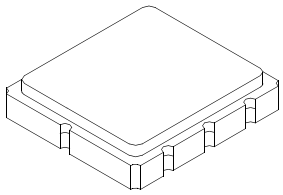
RFMi
A BRAND OF AKOUSTIS

RoHS compliant

RF1432C

319.500 MHz SAW Filter

- ***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)***
- ***Tape and Reel Standard per ANSI/EIA-481***
- ***Moisture Sensitivity Level: 1***



SM5050-8 Case
5 x 5

The RF1432C is a low-loss, compact and economical surface-acoustic-wave (SAW) filter designed to provide front-end selectivity in 319.500 MHz receivers. Receiver designs using this filter include superhet with 10.7 MHz or 500 kHz IF, direct conversion and superregen.

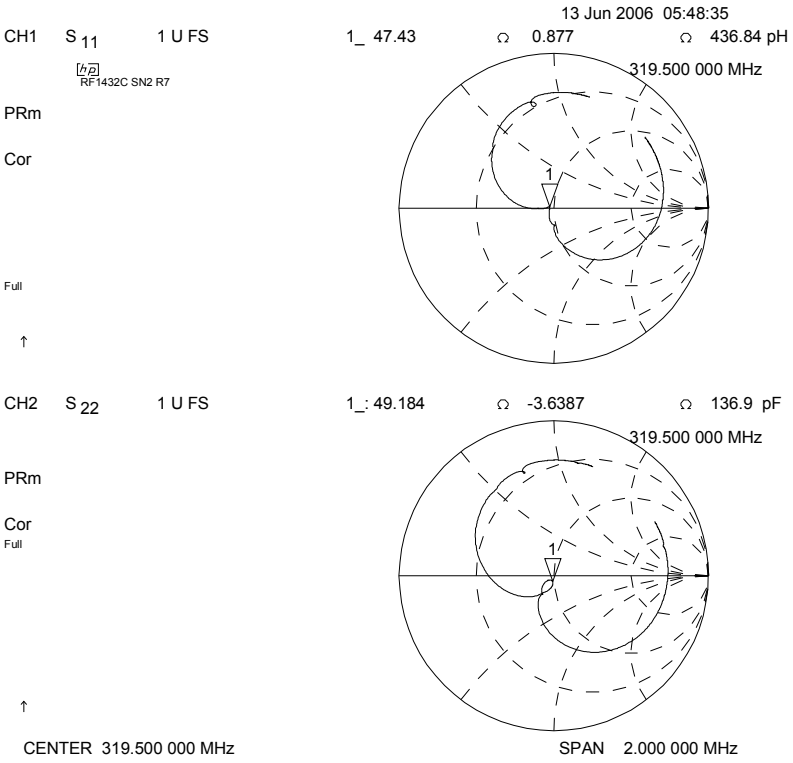
This coupled-resonator filter (CRF) uses selective null placement to provide suppression, typically greater than 40 dB, of the LO and image spurious responses of superhet receivers with 10.7 MHz IF. RFMi's advanced SAW design and fabrication technology is utilized to achieve high performance and very low loss with simple external impedance matching (not included). Quartz construction provides excellent frequency stability over a wide temperature range.

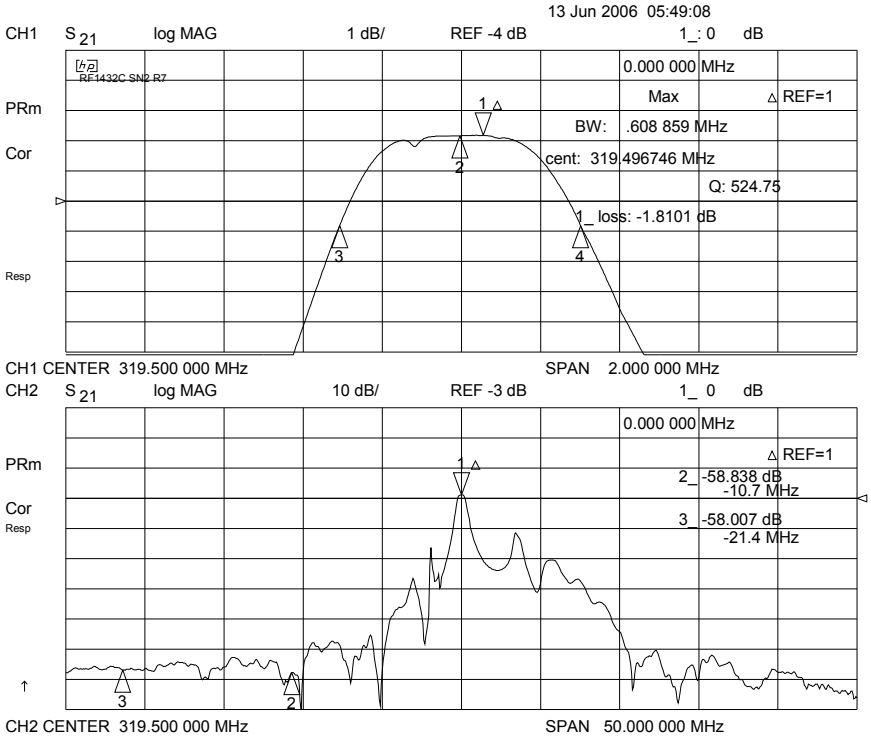
Characteristic		Sym	Notes	Minimum	Typical	Maximum	Units
Center Frequency at 25°C	Absolute Frequency	f_C		319.420		319.580	MHz
	Tolerance from 319.500 MHz	Δf_C				±80	kHz
Insertion Loss		IL			1.8	2.8	dB
3 dB Bandwidth		BW_3		500	600	800	kHz
Rejection	at f_c - 21.4 MHz (Image)			40	50		dB
	at f_c - 10.7 MHz (LO)			40	50		
	Ultimate				80		
Temperature	Operating Case Temperature	T_C		-40		+85	°C
	Turnover Temperature	T_O		25	40	55	°C
	Turnover Frequency	f_O			f_C		MHz
	Frequency Temperature Coefficent	FTC			0.032		ppm/°C^2
Frequency Aging	Absolute Value during the First Year	|fA|			≤10		ppm/yr
Impedance @ FC	INPUT $Z_{IN} = R_{IN} // C_{IN}$	Z_{IN}		3.97kΩ // 4.37pF			
	OUTPUT $Z_{OUT} = R_{OUT} // C_{OUT}$	Z_{OUT}		2.56kΩ // 4.27pF			
Lid Symbolization (Y = Year, WW = Week, S = Shift)		621, YWWS					

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.

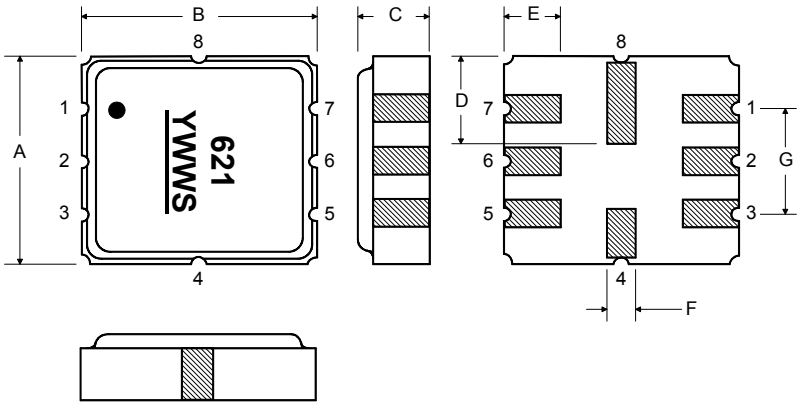




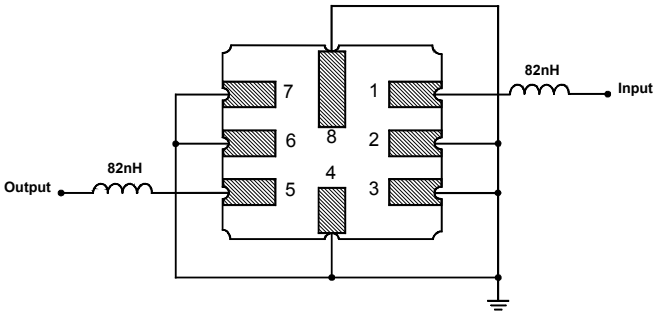
Rating		Value	Units
Input Power Level		10	dBm
DC Voltage		12	VDC
Storage Temperature[5]		-40 to +85	°C
Soldering Temperature	(10 seconds / 5 cycles max.)	260	°C

Electrical Connections

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



Matching Circuit to 50Ω



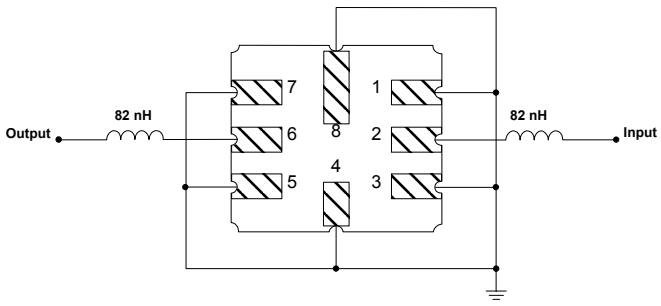
Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	4.8	5.0	5.2	0.189	0.197	0.205
B	4.8	5.0	5.2	0.189	0.197	0.205
C	1.30	1.50	1.7	0.050	0.060	0.067
D	1.98	2.08	2.18	0.078	0.082	0.086
E	1.07	1.17	1.27	0.042	0.046	0.05
F	0.50	0.64	0.70	0.020	0.025	0.028
G	2.39	2.54	2.69	0.094	0.100	0.106

Optional Electrical Connections

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



Recommended Reflow Profile

1. Preheating shall be fixed at 150~180ºC for 60~90 seconds.
2. Ascending time to preheating temperature 150ºC shall be 30 seconds min.
3. Heating shall be fixed at 220ºC for 50~80 seconds and at 260ºC +0/-5ºC peak (10 seconds).
4. Time: 5 times maximum.