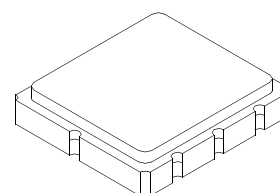


RF3624D

**314.45 MHz
SAW Filter**



**SM3838-8 Case
3.8 x 3.8**

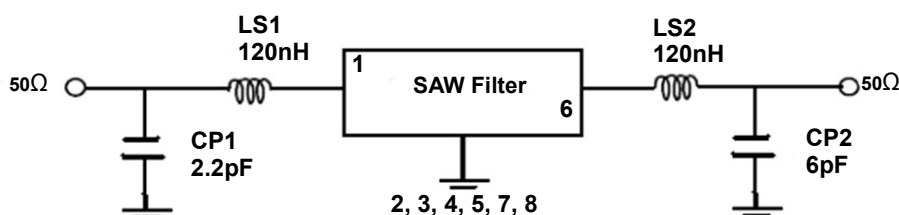
- *Ideal Front-End Filter for European Wireless Receivers*
- *Low-Loss, Coupled-Resonator Quartz Design*
- *Simple External Impedance Matching*
- *Complies with Directive 2002/95/EC (RoHS)¹⁰*
- *Qualified per AEC-Q200 requirements*



Rating	Value	Units
Input Power Level	13	dBm
DC Voltage	0	VDC
Operable Temperature Range	-45 to +125	°C
Storage Temperature	-40 to +105	°C
Specification Temperature Range	-40 to +105	°C
Soldering Temperature (10 sec/ 5 cycles max.)	260	°C

Characteristic	Sym	Notes	Minimum	Typical	Maximum	Units
Center Frequency	f _c	1, 2, 3		314.45		MHz
Minimum Insertion Loss (Relative to α min)	α min	1, 3				dB
Including loss of matching elements (313.97 to 314.93 MHz)				2.5	3.0	
Excluding loss in matching elements (313.97 to 314.93 MHz)				1.5	2.0	
Passband (relative to α min)						dB
313.97 to 314.93 MHz				2.0	4.0	
313.90 to 315.00 MHz				2.5	4.5	
Attenuation (relative to α min)						dB
10.000 to 250.00 MHz			45	50		
250.00 to 294.45 MHz			35	40		
294.45 to 304.45 MHz			32	37		
304.45 to 312.85 MHz			20	25		
315.45 to 317.45 MHz			7	10		
317.45 to 322.45 MHz			20	25		
322.45 to 329.45 MHz			30	35		
329.45 to 339.45 MHz			30	35		
339.45 to 600.00 MHz			35	40		
600.00 to 1000.0 MHz			60	65		
1000.0 to 2500.0 MHz			40	45		
Lid Symbolization (Y=year WW=week S=shift)	A67 YWWS					
Impedance for pass band matching						
Input: Z _{IN} = Ls1/cP1				120/2.2		nH
Output: Z _{OUT} = Ls2/Cp2				120/6		nH

Measurement Circuit



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



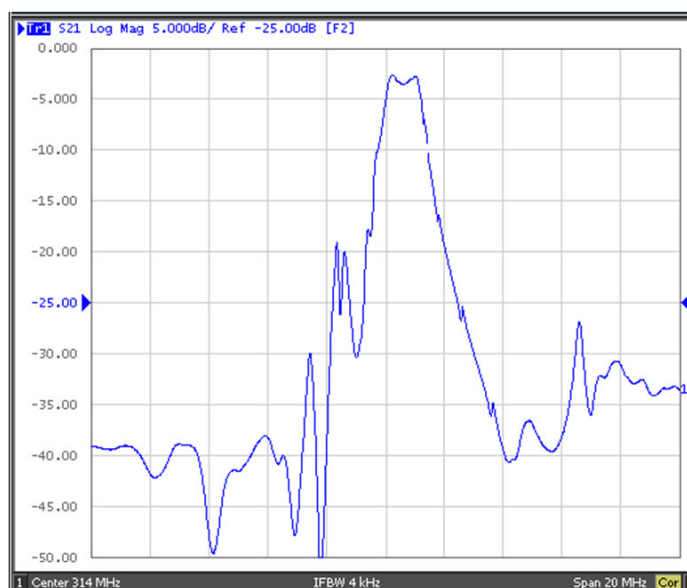
CAUTION: Electrostatic Sensitivity

NOTES:

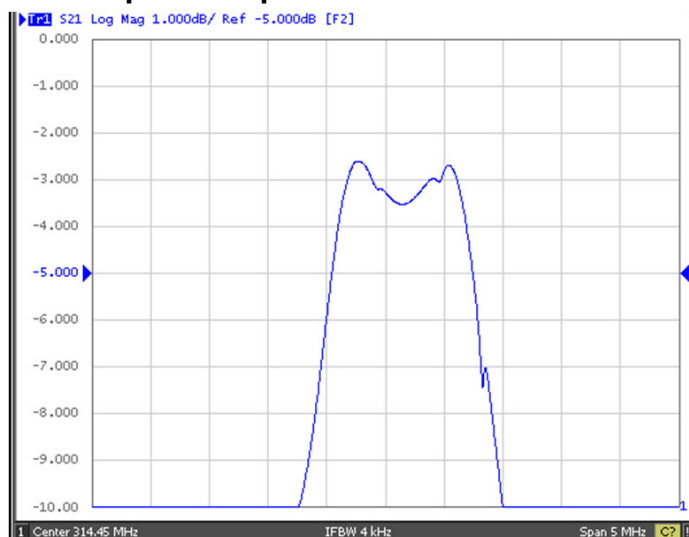
1. Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture which is connected to a 50 Ω test system with VSWR \leq 1.2:1. The test fixture L and C are adjusted for minimum insertion loss at the filter center frequency, f_c . Note that insertion loss and 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 -40°C to +105°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 f_c 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. This product complies with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

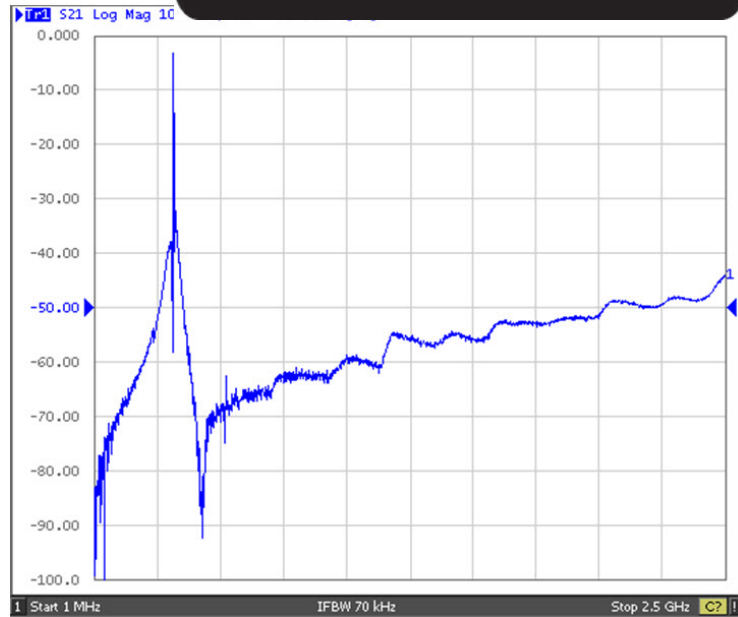
Frequency Characteristics

S21 Response: Span - 20 MHz



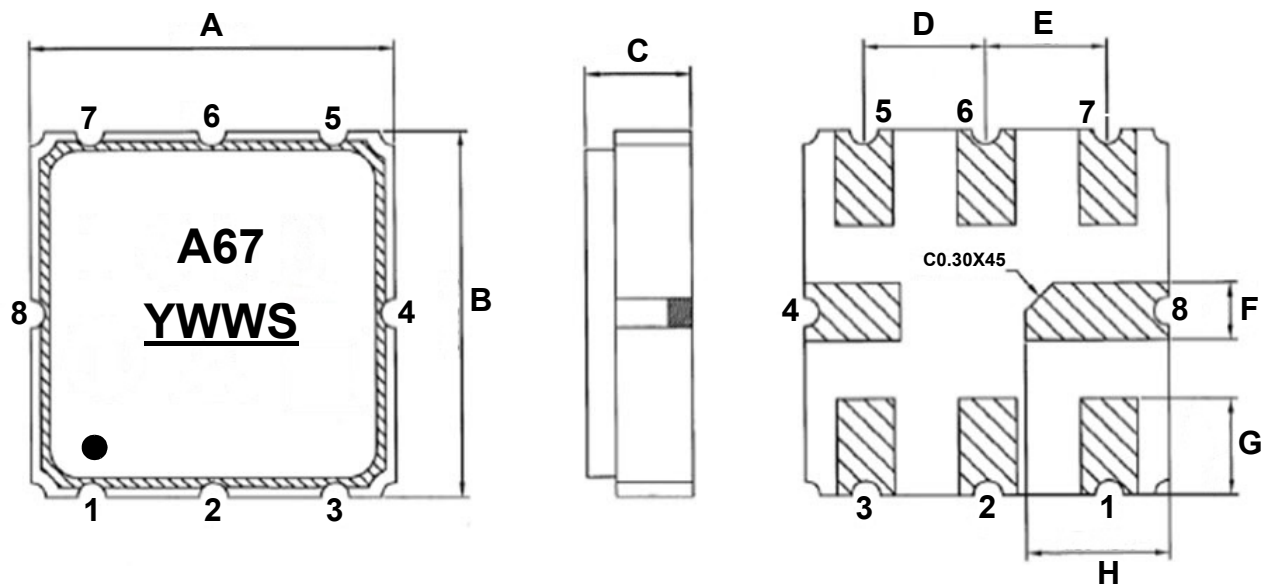
S21 Response: Span - 5 MHz





Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.65	3.8	3.95	0.14	0.15	0.16
B	3.65	3.8	3.95	0.14	0.15	0.16
C	-	-	1.4	-	-	0.06
D	-	1.27	-	-	0.05	-
E	-	1.27	-	-	0.05	-
F	-	0.60	-	-	0.02	-
G	-	1.00	-	-	0.03	-
H	-	1.50	-	-	0.05	-



Discontinued

