

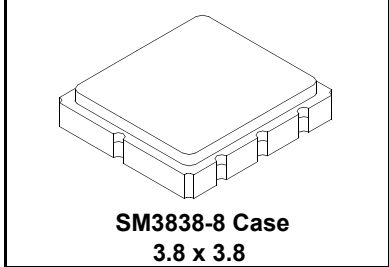


- **Medical Band (402-405 MHz) Front-End Filter**
- **Low-Loss, Coupled-Resonator (Lithium Tantalate) LiTaO3 Design**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Tape and Reel Standard per ANSI/EIA-481**
- **Moisture Sensitivity Level: 1**
- **AEC-Q200 Qualified**

RoHS
Compliant

RF1419D

**403.5 MHz
SAW Filter**



The RF1419D is a surface-acoustic-wave (SAW) filter designed to provide front-end selectivity in the 402-405 MHz band. This filter is ideal for short range wireless medical data applications where small size and low power consumption are required features. Receiver designs using this filter include superhet, direct conversion or superregen. RFMi's advanced SAW design and fabrication technology is utilized to achieve high performance and optimum loss with simple external impedance matching.

Characteristic		Sym	Notes	Minimum	Typical	Maximum	Units
Center Frequency at 25°C	Absolute Frequency	f_c			403.5		MHz
Insertion Loss		IL_{MIN}			1.60	2.5	dB
Passband Ripple (Relative to IL_{MIN}) 402-405 MHz					1.10	1.25	dB
3 dB Bandwidth		BW_3		3.0	7.5		MHz
Rejection Attenuation: (relative to IL_{min})			358.5 MHz	40	65		dB
			358.5 - 384 MHz	35	50		
			415 - 423 MHz	25	35		
			423 - 503 MHz	40	50		
Temperature	Freq. Temp. Coefficient	FTC			-37		ppm/k
Frequency Aging	Absolute Value during the First Year	$ fA $			≤ 10		ppm/yr
Impedance Match	Input/Output				50 Ohms		
Lid Symbolization (Y=year WW=week S=shift)					560, <u>YWWS</u>		
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.

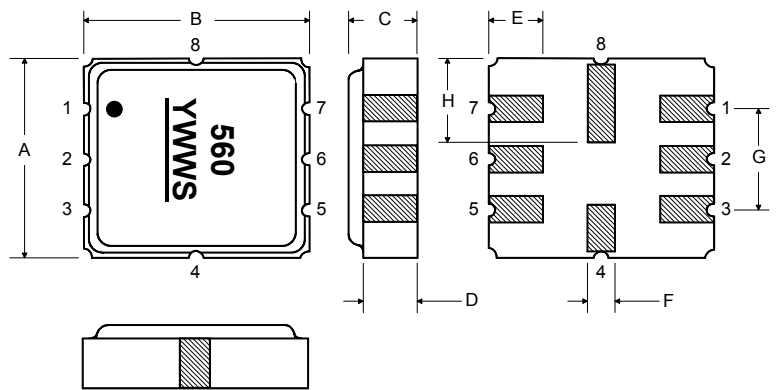
NOTES:

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.

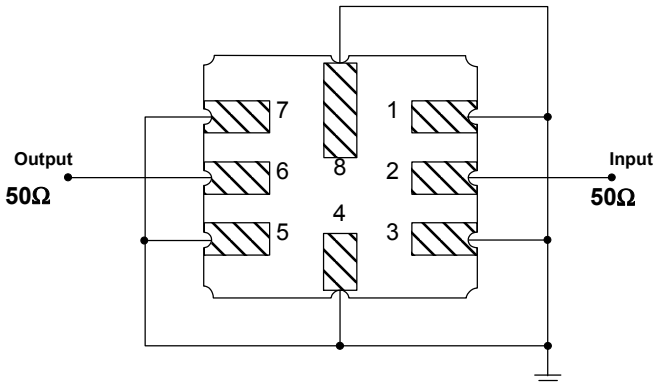
Rating	Value	Units
Input Power Level	10	dBm
DC Voltage	3	VDC
Storage Temperature	-40 to +85	°C
Soldering Temperature	(10 seconds / 5 cycles max.)	°C

Electrical Connections

Pin	Connection
1	Ground
2	Input
3	Ground
4	Ground
5	Ground
6	Output
7	Ground
8	Ground



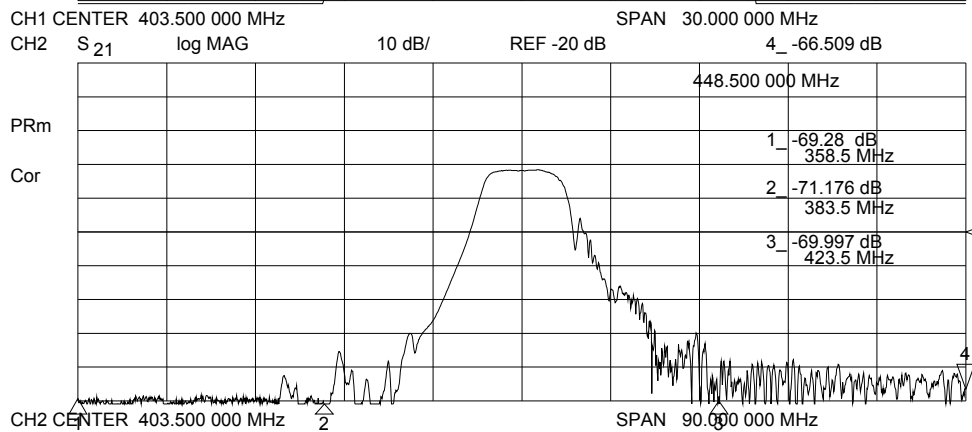
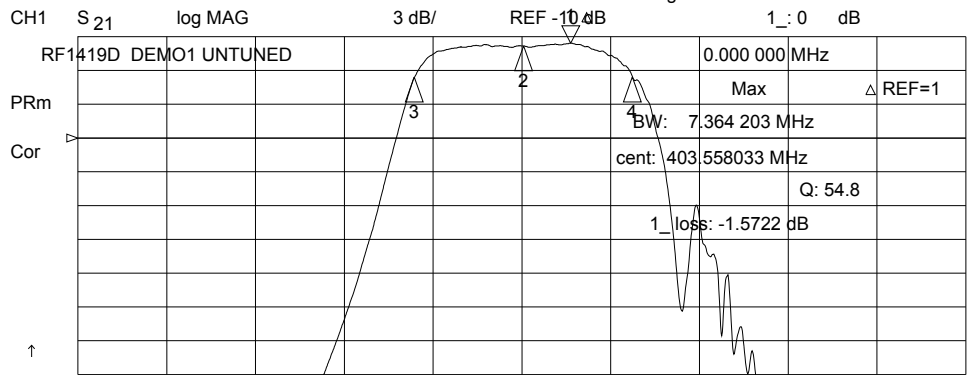
Matching Circuit to 50Ω



Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.6	3.8	4.0	0.14	0.15	0.16
B	3.6	3.8	4.0	0.14	0.15	0.16
C	1.00	1.20	1.40	0.04	0.05	0.055
D	0.95	1.10	1.25	0.033	0.043	0.05
E	0.90	1.0	1.10	0.035	0.04	0.043
F	0.50	0.6	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

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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.

