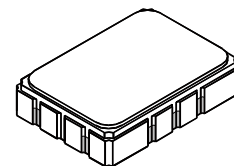


SF1056B

**110.592 MHz
SAW Filter**



SMP-03

- 110.592 MHz Narrow-band SAW Filter
- Steep Transition to Stopband
- Hermetic 5 X 7 mm Surface Mount Case
- Complies with Directive 2002/95/EC (RoHS)
- Moisture Sensitivity Level: 1

Absolute Maximum Ratings

Rating	Value	Units
Incident Power in Passband	+10	dBm
DC Voltage on any Non-ground Terminal	3	VDC
Operating Temperature Range	-40 to +80	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Soldering Profile, 5 Cycles Maximum	265 °C for 10 s	

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	F_C			110.592		MHz
Insertion Loss	IL			8.6	10.0	dB
3 dB Bandwidth	BW_3		1.152	1.44		MHz
Group Delay Ripple, 110.016 to 111.168 MHz				150	200	ns _{p-p}
40 dB Bandwidth	BW_{40}			6.7	7.0	MHz
Rejection:						dB
DC to 107.192 MHz			38	42		
107.192 to 108.864 MHz			28	42		
112.320 to 113.992 MHz			28	34		
113.992 to 200 MHz			38	42		
Source Impedance for L-L Matching Network				50		ohm
Load Impedance for L-L Matching Network				50		ohm
Case Style	SMP-03 5 x 7 mm Nominal Footprint					
Lid Symbolization (Y=year, WW=week, S=shift, ## = Sequence Code)	RFM SF1056B YWWS ##					

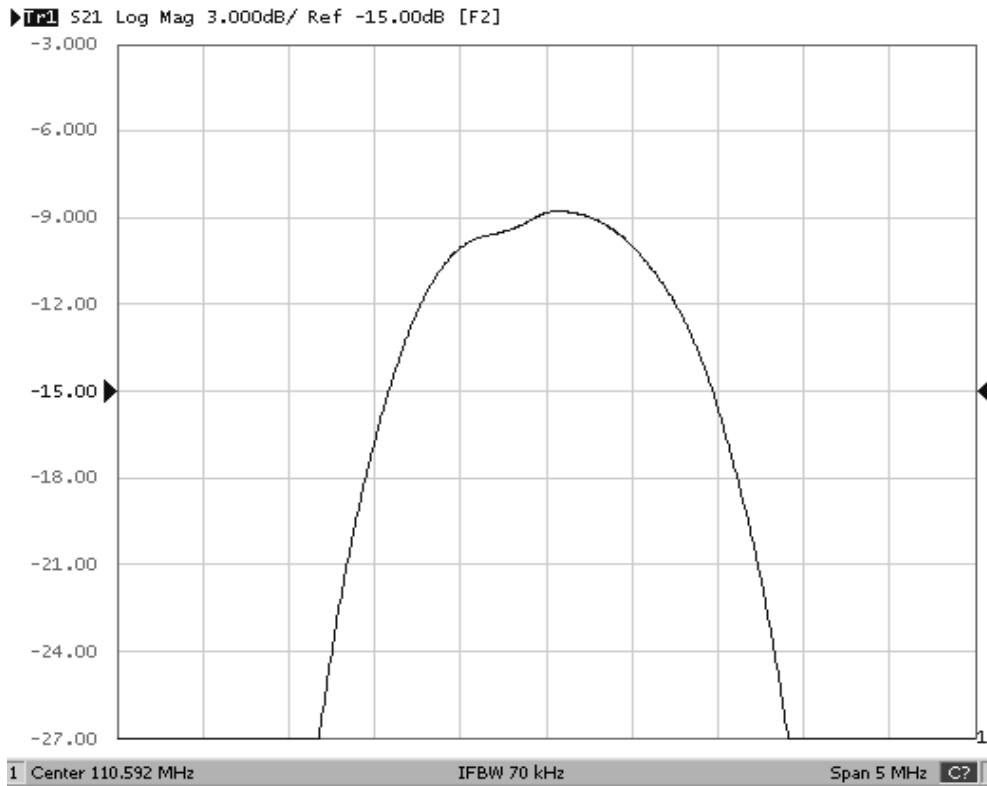


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

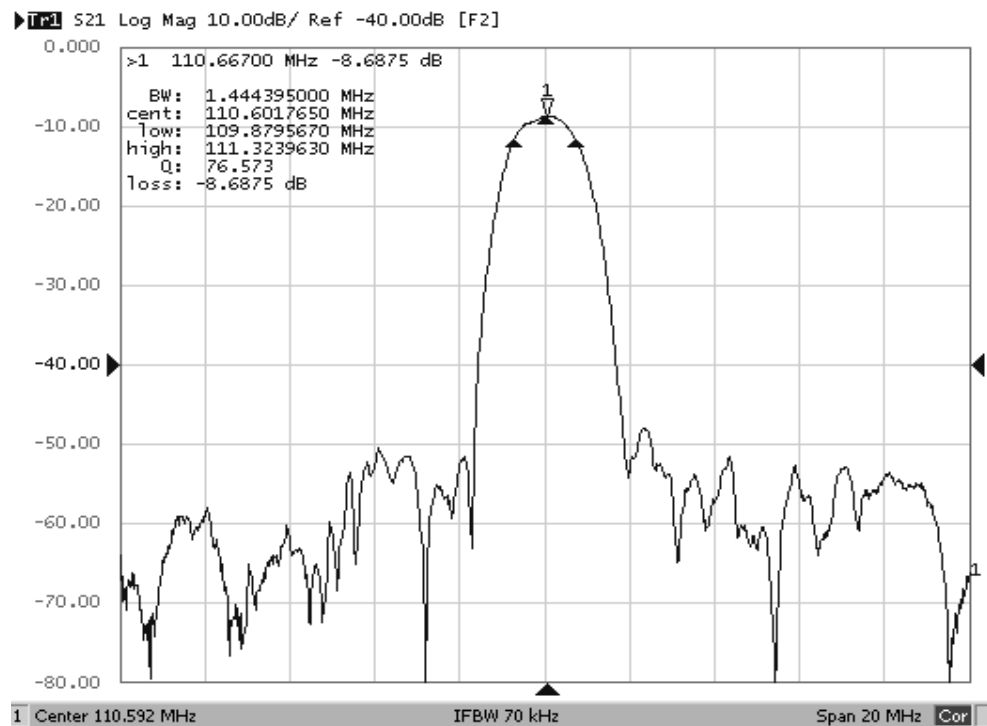
NOTES:

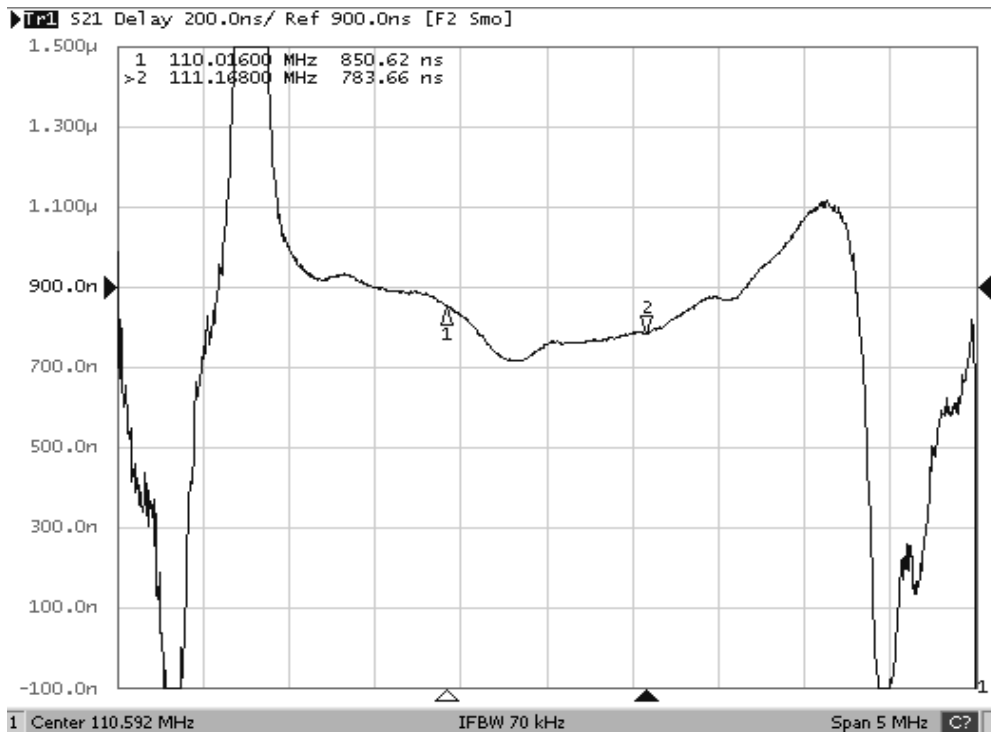
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

Filter Passband Plot

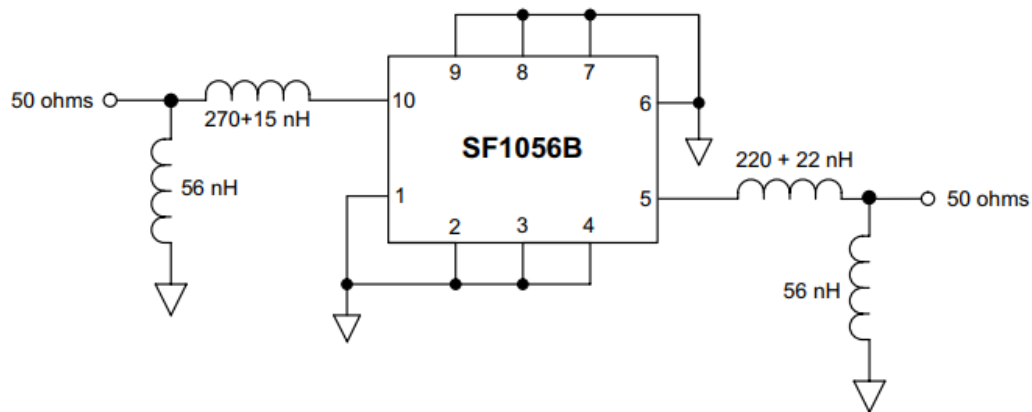


Filter Group Delay Plot



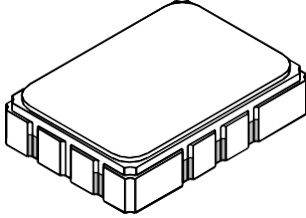


Demonstration Circuit

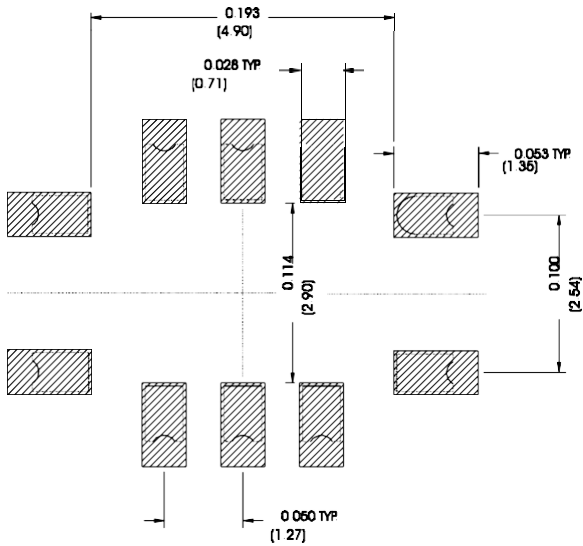


SMP-03 Case

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



Recommended PCB Footprint



Case Dimensions

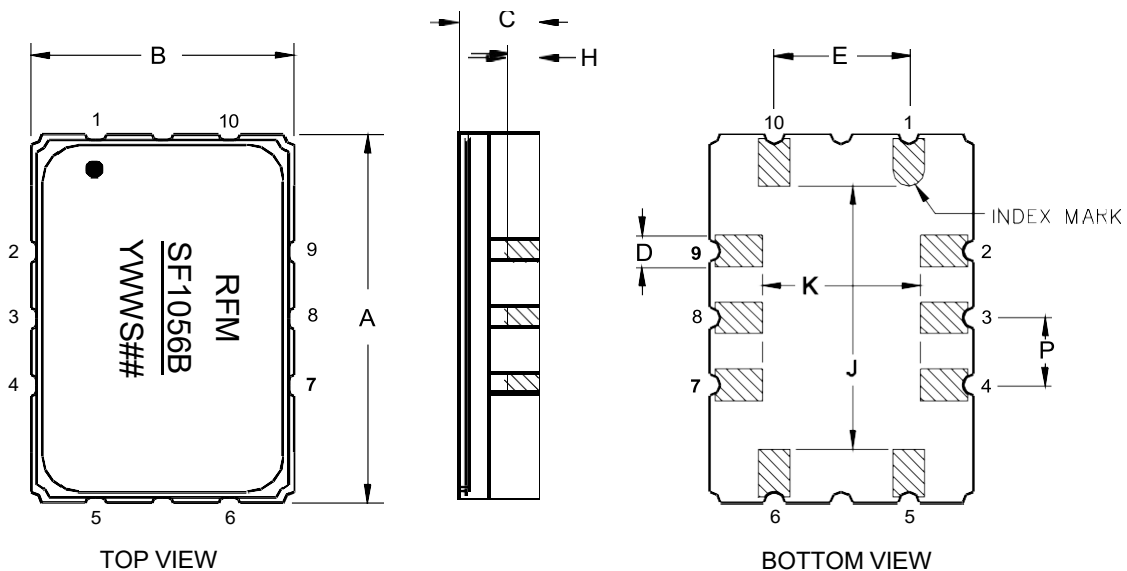
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	6.80	7.00	7.20	0.268	0.276	0.283
B	4.80	5.00	5.20	0.189	0.197	0.205
C		1.65	2.00		0.065	0.079
D	.47	0.60	.73	0.019	0.024	0.029
E	2.41	2.54	2.67	0.095	0.100	0.105
H	0.87	1.0	1.13	0.034	0.039	0.044
J	4.87	5.00	5.13	0.192	0.197	0.202
K	2.87	3.00	3.13	0.113	0.118	0.123
P	1.14	1.27	1.4	0.045	0.050	0.055

Electrical Connections

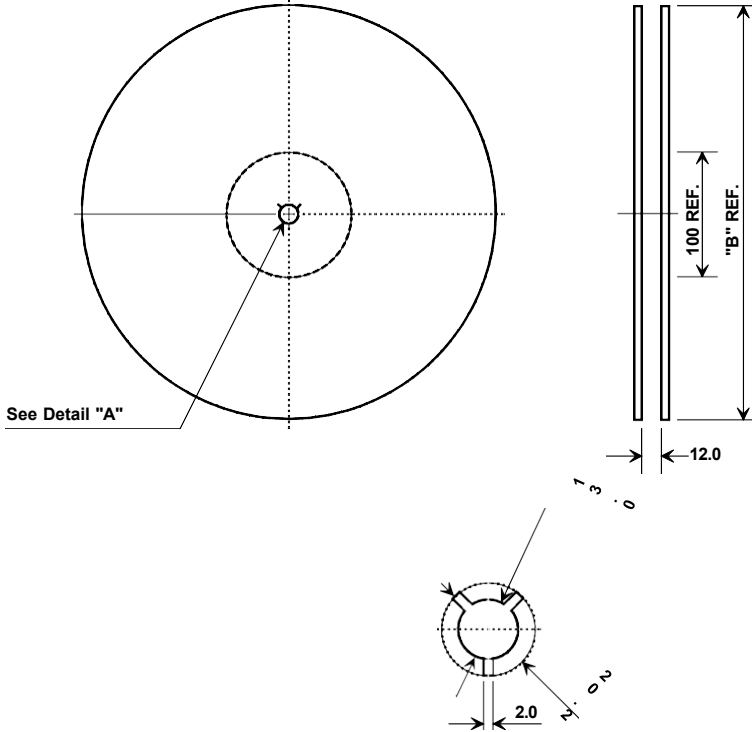
Connection		Terminals
Port 1	Balanced Input	1
	Balanced Input	10
Port 2	Balanced Output	5
	Balanced Output	6
Ground		All others

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



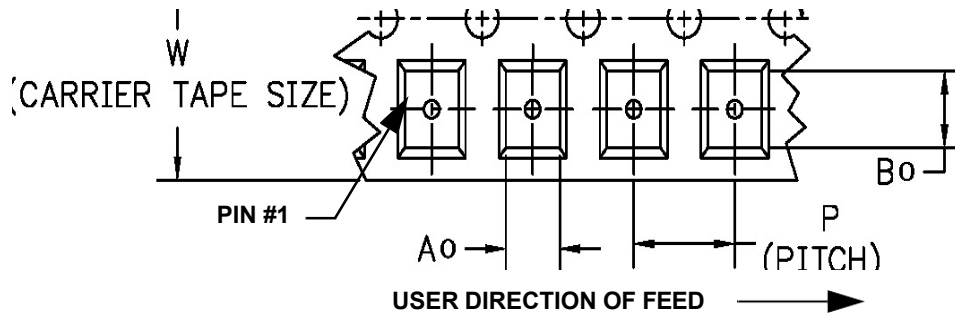
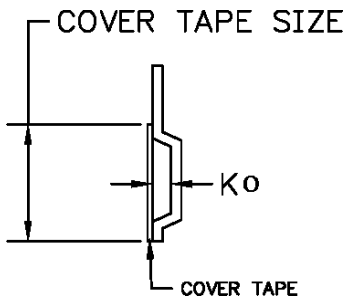
Tape and Reel Specifications



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

COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	9.4 mm
Bo	7.4 mm
Ko	2.0 mm
Pitch	8.0 mm
W	16.0 mm



Recommended Reflow Profile

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C +0/-5°C peak (10 seconds).
4. Time: 5 times maximum.

