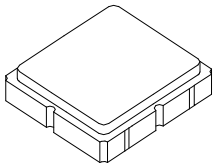
SF1184B

947.00 MHz SAW Filter

- ***RF Filter for Mobile Communication Applications***
- ***No Matching Circuit Required***
- ***3.0 x 3.0 x 1.3 mm Package***



SM3030-6

Absolute Maximum Ratings

Rating	Value	Units
Maximum Input Power	+10	dBm
DC voltage between Terminals	0	VDC
Case Temperature	-40 to +85	°C

Electrical Characteristics

Characteristic		Sym	Notes	Min	Typ	Max	Units
Nominal Operating Frequency		f_C			947.5		MHz
Passband	Insertion Loss across Fc+/ -12.5 MHz	IL			2.4	3.0	dB
	Amplitude Ripple p-p across Fc+/ -12.5 MHz				1.0	2.0	dB
Attenuation	10 - 890 MHZ			28	32		dB
	890 -915 MHZ			20	35		dB
	980 - 1025 MHZ			15	30		dB
	1025 - 2000 MHZ			30	34.5		dB
VSWR across Fc +/ -12.5 MHz					1.9	2.5	
Source impedance		Z_S			50		Ω
Load impedance		Z_L			50		Ω
Operating Temperature		T_A		-30		+85	°C

Case Style	SM3030-6 3 x 3 mm Nominal Footprint
Lid Symbolization (YY=year, WW=week)	RFM SF1184B YYWW

Electrical Connections

Connection	Terminals
Input	2
Output	5
Ground	All others

Notes:

1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50 Ω and measured with 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, fc.
3. Rejection is measured as attenuation below the minimum IL point in the passband. Rejection in final user application is dependent on PCB layout and external impedance matching design. See Application Note No. 42 for details.
4. "LRIP" or "L" after the part number indicates "low rate initial production" and "ENG" or "E" indicates "engineering prototypes."
5. The design, manufacturing process, and specifications of this filter are subject to change.
6. Either Port 1 or Port 2 may be used for either input or output in the design. However, impedances and impedance matching may vary between Port 1 and Port 2, so that the filter must always be installed in one direction per the circuit design.
7. US and international patents may apply.
8. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.
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10. Electrostatic Sensitive Device. Observe precautions for handling.

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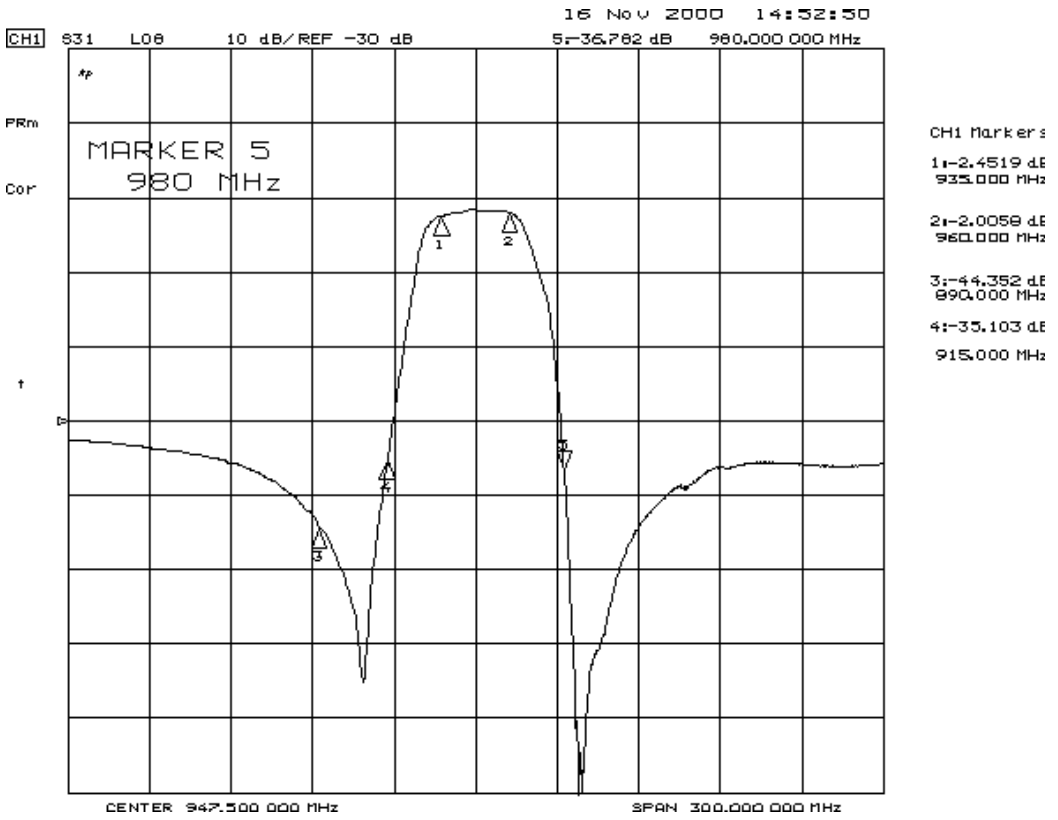
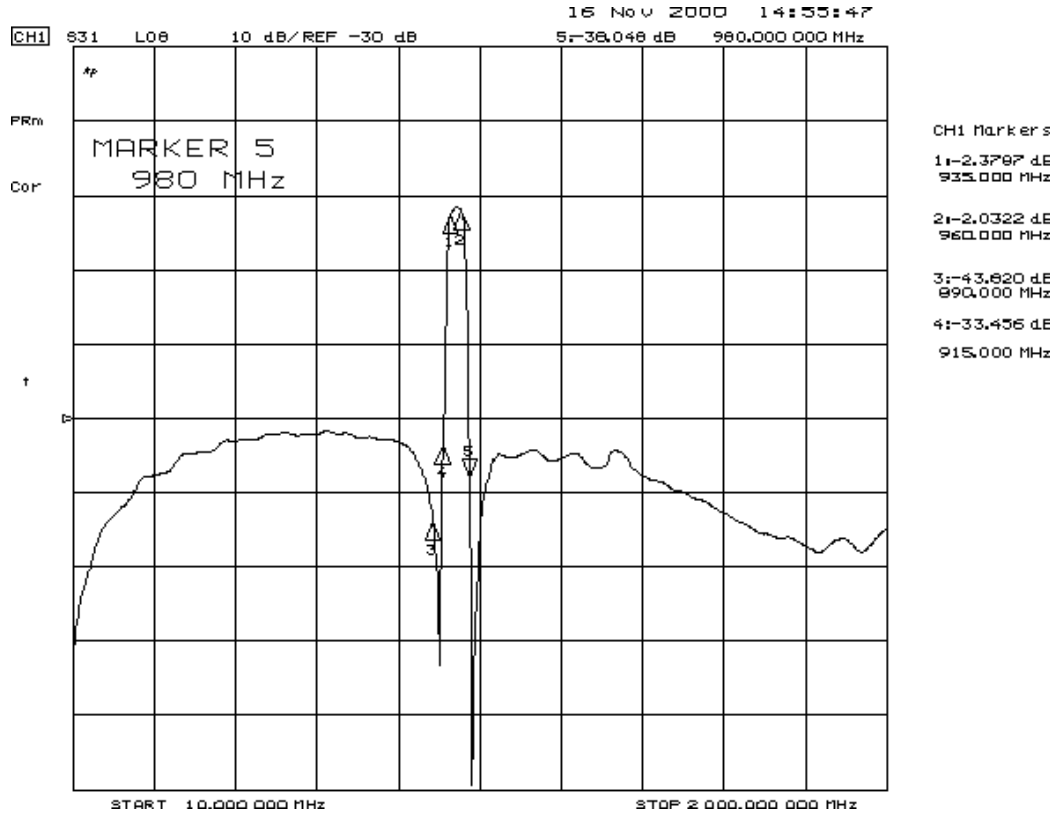
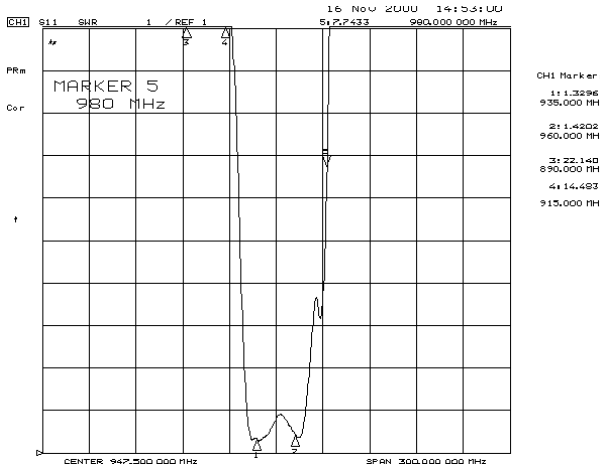
SF1184B Frequency Response Plots

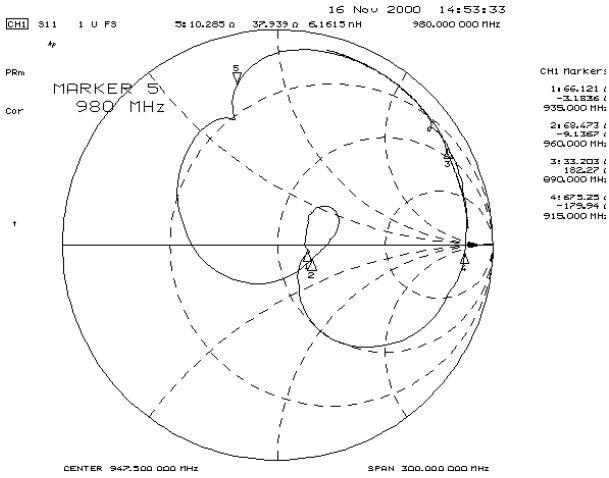




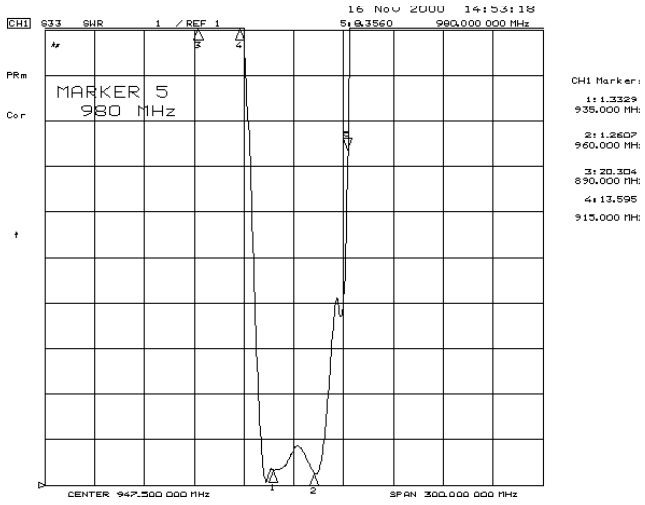
947.00 MHz SAW Filter

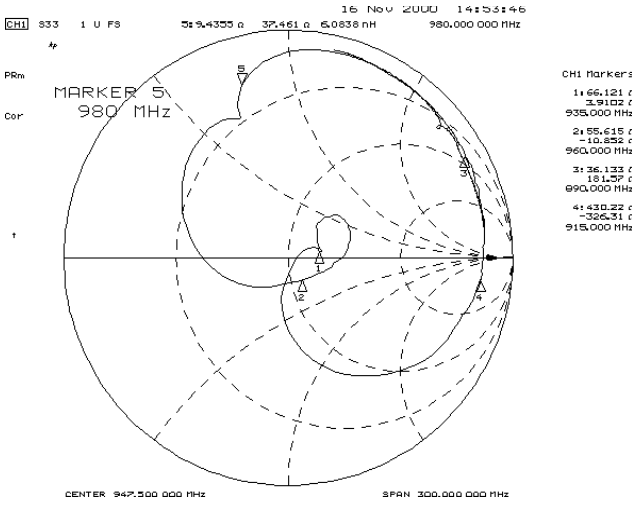
S11 VSWR



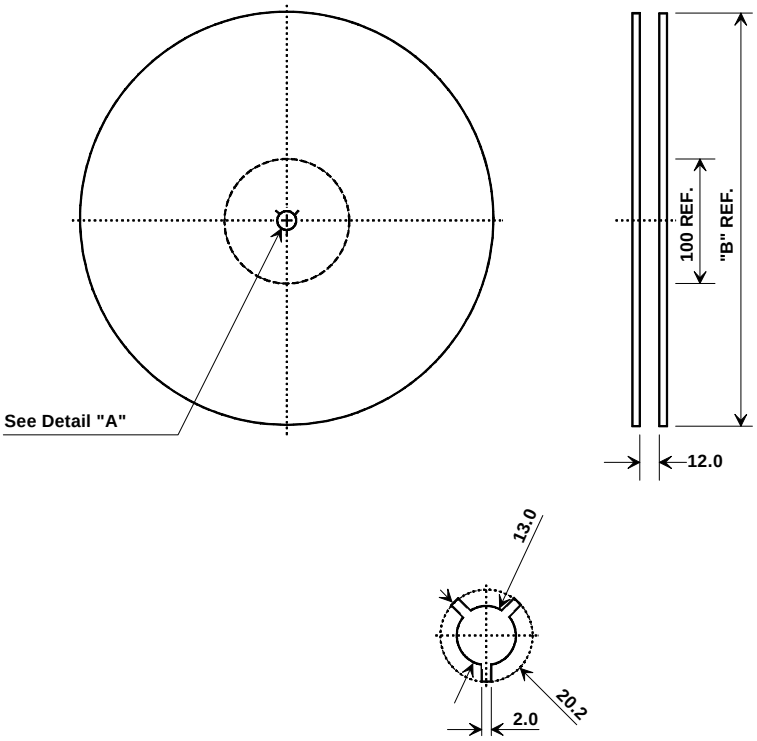


S22 VSWR





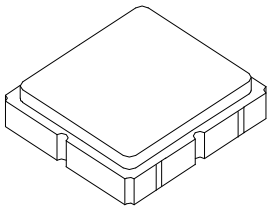
Tape and Reel Specifications



"B " Nominal Size		Quantity Per Reel	
Inches	millimeters	Min	Max
7	178	TBD	TBD
13	330	TBD	TBD

SM3030-6 Case

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



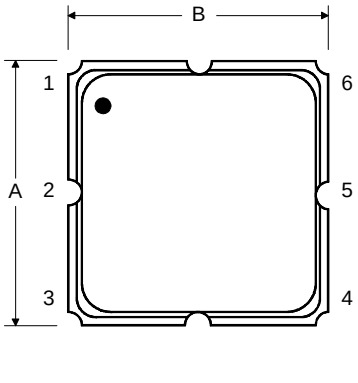
Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A		3.0			0.118	
B		3.0			0.118	
C		1.3			0.051	
D		0.9			0.035	
E		2.54			0.100	
F		1.6			0.063	
G		0.85			0.033	
H		1.5			0.059	
I		0.6			0.024	
J		1.3			0.051	

Electrical Connections

Connection		Terminals
Port 1	Single Ended Input	2
Port 2	Single Ended Output	5
	Ground	All others
Single Ended Operation Only		
Dot indicates Pin 1		

TOP VIEW



BOTTOM VIEW