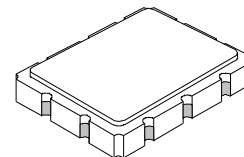


SF1054A 254.4 MHz SAW Filter



- 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	IL	8.5	10.0	dB	1, 2
	3 dB Passband	BW ₃	±750	±1000	kHz	
	Amplitude Ripple over fc ±80 kHz		0.5	2.0	dB _{P-P}	
	Group Delay Variation over fc ±50 kHz	GDV	<200	250	ns _{P-P}	
Rejection	90 MHz to fc-50 MHz and fc+50 to 1000 MHz		60		dB	1, 2, 3
	Spurious Rej. at 0.33, 0.528, 0.594, 1.66, and 1.8 x fc		40			
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.
9. ©Copyright 1999, RF Monolithics Inc.
10. Electrostatic Sensitive Device. Observe precautions for handling.

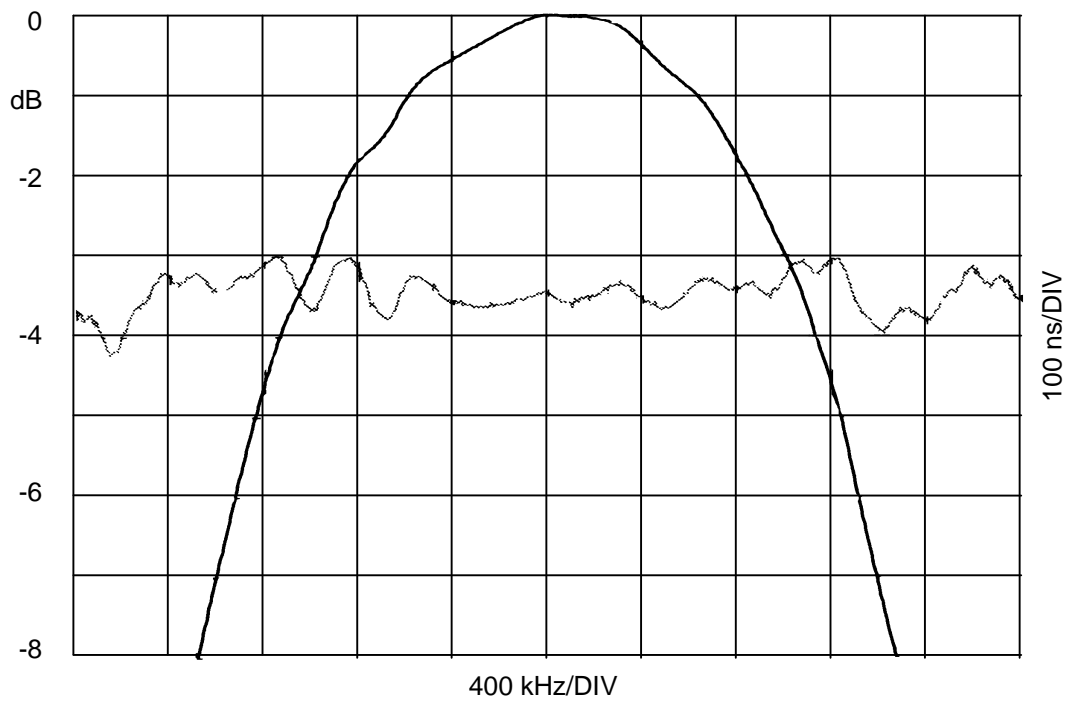
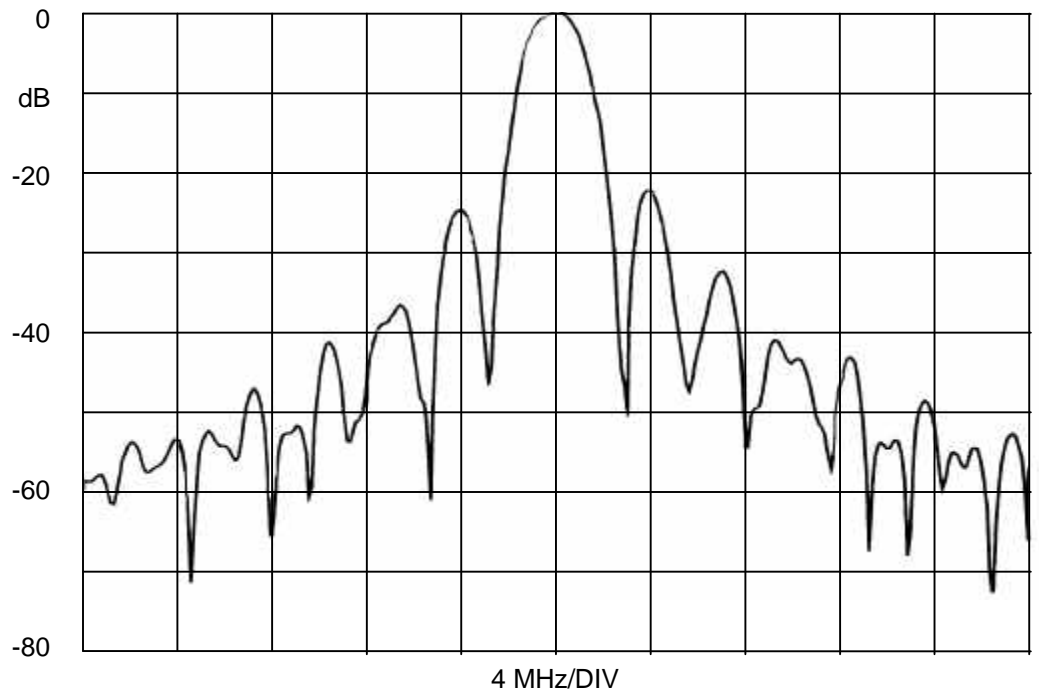


RF Monolithics, Inc.
4347 Sigma Road
Dallas, Texas 75244
USA

Phone: +1(972)233-2903
Fax: +1(972)387-8148
e-mail: info@rfm.com
Home page: www.rfm.com

European Sales Office
44 1963 251383
44 1963 251510

SF1054A 254.4 MHz SAW Filter

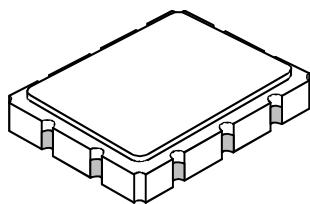


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10-Terminal Ceramic Surface-Mount Case 9.1 x 7.1 mm Nominal Footprint

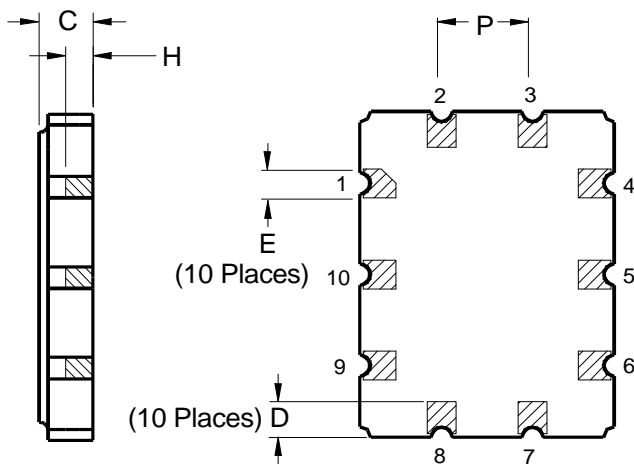
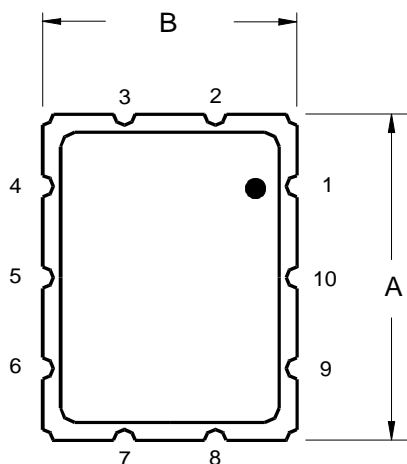


Case Dimensions

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 6.5.95

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

CHECKED/APPROVED

FD Reeves

SIZE
ACODE IDENT
2U874DWG.
NO.**SF1054A(DEMO)**REV
ASHEET
1/3

