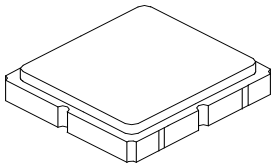
RFMi
A BRAND OF AKOUSTIS

RoHS compliant

SF2283D

433.20/434.64 MHz Dual SAW Filter

- ***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***



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}			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:						dB
434.54 to 434.74 MHz			25	37		
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:						dB
433.10 to 433.30 MHz			19	35		
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, 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. 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.

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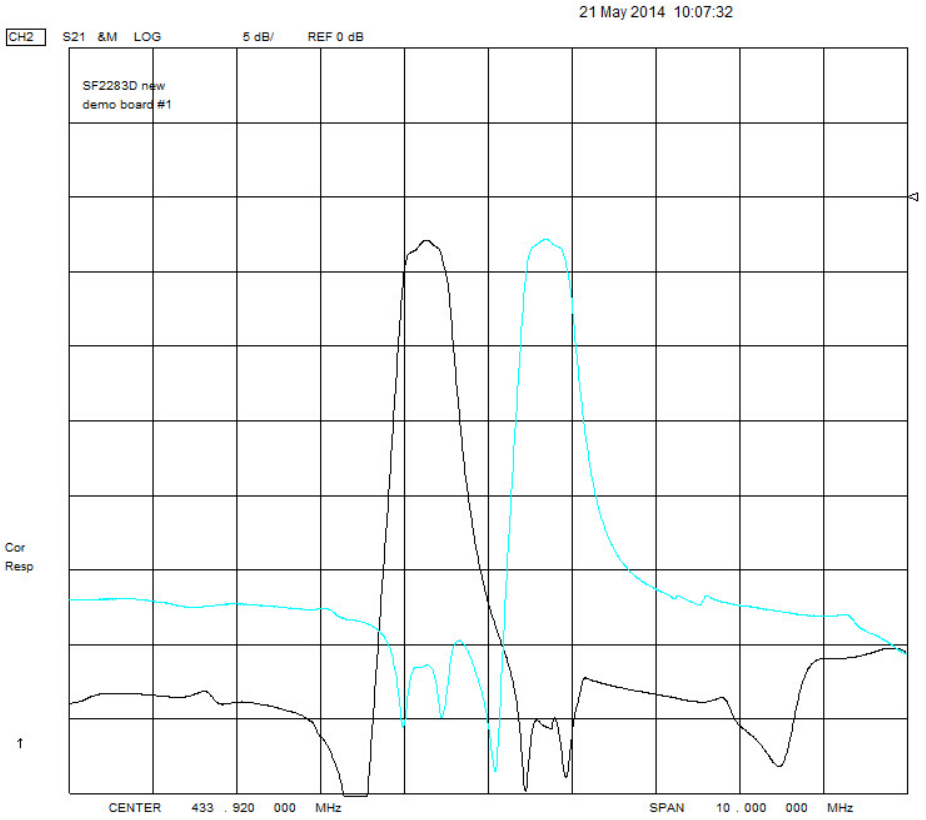
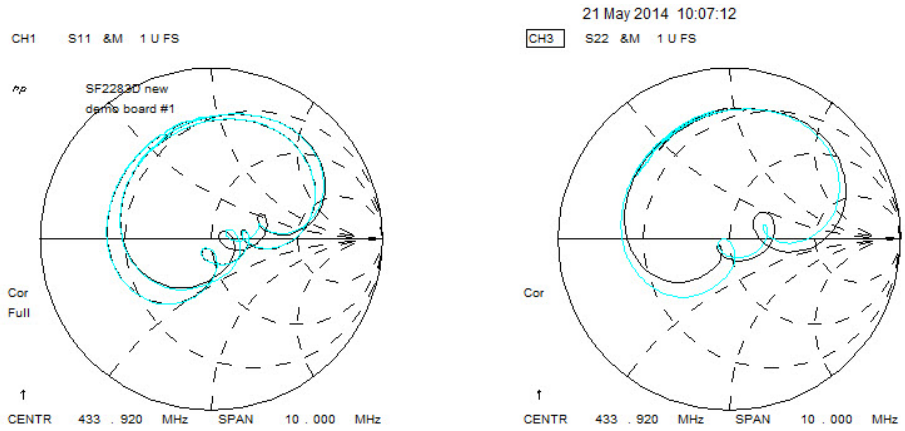
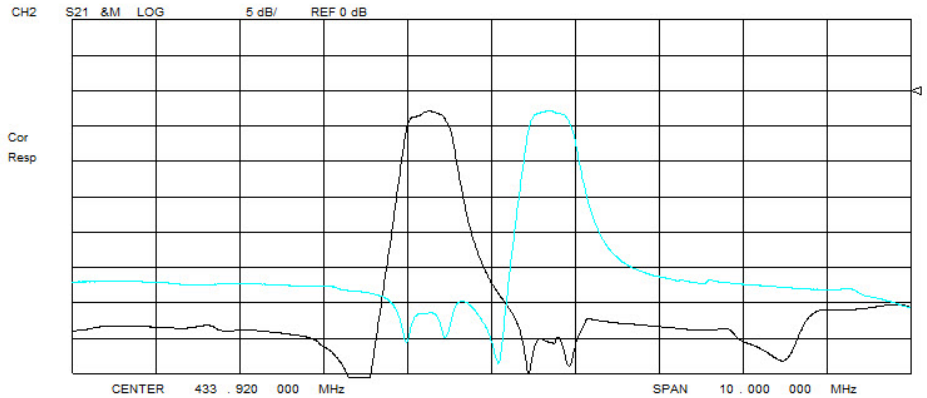
Frequency Characteristics







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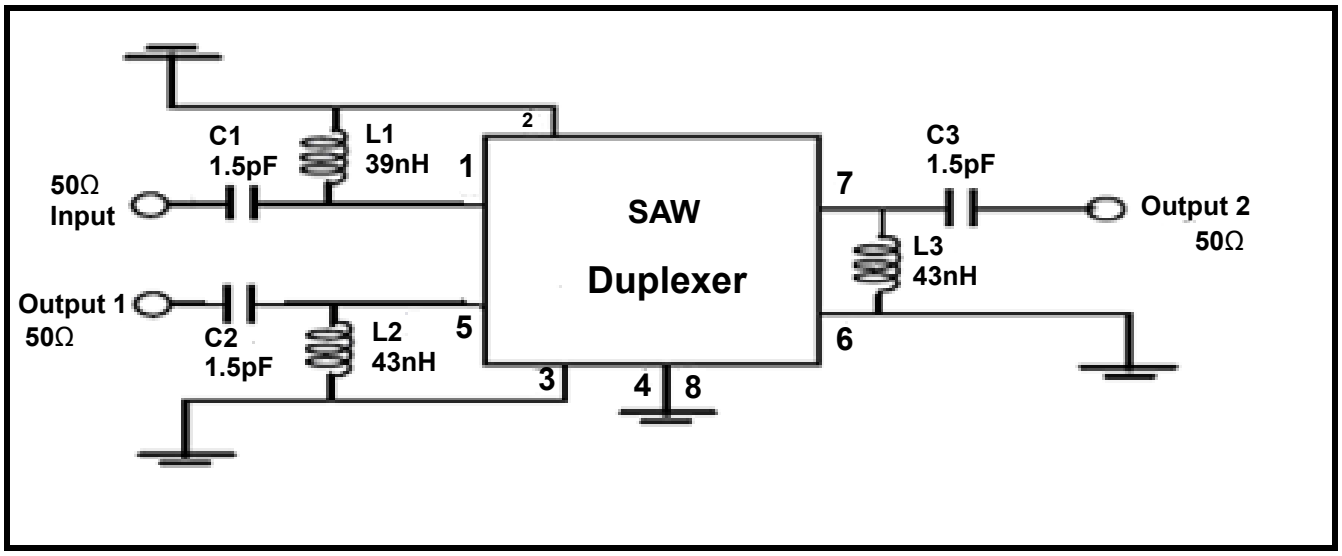
SF2283D Schematic



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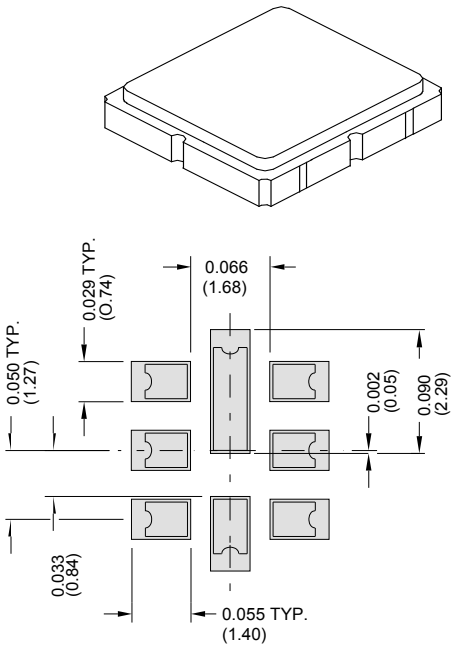
SM3838-8 Case

8-Terminal Ceramic Surface-mount Case

3.8 X 3.8 mm Nominal Footprint



Typical PCB Footprint

Case Dimensions

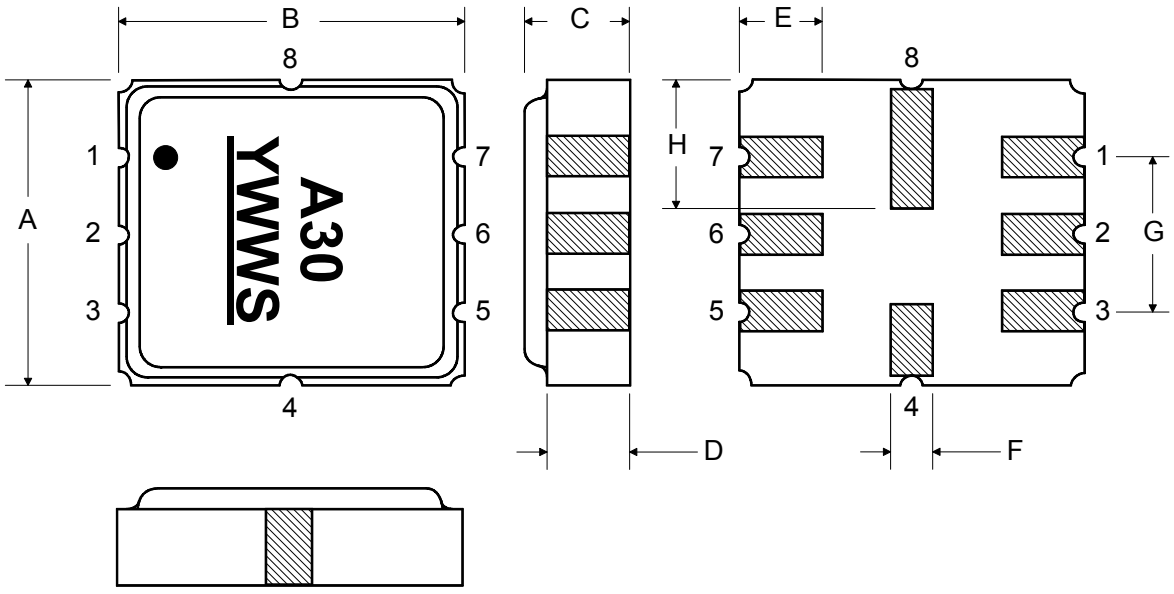
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.6	3.8	4.0	0.142	0.150	0.157
B	3.6	3.8	4.0	0.142	0.150	0.157
C	1.05	1.20	1.40	0.041	0.047	0.055
D	0.95	1.10	1.25	0.037	0.043	0.049
E	0.90	1.00	1.10	0.035	0.040	0.043
F	0.50	0.60	0.70	0.020	0.024	0.028
G	2.39	2.54	2.69	0.090	0.100	0.110
H	1.40	1.75	2.05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



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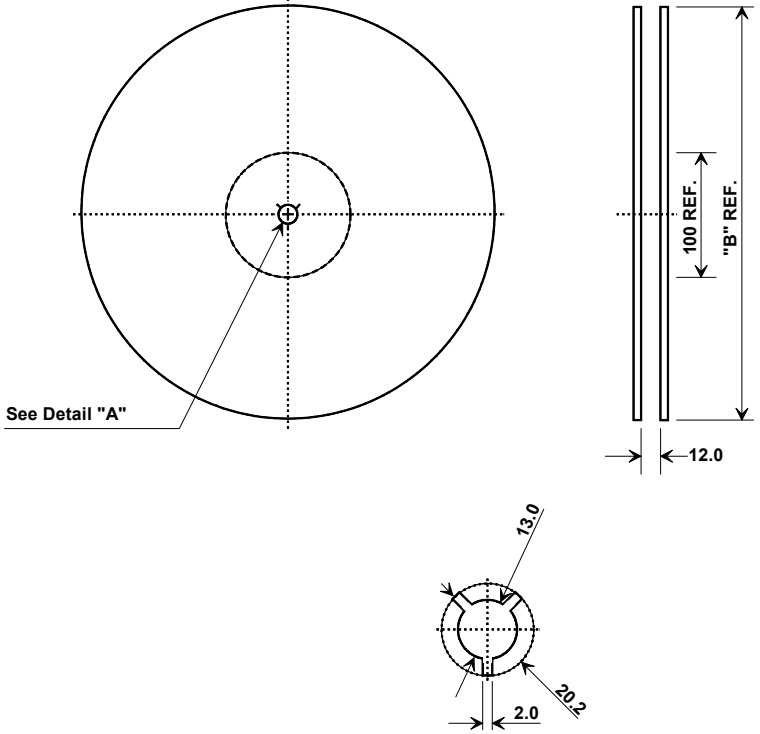
Tape and Reel Specifications

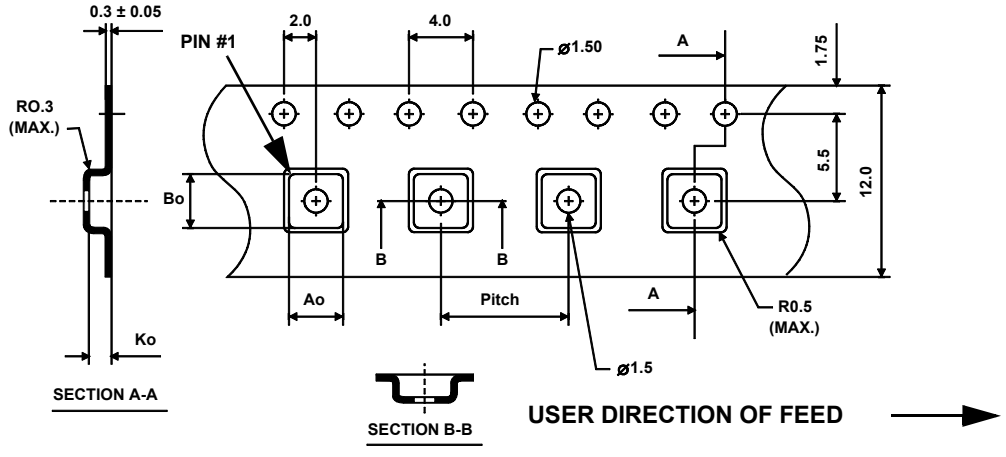
Tape and Reel Standard per ANSI/EIA-481



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

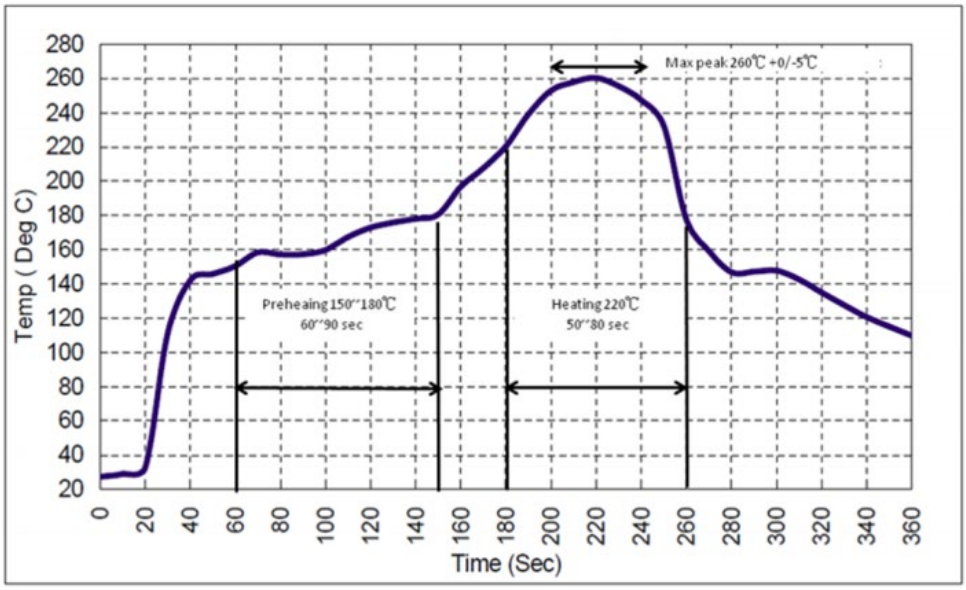
COMPONENT ORIENTATION and DIMENSIONS

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 150~180ºC for 60~90 seconds.
2. Ascending time to preheating temperature 150ºC shall be 30 seconds min.
3. Heating shall be fixed at 220ºC for 50~80 seconds and at 260ºC +0/-5ºC peak (10 seconds).
4. Time: 5 times maximum.



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