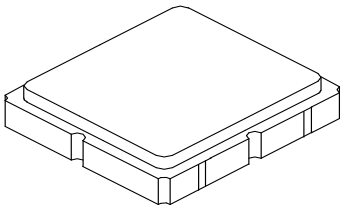
"B " Nominal Size		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000

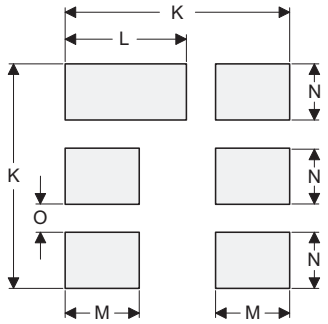




SM3030-6 Case

6-Terminal Ceramic Surface-Mount Case
3.0 X 3.0 mm Nominal Footprint





PCB FOOTPRINT

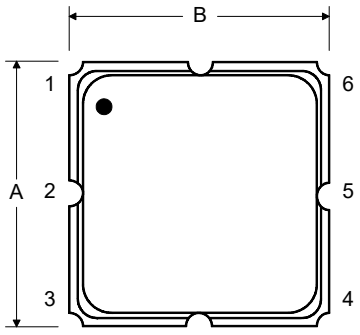
Case and PCB Footprint Dimensions

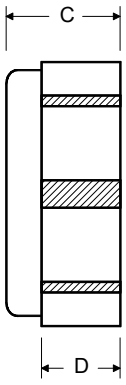
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.00	3.13	0.113	0.118	0.123
B	2.87	3.00	3.13	0.113	0.118	0.123
C	1.12	1.25	1.38	0.044	0.049	0.054
D	0.77	0.90	1.03	0.030	0.035	0.040
E	2.67	2.80	2.93	0.105	0.110	0.115
F	1.47	1.60	1.73	0.058	0.063	0.068
G	0.72	0.85	0.98	0.028	0.033	0.038
H	1.37	1.50	1.63	0.054	0.059	0.064
I	0.47	0.60	0.73	0.019	0.024	0.029
J	1.17	1.30	1.43	0.046	0.051	0.056
K		3.20			0.126	
L		1.70			0.067	
M		1.05			0.041	
N		0.81			0.032	
O		0.38			0.015	

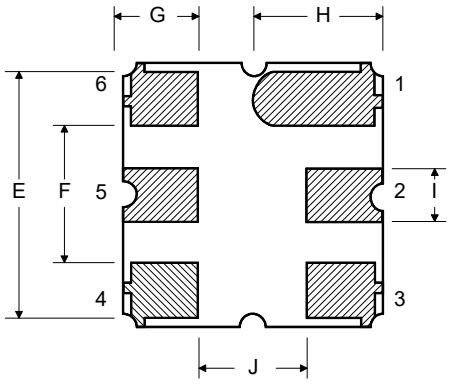
Case Materials	
Solder Pad Plating	0.3 to 1.0 µm Gold over 1.27 to 8.89 µm Nickel
Lid Plating	2.0 to 3.0 µm Nickel
Body	Al_2O_3 Ceramic
Pb Free	

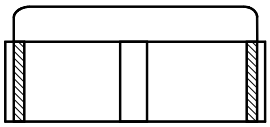
TOP VIEW

BOTTOM VIEW









Recommended Reflow Profile

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C+0/-5°C peak (10 seconds).
4. Time: 5 times maximum.