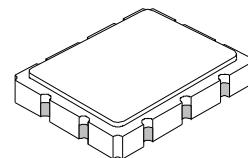


- *Designed for WLAN IF Applications*
- *Low Insertion Loss*
- *9.1 x 7.1 mm Surface-Mount Case*
- *Unbalanced Input and Output*



Characteristic	Sym	Min	Typ	Max	Units	Notes
Nominal Center Frequency	fc		254.400		MHz	1
Passband	Insertion Loss at fc		8.5	10.0	dB	1, 2
	3 dB Passband	IL				
	BW ₃	±750	±1000		kHz	
			0.5	2.0	dB _{P-P}	
Rejection	Amplitude Ripple over fc ±80 kHz					1, 2, 3
	Group Delay Variation over fc ±50 kHz		<200	250	ns _{P-P}	
	90 MHz to fc-50 MHz and fc+50 to 1000 MHz	60			dB	
Spurious Rej. at 0.33, 0.528, 0.594, 1.66, and 1.8 x fc		40				1, 2, 3
Operating Temperature Range	T _A	-10		+60	°C	1
Impedance Matching to 50 Ω unbalanced					External L-C	
Case Style		SM9171-10	9.1 x 7.1 mm Nominal Footprint			
Lid Symbolization (XX = 2-character date code)					RFM SF1054A XX	

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
Max Soldering Profile	265°C for 10 s	

Electrical Connections

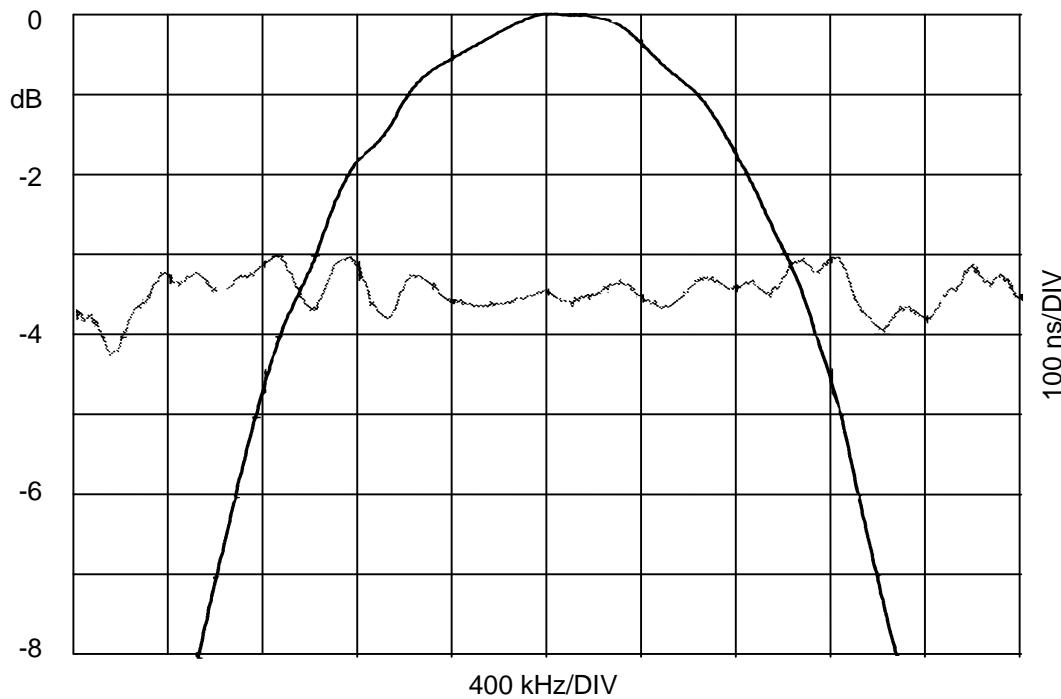
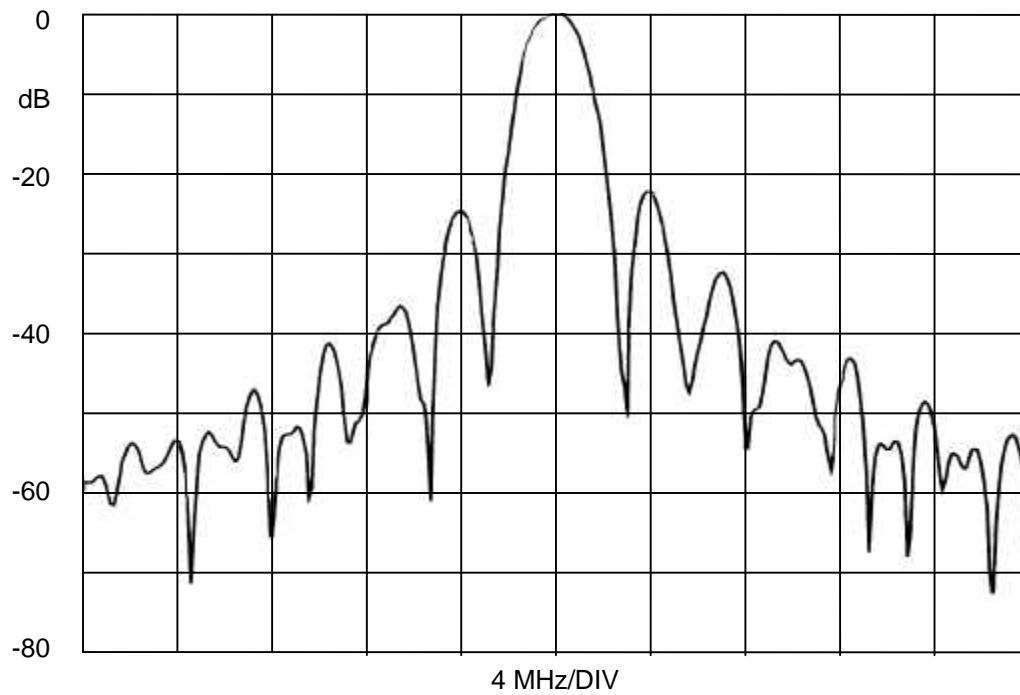
Connection	Terminals
Port 1 Hot	10
Port 1 Gnd Return	1
Port 2 Hot	5
Port 2 Gnd Return	6
Case Ground	All Others

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, fc.
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. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.
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10. Electrostatic Sensitive Device. Observe precautions for handling.



SF1054A 254.4 MHz SAW Filter

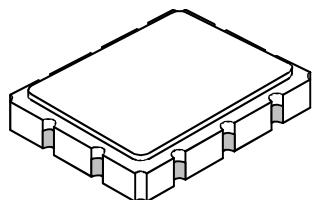


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10-Terminal Ceramic Surface-Mount Case 9.1 x 7.1 mm Nominal Footprint

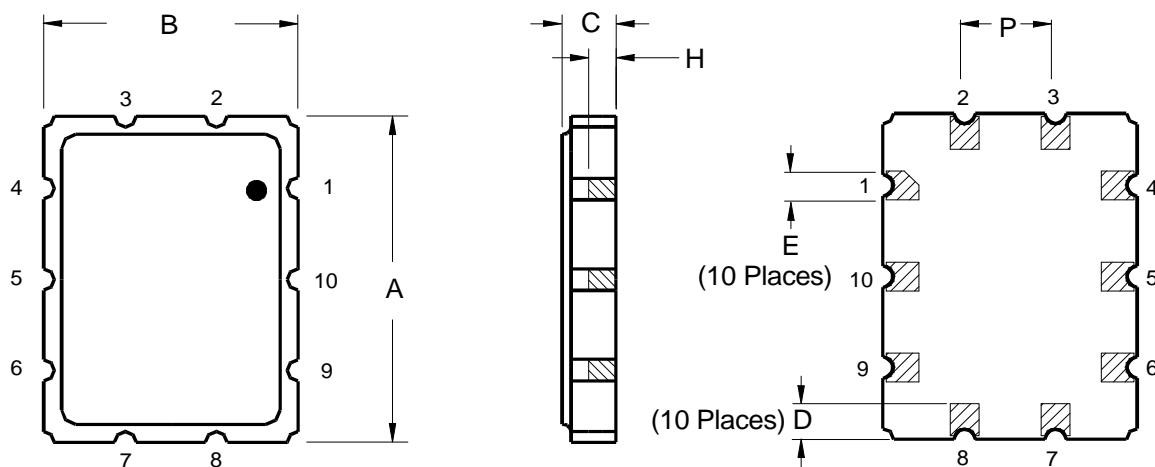


Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	8.86	9.09	9.40	0.349	0.358	0.370
B	6.88	7.11	7.40	0.271	0.280	0.291
C		1.91	2.00		0.075	0.079
D		0.99			0.039	
E		0.79			0.031	
H		1.0			0.039	
P		2.54			0.100	

Electrical Connections

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



NOTES:

REV	ECN NO.	DESCRIPTION	APP/DATE
A	3706	REDRAWN W/CHANGE	FR 6.5.9

ITEM	QTY	PART NUMBER	DESCRIPTION	REF DES	COMMENTS
1	2	500-0003-270	CAPACITOR, 27pf	C1,2	
2	2	500-0248-001	CONN, COAX,	J1,2	MIDWEST MICROWAVE MODEL SMA-015-5540
3	2		INDUCTOR, 56nH	L1,2	COILCRAFT 1008CS-560
4	1	400-0845-001	PCB	PCB1	
5					
6					
7					
8					
9					
10					

DOCUMENT CONTROL MASTER

DRAWN BY/DATE:	J.F.Christopherson 31may95	TITLE:	DEMO PCB, SF1054A		
RF Monolithics, Inc. DALLAS, TEXAS 75244	FDReeves	CHECKED/APPROVED	SIZE A	CODE IDENT 2U874	DWG. NO. SF1054A(DEMO) REV A SHEET 1/3

