Discontinued

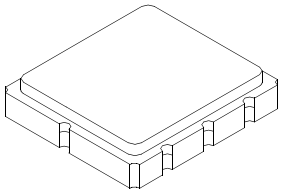
RFM products are now Murata products.

RF3336E

868.35 MHz SAW Filter

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

The RF3336E is a low-loss, compact, and economical surface-acoustic-wave (SAW) filter designed to provide front-end selectivity in 868.35 MHz receivers. Receivers using this filter include superheterodynes with 10.7 MHz or 500 kHz IFs, direct conversion receivers and superregenerative receivers. Typical applications of these receivers include wireless remote-control and security devices operating in Europe under ETSI I-ETS 300 220. This coupled-resonator filter (CRF) uses selective null placement to provide suppression, typically greater than 40 dB, of the LO and image spurious responses of superhet receivers with 10.7 MHz IF. Murata's advanced SAW design and fabrication technology is utilized to achieve high performance and very low loss with simple external impedance matching.



SM3030-6 Case
3.0 x 3.0

Characteristic		Sym	Notes	Minimum	Typical	Maximum	Units
Center Frequency @ 25°C	Absolute Frequency	f_C	1, 2, 3		868.35		MHz
Insertion Loss		IL	1, 3		2.5	4.0	dB
3 dB Bandwidth		BW_3	1, 2, 3	500	650	900	kHz
Attenuation: (relative to ILmin)	10 - 700 MHz		1, 3	50	55		dB
	700 - 830 MHz			40	45		
	830 - 850 MHz			35	40		
	850 - 864.4 MHz			20	25		
	870.4 - 877.4 MHz			21	26		
	877.4 - 882.4 MHz			15	19		
	882.4 - 900 MHz			28	35		
	900 - 1000 MHz			40	45		
Temperature	Freq. Temp. Coefficient	FTC	3, 4		0.032		ppm/°C^2
Frequency Aging	Absolute Value during the First Year	|fA|	5		<±10		ppm/yr
Impedance @ f_C	$Z_{IN} = R_{IN} \parallel C_{IN}$	Z_{IN}	1	55 Ω || 23.9 pF			
	$Z_{OUT} = R_{OUT} \parallel C_{OUT}$	Z_{OUT}		53 Ω || 20.2 pF			
Lid Symbolization (in addition to Lot and/or Date Codes)		700 || 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 -40 to 90°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 for ANSI / EIA 481.

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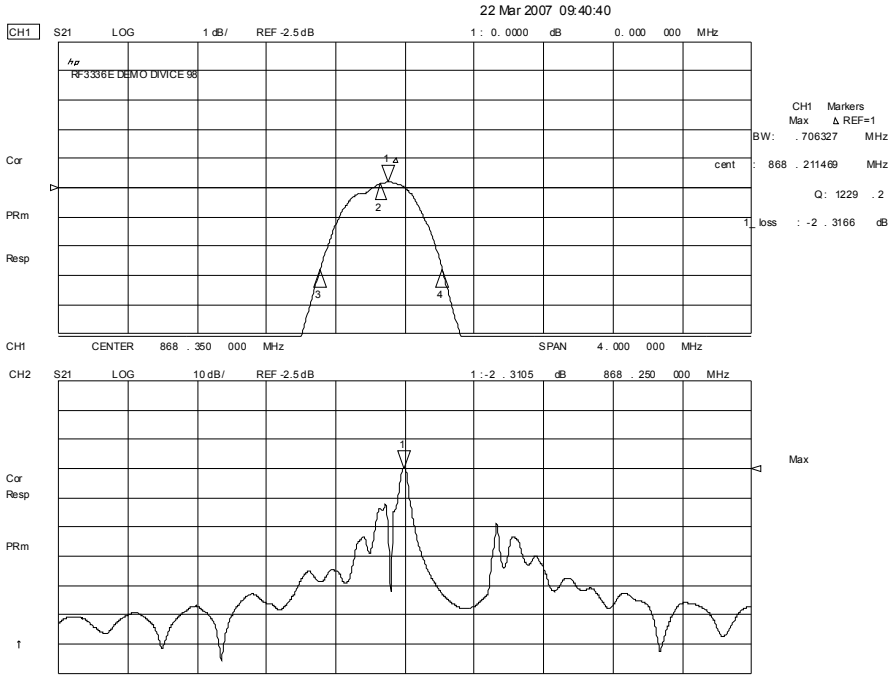
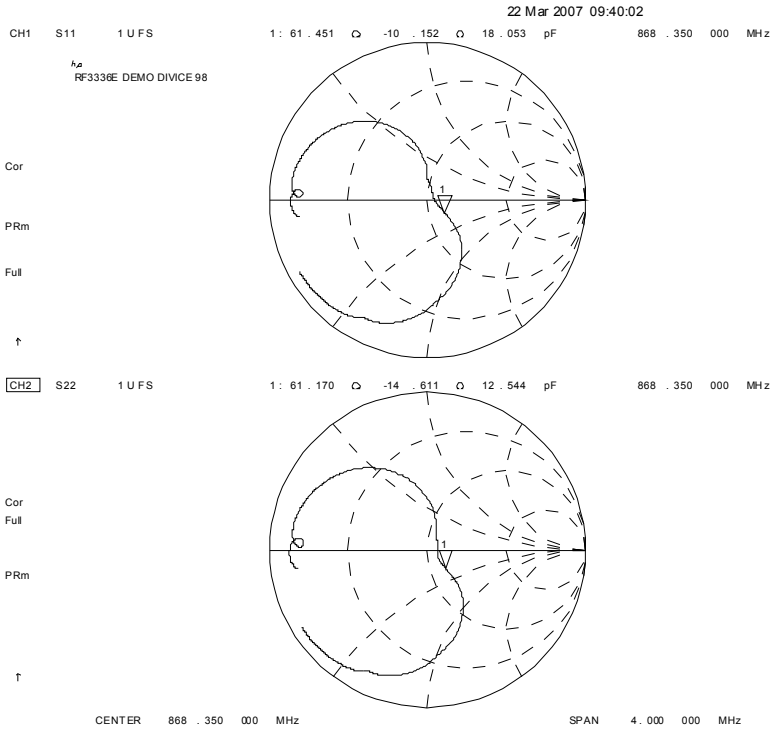
Frequency Repsonse Plots



Impedance Plots



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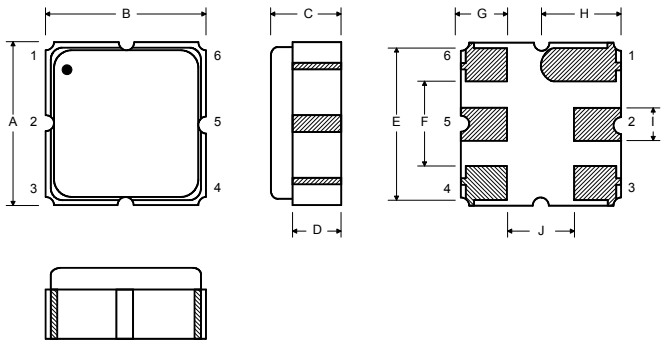
Rating	Value	Units
Input Power Level	10	dBm
DC Voltage on any non-ground Terminal	12	VDC
Storage Temperature	-40 to +125	°C
Operable Temperature Range	-40 to +125	°C
Soldering Temperature (10 seconds / 5 cycles Max.)	260	°C

Electrical Connections

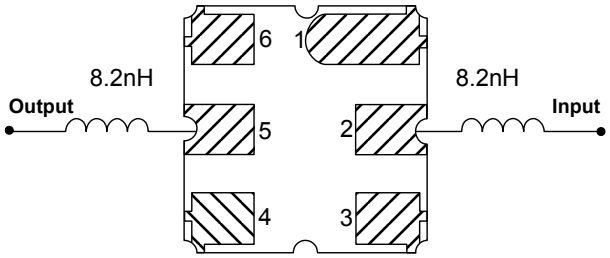
Pin	Connection
1	Input Ground
2	Input
3	Case Ground
4	Output Ground
5	Output
6	Ground



Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.0	3.13	0.113	0.118	0.123
B	2.87	3.0	3.13	0.113	0.118	0.123
C	1.12	1.25	1.38	0.044	0.049	0.054
D	0.77	0.90	1.03	0.030	0.035	0.040
E	2.67	2.80	2.93	0.105	0.110	0.115
F	1.47	1.6	1.73	0.058	0.063	0.068
G	0.72	0.85	0.98	0.028	0.033	0.038
H	1.37	1.5	1.63	0.054	0.059	0.064
I	0.47	0.60	0.73	0.019	0.024	0.029
J	1.17	1.30	1.43	0.046	0.051	0.056

Matching Circuit to 50Ω

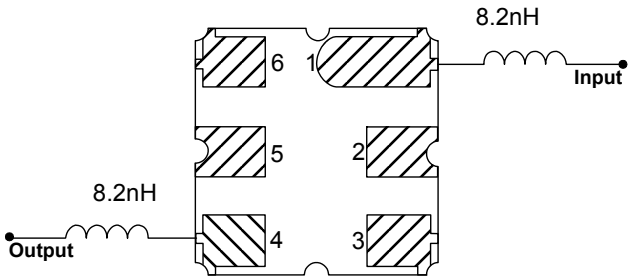


Optional

Electrical Connections

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

Matching Circuit to 50Ω



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