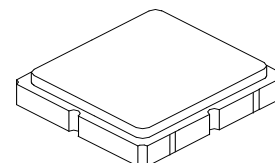


- Low Insertion Loss Dual SAW Filter
- 3.8 x 3.8 x mm Surface-mount Case
- Single-ended Input and Output
- Complies with Directive 2002/95/EC (RoHS)
- AECQ-200 Qualified



SF2283D

433.20/434.64 MHz Dual SAW Filter



SM3838-8

Absolute Maximum Ratings

Rating	Value	Units
Maximum Input Power	+10	dBm
Maximum DC Voltage Between any Two Terminals	0	VDC
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Operating Temperature Range	-40 to +85	°C
Suitable for Lead-free Soldering - Maximum Soldering Profile	260 °C for 30 s	

Electrical Characteristics

Characteristic	Sym	Note	Min	Typ	Max	Units
Band 1 Center Frequency	f_{C1}	1		433.20		MHz
Band 1 Insertion Loss, 433.10 to 433.30 MHz				4	5.8	dB
Band 1 Amplitude Ripple, 433.10 to 433.30 MHz				1	2.3	dB
Band 1 VSWR, 433.10 to 433.30 MHz				1.7	2.8	
Band 1 Attenuation Referenced to 0 dB: 434.54 to 434.74 MHz $f_{C1} + 2.40$ MHz $f_{C1} - 2.40$ MHz			25	37		dB
			13	34		
			25	33		
Band 2 Center Frequency	f_{C2}	1		434.64		MHz
Band 2 Insertion Loss, 434.54 to 434.74 MHz				4	5.8	dB
Band 2 Amplitude Ripple, 434.54 to 434.74 MHz				1	2.3	dB
Band 2 VSWR, 434.54 to 434.74 MHz				1.7	2.8	
Band 2 Attenuation Referenced to 0 dB: 433.10 to 433.30 MHz $f_{C2} + 2.40$ MHz $f_{C2} - 2.40$ MHz			19	35		dB
			30	32		
			30	33		

Case Style	SM3838-8 3.8 x 3.8 mm Nominal Footprint					
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	A30, YWWS					
Standard Reel Quantity	Reel Size 7 Inch	500 Pieces/Reel				
	Reel Size 13 Inch	3000 Pieces/Reel				

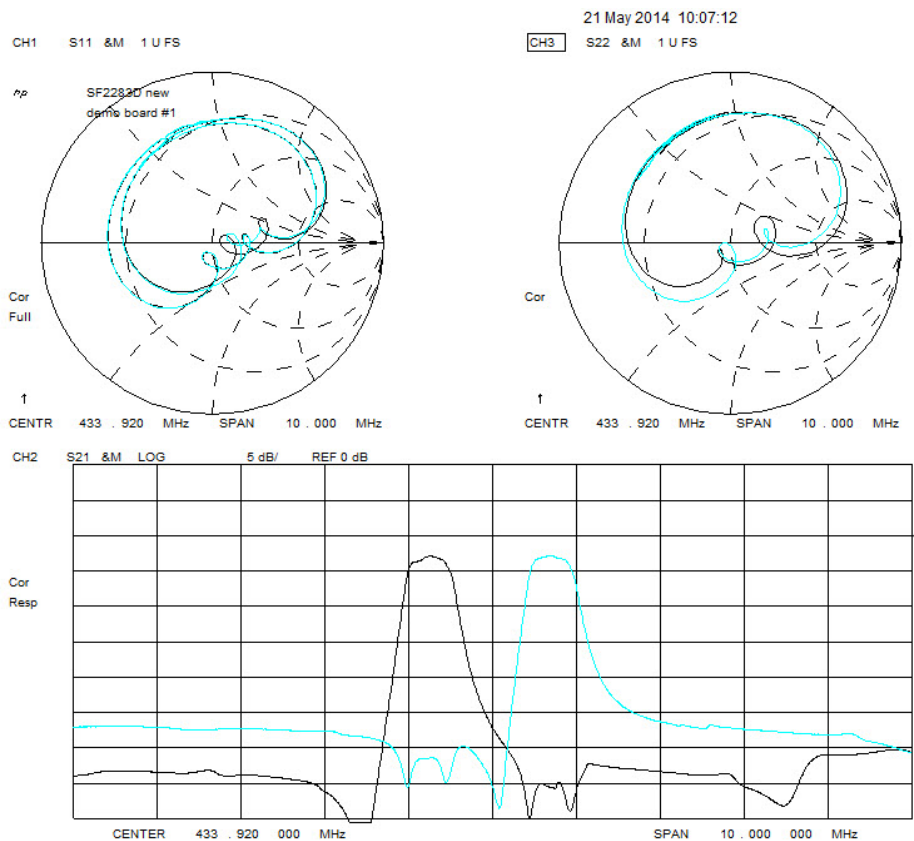
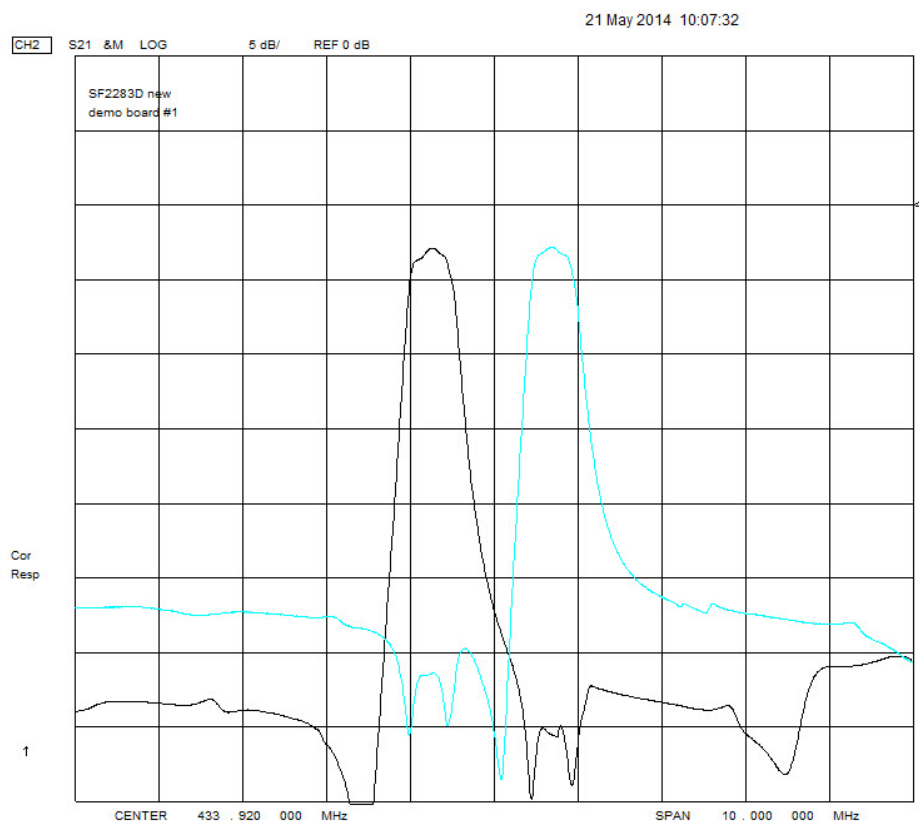


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

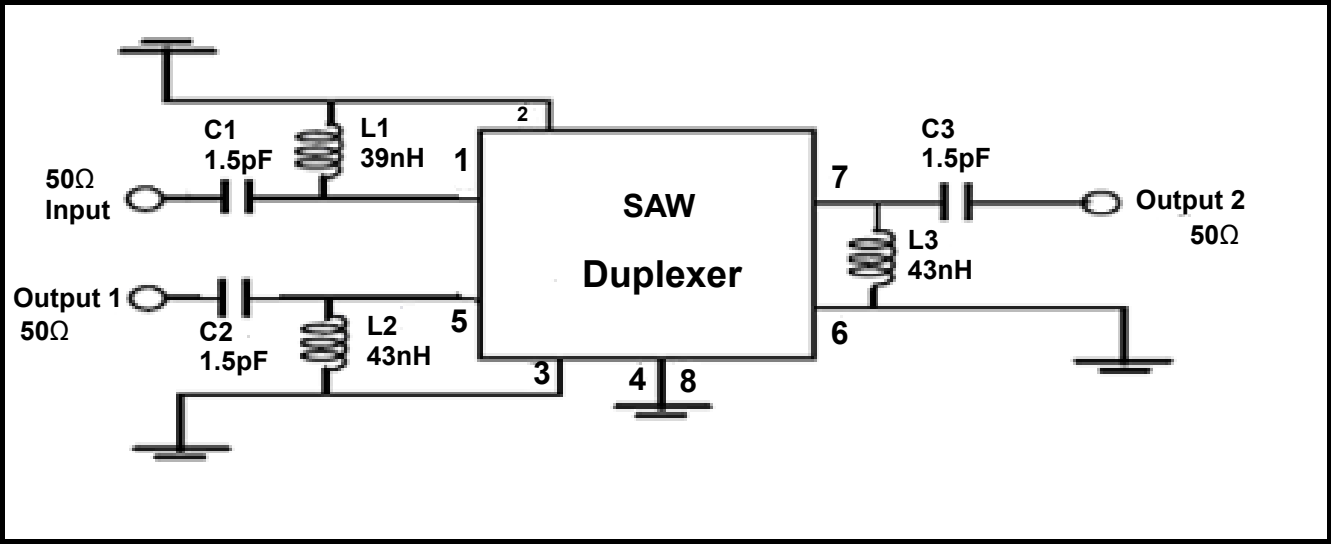
NOTES:

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. The design, manufacturing process, and specifications of this filter are subject to change.
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.

Frequency Characteristics



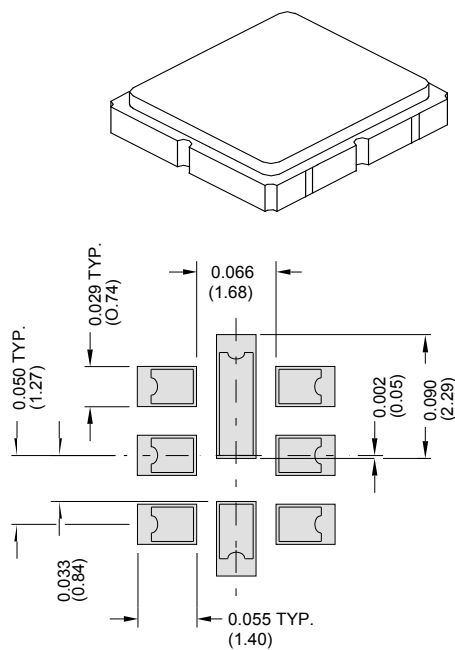
SF2283D Schematic



SM3838-8 Case

8-Terminal Ceramic Surface-mount Case

3.8 X 3.8 mm Nominal Footprint



Typical 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	1.40	0.041	0.047	0.055
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

Pin	Connection
1	Input
2,3,6	RF Ground
4,8	Case Ground
5	Band 1 Output
7	Band 2 Output

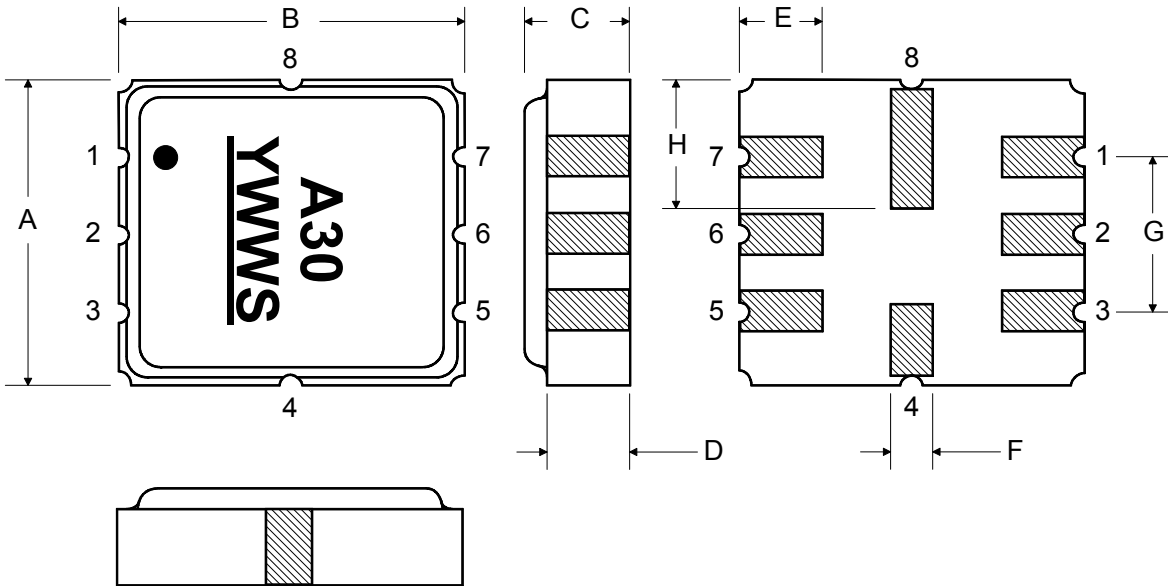
Dot Indicates Pin 1

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 ₂ O ₃ Ceramic
Pb Free	

TOP VIEW

BOTTOM VIEW



See Detail "A"

100 REF.
"B" REF.

12.0

13.0
20.2
2.0

“B” Nominal Size		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000

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

