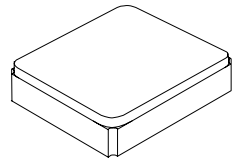


Preliminary



SF2236G

**1642.5 MHz
SAW Filter**



SM2520-4

- **Low-loss SAW Filter**
- **2.5 x 2.0 x 1.0 mm Surface-Mount Case**
- **No Matching Circuit Required**

Absolute Maximum Ratings

Rating	Value	Units
Maximum Input Power	+5	dBm
Maximum DC Voltage on any Non-ground Terminal	5	VDC
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Maximum Soldering Profile, 5 cycles maximum	265 °C for 10 s	

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Nominal Operating Frequency	f_C		1642.5			MHz
Passband Insertion Loss, 1625 to 1660 MHz	IL			2.1	3.5	dB
Amplitude Ripple, 1625 to 1660 MHz				0.9	2.0	dB _{P-P}
Attenuation Referenced to 0 dB:						dB
DC to 1500 MHz			21	28		
1525 to 1559 MHz			30	34		
1700 to 2050 MHz			30	33		
2050 to 3500 MHz			25	33		
VSWR, 1625 to 1660 MHz				1.5:1	2.3:1	
Source impedance	Z_S			50		Ω
Load impedance	Z_L			50		Ω
Operating Temperature Range	T_A		-20		+75	°C

Single-ended Input / Output Impedance Match	No matching network required for operation at 50 ohms
Case Style	SM2520-4
Lid Symbolization (3K = Filter ID, Y = year, W = week)	3K, YW

Electrical Connections

Connection	Terminals
Input	1
Output	3
Ground	All others

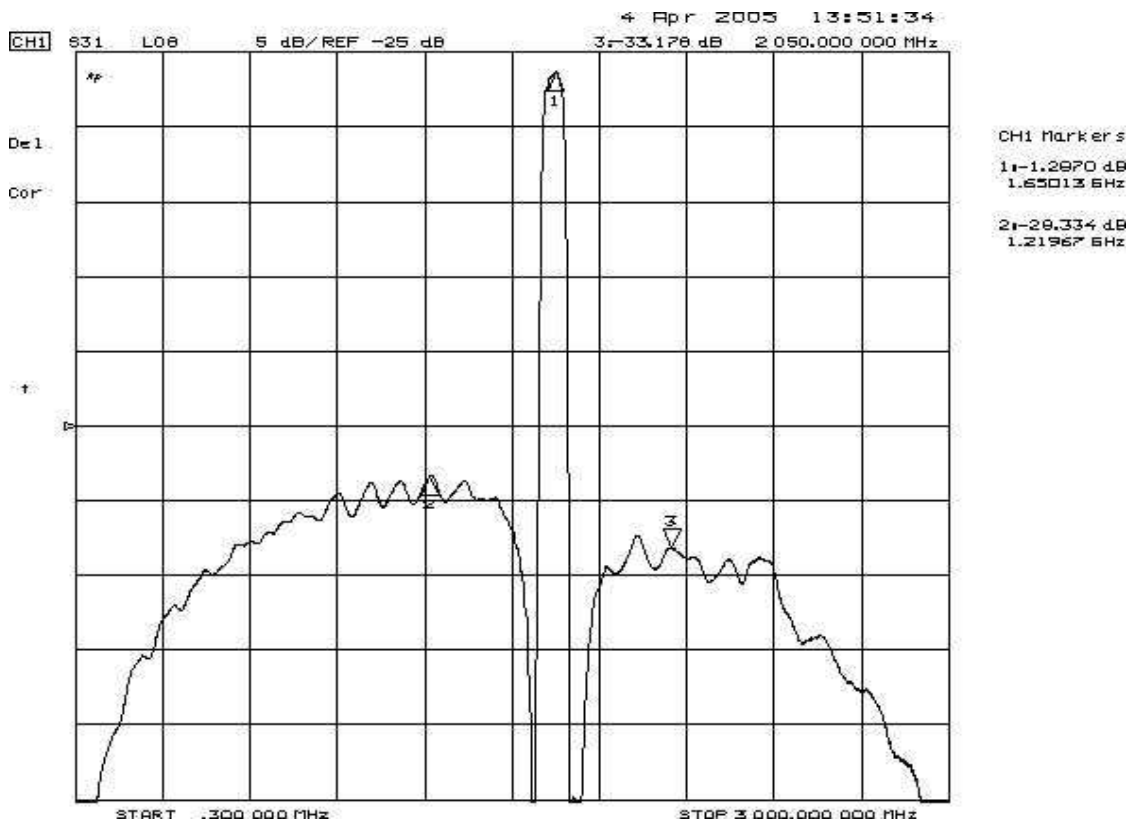
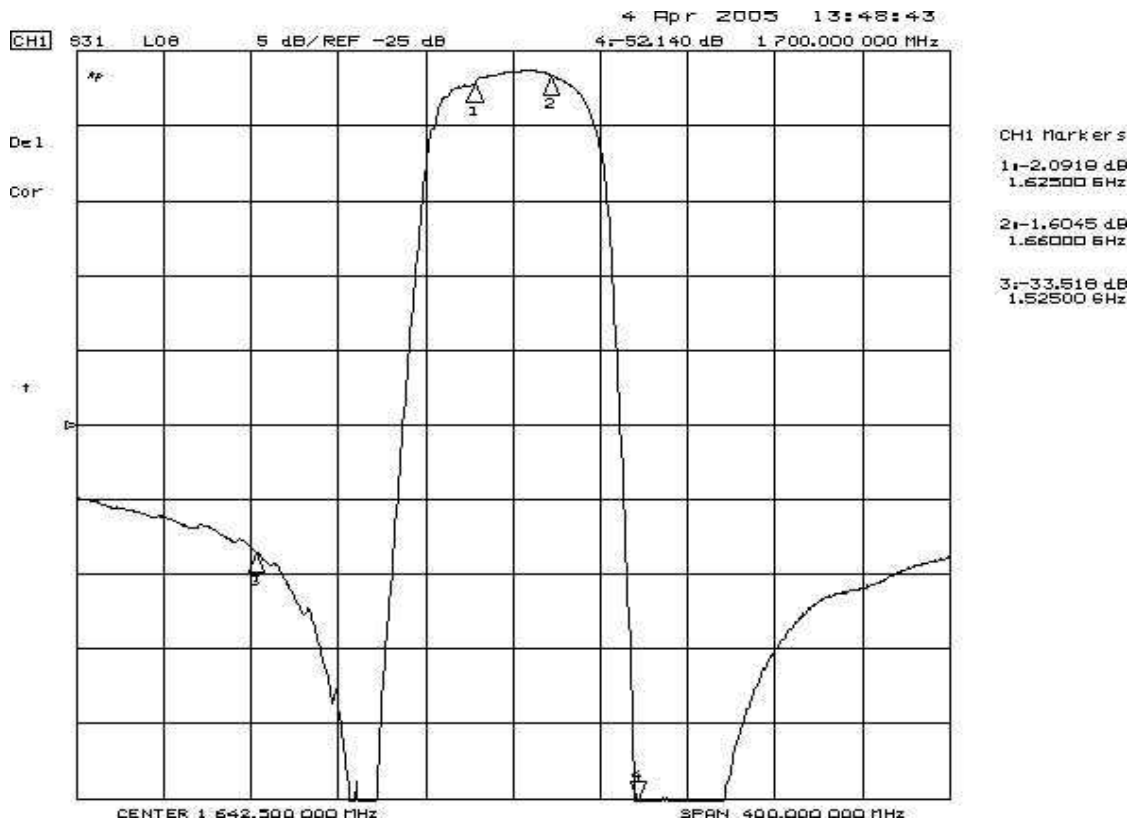


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

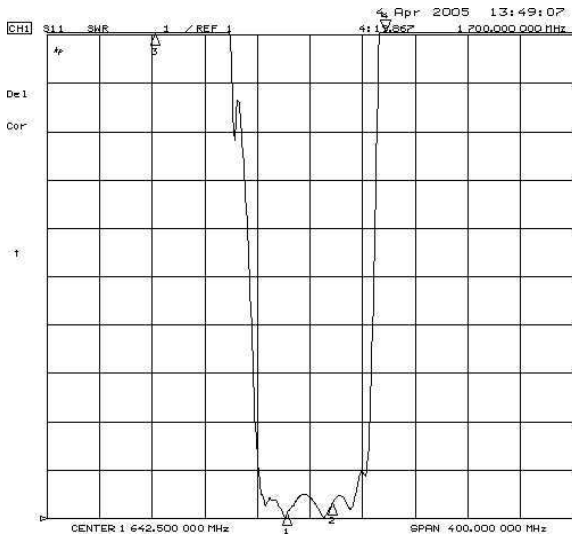
Notes:

1. US and international patents may apply.
2. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.

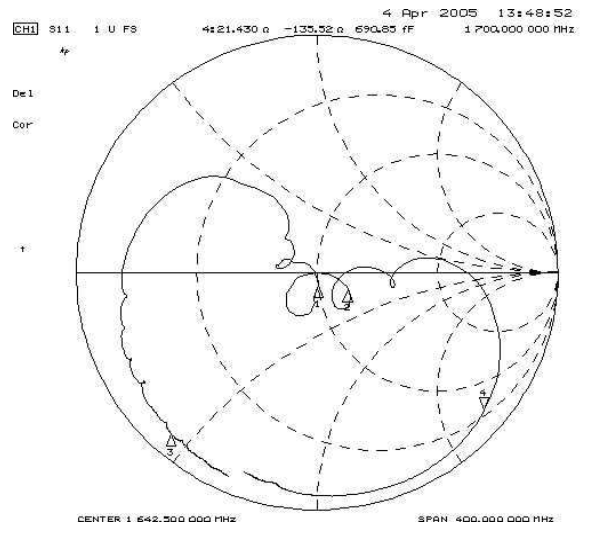
Filter Amplitude Plots



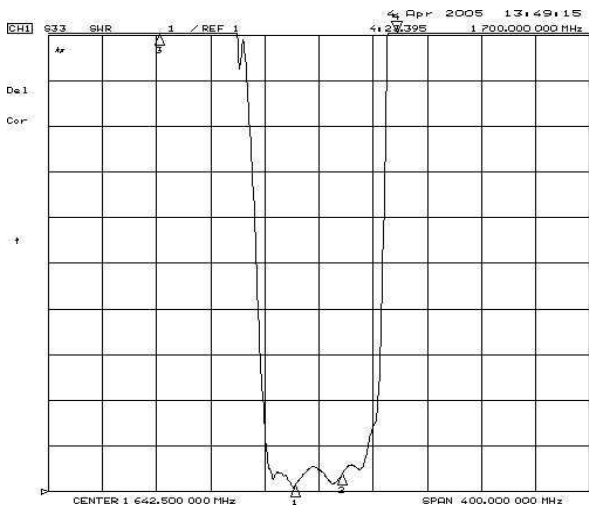
Filter Impedance Plots



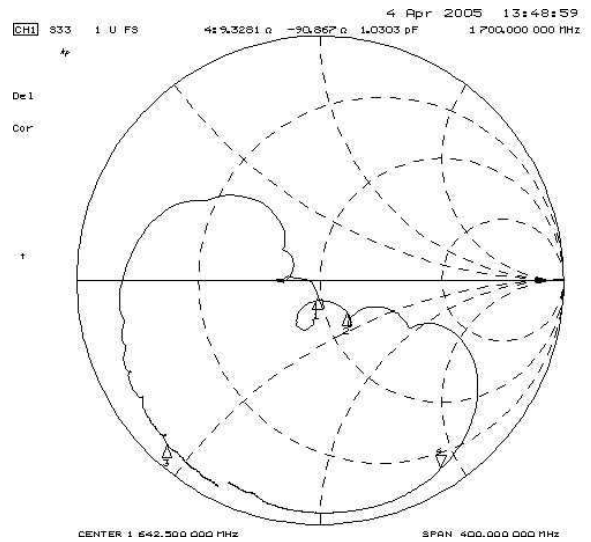
CHI Markers
 1: 1.1166
 1.62500 GHz
 2: 1.3424
 1.62500 GHz
 3: 21.266
 1.62500 GHz



CHI Markers
 1: 50.346 a
 -23.5703 a
 1.62500 GHz
 2: 61.863 a
 -9.2388 a
 1.62500 GHz
 3: 2.7744 a
 -23.369 a
 1.62500 GHz



CHI Markers
 1: 1.1501
 1.62500 GHz
 2: 1.4148
 1.62500 GHz
 3: 24.140
 1.62500 GHz

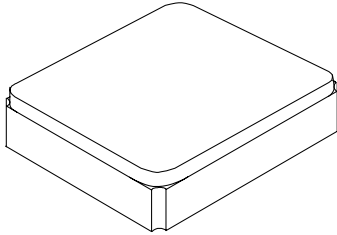


CHI Markers
 1: 48.480 a
 -42.7378 a
 1.62500 GHz
 2: 59.977 a
 -16.250 a
 1.62500 GHz
 3: 2.4629 a
 -21.698 a
 1.62500 GHz

SM2520-4 Case

4-Terminal Ceramic Surface-Mount Case

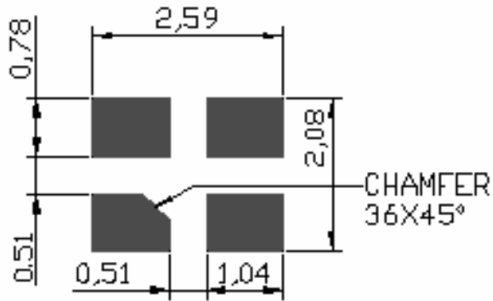
2.5 X 2.0 mm Nominal Footprint



Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	1.88	2.0	2.12	0.074	0.079	0.083
B	2.38	2.5	2.62	0.094	0.098	0.103
C	-	-	1.00	-	-	0.039
D	0.67	0.80	0.83	0.026	0.031	0.033
E	0.80	0.95	1.10	0.031	0.037	0.433
F	0.55	0.70	0.85	0.022	0.028	0.033
G	0.50	0.60	0.70	0.020	0.024	0.028

PCB Footprint (mm)



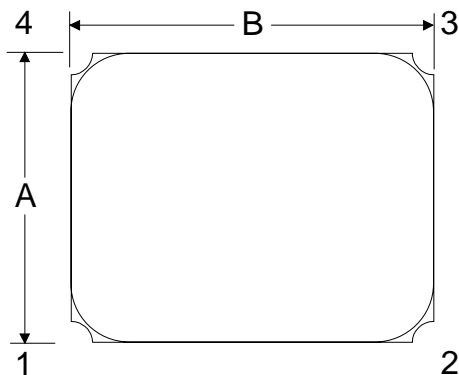
Electrical Connections

Connection		Terminals
Port 1	Single-ended Input	1
Port 2	Single-ended Output	3
	Ground	All others

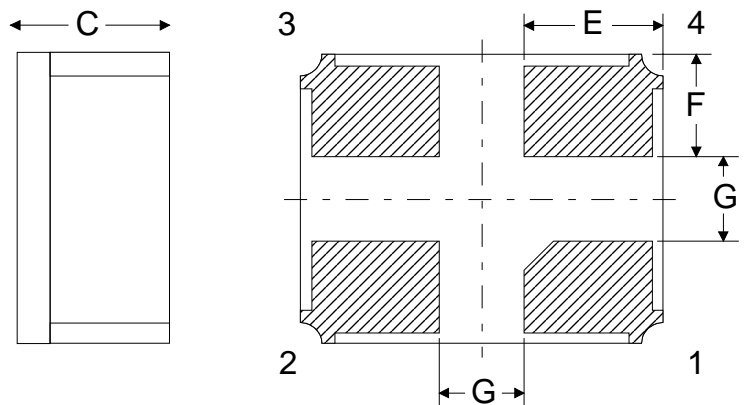
Case Materials

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	

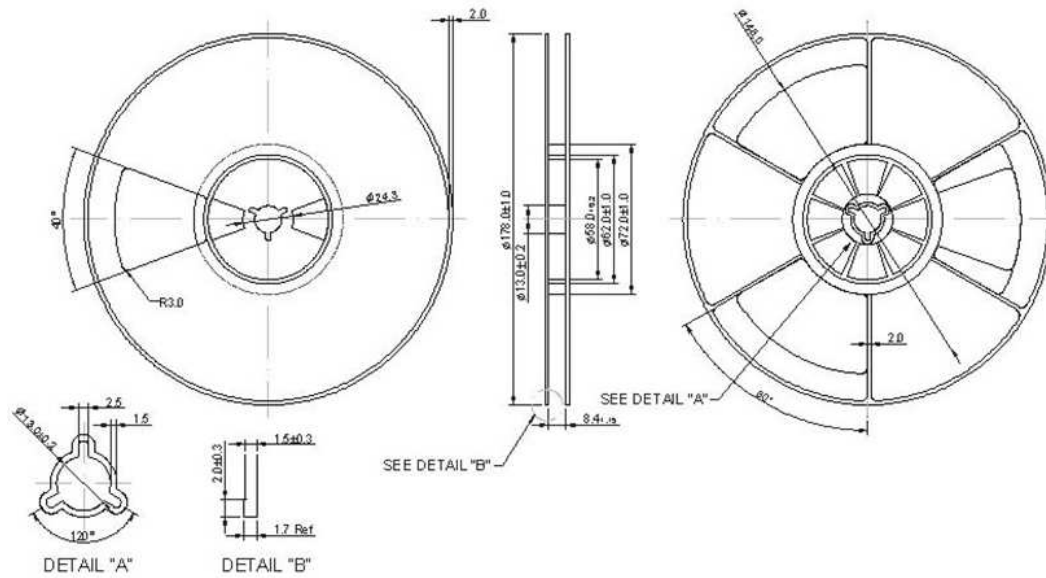
TOP VIEW



BOTTOM VIEW



Reel Dimension



Tape Dimension

