



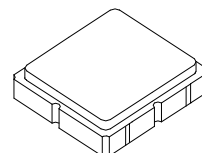
- **Designed for Front End GPS Applications**
- **Low Insertion Loss**
- **3.0 x 3.0 x 1.3 mm Surface-Mount Case**
- **No Matching Circuit Required**

Maximum Ratings at +25°C unless stated otherwise

Rating	Symbol	Value	Units
Maximum Input Signal Level		+10	dBm
Withstanding DC Voltage	WVdc	4	Volts
Operating Temperature Range	T _A	-40 to +85	°C
Storage Temperature Range	T _{STG}	-40 to +105	°C
Lead Soldering Temperature for 10 Seconds	T _{WAVE}	260	°C
Peak Reflow Solder Temp for 40 Seconds	T _{Reflow}	235	°C

SF1186B-2

**1575.42 MHz
SAW Filter**



SM3030-6

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f _O	1	1575.42			MHz
1dB Passband width	IL	1	2.046			MHz
Pass Band VSWR					2.0	
Insertion Loss		1			3.5	dB
Absolute Attenuation @ 850 MHz		1	45			dB
1500 MHz		1	40			
1535.42 MHz		1	20			
1615.42 MHz		1	20			
1640 MHz		1	45			
1700 MHz		1	50			
						Ω
						Ω
Operating Temperature	T _A	1	-40		+85	°C

Single Ended Input / Output, Impedance match	No matching network required for operation at 50 ohms
Case Style	SM3030-6 3 x 3 mm Nominal Footprint
Lid Symbolization y=year, ww=week, s=shift	468 YWWS

Electrical Connections

Pin #	Description	Pin #	Description
1	Ground	4	Ground
2	Input	5	Output
3	Ground	6	Ground

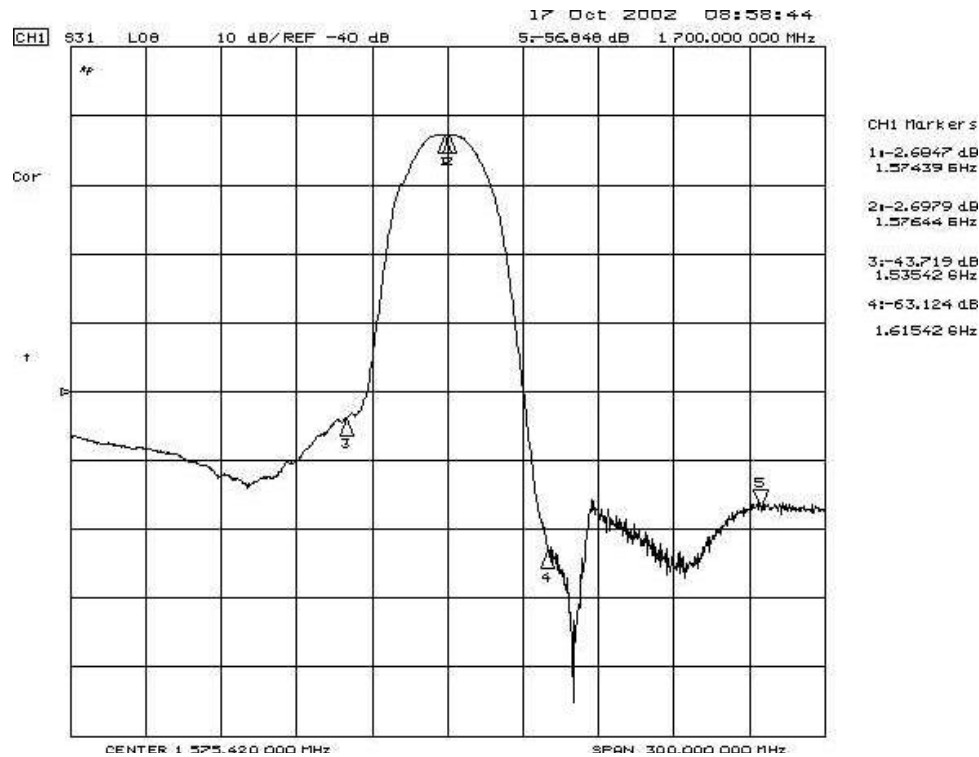
Notes:

1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board without impedance matching and measured with 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, f_c.
3. Rejection is measured as attenuation below the zero IL point in the passband. Rejection in final user application is dependent on PCB layout. 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 parts."
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.
9. ©Copyright 1999, RF Monolithics Inc.
10. Electrostatic Sensitive Device. Observe precautions for handling.

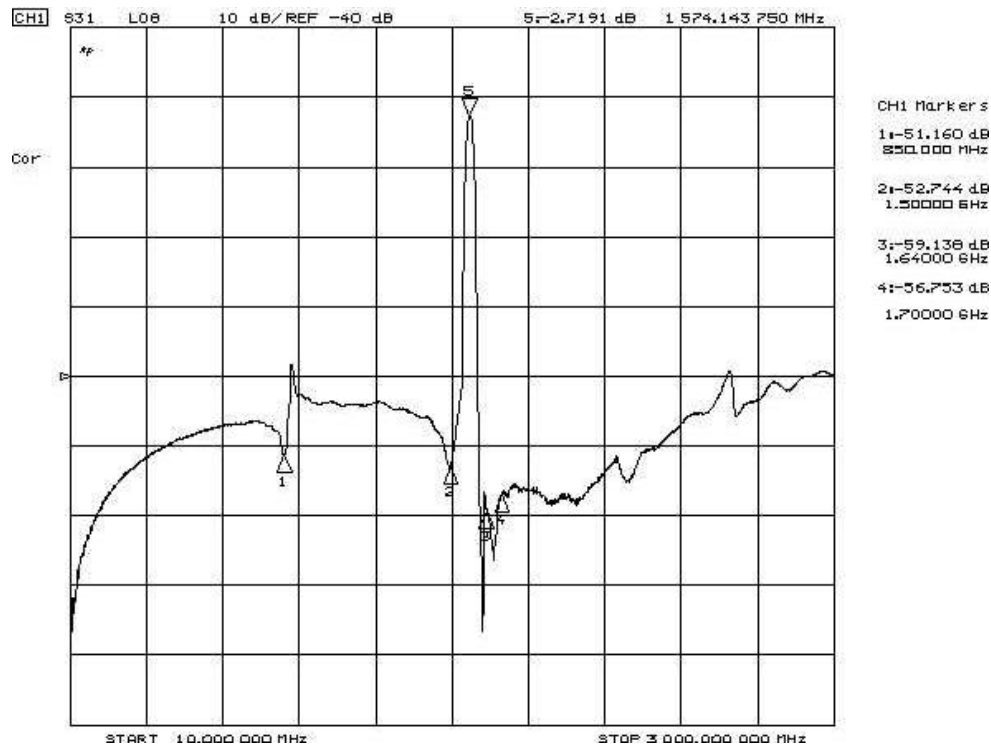


Transfer function :

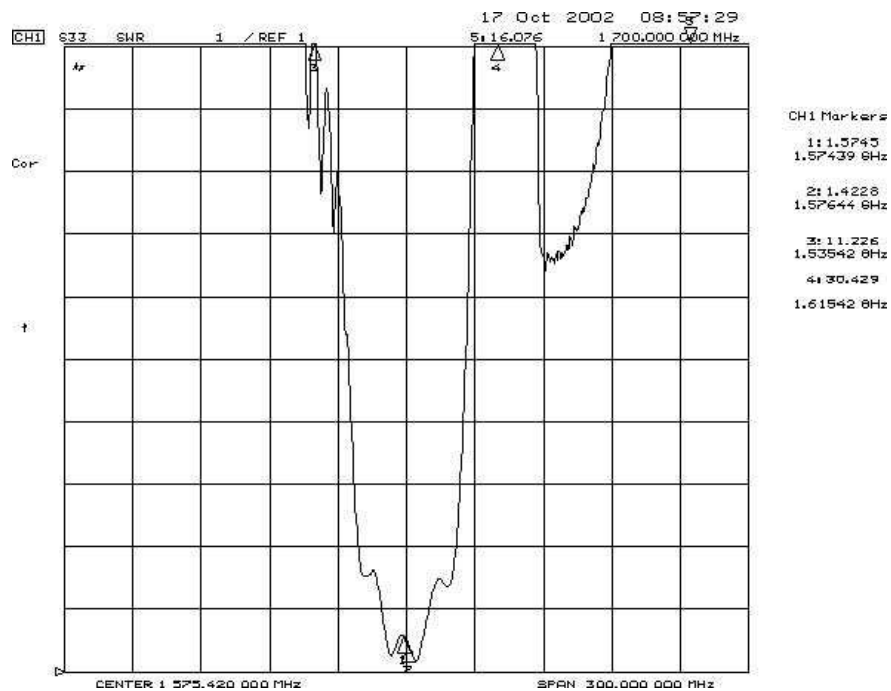
(1) S21 response (span : 300 MHz)



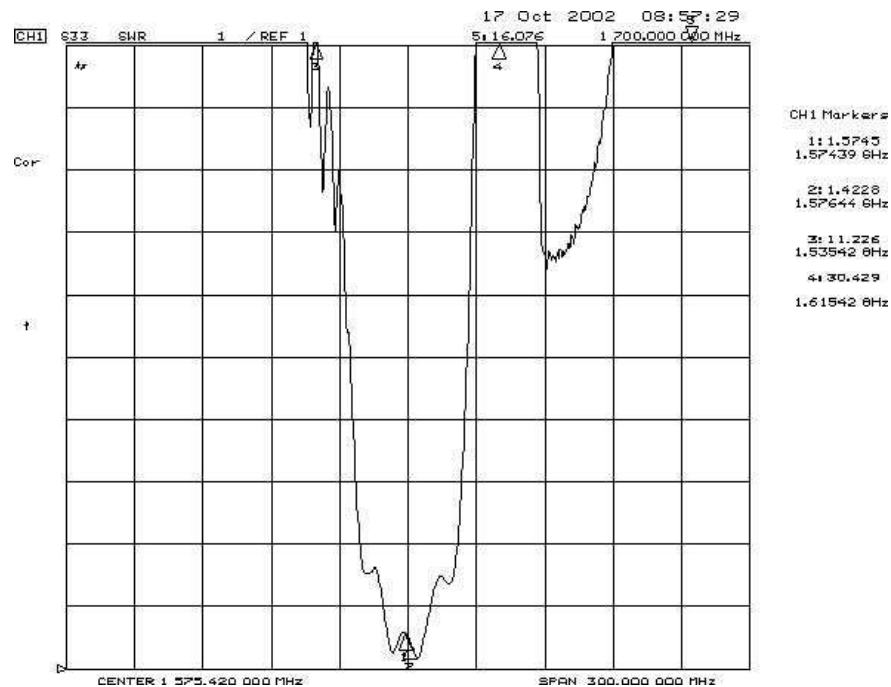
(2) S21 response (span : 3 GHz)



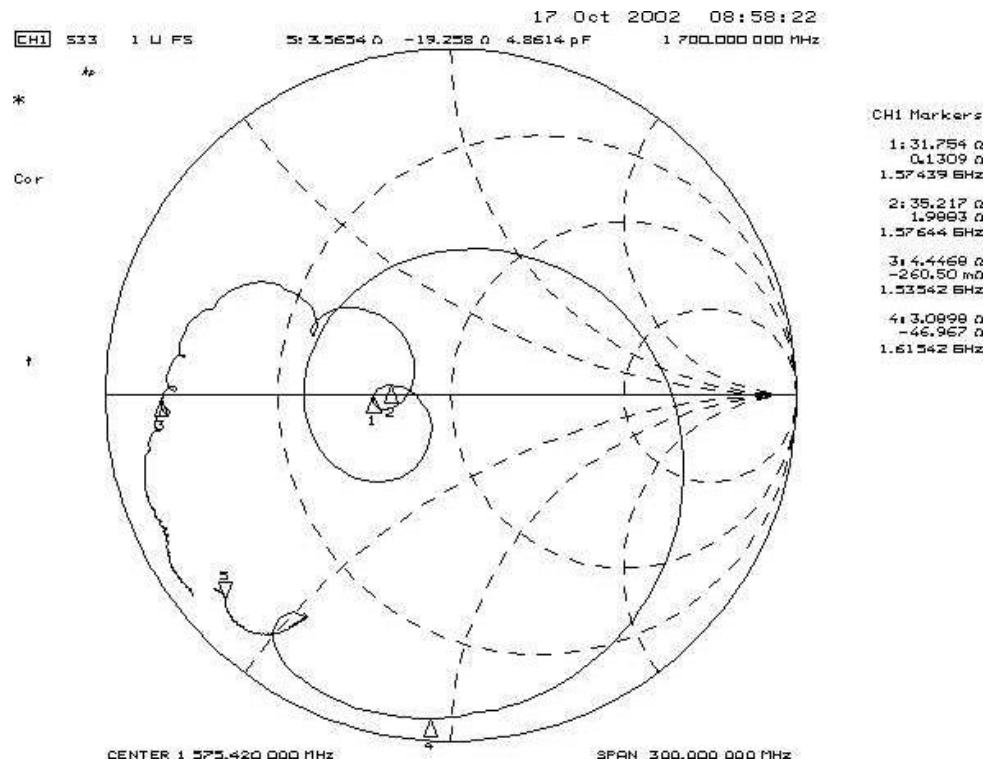
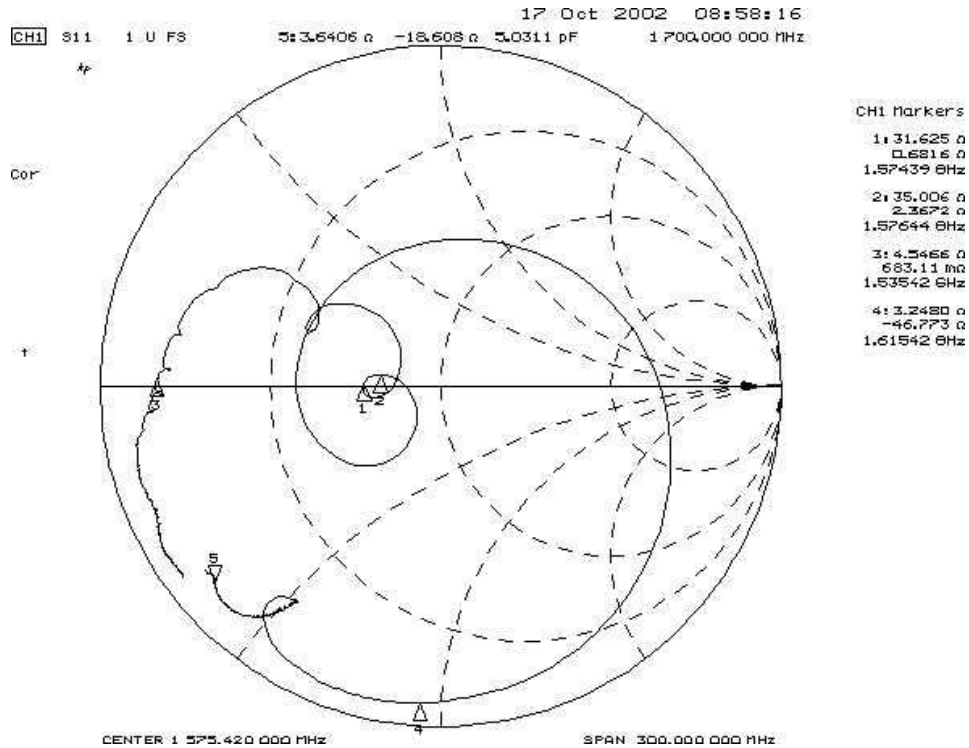
Reflection Functions: S11



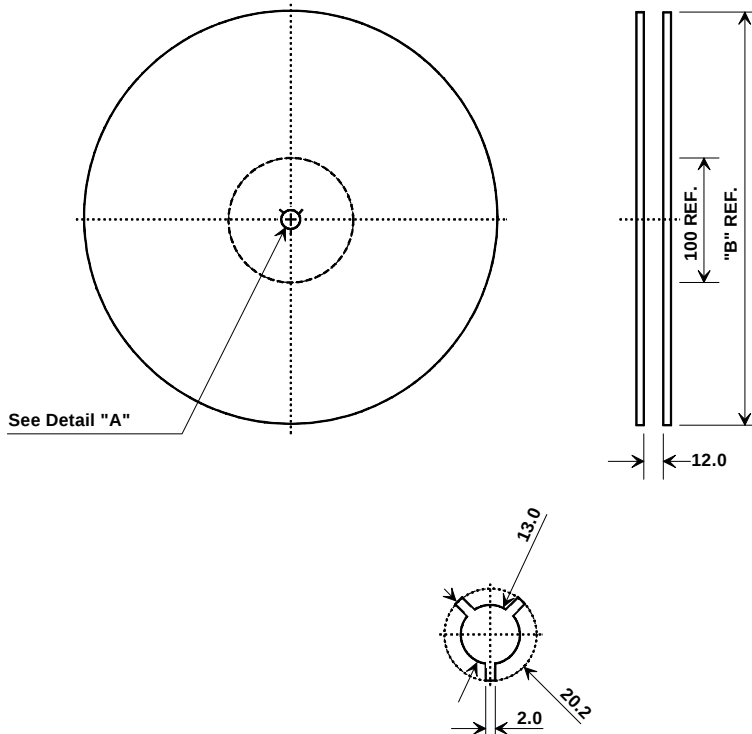
S22



Reflection Functions:

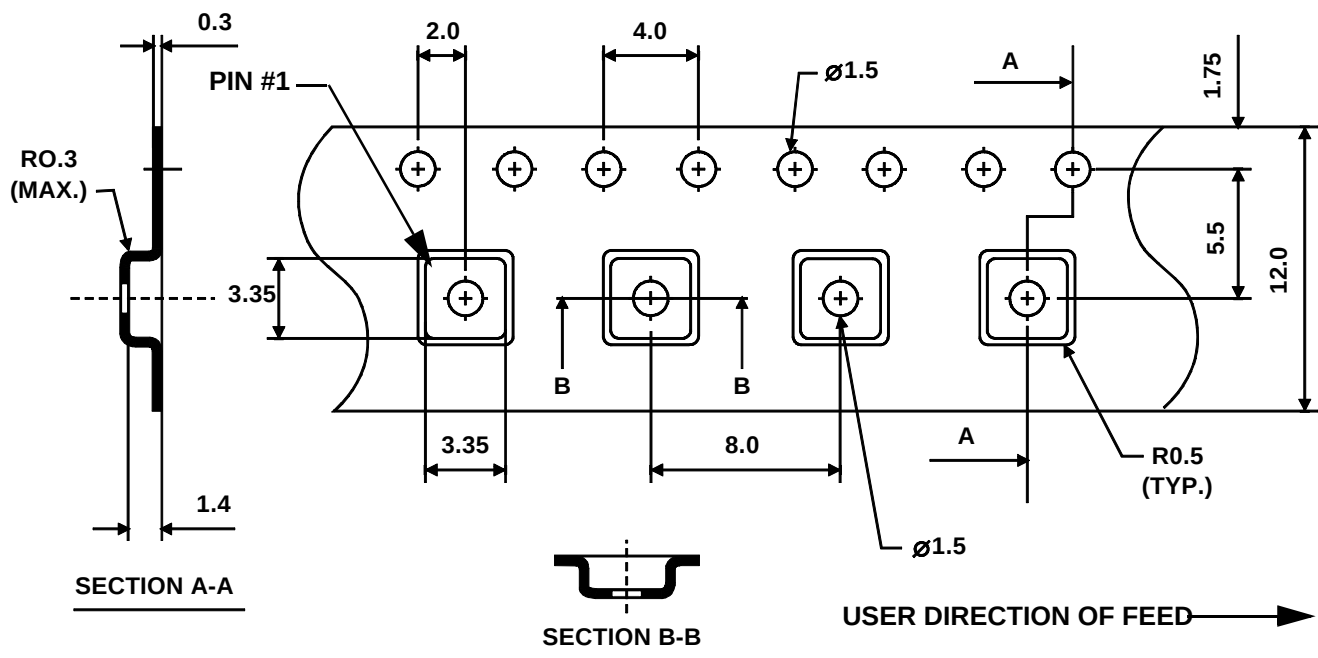


Tape and Reel Specifications



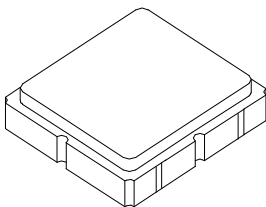
"B "		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	2000

COMPONENT ORIENTATION



SM3030-6 Case

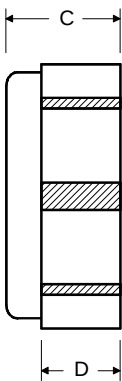
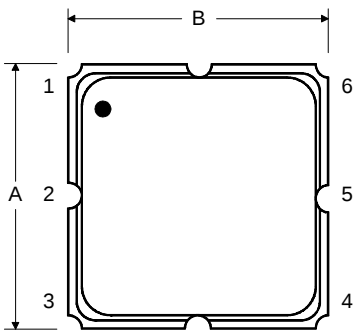
6-Terminal Ceramic Surface-Mount Case
3.0 X 3.0 mm Nominal Footprint



Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.0	3.13	0.113	0.118	0.123
B	2.87	3.0	3.13	0.113	0.118	0.123
C	1.12	1.25	1.38	0.044	0.049	0.054
D	0.77	0.9	1.03	0.030	0.035	0.040
E	2.41	2.54	2.67	0.095	0.100	0.105
F	1.47	1.6	1.73	0.058	0.063	0.068
G	0.72	0.85	0.98	0.028	0.033	0.038
H	1.37	1.5	1.63	0.054	0.059	0.064
I	0.47	0.6	0.73	0.019	0.024	0.029
J	1.17	1.3	1.43	0.046	0.051	0.056

TOP VIEW



BOTTOM VIEW

