

Preliminary



SF1114A-1

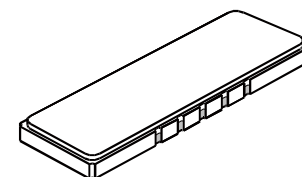
**137.2 MHz
SAW Filter**

- **Designed for WLL Receiver Applications**
- **Low Insertion Loss**
- **Hermetic SMP-75 Surface-Mount Case**
- **Unbalanced Input and Output**
- **Complies with Directive 2002/95/EC (RoHS)**



Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Max. DC voltage between any 2 terminals	30	VDC
Storage Temperature Range	-40 to +85	°C
Suitable for lead-free soldering - Max. Soldering Profile	260°C for 30 s	



SMP-75

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units					
Nominal Center Frequency	f_C	1	137.200			MHz					
Passband	Insertion Loss at f_C	1 db Passband	BW_1	±825	±900	15.5					
							3 db Passband	BW_3	±1000	±1050	kHz
Rejection	f_C -1.665 to f_C -1.5 and f_C +1.5 to f_C +1.665 MHz	1, 2, 3		20	30	dB					
							f_C -8.0 to f_C -1.665 and f_C +1.665 to f_C +8.0 MHz	40	42		
							f_C ±8.0 MHz	45	50		
							Ultimate		55		
Operating Temperature Range	T_A	1	-10		+85	°C					

Impedance Matching to 50 Ω Unbalanced	External L-C
Case Style	SMP-75 19 x 6.5 mm Nominal Footprint
Lid Symbolization (YY = year, WW = week)	RFM SF1114A-1 YYWW

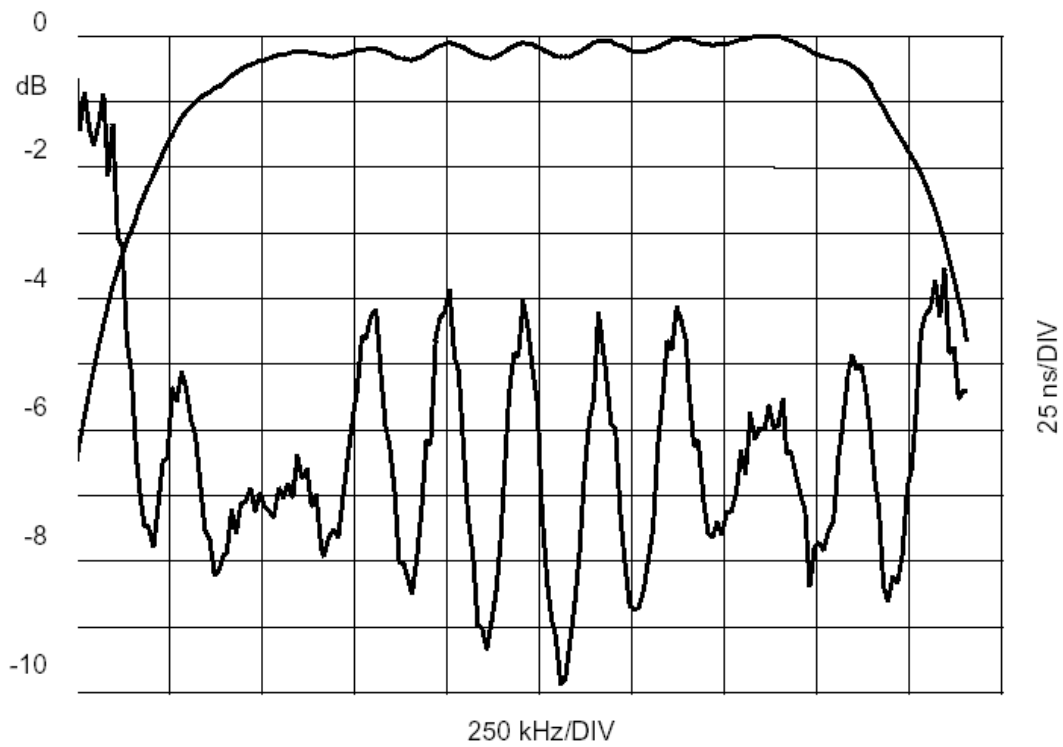
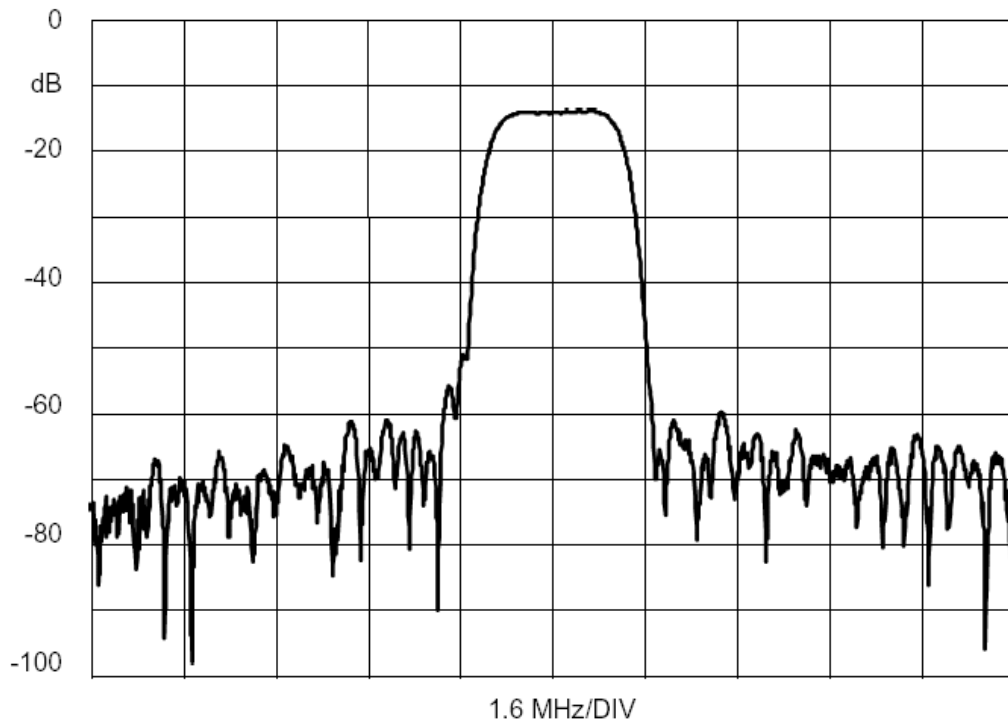
Notes:

1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50 Ω and measured with 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, f_C .
3. Rejection is measured as attenuation below the minimum IL point in the passband. Rejection in final user application is dependent on PCB layout and external impedance matching design. See Application Note No. 42 for details.
4. "LRIP" or "L" after the part number indicates "low rate initial production" and "ENG" or "E" indicates "engineering prototypes."
5. The design, manufacturing process, and specifications of this filter are subject to change.
6. Either Port 1 or Port 2 may be used for either input or output in the design. However, impedances and impedance matching may vary between Port 1 and Port 2, so that the filter must always be installed in one direction per the circuit design.
7. US and international patents may apply.
8. Electrostatic Sensitive Device. Observe precautions for handling.



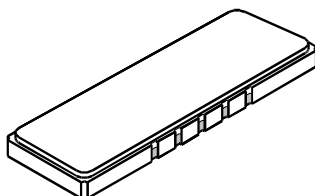
Electrical Connections

Connection	Terminals
Port 1 Hot	10
Port 1 Gnd Return	1
Port 2 Hot	5
Port 2 Gnd Return	6
Case Ground	All others



SMP-75 Case

10-Terminal Ceramic Surface-Mount Case
19 x 6.5 mm Nominal Footprint



Case Dimensions						
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	18.80	19.00	19.30	0.740	0.748	0.760
B	6.30	6.50	6.80	0.248	0.256	0.268
C		1.75	2.00		0.069	0.079
D		2.29			0.090	
E		1.02			0.040	
H		1.0			0.039	
P		1.905			0.075	

Materials	
Solder Pad Termination	Au plating 30 - 60 μinches (76.2-152 μm) over 80-200 μinches (203-508 μm) Ni.
Lid	Fe-Ni-Co Alloy Electroless Nickel Plate (8-11% Phosphorus) 100-200 μinches Thick
Body	Al ₂ O ₃ Ceramic
Pb Free	

Electrical Connections		
Connection		Terminals
Port 1	Input or Return	10
	Return or Input	1
Port 2	Output or Return	5
	Return or Output	6
Ground		All others
Single Ended Operation		Return is ground
Differential Operation		Return is hot

