Preliminary

RFM products are now Murata products.

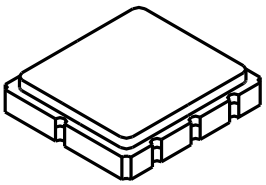
RF3628D

917.6 MHz SAW Filter

- ***Ideal Front-End Filter for Wireless Receivers***
- ***Low-Loss, Coupled-Resonator Quartz Design***
- ***Simple External Impedance Matching***
- ***Complies with Directive 2002/95/EC (RoHS)***

The RF3628D is a low-loss, compact, and economical surface-acoustic-wave (SAW) filter designed to provide front-end selectivity in 917.6 MHz receivers.

Murata's advanced SAW design and fabrication technology is utilized to achieve high performance and very low loss with simple external impedance matching.



SM3838-8 Case
3.8 x 3.8

Characteristic		Sym	Notes	Minimum	Typical	Maximum	Units
Center Frequency at 25°C	Absolute Frequency	f_c	1, 2, 3		917.6		MHz
Insertion Loss		IL_{MIN}	1, 3		2.7	3.5	dB
Passband Ripple (Relative to IL_{MIN}) Fc ±25kHz			1, 3		0.1	1.0	dB
3 dB Bandwidth		BW_3	1, 3		1.8	2.2	MHz
Rejection Attenuation: (relative to ILmin)	10 - 914.8 MHz		1, 3	20	27		dB
	930 - 1500 MHz			20	25		
Operating Temperature Range				-10		+55	°C
Maximum Power Handling @ 880 to 914.8 MHz		P_{MAX}	10			+20	dBm
Frequency Aging	Absolute Value during the First Year	|f|	5		≤10		ppm/yr
Impedance @ fc	Input $Z_{IN}=R_{IN}\|\|C_{IN}$	Z_{IN}	1	TBD			
	Output $Z_{OUT}=R_{OUT}\|\|C_{OUT}$	Z_{OUT}		TBD			
Lid Symbolization (Y=year WW=week S=shift)		B31 // YWWS					
Standard Reel Quantity	Reel Size 7 Inch		9	500 Pieces/Reel			
	Reel Size 13 Inch			3000 Pieces/Reel			

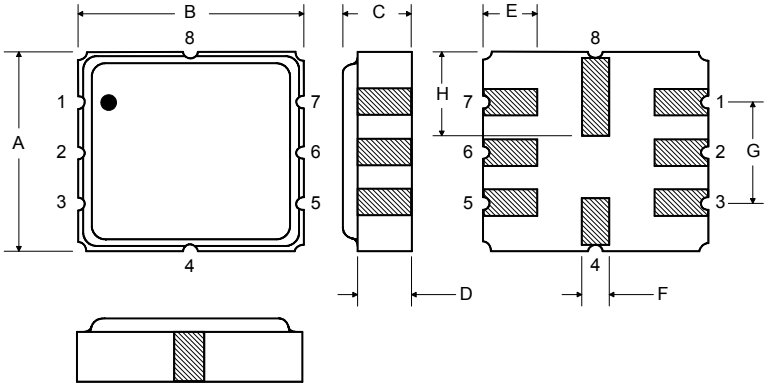
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

1. Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture which is connected to a 50 Ω test system with VSWR ≤ 1.2:1. The test fixture L and C are adjusted for minimum insertion loss at the filter center frequency, f_c. Note that insertion loss and bandwidth and passband shape are dependent on the impedance matching component values and quality.
2. The frequency f_c is defined as the midpoint between the 3dB frequencies.
3. Where noted specifications apply over the entire specified operating temperature range of -10°C to +55°C.
4. The turnover temperature, T_O, is the temperature of maximum (or turnover) frequency, f_o. The nominal frequency at any case temperature, T_c, may be calculated from: $f = f_o [1 - FTC (T_o - T_c)^2]$.
5. Frequency aging is the change in fc with time and is specified at +65°C or less. Aging may exceed the specification for prolonged temperatures above +65°C. Typically, aging is greatest the first year after manufacture, decreasing significantly in subsequent years.
6. The design, manufacturing process, and specifications of this device are subject to change.
7. One or more of the following U.S. Patents apply: 4,54,488, 4,616,197, and others pending.
8. All equipment designs utilizing this product must be approved by the appropriate government agency prior to manufacture or sale.
9. Tape and Reel Standard Per ANSI / EIA 481.
10. 1:8 duty cycle.

Rating		Value	Units
Input Power Level		10	dBm
DC Voltage		12	VDC
Storage Temperature		-40 to +125	°C
Operable Temperature Range		-40 to +125	°C
Soldering Temperature	(10 seconds / 5 cycles max.)	260	°C

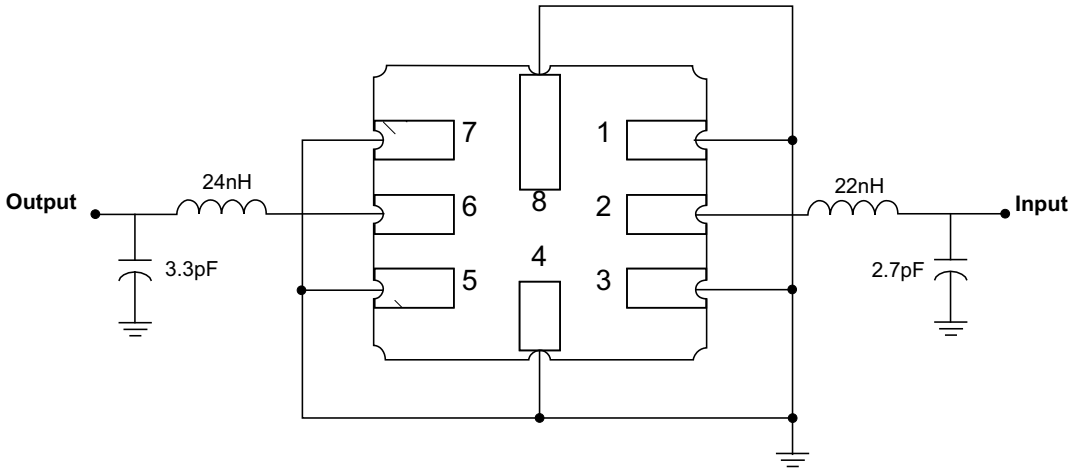
Case Dimensions



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	0.037	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

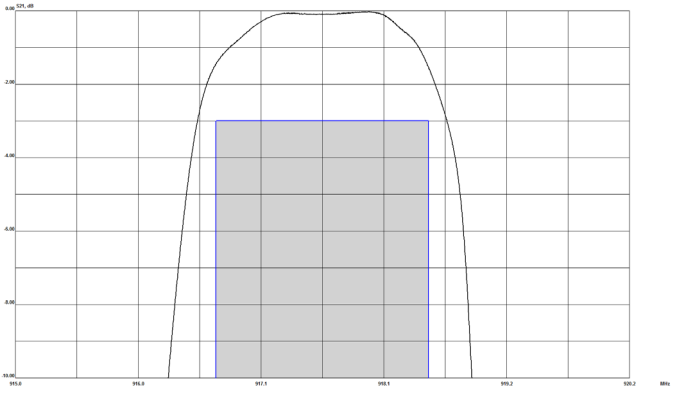
Pin	Connection
1	Input Ground
2	Input
3	Ground
4	Case Ground
5	Output Ground
6	Output
7	Ground
8	Case Ground

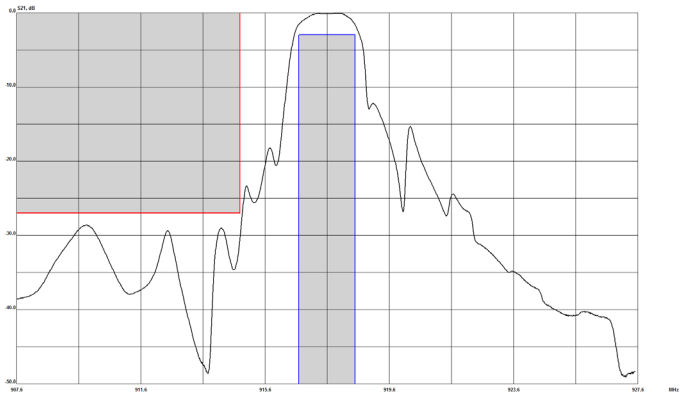
Matching Circuit to 50Ω

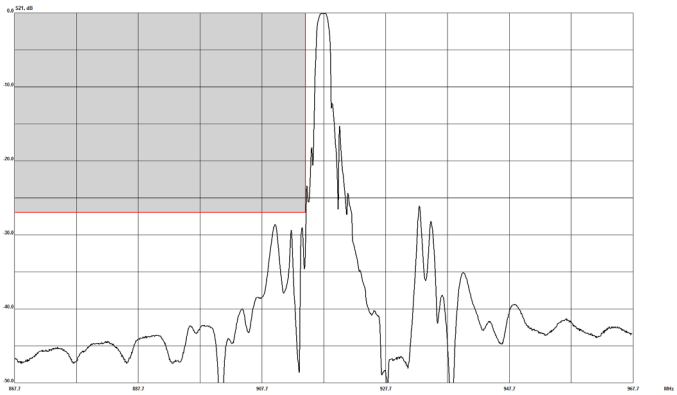


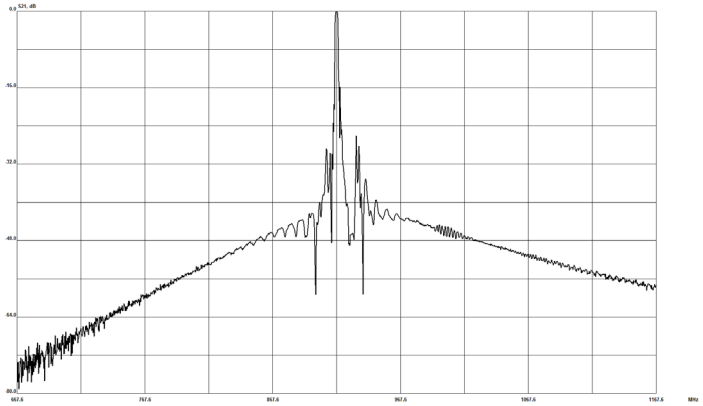
Frequency Characteristics

S21 Response

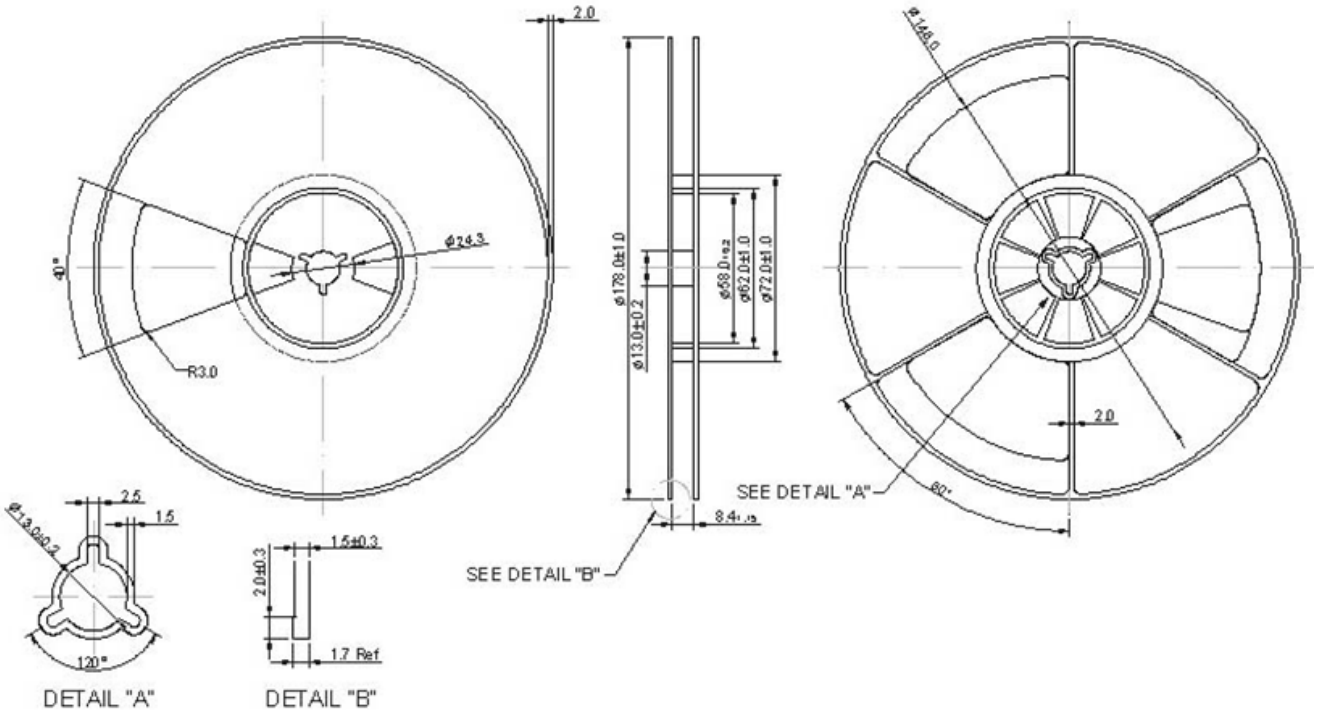








Reel Dimension



Tape Dimension