

- **CDMA 450 F-Band RF SAW Filter**
- **3.8 x 3.8 x 1.4 mm Surface-mount Package**
- **Complies with Directive 2002/95/EC (RoHS)**

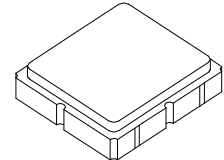


Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+28	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	

SF1202D

465.0 MHz SAW Filter



SM3838-6

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Nominal 1 dB Center Frequency	f_C	1		465.0		MHz
Passband Insertion Loss, 462.5 to 467.5 MHz	IL			2.8	3.5	dB
Passband VSWR, 462.5 to 467.5 MHz				1.6:1	2:1	
Rejection Referenced to 0 dB:		1, 2, 3				dB
0.3 to 452.5 MHz			48	52		
452.5 to 457.5 MHz			35	50		
452.5 to 457.5 MHz, +15 to +40 °C			40	53		
485.0 to 507.5 MHz			40	53		
507.5 to 1200 MHz			38	42		
1200 to 1700 MHz			30	35		
1700 - 2000 MHz			20	30		
Operating Temperature Range	T_A	1	-30		+85	°C
Single-ended Source Impedance			50 ohm			
Single-ended Load Impedance			50 ohm			

Case Style	SM3838-6 3.8 x 3.8 mm Nominal Footprint					
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	602, YWWS					
Standard Reel Quantity	Reel Size 7 Inch	1000 Pieces/Reel				
	Reel Size 13 Inch	3000 Pieces/Reel				

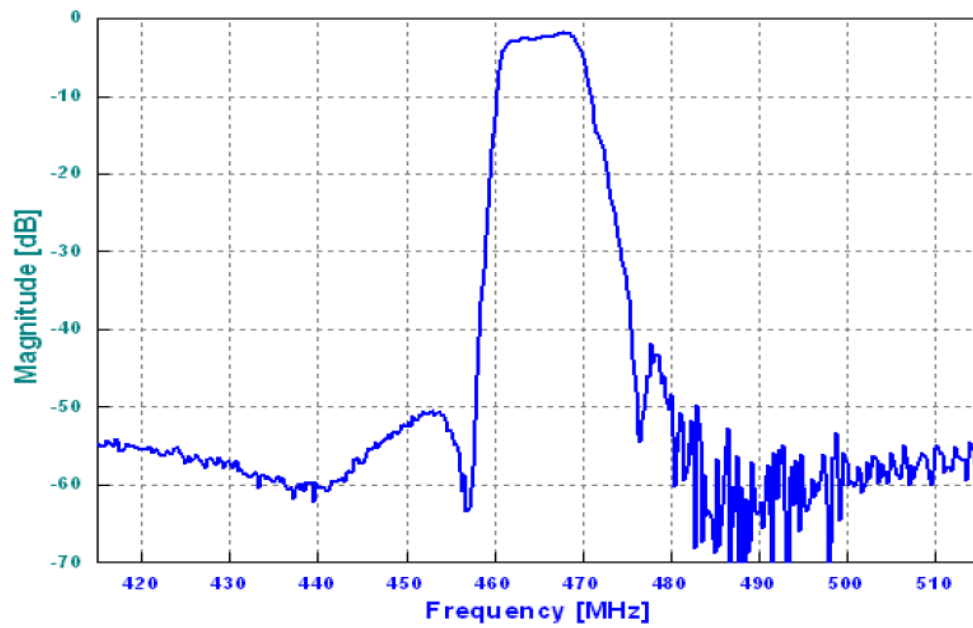
Electrical Connections

Connection	Terminals
Port 1	2
Port 2	5
Case Ground	All others

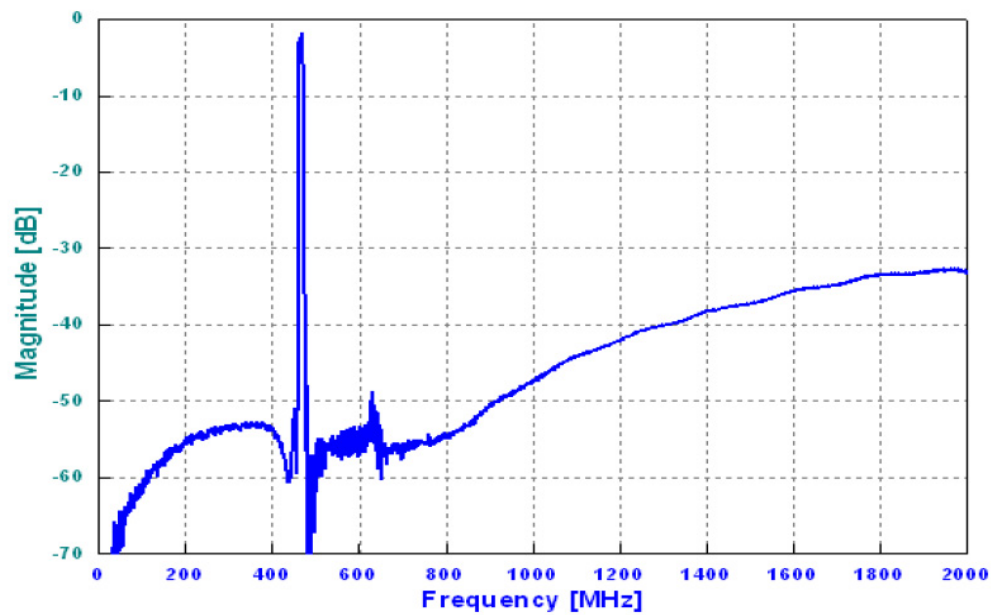
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

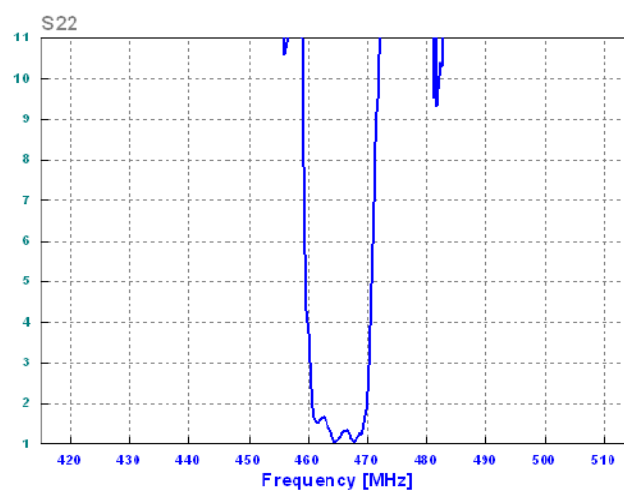
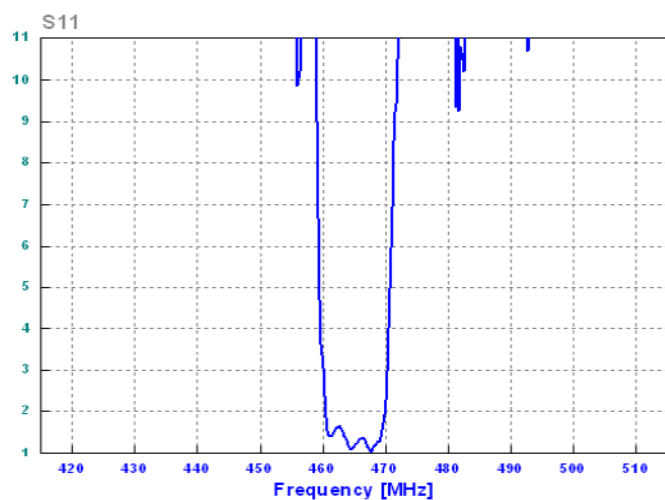
1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50 Ω and measured with 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, f_C .
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. 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.
7. US and international patents may apply.
8. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.



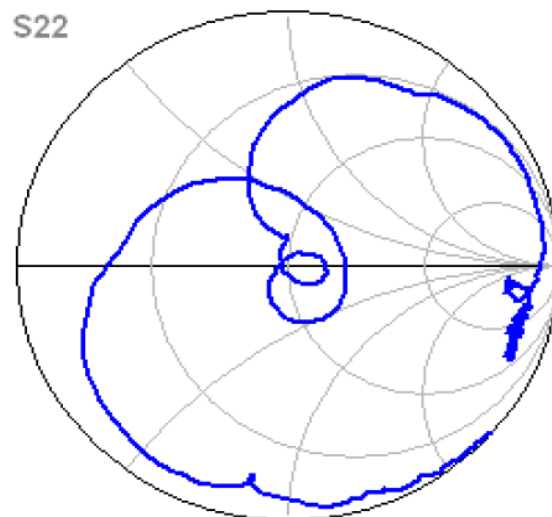
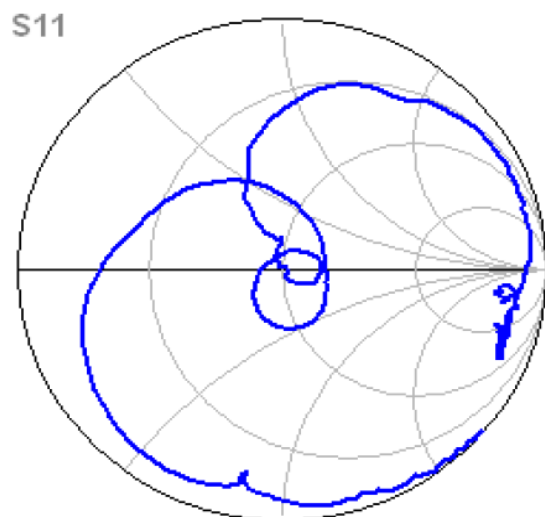
Passband Plot



Wideband Plot



VSWR

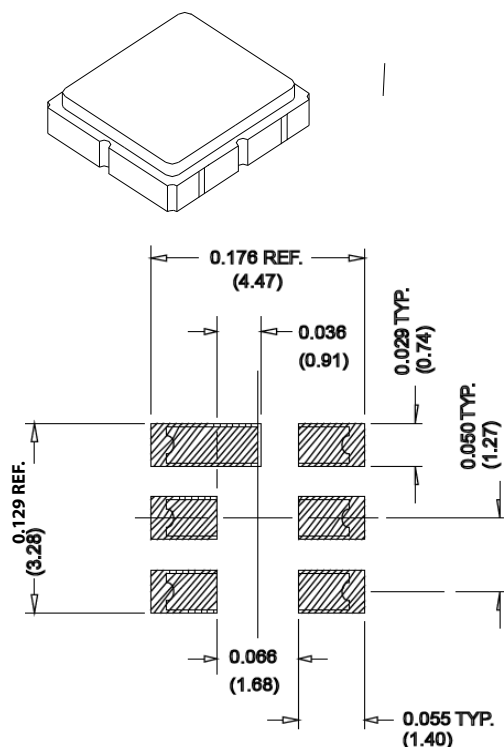


S11 and S22 Plots

SM3838-6 Case

6-Terminal Ceramic Surface-Mount Case

3.8 X 3.8 mm Nominal Footprint

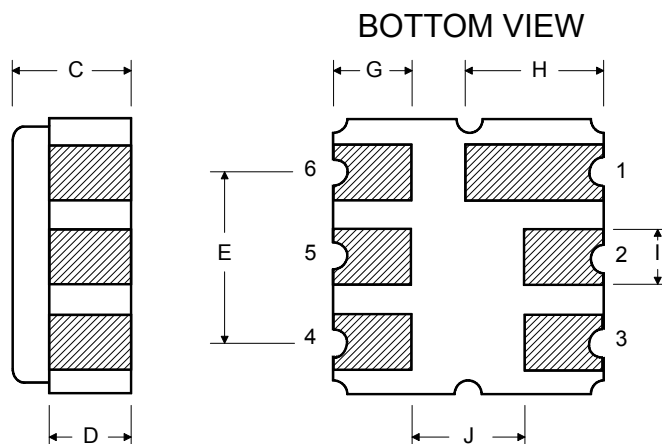
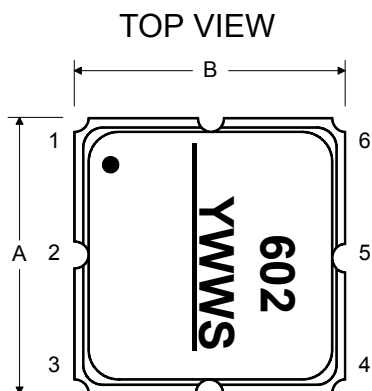


PCB Footprint

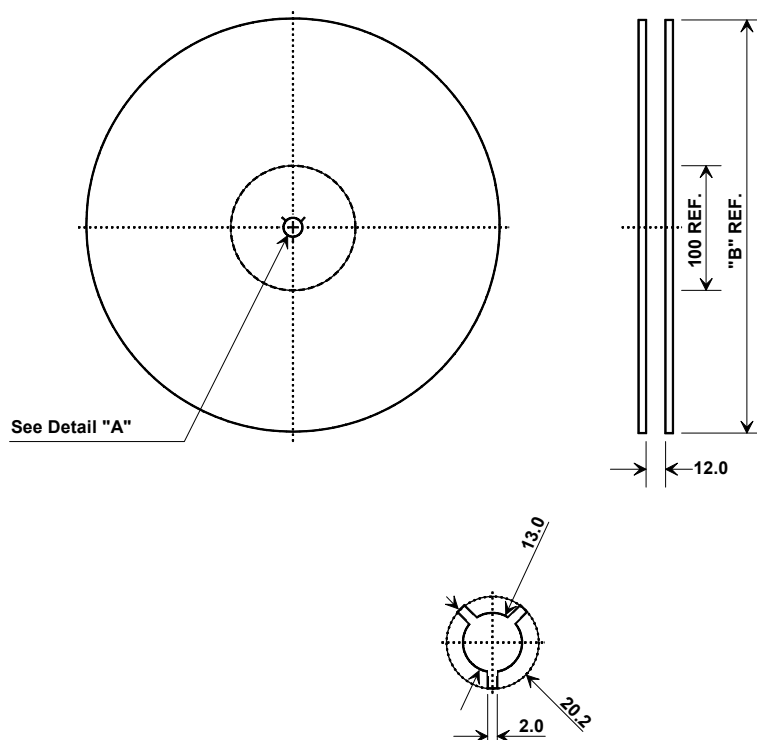
Case Dimensions						
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.60	3.80	4.0	0.14	0.15	0.16
B	3.60	3.80	4.0	0.14	0.15	0.16
C	1.30	1.50	1.70	0.05	0.06	0.067
D	0.95	1.10	1.25	0.037	0.043	0.05
E	2.39	2.54	2.69	0.090	0.10	0.110
G	0.90	1.0	1.10	0.035	0.04	0.043
H	1.90	2.0	2.10	0.75	0.08	0.83
I	0.50	0.6	0.70	0.020	0.024	0.028
J	1.70	1.8	1.90	0.067	0.07	0.075

Electrical Connections		
Connection		Terminals
Port 1	Single-ended Input	2
Port 2	Single-ended Output	5
	Ground	All others
Single-ended Operation Only		
Dot indicates Pin 1		

Materials	
Solder Pad Plating	0.3 to 1.0 μ m Gold over 1.27 to 8.89 μ m Nickel
Lid Plating	2.0 to 3.0 μ m Nickel
Body	Al ₂ O ₃ Ceramic
Pb Free	



Tape and Reel Specifications



"B"		Quantity Per Reel
Inches	millimeters	
7	178	1000
13	330	3000

COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	4.25 mm
Bo	4.25 mm
Ko	1.30 mm
Pitch	8.0 mm
W	12.0 mm

