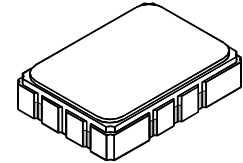


**SF2418B**

**69.5 MHz  
SAW Filter**



**SMP-03**

- **Low Insertion Loss**
- **5.0 X 7.0 mm Surface-Mount Case**
- **Single Ended Input and Output**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 1**

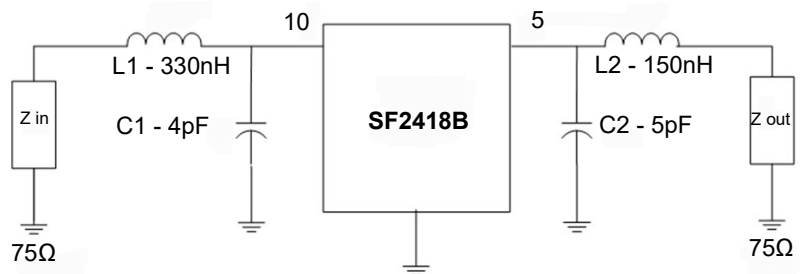
**Absolute Maximum Ratings**

Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Max. DC voltage between any 2 terminals	10	VDC
Storage Temperature Range	-40 to +85	°C
Operating Range	-40 to +85	°C
Suitable for lead-free soldering - Max Soldering Temperature	260°C for 40 s	

**Electrical Characteristics**

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	$f_c$			69.5		MHz
Insertion Loss <b>IL</b>				10.8	12.0	dB
1dB Band Width			5.0	6.3		MHz
3dB Band Width				7.3		MHz
35dB Band Width				11.4	12.3	MHz
Amplitude Ripple $F_C \pm 2.5$ MHz				0.5	1.0	dB
Group Delay Ripple $F_C \pm 2.5$ MHz				50		ns
Absolute Group Delay at $F_C$				0.73		us
Attenuation (Reference level from minimum Insertion Loss)						
10MHz to 63MHz			40	42		dB
63 MHz to 64 MHz			20	31		
Temperature Coefficient				-94		ppm/°C
Source Impedance				75		Ohm
Load Impedance				75		Ohm
Case Style			SMD 7 x 5 mm Nominal Footprint			
Lid Symbolization (YY=year, WW=week, S=shift, ## = Sequence Code)			RFM, SF2418B, YYWWS##			

Connection	Terminal
RF Input	10
RF Output	5
Ground	All others



 **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.

# FREQUENCY CHARACTERISTICS

## Wide Band Response (span - 100 MHz)

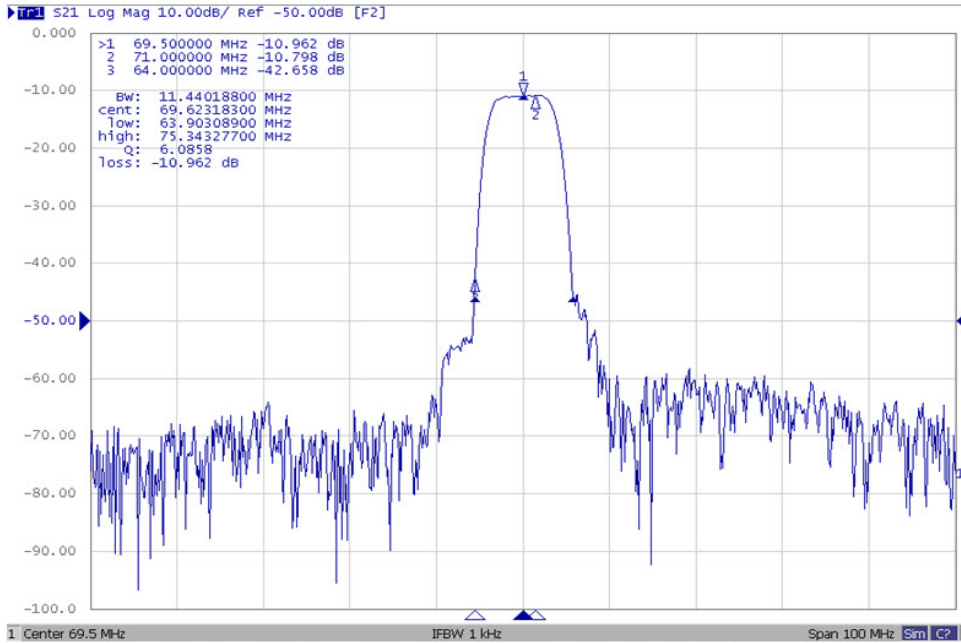


Fig1. Horizontal: 10MHz/Div Vertical: 10dB/Div

## Pass Band And Group Time Delay Response

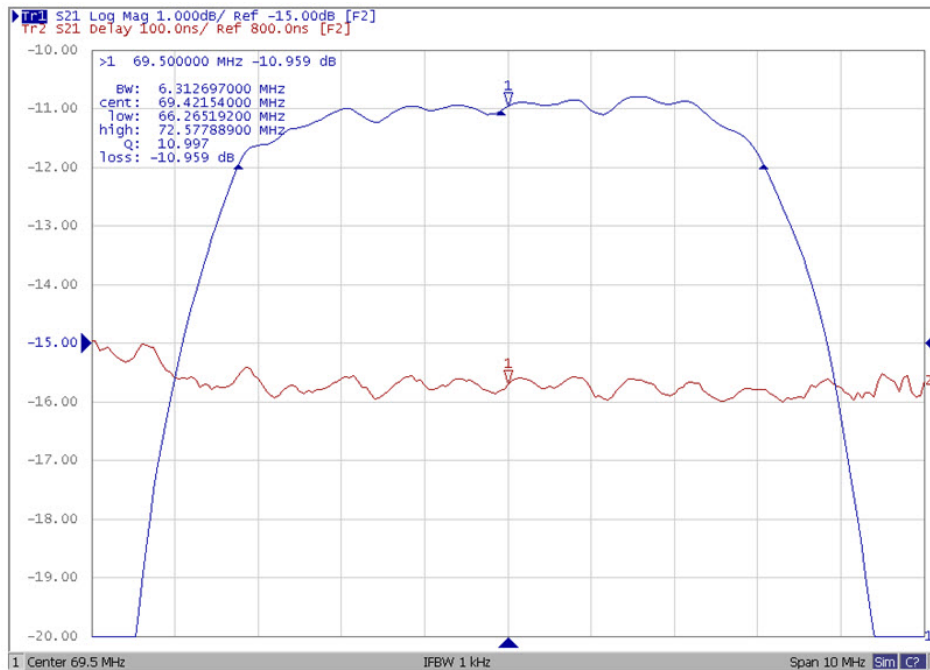
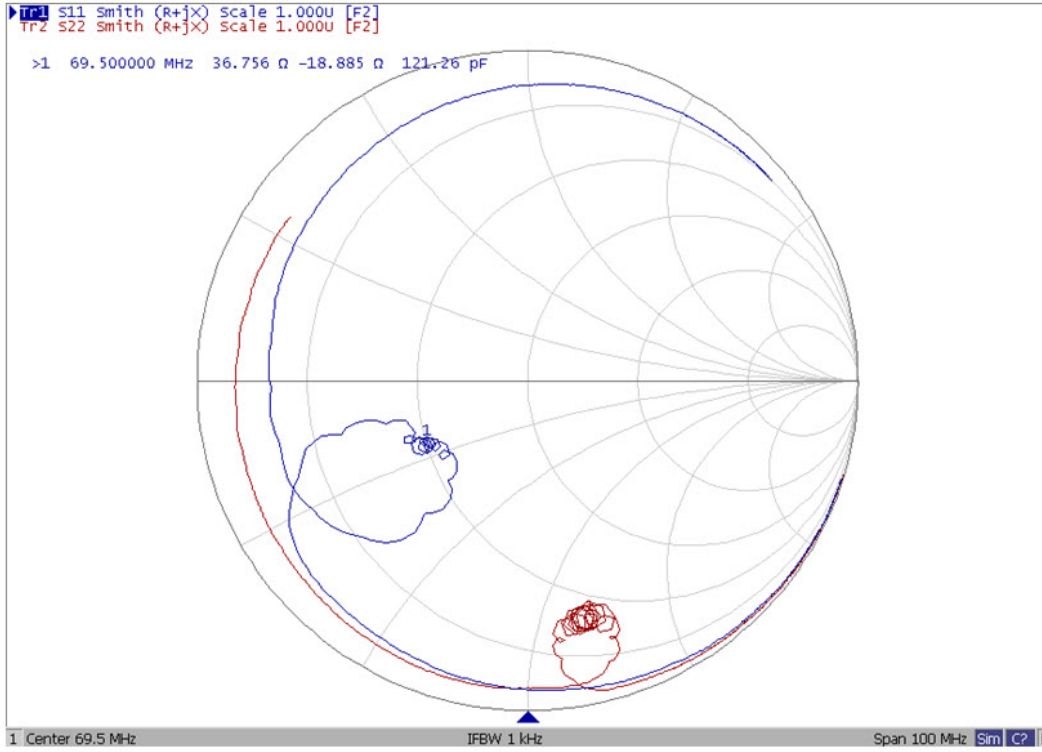


Fig2. Horizontal: 1MHz/Div Vertical: 1dB/Div  
Vertical: 100ns/Div

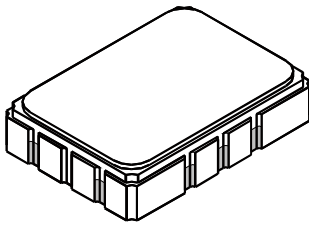
# Smith Chart



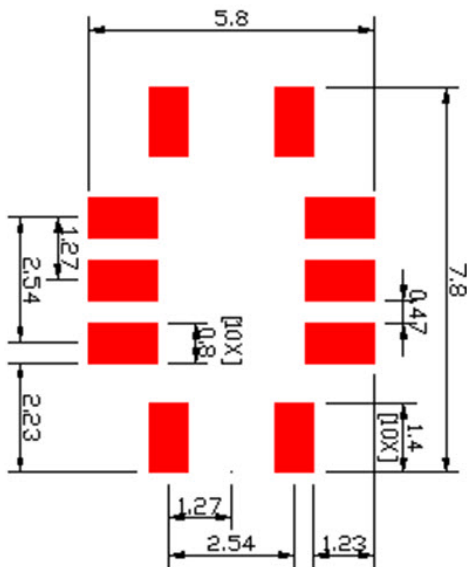
# SMP-03 Case

## 10-Terminal Ceramic Surface-Mount Case

### 7 x 5 mm Nominal Footprint

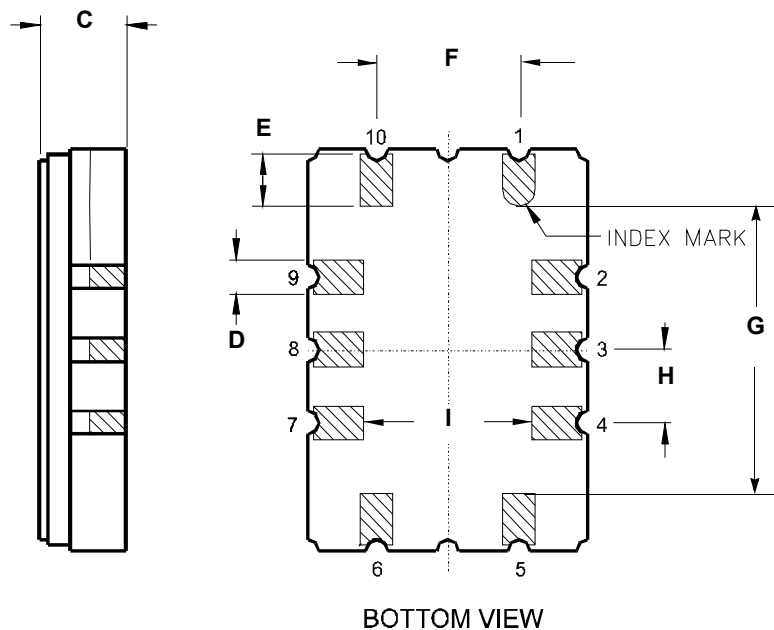
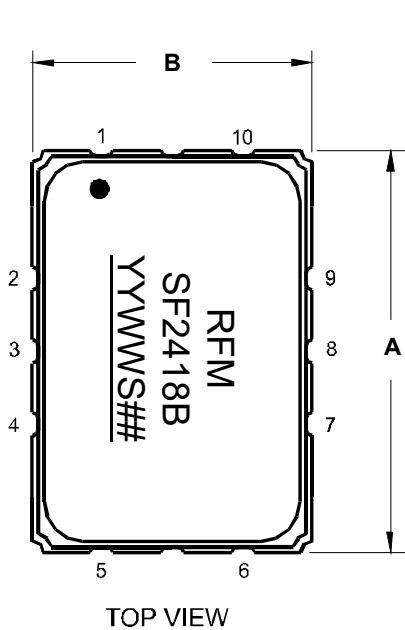


Recommended PCB Footprint



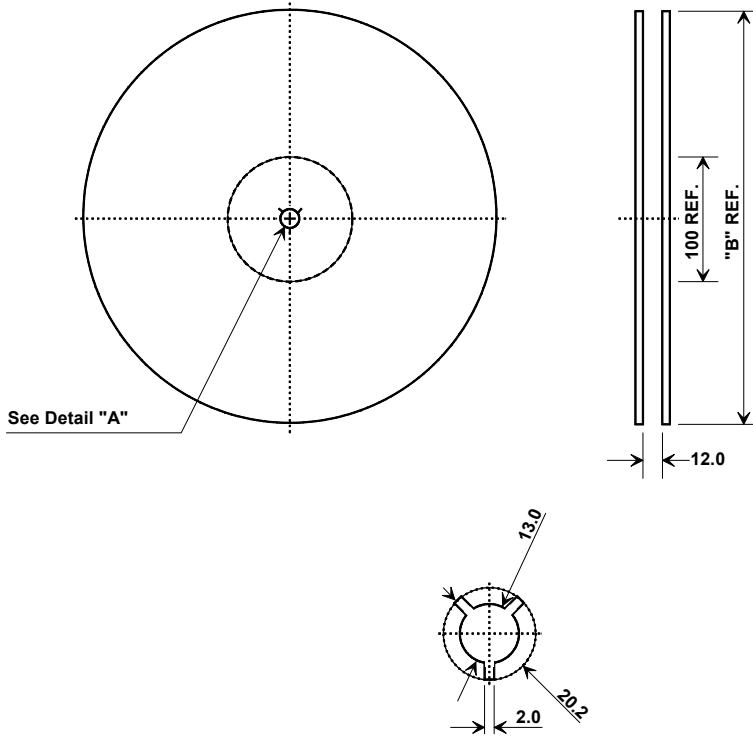
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	6.80	7.00	7.20	0.268	0.276	0.283
B	4.80	5.00	5.20	0.189	0.197	0.205
C	-	-	1.82	-	-	0.071
D	-	0.60	-	-	0.023	-
E	-	1.00	-	-	0.039	-
F	-	2.54	-	-	0.100	-
G	-	5.00	-	-	0.196	-
H	-	1.27	-	-	0.050	-
I	-	1.27	-	-	0.050	-

Materials	
Solder Pad Termination	Au plating 30 - 60 $\mu$ mches (76.2-152 $\mu$ m) over 80-200 $\mu$ mches (203-508 $\mu$ m) Ni.
Lid	Fe-Ni-Co Alloy Electroless Nickel Plate (8-11% Phosphorus) 100-200 $\mu$ mches Thick
Body	Al <sub>2</sub> O <sub>3</sub> Ceramic



## Tape and Reel Specifications

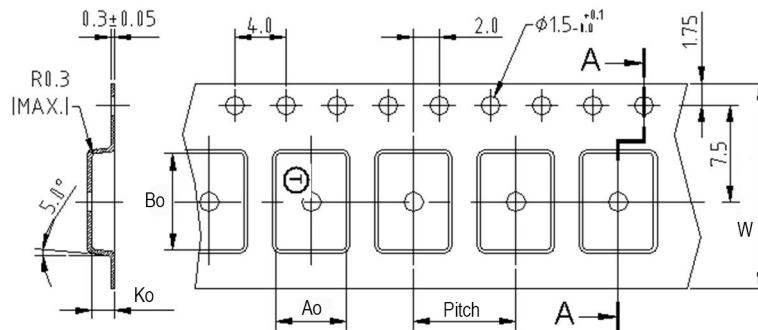
Tape and Reel Standard per ANSI/EIA-481



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

### COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions		Tolerance
<b>Ao</b>	5.5 mm	± 0.1mm
<b>Bo</b>	7.5 mm	± 0.1mm
<b>Ko</b>	2.0 mm	± 0.1mm
<b>Pitch</b>	8.0 mm	± 0.1mm
<b>W</b>	16.0 mm	± 0.3mm



USER DIRECTION OF FEED →

## 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.

