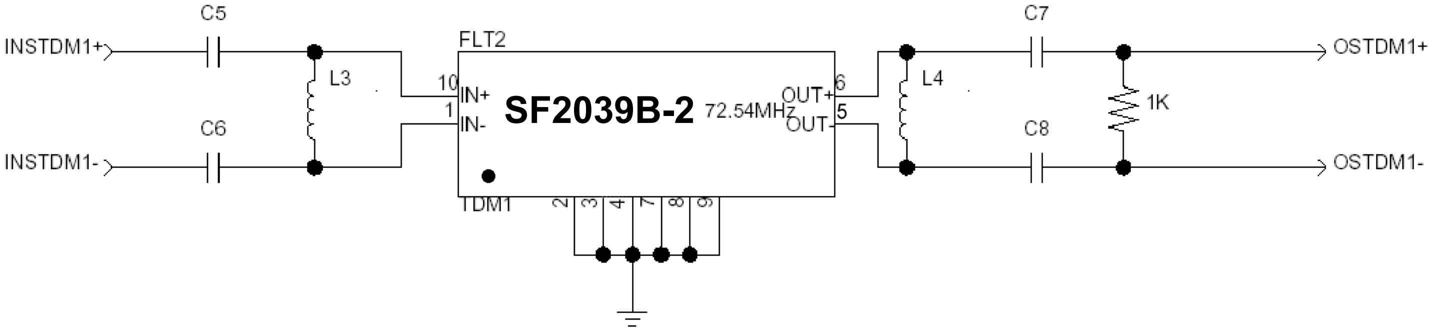
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

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. 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.
4. "LRIP" or "L" after the part number indicates "low rate initial production" and "ENG" or "E" indicates "engineering prototypes."
5. The design, manufacturing process, and specifications of this filter are subject to change.
6. Tape and Reel Standard ANSI / EIA 481.
7. 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.
8. US and international patents may apply.
9. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

Matching Circuit and Matching Component Values Used in G3 Sirius Radios

(Refer to Sirius Radio G3 Chipset Application Note, Doc. #RX000104-B, Sec. 4.2.3)

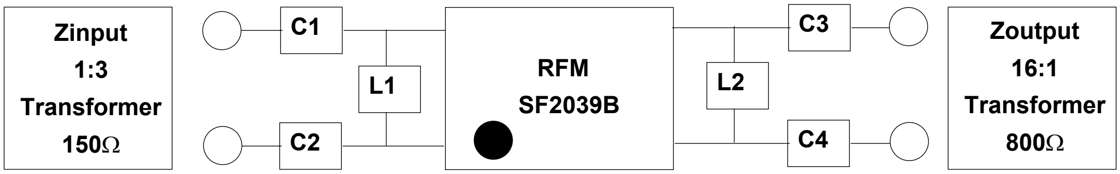


TDM1 Narrowband SAW Matching Circuit

TDM1 Narrowband SAW Matching Values

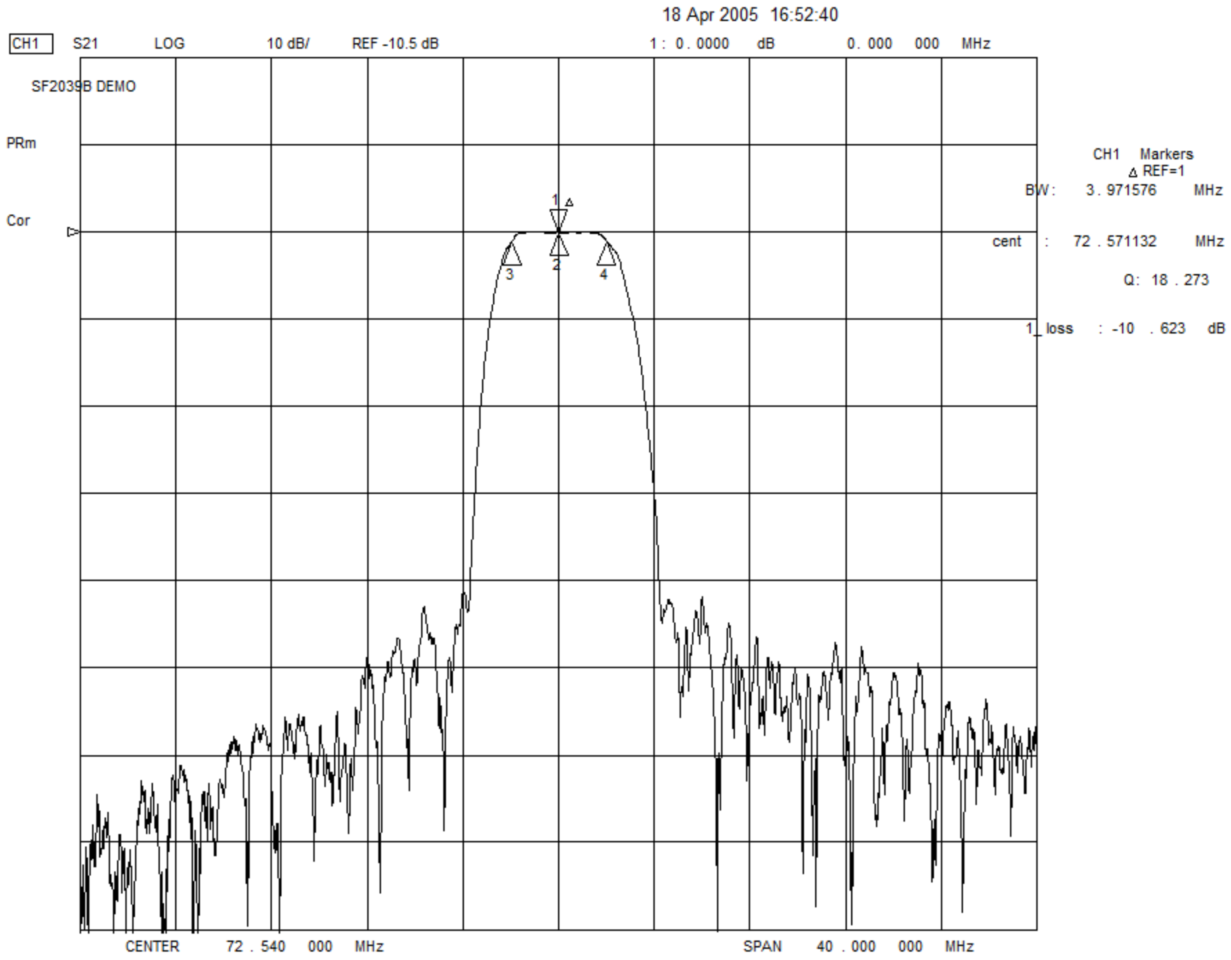
Reference Designator	Value
C5	10 pF
C6	10 pF
L3	330 nH
L4	560 nH
C7	100 pF
C8	100 pF

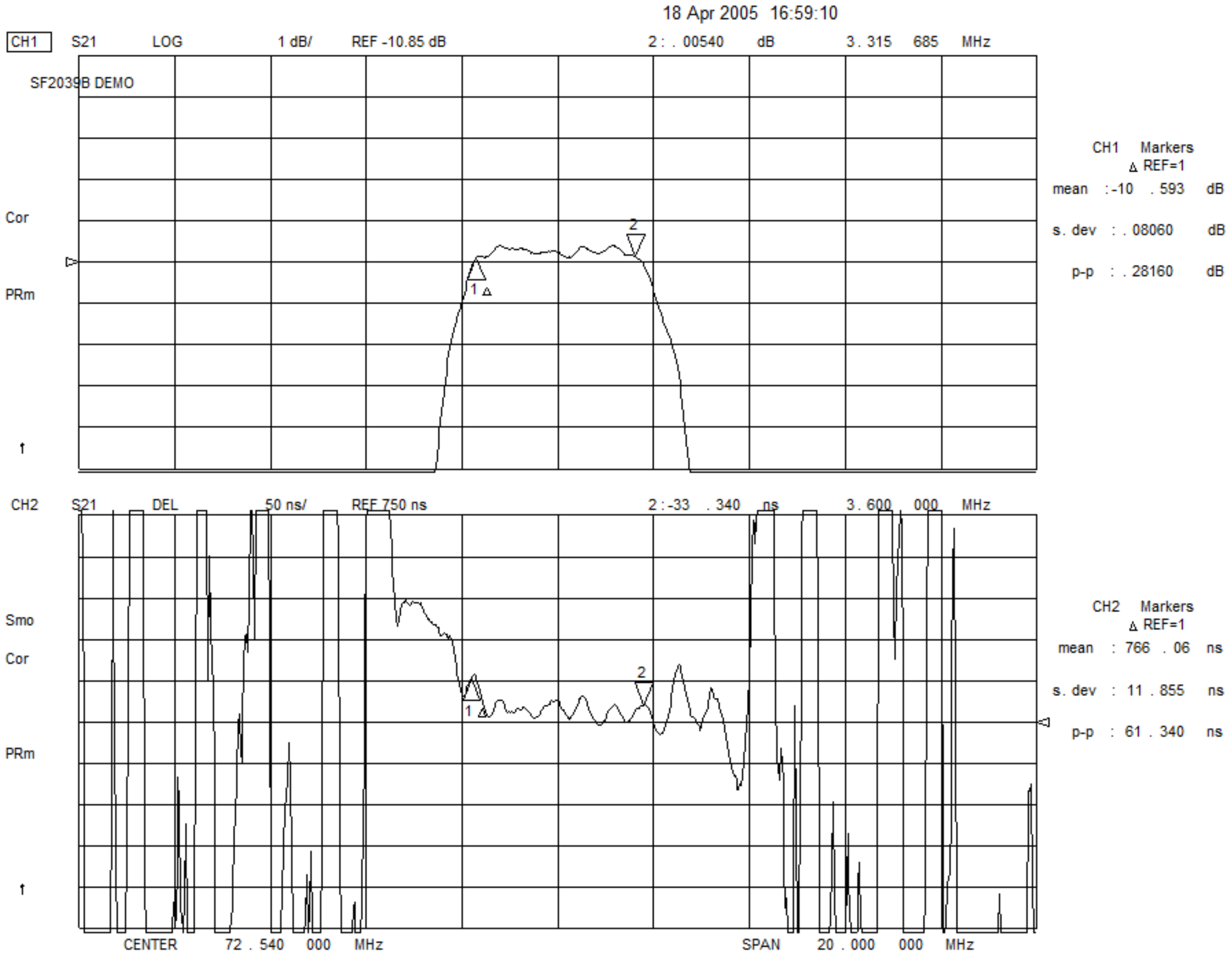
Matching Circuit and Matching Component Values Used on Filter Demo Board

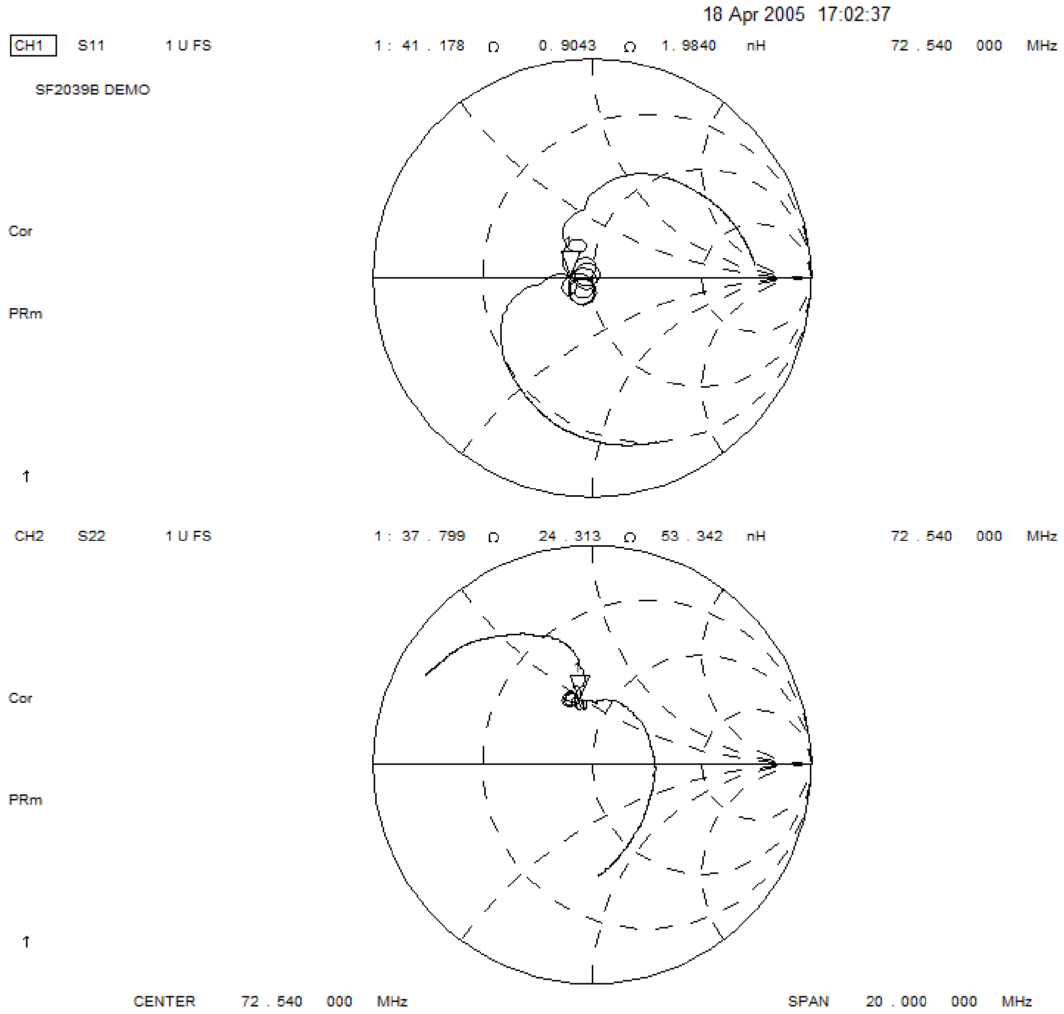


SF2039B
72.540 MHz

C1 = 10pF
C2 = 10pF
L1 = 330nH
L2 = 390nH
C3 = 18pF
C4 = 18pF



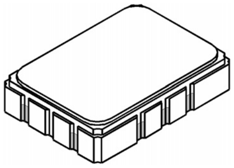

18 Apr 2005 16:59:10
CH1 S21 LOG 1 dB/ REF -10.85 dB 2 : . 00540 dB 3 . 315 685 MHz
SF2039B DEMO
Cor
PRm
CH1 Markers
Δ REF=1
mean : -10 . 593 dB
s. dev : . 08060 dB
p-p : . 28160 dB
1 Δ
2
CH2 S21 DEL 50 ns/ REF 750 ns 2 : -33 . 340 ns 3 . 600 000 MHz
Smo
Cor
PRm
CH2 Markers
Δ REF=1
mean : 766 . 06 ns
s. dev : 11 . 855 ns
p-p : 61 . 340 ns
CENTER 72 . 540 000 MHz
SPAN 20 . 000 000 MHz


18 Apr 2005 17:02:37
CH1 S11 1 U FS 1 : 41 . 178 Ω 0 . 9043 Ω 1 . 9840 nH 72 . 540 000 MHz
SF2039B DEMO
Cor
PRm
CH2 S22 1 U FS 1 : 37 . 799 Ω 24 . 313 Ω 53 . 342 nH 72 . 540 000 MHz
Cor
PRm
CENTER 72 . 540 000 MHz
SPAN 20 . 000 000 MHz

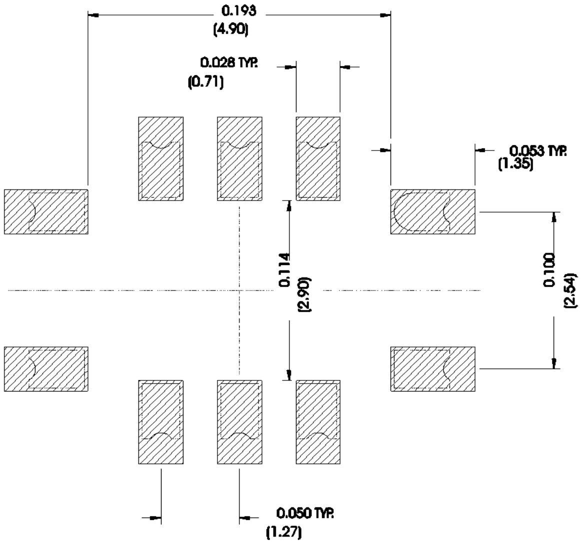
SMP-03 Case

10-Terminal Ceramic Surface-Mount Case

7 x 5 mm Nominal Footprint



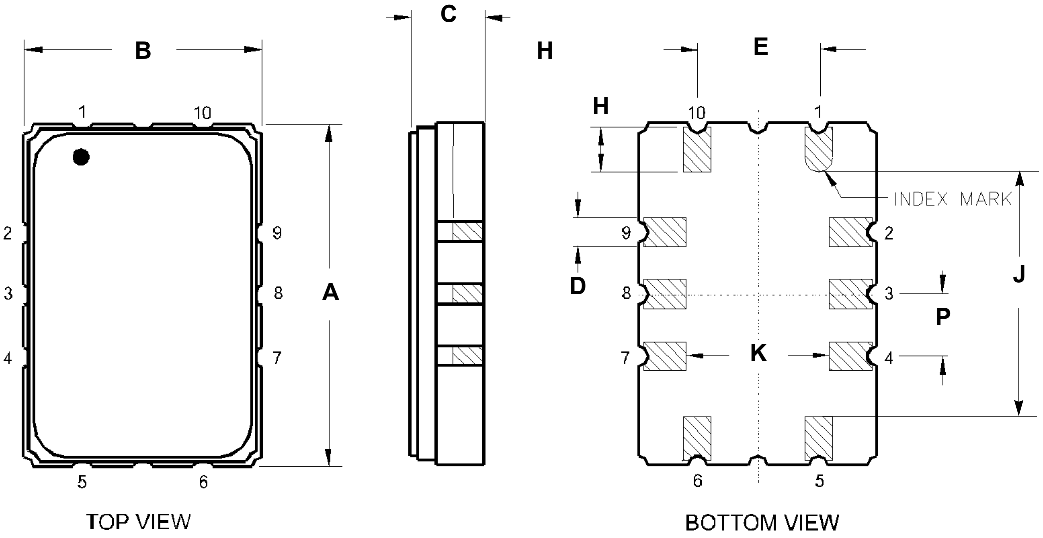
Recommended PCB Footprint



Case Dimensions						
Dimension	**mm**			**Inches**		
	Min	**Nom**	**Max**	**Min**	**Nom**	**Max**
A	6.80	7.00	7.20	0.268	0.276	0.283
B	4.80	5.00	5.20	0.189	0.197	0.205
C		1.65	2.00		0.065	0.079
D	.47	0.60	.73	0.019	0.024	0.029
E	2.41	2.54	2.67	0.095	0.100	0.105
H	0.87	1.0	1.13	0.034	0.039	0.044
J	4.87	5.00	5.13	0.192	0.197	0.202
K	2.87	3.00	3.13	0.113	0.118	0.123
P	1.14	1.27	1.40	0.045	0.050	0.055

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	

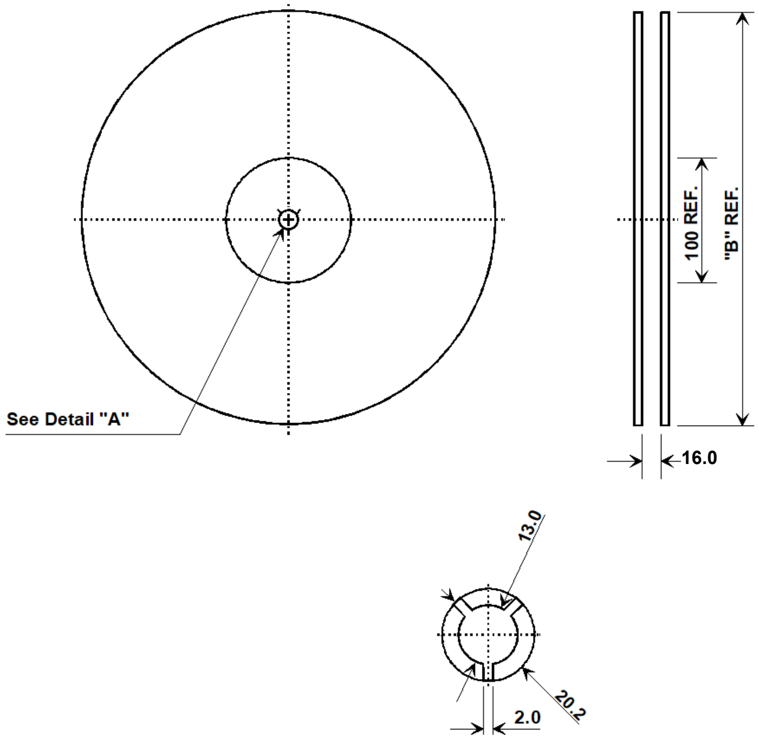
Electrical Connections		
Connection		**Terminals**
Port 1	Input or Return	10
	Return or Input	1
Port 2	Output or Return	5
	Return or Output	6
	Ground	All others
Single Ended Operation		**Return is ground**
Differential Operation		**Return is hot**



TOP VIEW

BOTTOM VIEW

Tape and Reel Specifications



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

Product Reflow/ESD/MSL

Reflow Peak Temperature	265	°C
Reflow Peak Time	10	Seconds
Liquidus 217 Temperature/Time	110	Seconds
Over Liquidus 230 Temperature/Time	70	Seconds
Reflow Condition	SMT	
Class Level HBM	2	
HBM(V)	2000	HBM(V)
MM(V)	N/A	MM(V)
CDM(V)	2000	CDM(V)
MSL	1	

COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	5.5 mm
Bo	7.5 mm
Ko	2.0 mm
Pitch	8.0 mm
W	16.0 mm