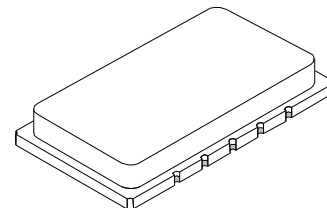


SF1097A 71 MHz SAW Filter



- Designed for GSM Terminal IF Applications
- Excellent Size-Performance Ratio
- Hermetic 14 x 8 mm Surface-Mount Case



Characteristic	Sym	Min	Typ	Max	Units	Notes
Nominal Center Frequency	fc		71.000		MHz	1
Passband	Insertion Loss at fc	IL	6.5	9.0	dB	1, 2
	2 dB Passband	BW ₂	±90		kHz	
	3 dB Passband	BW ₃	±110		kHz	
	Group Delay Variation over fc ±90 kHz	GDV	500	1500	ns _{P-P}	
Rejection	fc-350 to fc-250 and fc+250 to fc+350 kHz		5		dB	1, 2, 3
	fc-500 to fc-350 and fc+350 to fc+500 kHz		20		dB	
	fc-700 to fc-500 and fc+500 to fc+700 kHz		30		dB	
	fc-2500 to fc-700 and fc+700 to fc+2500 kHz		35		dB	
	Ultimate 10 MHz to fc-2.5 MHz and fc+2.5 MHz to 130 MHz		40		dB	
	Except spurious responses at 1.05, 1.6, 1.8, & 2 x fc		35		dB	
Operating Temperature Range	T _A	-20		+80	°C	1
Matching to Balanced Impedance		External L match to 3 kΩ (Port 1) and 2 kΩ (Port 2)				
Case Style		SMP-08 14 x 8 mm Nominal Footprint				
Lid Symbolization (YY = year, WW = week)		RFM SF1097A YYWW				

Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+20	dBm
Max. DC voltage between any 2 terminals	30	VDC
Storage Temperature Range	-40 to +85	°C
Max Soldering Profile	235°C for 90 s	

Electrical Connections

Connection	Terminals
Port 1	1, 10
Port 2	5, 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. The design, manufacturing process, and specifications of this filter are subject to change.
5. 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.
6. US and international patents may apply.
7. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.
8. ©Copyright 1999, RF Monolithics Inc.
9. Electrostatic Sensitive Device. Observe precautions for handling.



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

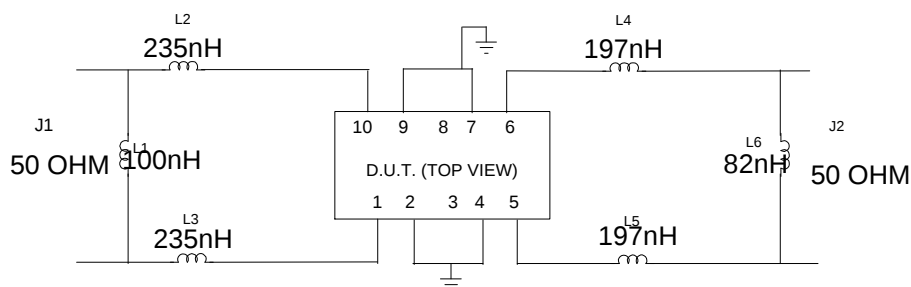
Phone: +1(972)233-2903
Fax: +1(972)387-8148
e-mail: info@rfm.com
Home page: www.rfm.com

European Sales Office
44 1963 251383
44 1963 251510

SF1097A

71 MHz SAW Filter *Suggested Matching Network*

Pinout and reference matching network. Actual values will be different on customer PCB.

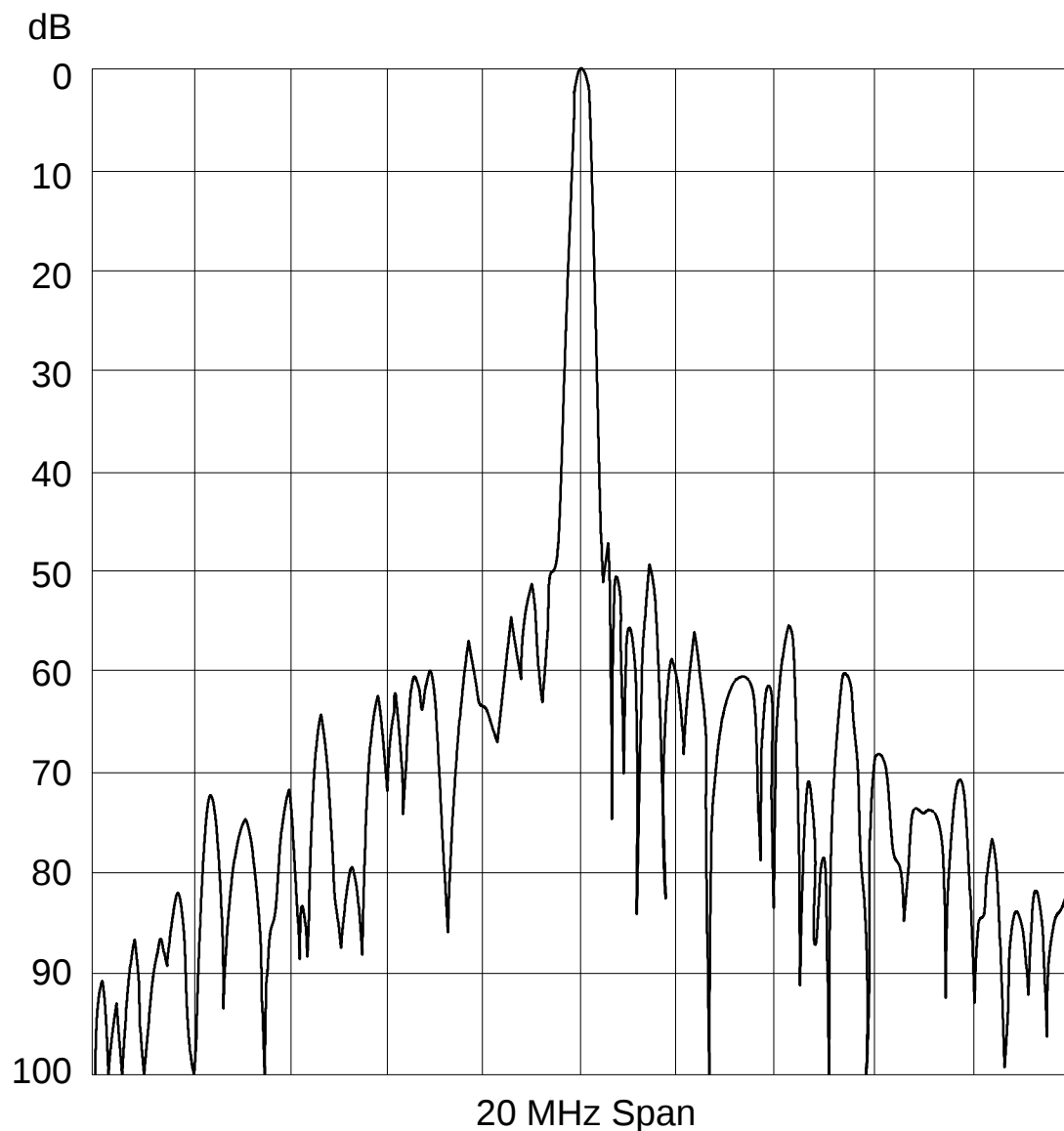


Preliminary SF1097A matching and plots.doc 8-Oct-99 RFM

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
Paris, France
Phone: +33 1 39 16 42 89
Fax: +33 1 39 16 42 70

SF1097A**71 MHz SAW Filter Wide Span Plot**

Preliminary SF1097A matching and plots.doc 8-Oct-99 RFM

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
Paris, France
Phone: +33 1 39 16 42 89
Fax: +33 1 39 16 42 70

SF1097A**71 MHz SAW Filter Narrow Span Plot**

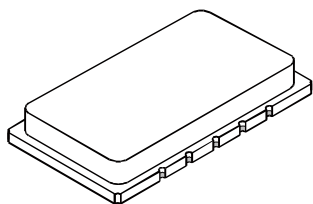
Preliminary SF1097A matching and plots.doc 8-Oct-99 RFM

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
Paris, France
Phone: +33 1 39 16 42 89
Fax: +33 1 39 16 42 70

10-Terminal Ceramic Surface-Mount Case 14 x 8 mm Nominal Footprint



Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	13.69	14.00	14.30	0.539	0.551	0.563
B	7.70	8.00	8.30	0.303	0.315	0.327
C		1.70	2.00		0.067	0.079
D		2.30			0.091	
E		1.02			0.040	
F		3.19			0.126	
G		0.60			0.024	
P		1.905			0.075	

