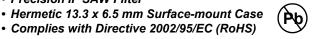


Discontinued

RFM products are now Murata products.

SF2229A

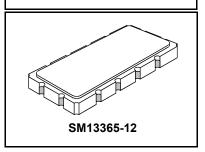
Precision IF SAW Filter



Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+20	dBm
Maximum DC Voltage on any Non-ground Terminal	10	VDC
Storage Temperature Range of Component	-55 to +95	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Suitable for Lead-free Soldering - Maximum Soldering Profile	260 °C for 30 s	

70 MHz **SAW Filter**



Electrical Characteristics

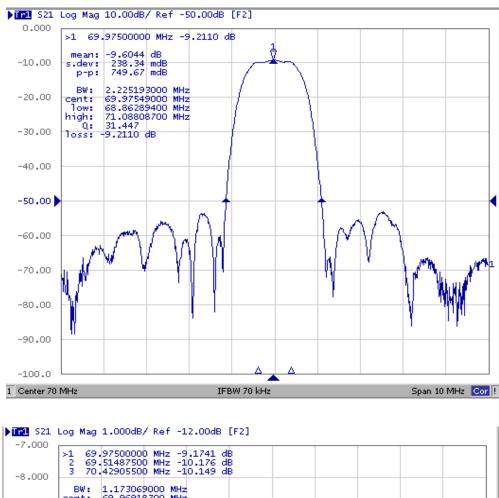
Characteristic	Sym	Notes	Min	Тур	Max	Units	
Center Frequency	f _C	1	69.9	70.0	70.1	1	
1 dB Bandwidth	BW ₁	1	0.8	0.92		- MHz	
3 dB Bandwidth	BW3	1	1.1	1.2			
40 dB Bandwidth	BW ₄₀	1		2.2	2.3		
Insertion Loss	IL	1		10.5	12.0	dB	
Amplitude Ripple, f _C ± 0.3 MHz		1, 2, 3		0.7	1.2	dB _{P-P}	
Group Delay Ripple, f _C ± 0.3 MHz				350	400	ns _{P-P}	
Relative Attenuation:							
10 to 65 MHz			45	55		dB	
75 to 200 MHz			45	55			
Operating Temperature Range		1	-55		+95	°C	
Frequency Temperature Coefficient				-94		ppm/°C	
Impedance Matching to 50 Ω Unbalanced Source/Load			Fxt	ernal L-C			

Impedance Matching to 50 Ω Unbalanced Source/Load	External L-C
Case Style	SM13365-12 13.3 x 6.5 mm Nominal Footprint
Lid Symbolization (YY = year, WW = week)	RFM SF2229A YYWW

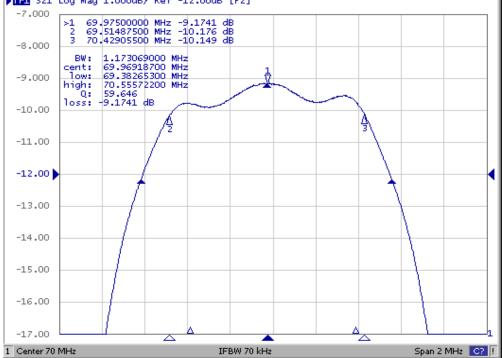


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling. NOTES:

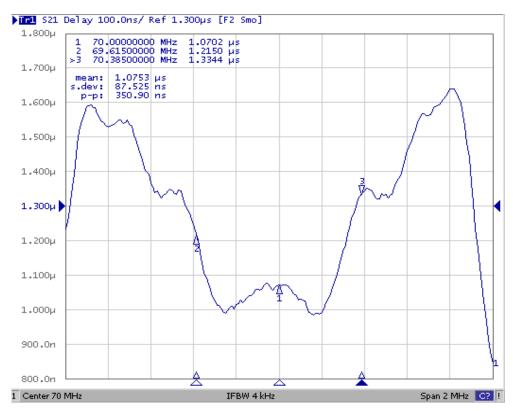
- 1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50 Ω and measured with 50 Ω network analyzer.
- 2. 3.
- Matching to 50 that measured with 50 to network analyzer. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, fc. 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. Part to part absolute delay measurement records the absolute delay mean across 1 dB passband.
- 4.
 - 5. "LRIP" or "L" after the part number indicates "low rate initial production" and "ENG" or "E" indicates "engineering prototypes."
 - 6. 7.
 - The design, manufacturing process, and specifications of this filter are subject to change. 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.
 - 8. US and international patents may apply.



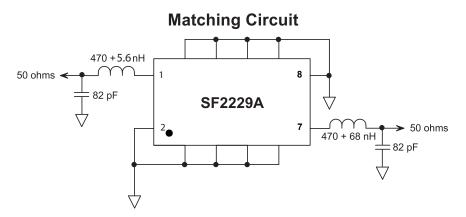
Filter Amplitude Response Plots

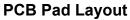


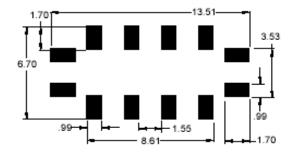
Filter Group Delay Plot



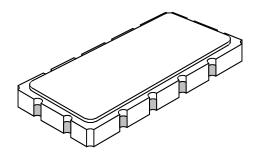
Tuning Component Values







SM13365-12 Ceramic Surface-mount 12-Terminal Case 13.3 x 6.5 mm Nominal Footprint



Electrical Connections

Connection	Terminals		
Input	1		
Input Ground	2		
Output	7		
Output Ground	8		
Case Ground	3, 4, 5, 6, 9, 10, 11, 12		

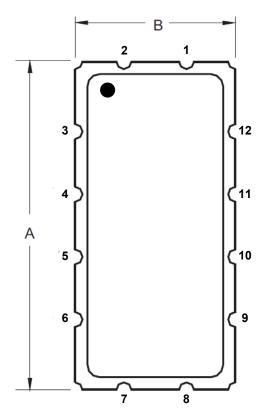
Case Dimensions

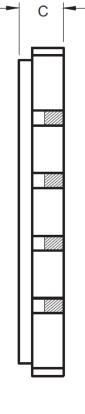
Dimension	mm			Inches			
	Min	Nom	Max	Min	Nom	Max	
Α	13.10	13.30	13.50	0.516	0.524	0.531	
В	6.30	6.50	6.70	0.248	0.256	0.264	
С			1.80			0.071	
D		1.50			0.059		
E		0.80			0.031		
н		0.80			0.031		
Р		2.54			0.100		

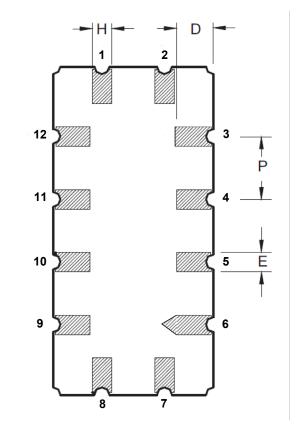
Case Material

Materials			
Solder Pad Plating	0.3 to 1.0 µm Gold over 1.27 to 8.89 µm Nickel		
Lid Plating	2.0 to 3.0 µm Nickel		
Body	Al ₂ O ₃ Ceramic		
Pb Free			

Case Outline Drawing







Tape and Reel Details

