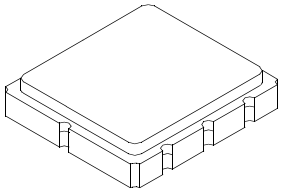
muRata
INNOVATOR IN ELECTRONICS

Discontinued

SF2072C

360.00 MHz SAW Filter

- ***Designed for Broadband Receiver IF Applications***
- ***5.0 X 5.0 mm Surface-mount Case***
- ***Single-ended or Differential Input/Output Operation***
- ***Complies with Directive 2002/95/EC (RoHS)***



SM5050-8

Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+13	dBm
Maximum DC Voltage on any Non-ground Terminal	30	VDC
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Suitable for Lead-free Soldering - Maximum Soldering Profile	260°C for 30 s	

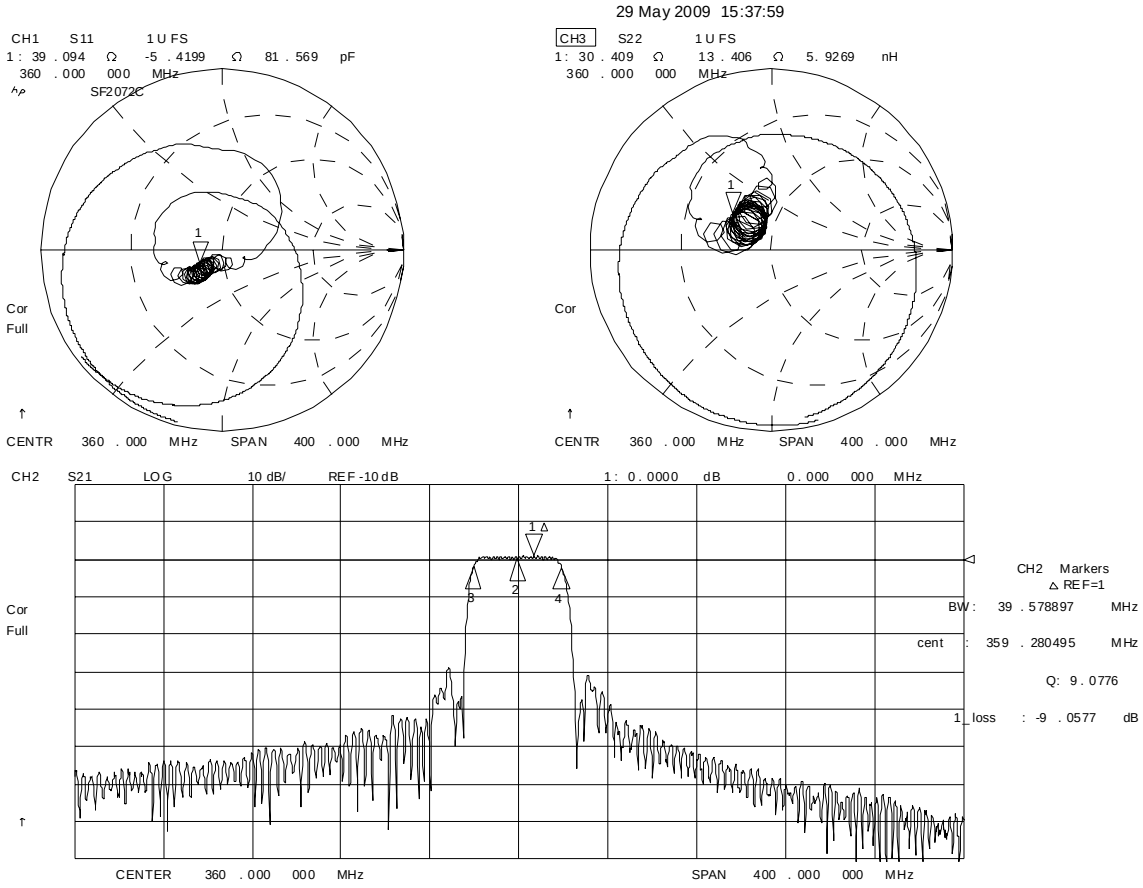
Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_C			360.00		MHz
Insertion Loss				9.0	10.5	dB
1 dB Bandwidth			30	36		MHz
3 dB Bandwidth			36	40		MHz
Amplitude Ripple, f_C ±15 MHz				1.0		dB_{P-P}
Amplitude Ripple within any 10 MHz subband of the 1 dB Bandwidth				0.8		dB_{P-P}
VSWR, f_C ±15 MHz				1.7	2.2	
Group Delay Ripple:				40		ns_{P-P}
Attenuation Referenced to 0 dB:						
100 to 285 MHz				50		dB
285 to 325 MHz			25	38		
325 to 435 MHz			25	38		
435 to 600 MHz				45		
Center Frequency Temperature Coefficent				-34		kHz/°C
Operating Temperature Range			-40		85	°C
Case Style		SM5050-8 5 x 5 mm Nominal Footprint				
Lid Symbolization (YY=year, WW=week, S=shift)		RFM 649 YYWWS				

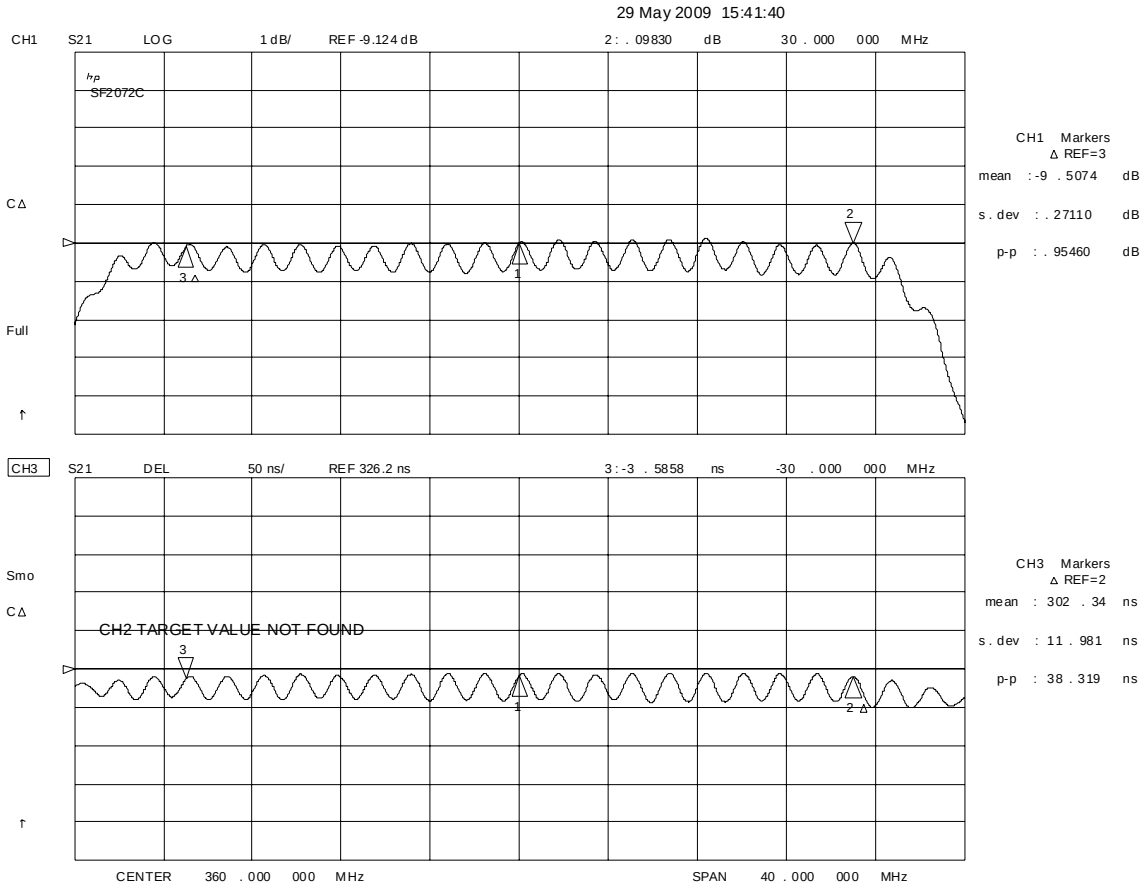
Notes:

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. 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.
3. The design, manufacturing process, and specifications of this filter are subject to change.
4. Tape and Reel Standard ANSI / EIA 481.
5. US and international patents may apply.
6. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.
7. Electrostatic Sensitive Device. Observe precautions for handling.
8. The center of the bandwidths will move with ambient temperature.

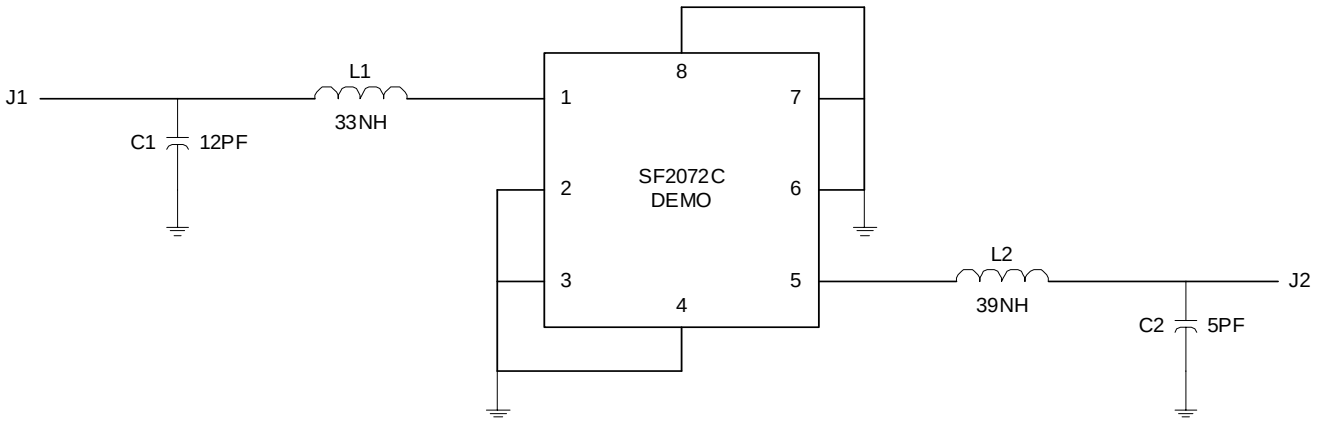
Filter Amplitude Response and Input/Output Impedance Plots



Passband Amplitude and Group Delay Ripple Plots

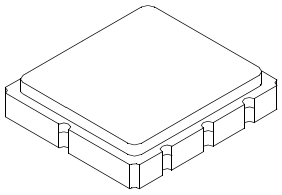


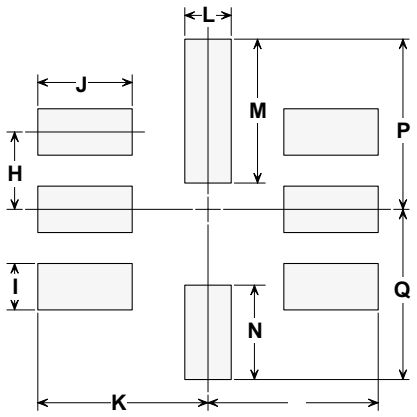
Test Circuit



L1, INDUCTOR, COIL CRAFT 0805, 33 nH
L2, INDUCTOR, COIL CRAFT 0805, 39 nH
C1, CAP, CHIP 0805, 12PF
C2, CAP, CHIP 0805, 5PF

SM5050-8 Surface-Mount 8-Terminal Ceramic Case
5.0 X 5.0 mm Nominal Footprint





PCB Footprint

Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	4.80	5.00	5.20	0.189	0.197	0.205
B	4.80	5.00	5.20	0.189	0.197	0.205
C	1.30	1.50	1.70	0.050	0.060	0.067
D	1.98	2.08	2.18	0.078	0.082	0.086
E	1.07	1.17	1.27	0.042	0.046	0.050
F	0.50	0.64	0.70	0.020	0.025	0.028
G	2.39	2.54	2.69	0.094	0.100	0.106
H		1.27			0.050	
I		0.76			0.030	
J		1.55			0.061	
K		2.79			0.110	
L		0.76			0.030	
M		2.36			0.093	
N		1.55			0.061	
O		2.79			0.110	
P		2.79			0.110	
Q		2.79			0.110	

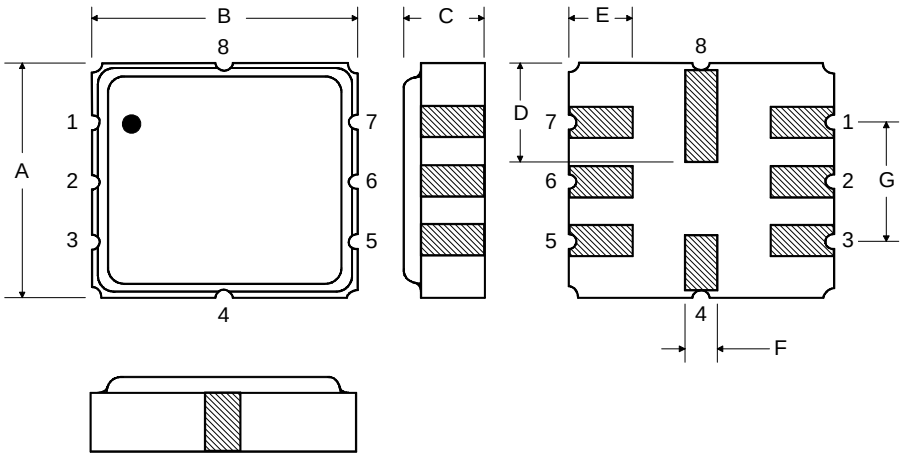
Case Materials

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	

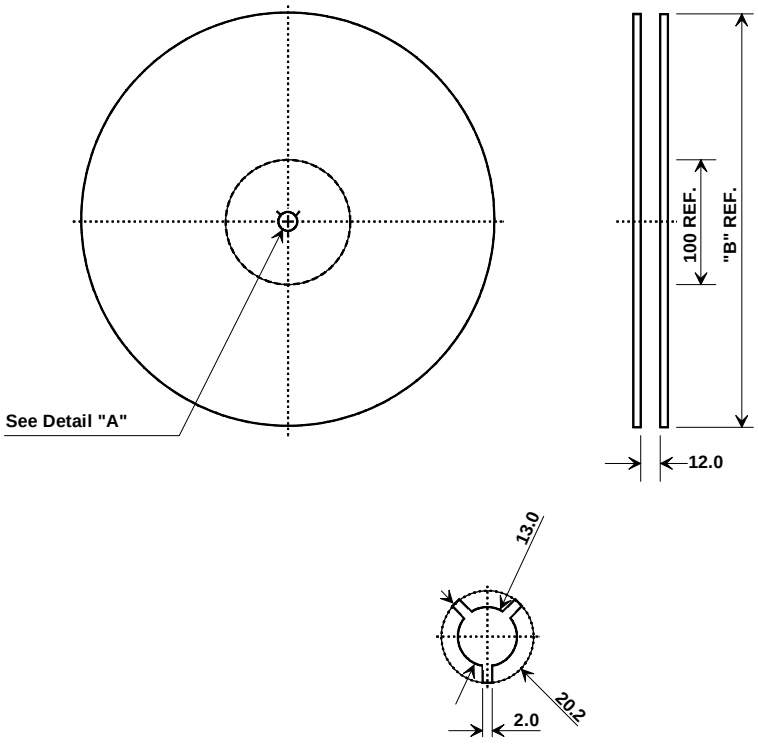
Electrical Connections

Connection		Terminals
Port 1	Input	1
Port 2	Output	5
	Ground	All others
Dot indicates Pin 1		

TOP VIEW BOTTOM VIEW



Tape and Reel Specifications



"B" Nominal Size		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000

COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	5.3 mm
Bo	5.3 mm
Ko	2.0 mm
Pitch	8.0 mm
W	12.0 mm