PRELIMINARY

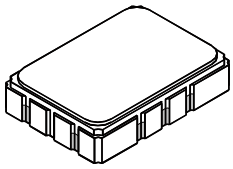
muRata
INNOVATOR IN ELECTRONICS

RFM products are now Murata products.

SF2377B

137.5 MHz SAW Filter

- ***Designed for SDARS IF Receiver***
- ***Low Insertion Loss***
- ***5.0 X 7.0 mm Surface-Mount Case***
- ***Complies with Directive 2002/95/EC (RoHS)***



SMP-03

Absolute Maximum Ratings

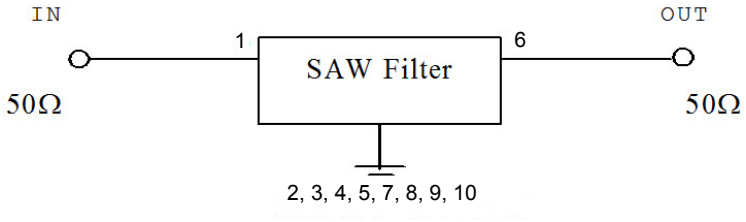
Rating	Value	Units
Incident Power Level	10	dBm
DC Voltage	10	VDC
Storage Temperature Range	-40 to +85	°C
Operating Temperature Range	-40 to +85	°C

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Nominal Center Frequency	f_C	1		137.5		MHz
Insertion Loss (@137.5 MHz)				1.5	3.5	dB
Passband Ripple (137 to 138 MHz)				0.4	1.5	dB
2dB Bandwidth BW_2			1.4	2.5		MHz
3dB Bandwidth BW_3			1.8	2.6		
20dB Bandwidth BW_{20}				4.5	6.0	
Attenuation (reference level from 0 dB)						dB
129 MHz			42	70		
134 MHz			30	34		
141 MHz			20	23		
146 MHz			30	40		
Temperature Coefficient of Frequency				-36		ppm/°C

Electrical Connections

Connection	Terminals
1	Input
6	Output
10	Input Ground
5	Output Ground
Case Ground	All Others

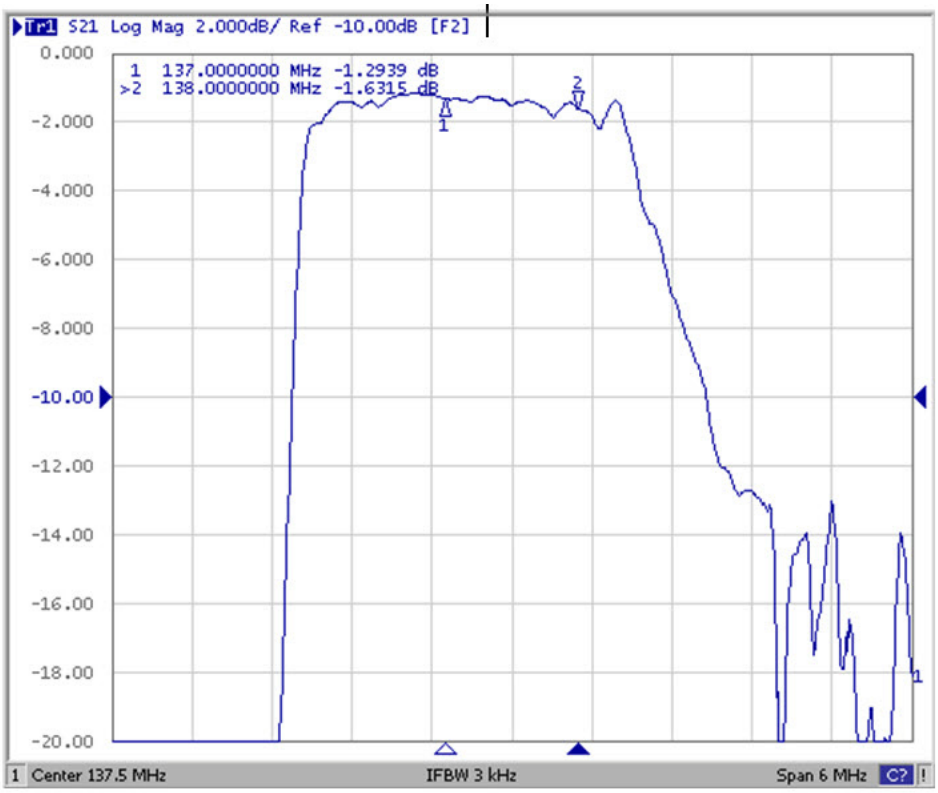


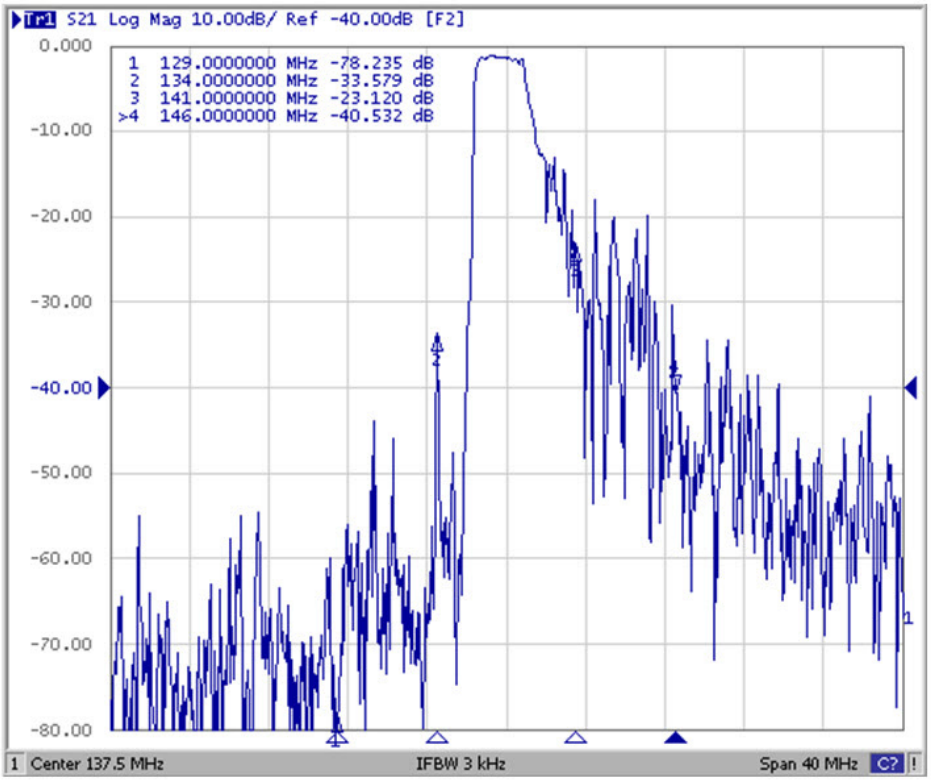
CAUTION: ELECTROSTATIC SENSITIVE DEVICE. OBSERVE PRECAUTIONS FOR HANDLING.

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. The design, manufacturing process, and specifications of this filter are subject to change.
4. 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.
5. US and international patents may apply.

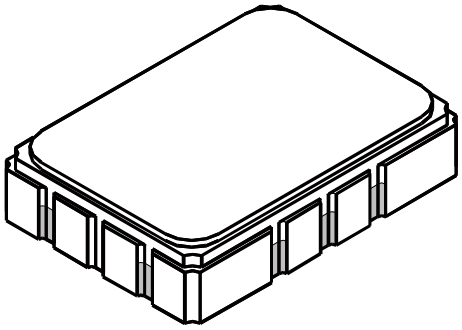
Frequency Characteristics





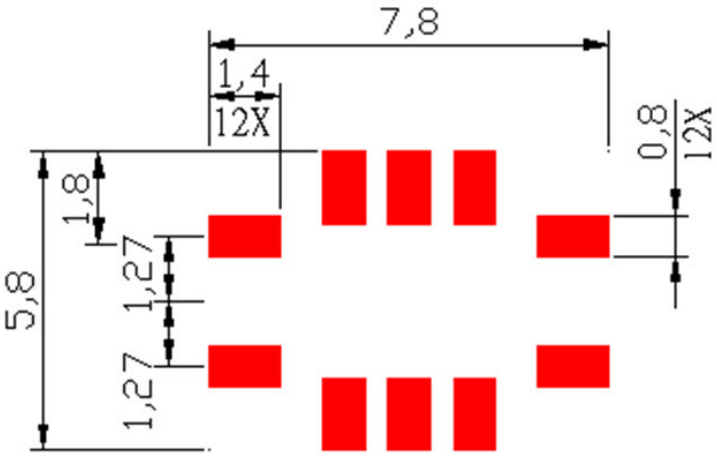
SMP-03 Case

10-Terminal Ceramic Surface-Mount Case
7 x 5 mm Nominal Footprint



Case Dimensions						
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	-	5.00	-	-	0.198	-
B	-	7.00	-	-	0.275	-
C	-	-	1.8	-	-	0.070
D	-	5.0	-	-	0.198	-
E	-	0.6	-	-	0.023	-
F	-	2.54	-	-	0.100	-
G	-	1.0	-	-	0.039	-
H	-	0.3	-	-	0.011	-
I		1.27	-	-	0.050	-
J	-	2.54	-	-	0.100	-

Recommended PCB Footprint



Materials	
Solder Pad Termination	Au plating 30 - 60 uInches (76.2-152 uM) over 80-200 uInches (203-508 uM) Ni.
Lid	Fe-Ni-Co Alloy Electroless Nickel Plate (8-11% Phosphorus) 100-200 uInches Thick
Body	Al_2O_3 Ceramic
Pb Free	

Outline Drawing