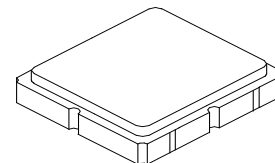


SF2283D

433.20/434.64 MHz Dual SAW Filter



SM3838-8

- 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)
- Moisture Sensitivity Level: 1
- AECQ-200 Qualified

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}			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			25	37		dB
$f_{C1} + 2.40$ MHz			13	34		
$f_{C1} - 2.40$ MHz			25	33		
Band 2 Center Frequency	f_{C2}			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			19	35		dB
$f_{C2} + 2.40$ MHz			30	32		
$f_{C2} - 2.40$ MHz			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, <u>YWW</u> S					
Standard Reel Quantity	Reel Size 7 Inch					500 Pieces/Reel
	Reel Size 13 Inch					3000 Pieces/Reel

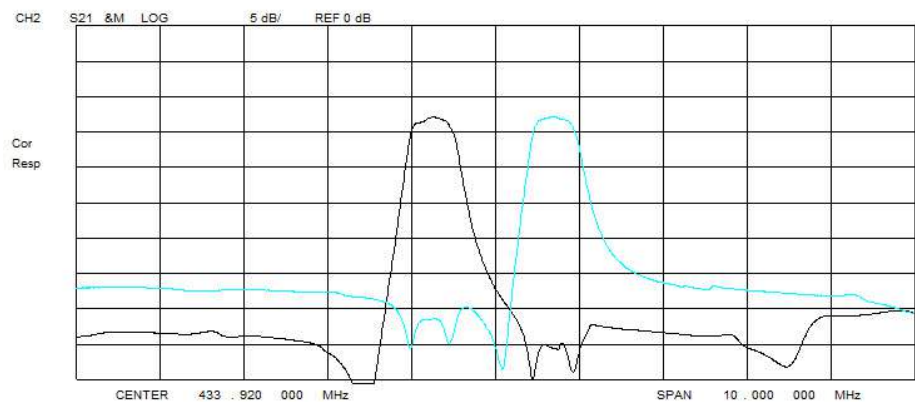
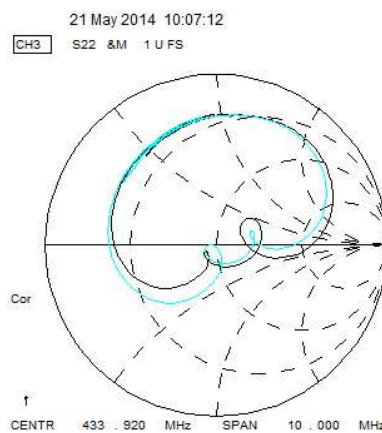
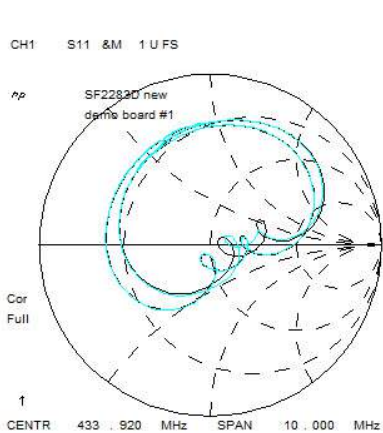
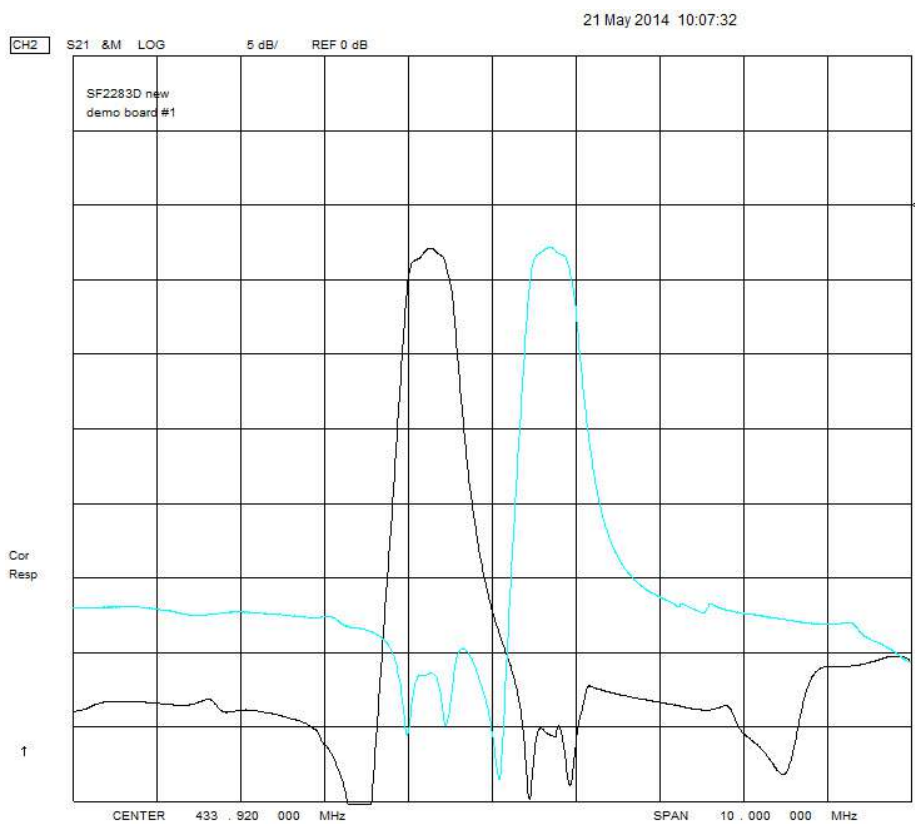


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

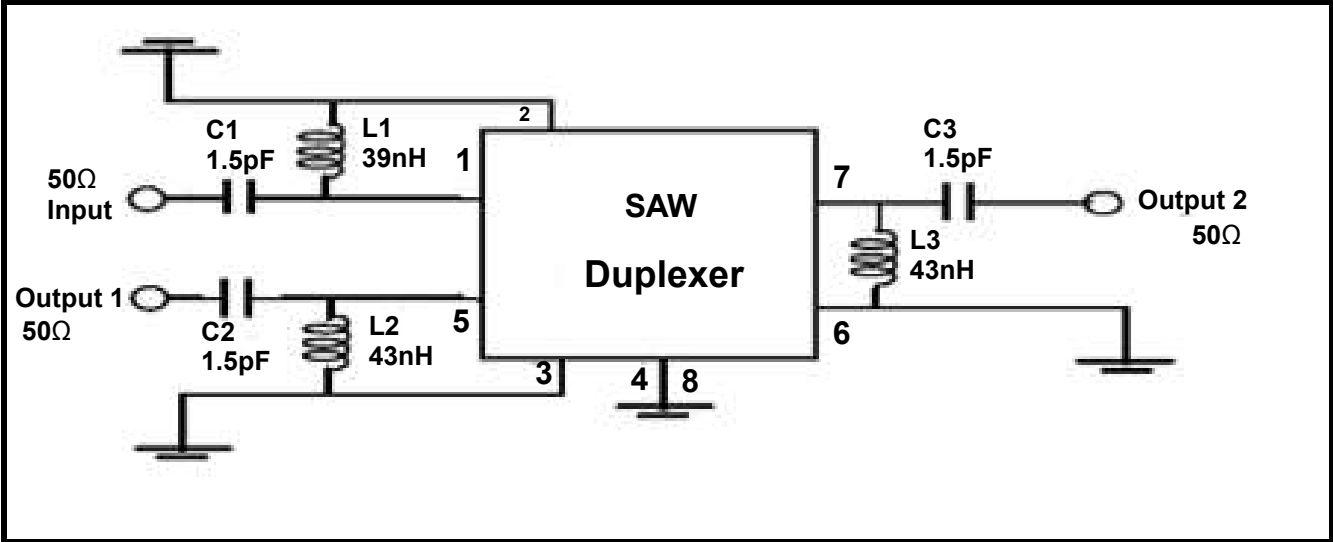
NOTES:

1. 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



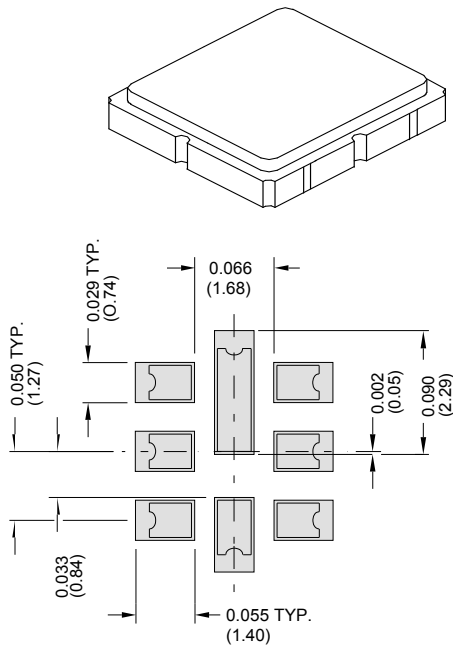
SF2283D Schematic



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

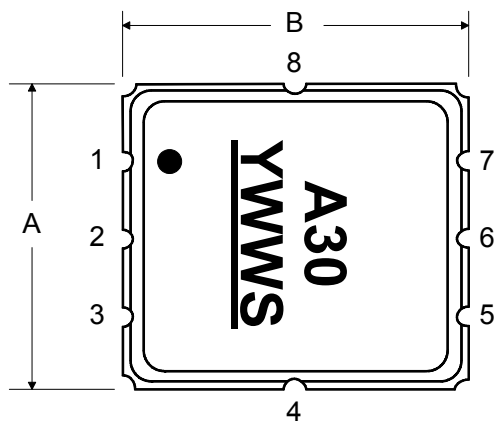
Pin	Connection
1	Input
2,3,6	RF Ground
4,8	Case Ground
5	Band 1 Output
7	Band 2 Output

Dot Indicates Pin 1

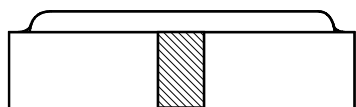
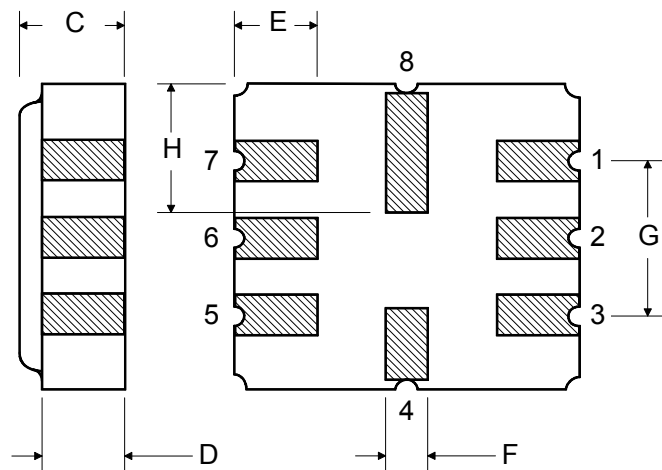
Materials

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_2O_3 Ceramic

TOP VIEW

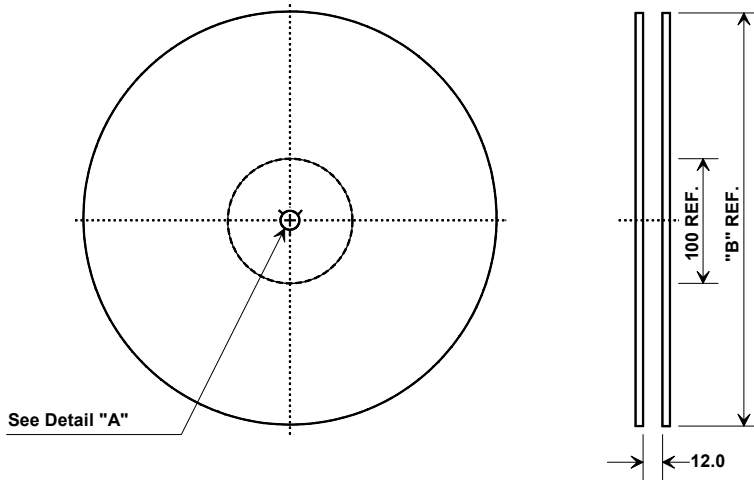


BOTTOM VIEW

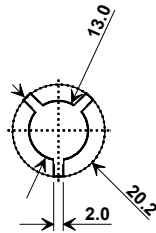


Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA-481

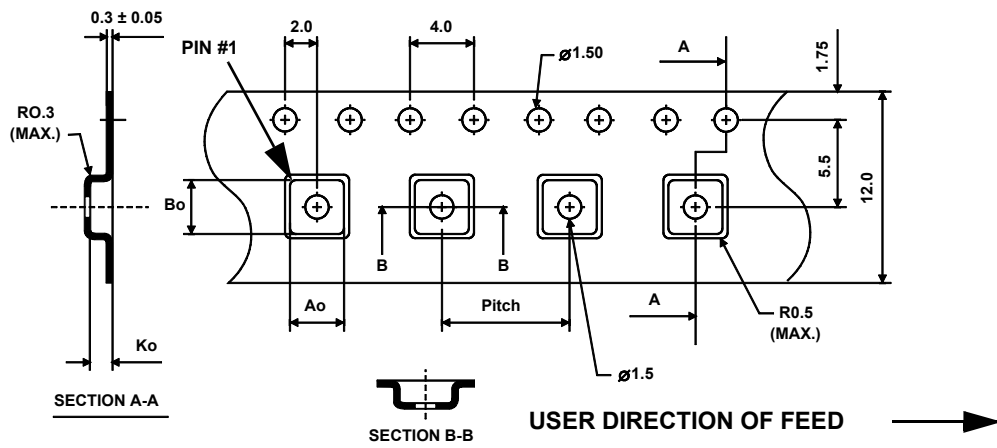


"B" Nominal Size		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000



COMPONENT ORIENTATION and DIMENSIONS

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



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.

