

Preliminary

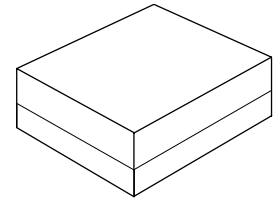


- RF Filter Designed for Front End GPS Applications
- Single-ended Input, Balanced Output
- Excellent Rejection
- 1.45 x 1.15 mm Surface-Mount Case
- Complies with Directive 2002/95/EC (RoHS)



SF1186K-2

**1575.42 MHz
SAW Filter**



SM1411-5

Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Maximum DC Voltage On any Non-ground Terminal	3	VDC
Operating Temperature Range	-40 to +85	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Maximum Soldering Temperature Profile (5 cycles maximum)	265 °C for 10 s	

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_C		1575.42			MHz
Insertion Loss, 1574.42 to 1576.42 MHz	IL_{MAX}			1.7	2.3	dB
Amplitude Ripple, 1574.42 to 1576.42 MHz				0.3	1.0	dB _{P-P}
Rejection Referenced to IL_{MAX}						dB
100 to 960 MHz			40	46		
960 to 1425 MHz			35	46		
1425 to 1475 MHz			30	51		
1475 to 1515 MHz			20	30		
1515 to 1525 MHz			17	30		
1625 to 1635 MHz			12	22.5		
1635 to 1675 MHz			20	25		
1675 to 1750 MHz			30	35		
1750 to 1805 MHz			35	42		
1805 to 1980 MHz			40	47		
1980 to 2400 MHz			35	40		
2400 to 3155 MHz			40	52		
3155 to 6000 MHz			35	52		
VSWR, 1574.42 to 1576.42 MHz				1.3	1.8	
Terminating Source impedance	Z_S			50		Ω
Terminating Balanced Load impedance	Z_L			100		Ω
Case Style			SM1411-5			
Lid Symbolization (V = week character)			1V			

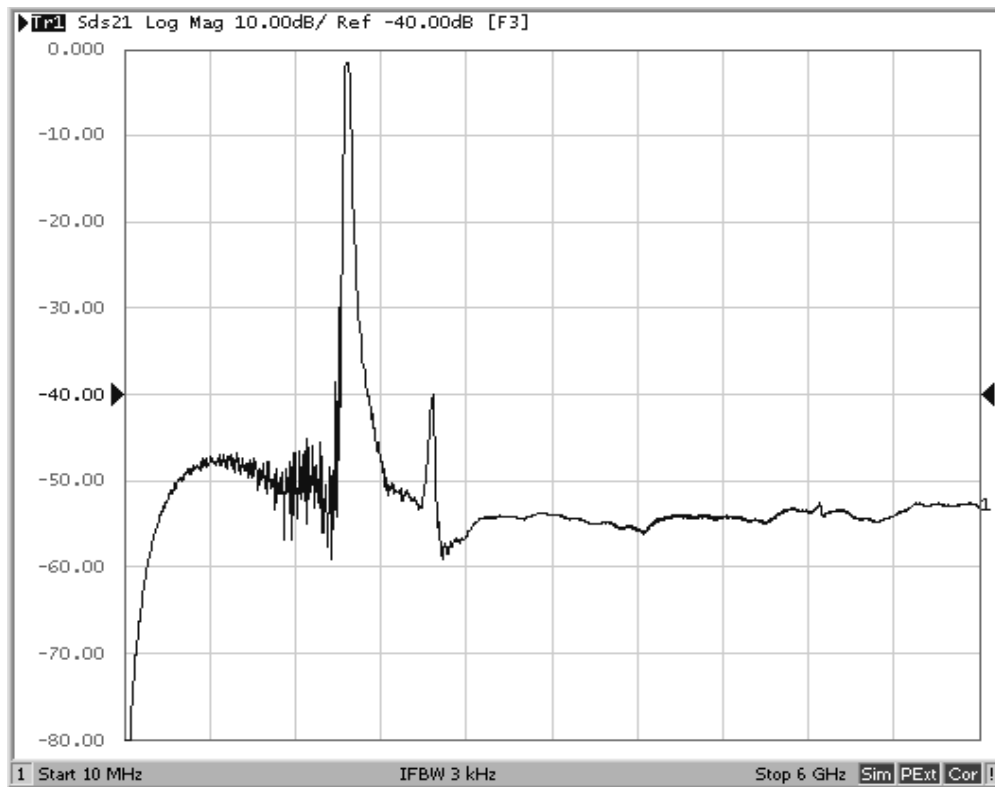
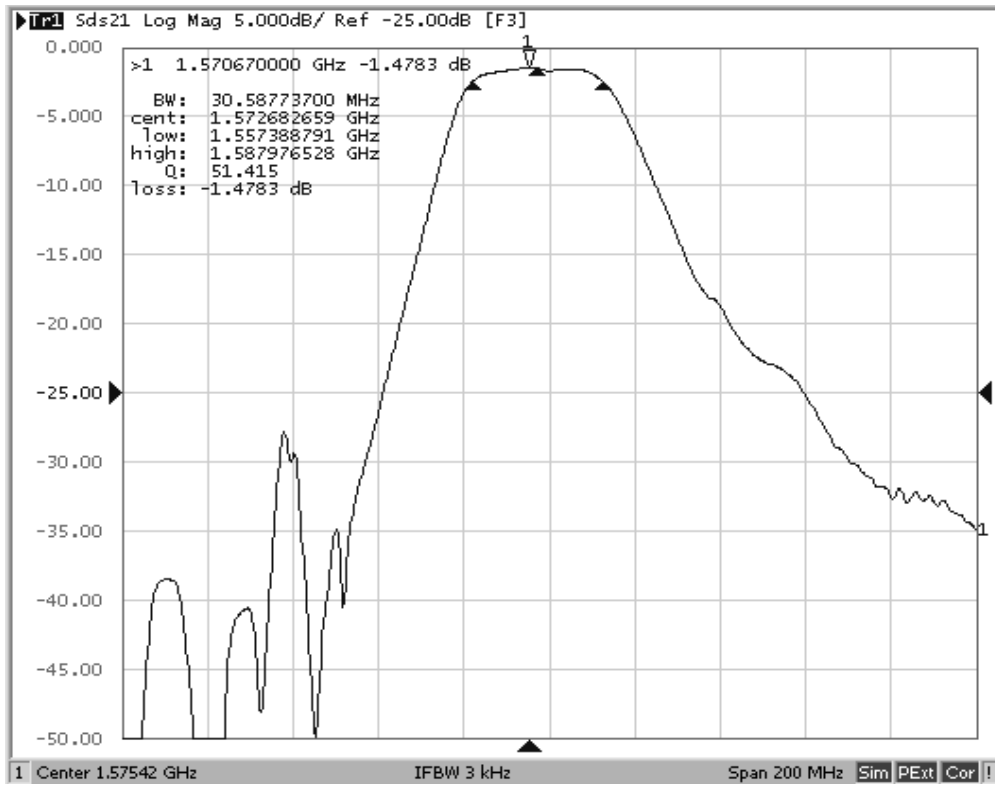


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

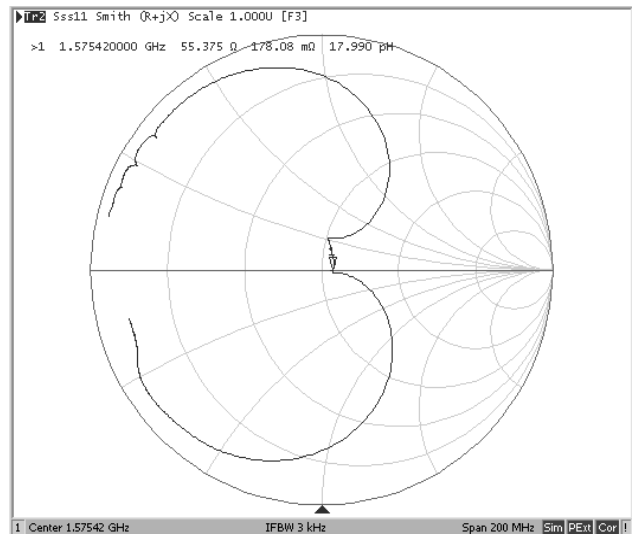
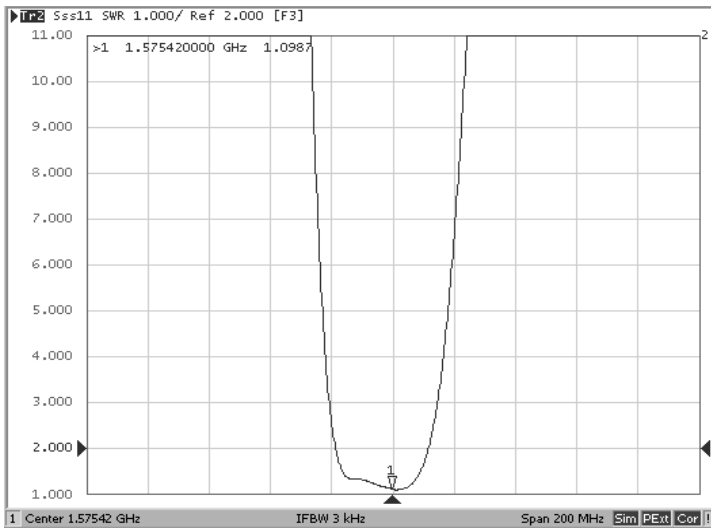
Notes:

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

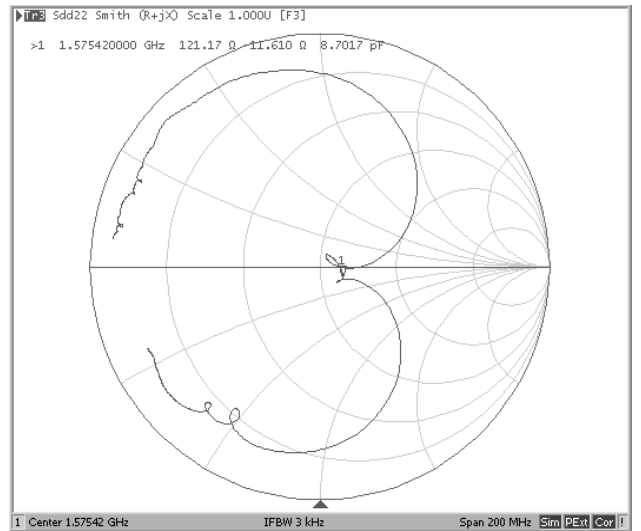
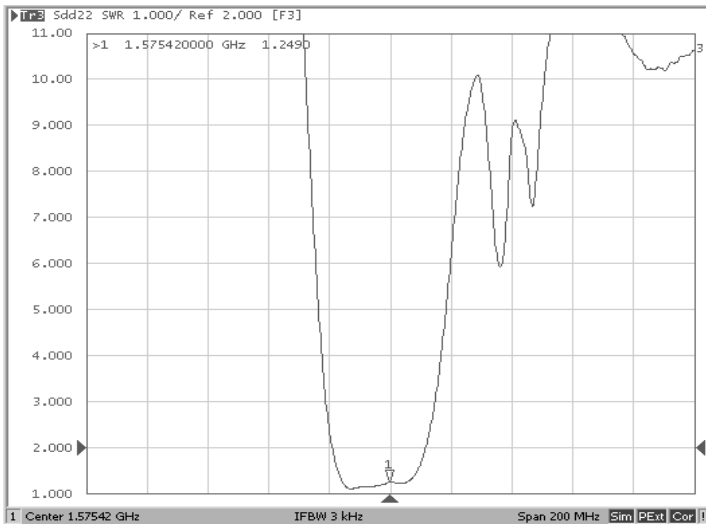
Frequency Response Plots



50 ohm Input VSWR and S_{11} Plots



100 ohm Balanced Output VSWR and S_{22} Plots



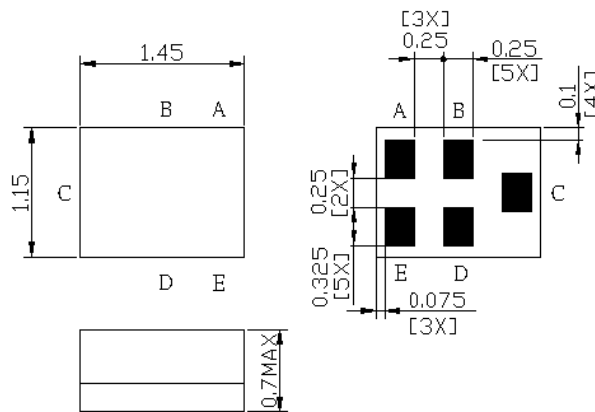
SM1411-5 Case

5-Terminal Surface-Mount Case 1.45 X 1.15- mm Nominal Footprint

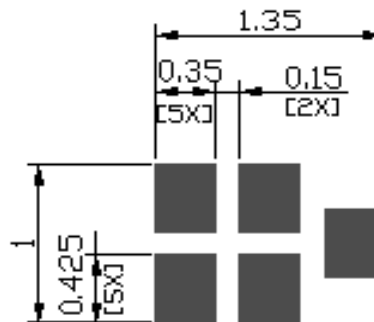
Electrical Connections

Connection	Terminals
Input	C
Output	A, E
Ground	B, D

Package Dimensions



Circuit Board Footprint



Test Circuit

