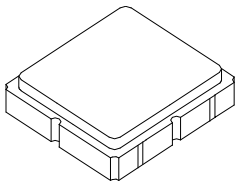
Preliminary

muRata
INNOVATOR IN ELECTRONICS

SF2218D

425 MHz SAW Filter

- ***Low Insertion Loss***
- ***3.8 X 3.8 mm Surface-mount Case***
- ***Single-ended Input and Differential Output***
- ***Complies with Directive 2002/95/EC (RoHS)***



SM3838-8

Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Maximum DC Voltage on any Non-ground Terminal	3	VDC
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Suitable for Lead-free Soldering - Maximum Soldering Temperature	260°C for 30 s	

Electrical Characteristics

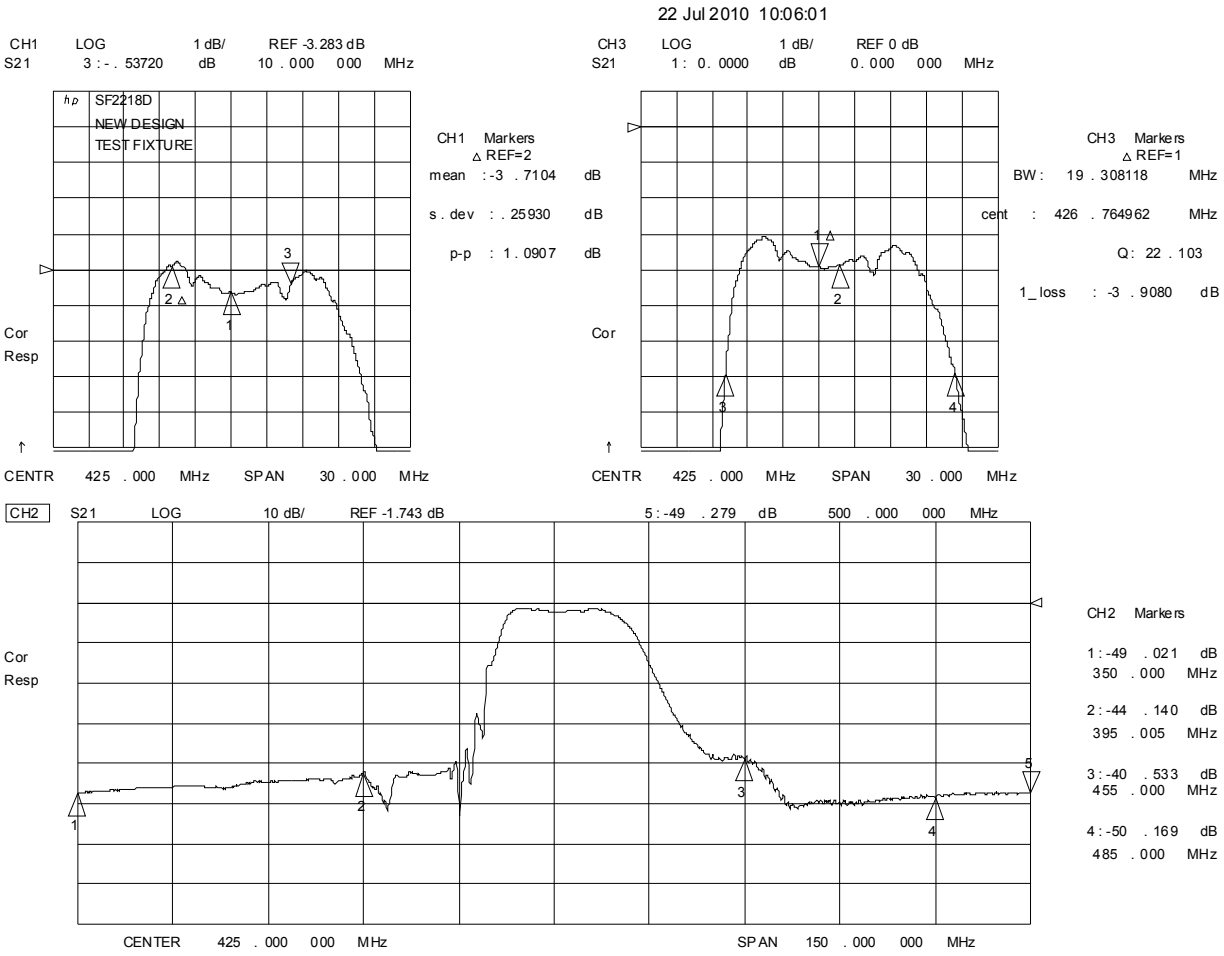
Characteristic	Sym	Notes	Min	Typ	Max	Units
Nominal Center Frequency	f_C	1		425		MHz
Insertion Loss, 425 MHz	IL	1			5.0	dB
3 dB Bandwidth	BW_{3dB}		10	19		MHz
Passband Amplitude Ripple, 420 to 430 MHz		1		1.0	2.1	dB_{P-P}
Attenuation Referenced to 0 dB:						
275 to 300 MHz		2	45			dB
299 to 335 MHz		2	40			
334 to 360 MHz		2	45			
359 to 385 MHz		2	35			
386 to 400 MHz		2	20			
400 to 410 MHz		2	40			
455 to 484 MHz		2	20			
485 to 494 MHz		2	35			
495 to 575 MHz		2	40			
Single-ended Source Impedance				50		ohm
Balanced Load Impedance				100		ohm
Operating Temperature Range			-20		+70	°C
Case Style		SM3838-8 3.8 x 3.8 mm Nominal Footprint				
Lid Symbolization (Y=year, WW=week, S=shift)		RFM 956 YWWS				

CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

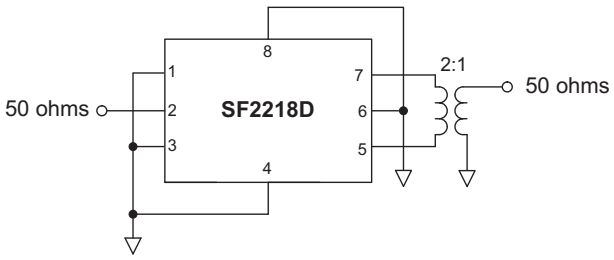
NOTES:

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. Rejection is measured as attenuation referenced to 0 dB. 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. 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.
6. US and international patents may apply.
7. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

SF2218D Frequency Response



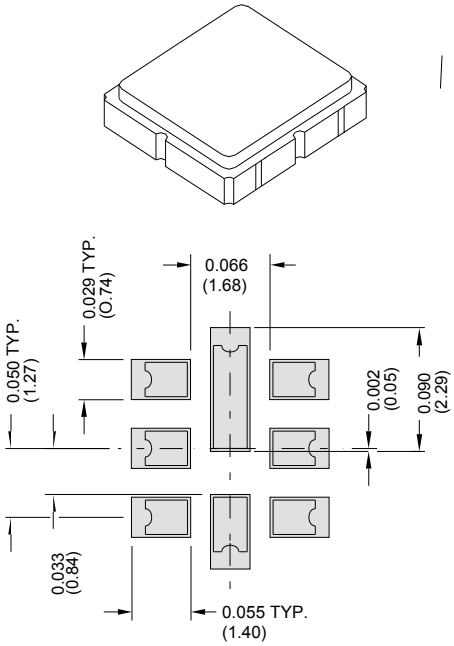
SF2218D Measurement Circuit



SM3838-8 Case

8-Terminal Ceramic Surface-Mount Case

3.8 X 3.8 mm Nominal Footprint



PCB Footprint

Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.6	3.8	4.0	0.142	0.150	0.157
B	3.6	3.8	4.0	0.142	0.150	0.157
C	1.05	1.20	1.35	0.041	0.047	0.053
D	0.95	1.10	1.25	0.037	0.043	0.049
E	0.90	1.00	1.10	0.035	0.040	0.043
F	0.50	0.60	0.70	0.020	0.024	0.028
G	2.39	2.54	2.69	0.090	0.100	0.110
H	1.40	1.75	2.05	0.055	0.069	0.080

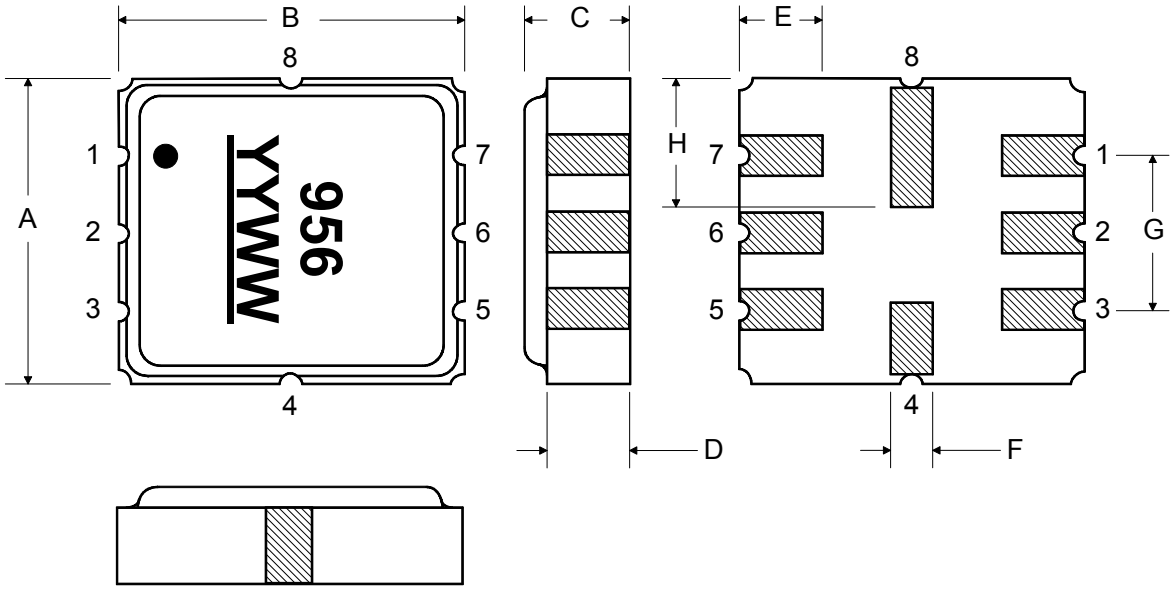
Electrical Connections

	Connection	Terminals
Port 1	Single-ended Input	2
Port 2	Balanced Output	5, 7
	Ground	All Others
Dot Indicates Pin 1		

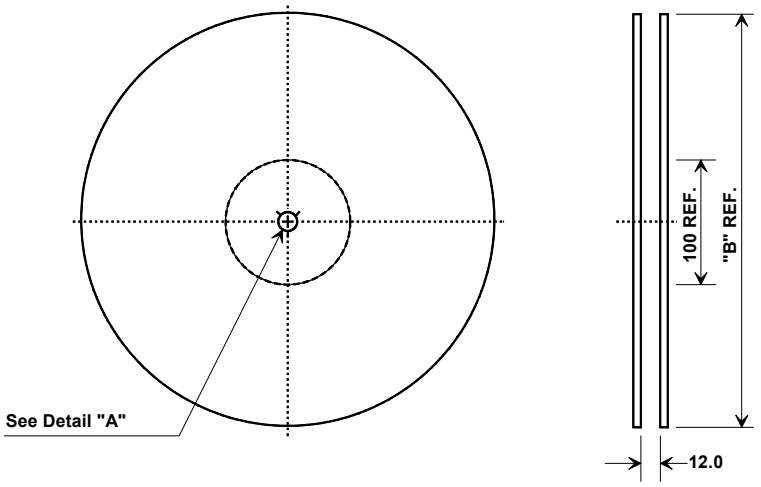
Materials	
Solder Pad Plating	0.3 to 1.0 µm Gold over 1.27 to 8.89 µm Nickel
Lid Plating	2.0 to 3.0 µm Nickel
Body	Al_2O_3 Ceramic
Pb Free	

TOP VIEW

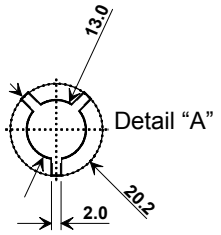
BOTTOM VIEW



Tape and Reel Specifications



"B" Nominal Size		Quantity Per Reel
Inches	Millimeters	
7	178	500 pcs
13	330	3,000 pcs



COMPONENT ORIENTATION