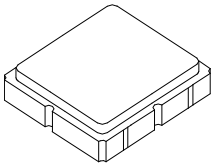
Discontinued

RFM products are now Murata products.

SF2110D

305.00 MHz SAW Filter

- ***Precision UHF SAW Filter***
- ***3.8 x 3.8 x 1.2 mm Surface-mount Case***
- ***Differential 750 ohm In, 900 ohm Out***
- ***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 Between any Two Terminals	30	VDC
Storage Temperature Range	-40 to +85	°C
Suitable for Lead-free Soldering - Maximum Soldering Profile	260 °C for 30 s	

Electrical Characteristics

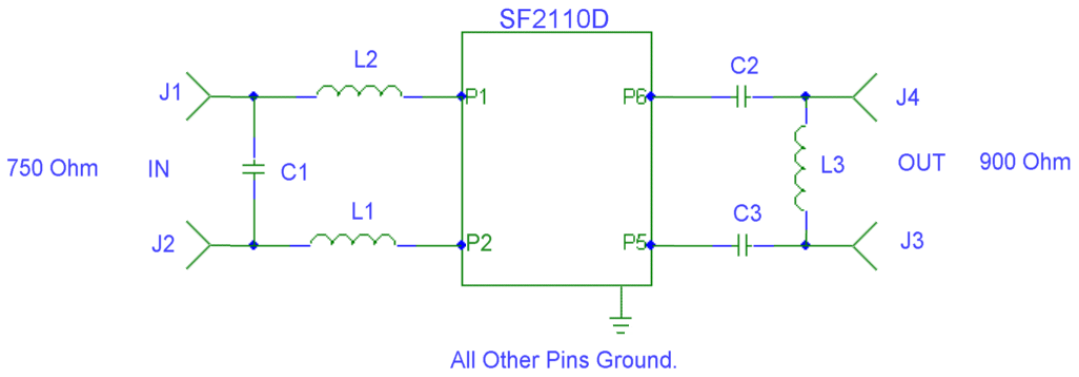
Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	fC	1		305		MHz
Insertion Loss	IL			9	12	dB
Amplitude Ripple, 300 to 310 MHz		1, 2		0.7	2.0	dB_{P-P}
Low Side Attenuation, 266 to 290 MHz			35	45		dB
High Side Attenuation, 320 to 344 MHz			35	50		
Delay Ripple, 300 to 310 MHz		1, 2, 3		30	100	ns_{P-P}
Group Delay in Passband					500	ns
Case Style		6	SM3838-8 3.8 x 3.8 mm Nominal Footprint			
Lid Symbolization, Y=year, WW=week, S=shift			608 YWWS			

CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

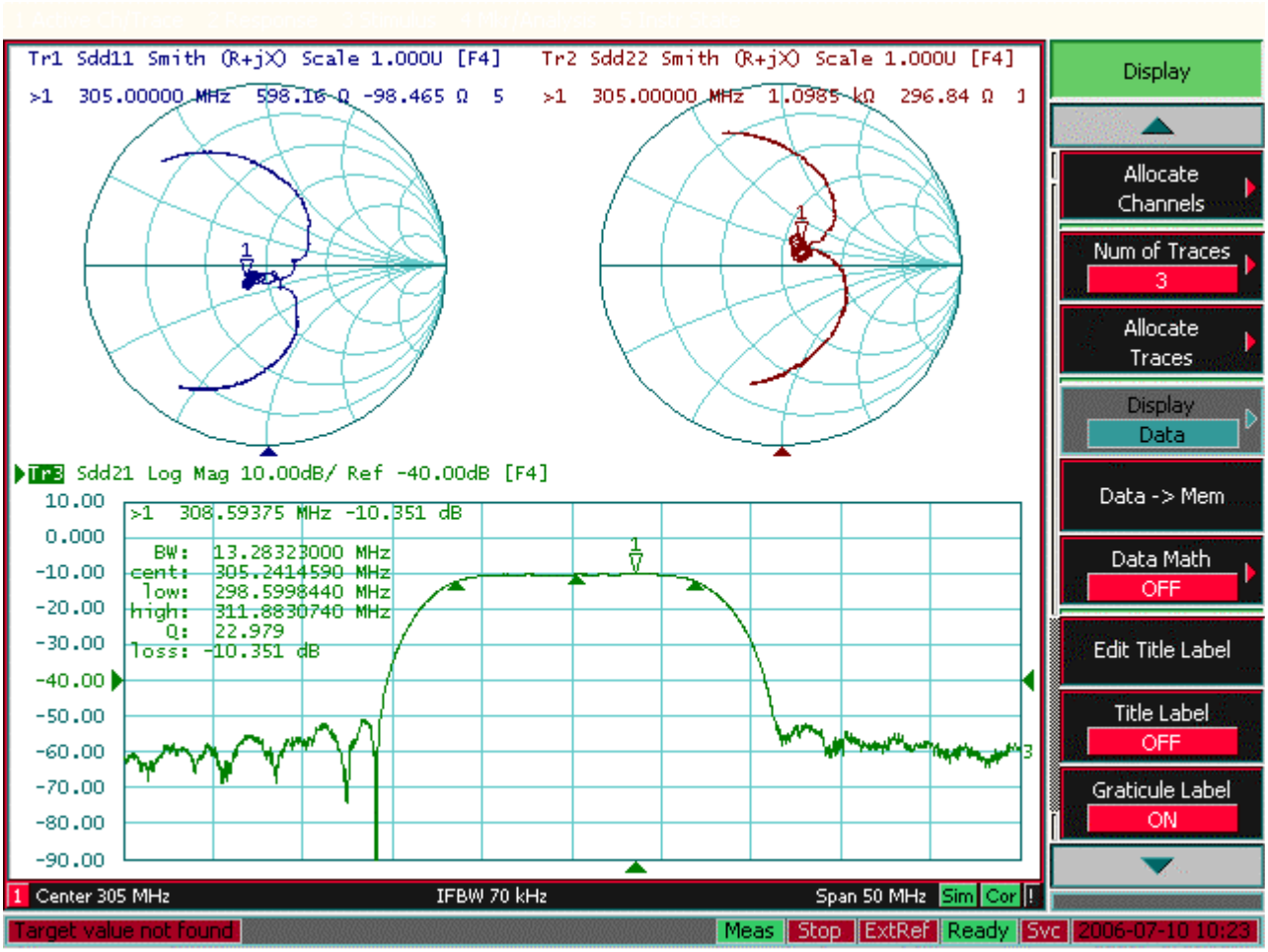
1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50 Ω and measured with 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal 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. The design, manufacturing process, and specifications of this filter are subject to change.
5. Tape and Reel Standard Per ANSI / EIA 481.
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.

I. Differential Matching

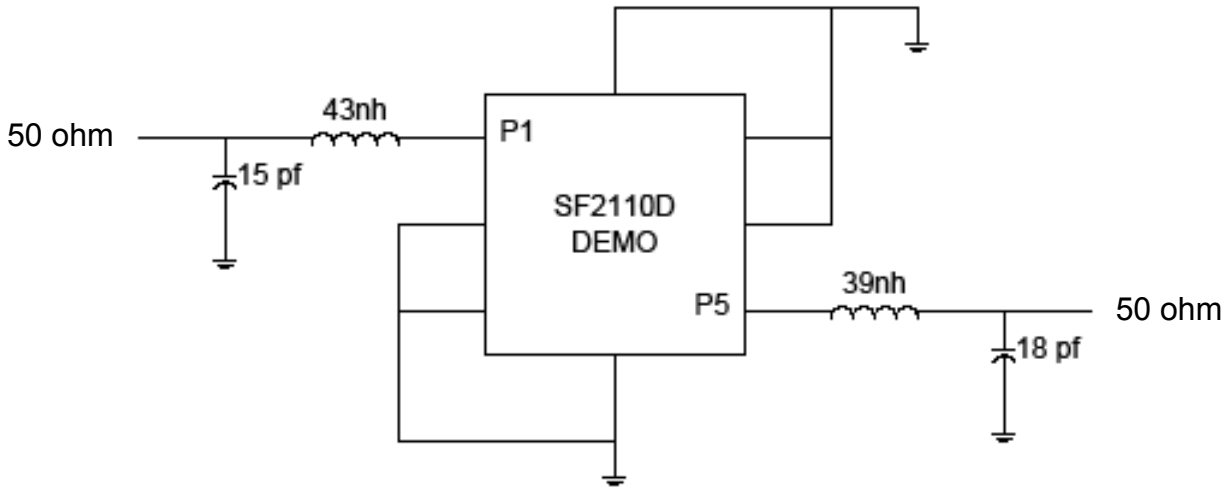


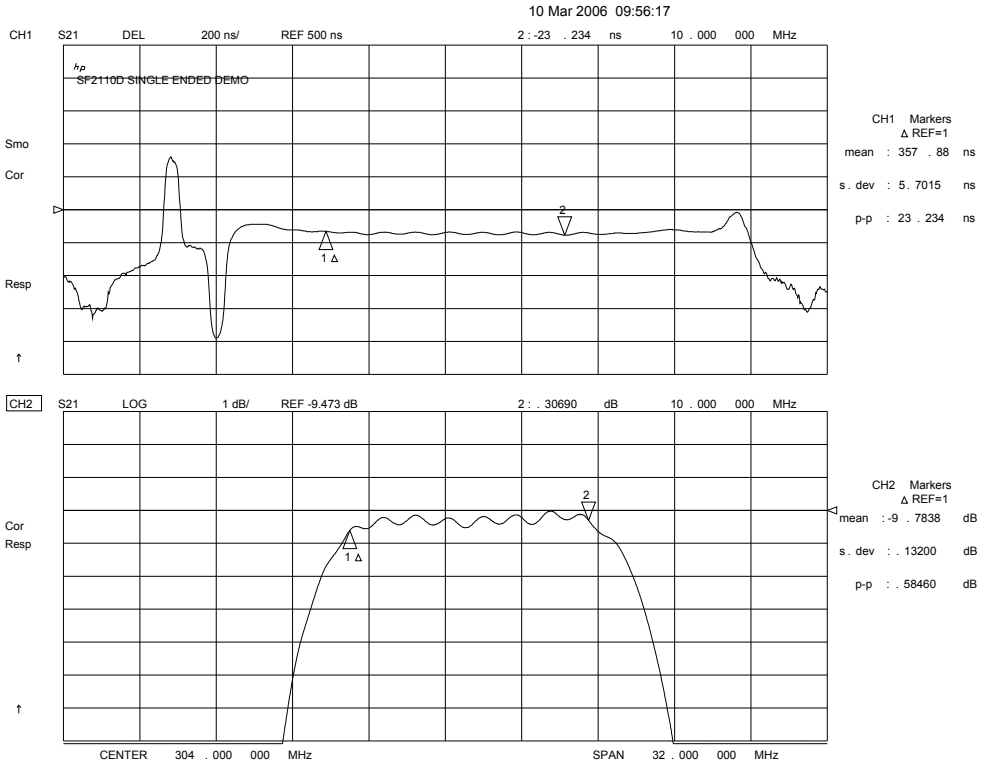
SF2110D Demo

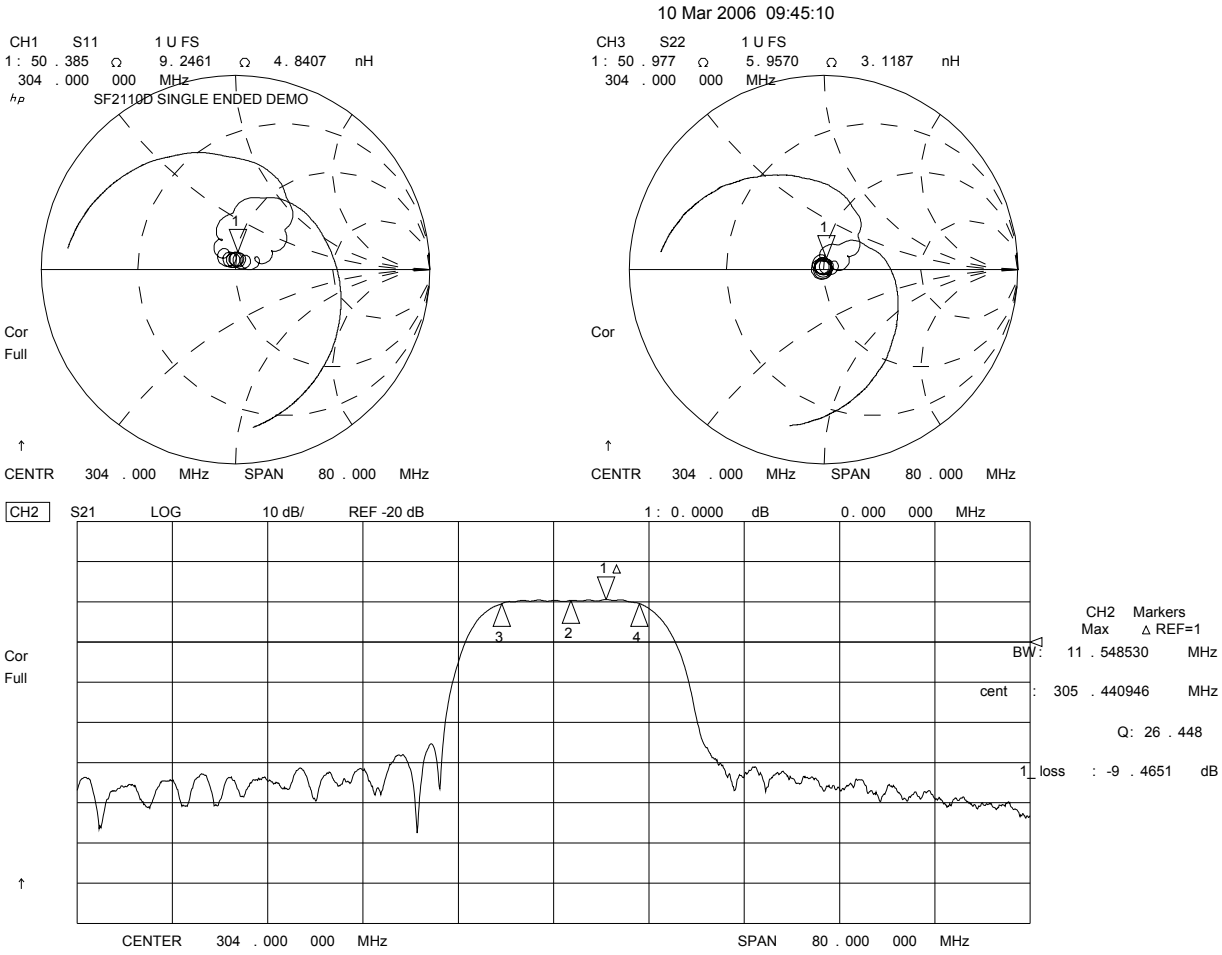
PCB: 400-1724-001 4 port
J1-J4: 500-1279-001 SMACONN
L1-L2: 500-1282-470 47nH 0402
L3: 500-1282-560 56nH 0402
C1: 501-0857-047 4.7pF 0402
C2: 501-0857-180 18pF 0402
C3: 501-0857-220 22pF 0402



II. Single-ended Matching



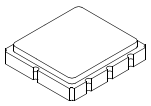


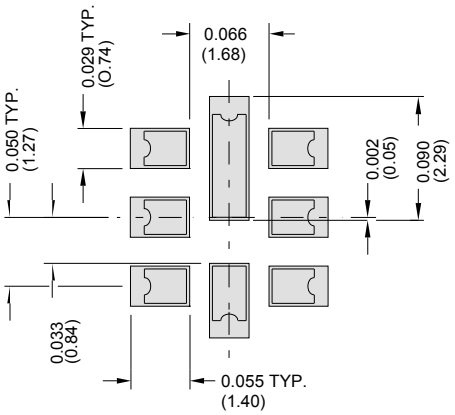


SM3838-8 Case

8-Terminal Ceramic Surface-Mount Case

3.8 X 3.8 mm Nominal Footprint





PCB Footprint

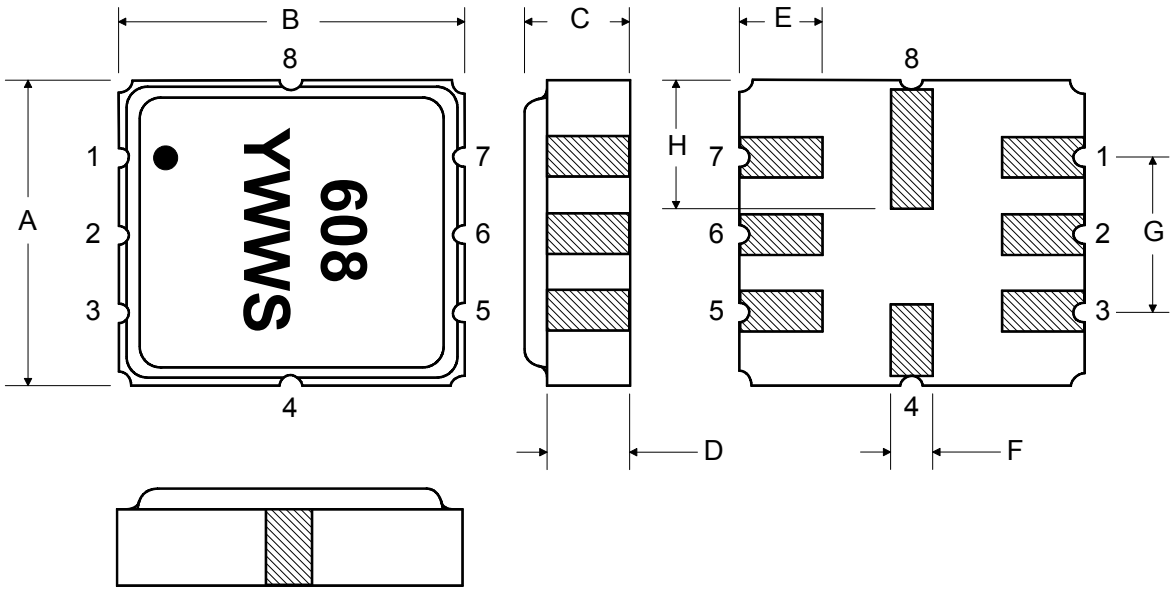
Case Dimensions						
Dimension	**mm**			**Inches**		
	Min	**Nom**	**Max**	**Min**	**Nom**	**Max**
A	3.6	3.8	4.0	0.142	0.150	0.157
B	3.6	3.8	4.0	0.142	0.150	0.157
C	1.05	1.20	1.35	0.041	0.047	0.053
D	0.95	1.10	1.25	0.037	0.043	0.049
E	0.90	1.00	1.10	0.035	0.040	0.043
F	0.50	0.60	0.70	0.020	0.024	0.028
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

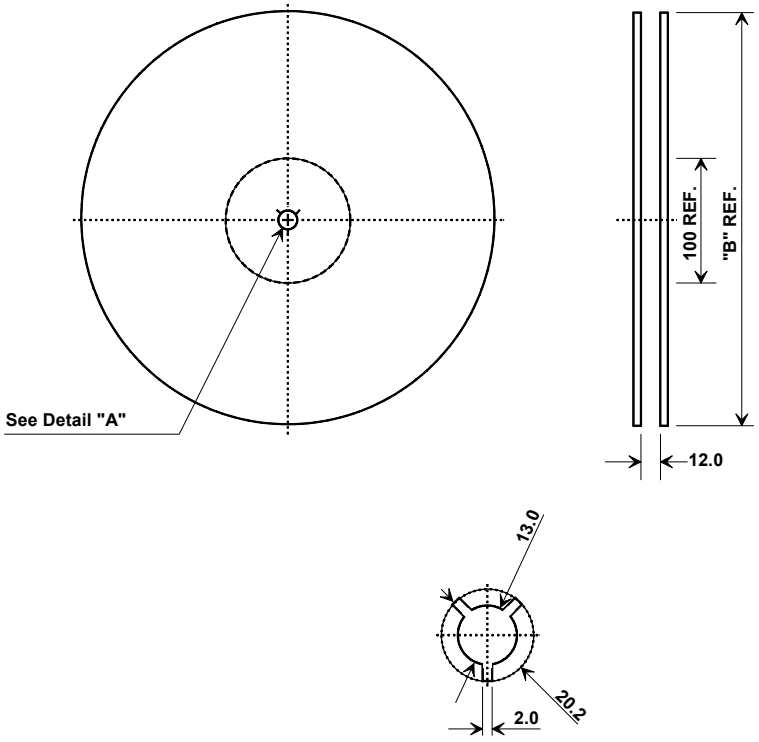
Electrical Connections		
	Connection	**Terminals**
Port 1	Differential Input	1, 2
Port 2	Differential Output	5, 6
	Ground	All Others
Single-ended Operation		Return is Ground
Differential Operation		Return is Hot
Dot Indicates Pin 1		

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





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

COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	4.25 mm
Bo	4.25 mm
Ko	1.6 mm
Pitch	8.0 mm
W	12.0 mm