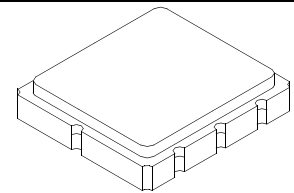


RF3625D

434.42 MHz SAW Filter



SM3838-8 Case
3.8 x 3.8

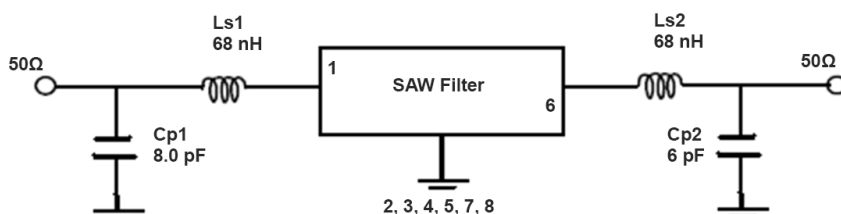
- **Ideal Front-End Filter for European Wireless Receivers**
- **Low-Loss, Coupled-Resonator Quartz Design**
- **Simple External Impedance Matching**
- **Complies with Directive 2002/95/EC (RoHS)¹⁰**



Rating	Value	Units
Input Power Level	13	dBm
DC Voltage	0	VDC
Storage Temperature	-40 to +105	°C
Operable Temperature Range	-40 to +105	°C
Soldering Temperature (10 sec/ 5 cycles max.)	260	°C
Terminating source impedance (single):	$Z_S = 50$	Ω
Terminating load impedance (single):	$Z_L = 50$	Ω

Characteristic	Sym	Notes	Minimum	Typical	Maximum	Units
Center Frequency	f _c			433.92		MHz
Minimum Insertion Loss (Relative to α min)	α min					dB
Including loss of matching elements (433.885 to 434.955 MHz)				3.0	3.5	
Excluding loss in matching elements (433.885 to 434.955 MHz)				2.0	2.5	
Passband (relative to α min) 433.885 to 434.955MHz 433.87 to 434.97 MHz				1.3	2.8	dB
				1.5	3.3	
Attenuation (relative to α min)						dB
10 to 350 MHz			50	55		
350 to 414 MHz			30	35		
414 to 425 MHz			30	35		
428 to 433.02 MHz			13	17		
436.42 to 437.3 MHz			13	17		
437.3 to 438 MHz			22	27		
438 to 330 MHz			25	30		
330 to 446 MHz			25	30		
446 to 455 MHz			25	30		
455 to 480 MHz			28	33		
480 to 800 MHz			40	45		
800 to 1700 MHz			52	57		
1700 to 2500 MHz			42	47		
Impedance for passband matching Input: Ls1 = Cp1 Output: Ls2 = Cp2				82/8.2		nH
				68/1		
Package Size			SMD 3.8 X 3.8			mm
Lid Symbolization (Y=year WW=week S=shift)	A67 YWWS					

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



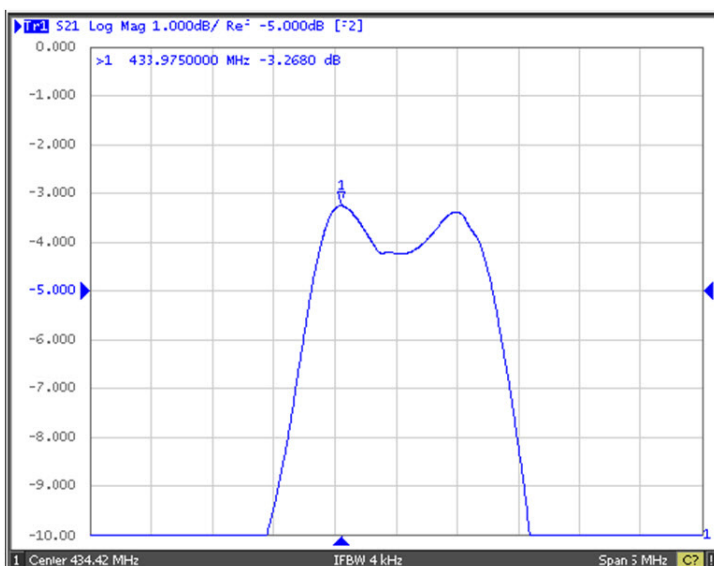
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

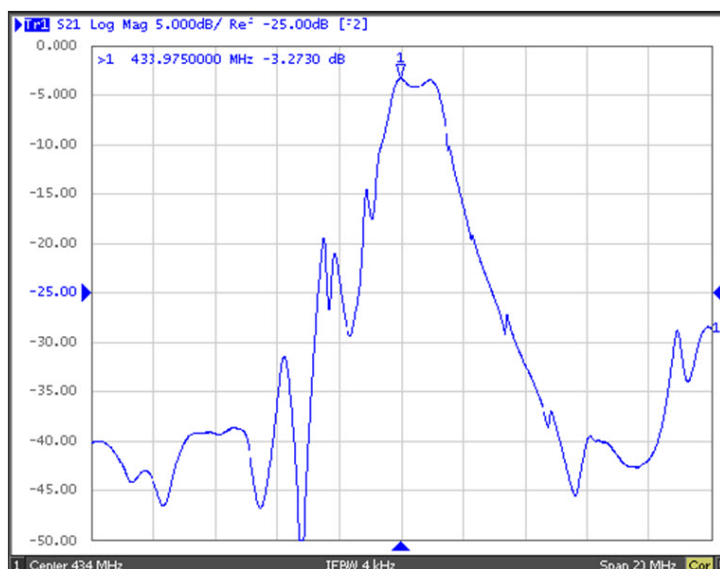
1. Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture which is connected to a 50 Ω test system with VSWR \leq 1.2:1. The test fixture L and C are adjusted for minimum insertion loss at the filter center frequency, f_c . Note that insertion loss and 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: $f = f_o [1 - \text{FTC} (T_o - T_c)^2]$.
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

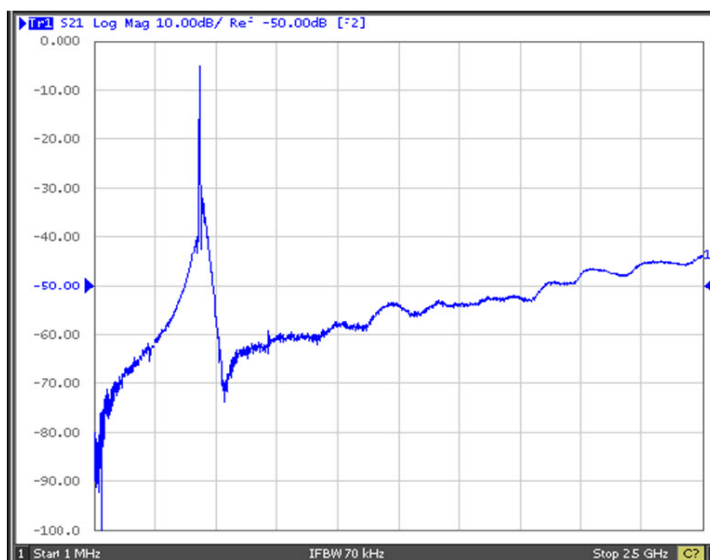
S21 Response: span 5 MHz



S21 Response: span 20 MHz

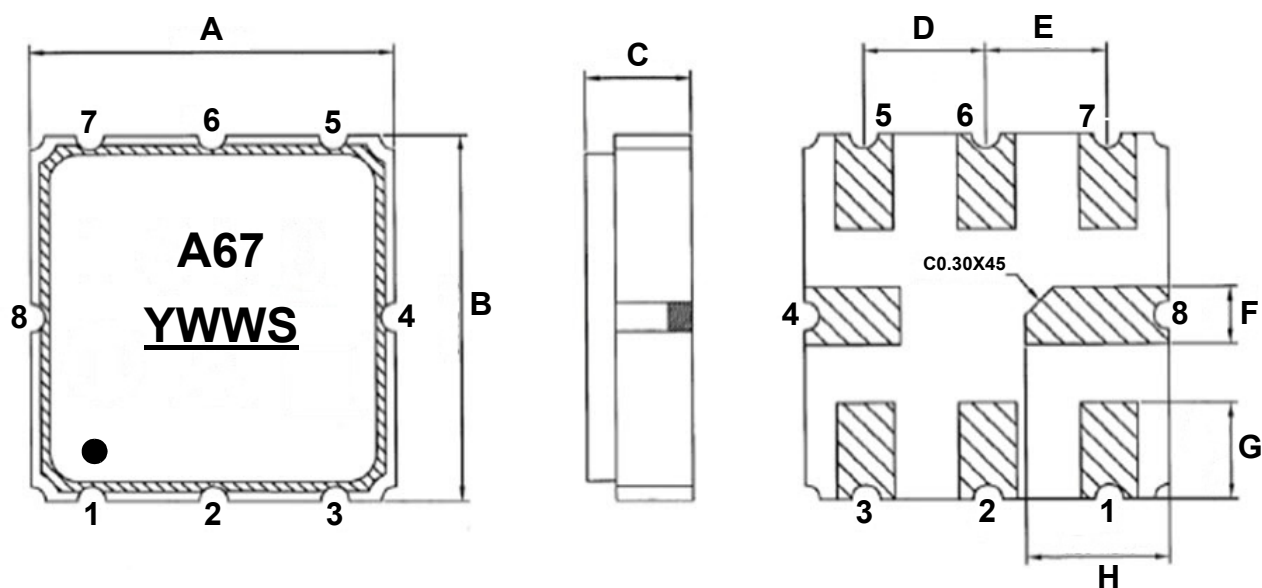


S21 Response: span 20 MHz

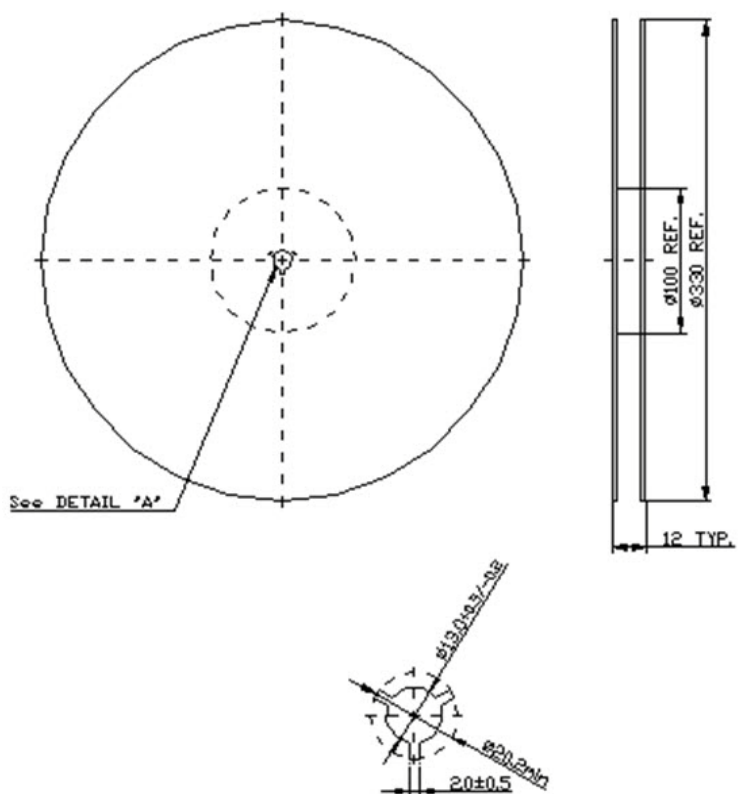


Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.65	3.8	3.95	0.143	0.149	0.155
B	3.65	3.8	3.95	0.143	0.149	0.155
C	-	-	1.7	-	-	0.066
D	-	1.27	-	-	0.050	-
E	-	1.27	-	-	0.050	-
F	-	0.60	-	-	0.023	-
G	-	1.00	-	-	0.039	-
H	-	1.50	-	-	0.059	-



Reel Dimensions



Tape Dimensions

