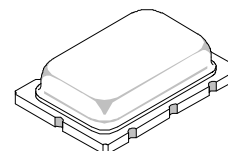


# SF1084B 299 MHz SAW Filter



- Designed for GSM BTS Transmitter Applications
- Low Insertion Loss and Small Size
- 8.5 x 5.8 mm Surface-Mount Case
- Unbalanced Input and Output



Characteristic	Sym	Min	Typ	Max	Units	Notes
Nominal Center Frequency	fc		299.000		MHz	1
Passband	Insertion Loss at fc 3 dB Passband	IL	6	8.0	dB	1, 2
		BW <sub>3</sub>	±275			
					0.3	
	Amplitude Ripple over fc ±75 kHz					
	Group Delay Variation over fc ±75 kHz	GDV		100	nS <sub>P-P</sub>	
Rejection	100 kHz to fc-6.0 MHz and fc+6.0 to 540 MHz Ultimate		20	40	dB	1, 2, 3
				>40		
Operating Temperature Range	T <sub>A</sub>	-40		+85	°C	1

Impedance Matching to 50 Ω unbalanced	External L-C
Case Style	SM8558-8 8.5 x 5.8 mm Nominal Footprint
Lid Symbolization (YY=year, WW=week, XXX=lot code)	RFM SF1084B YYWWXXX

## 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	235°C for 90 s	

## Electrical Connections

Connection	Terminals
Port 1 Hot	7
Port 1 Gnd Return	1
Port 2 Hot	3
Port 2 Gnd Return	5
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.

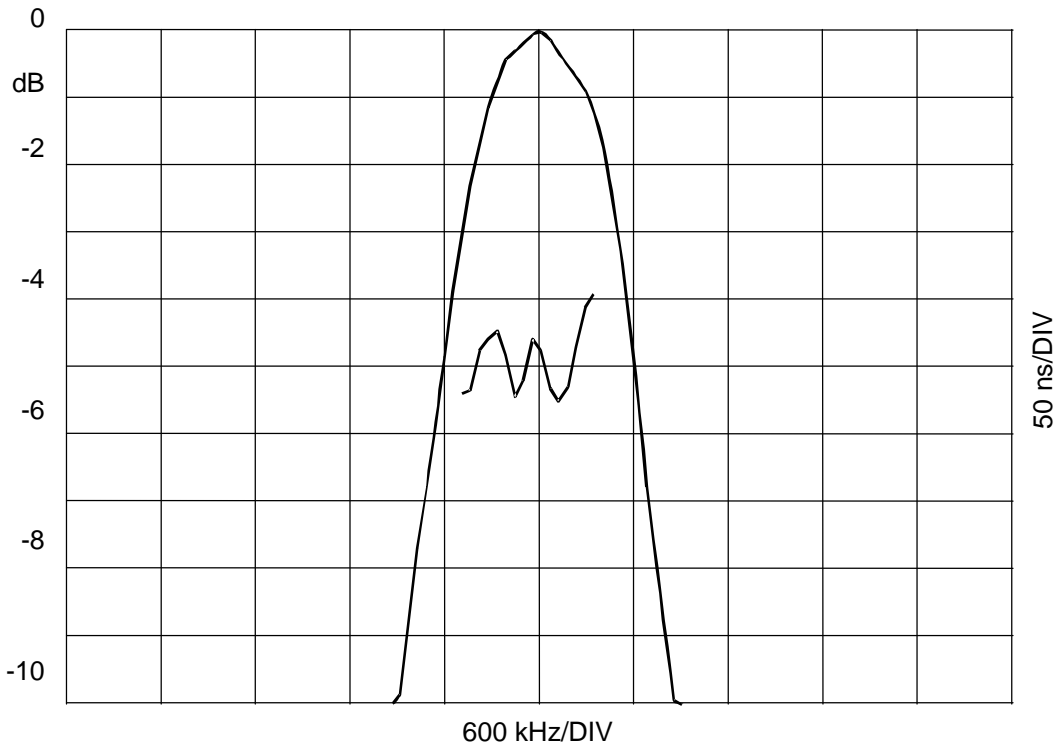
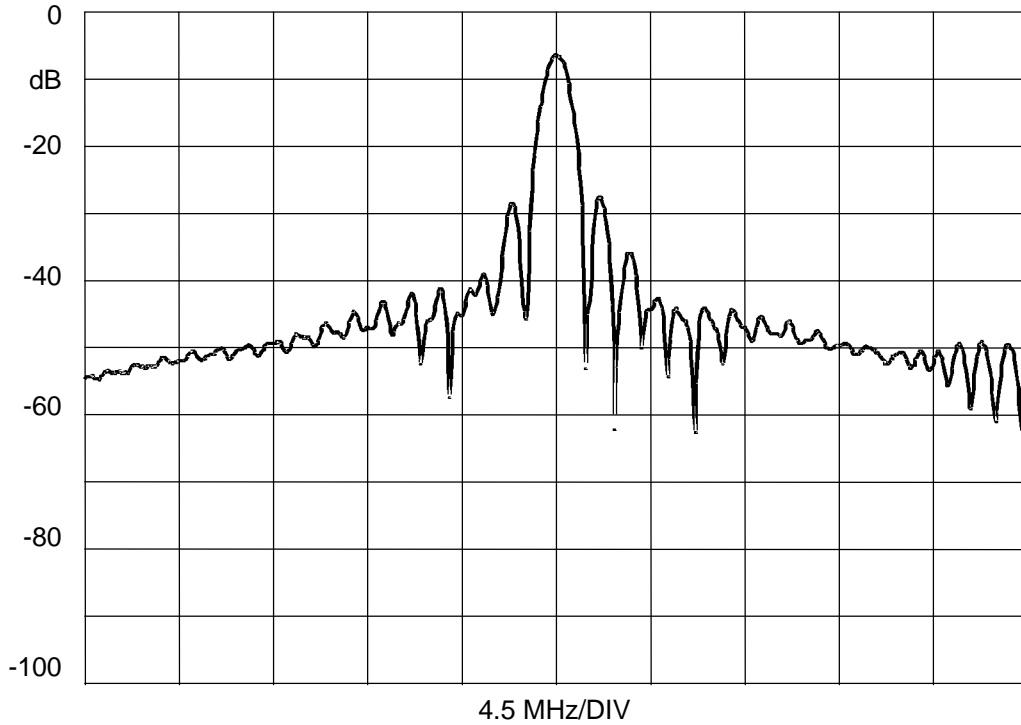


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**European Sales Office**  
44 1963 251383  
44 1963 251510

# SF1084B 299 MHz SAW Filter

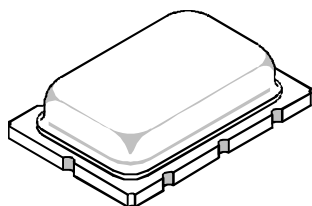


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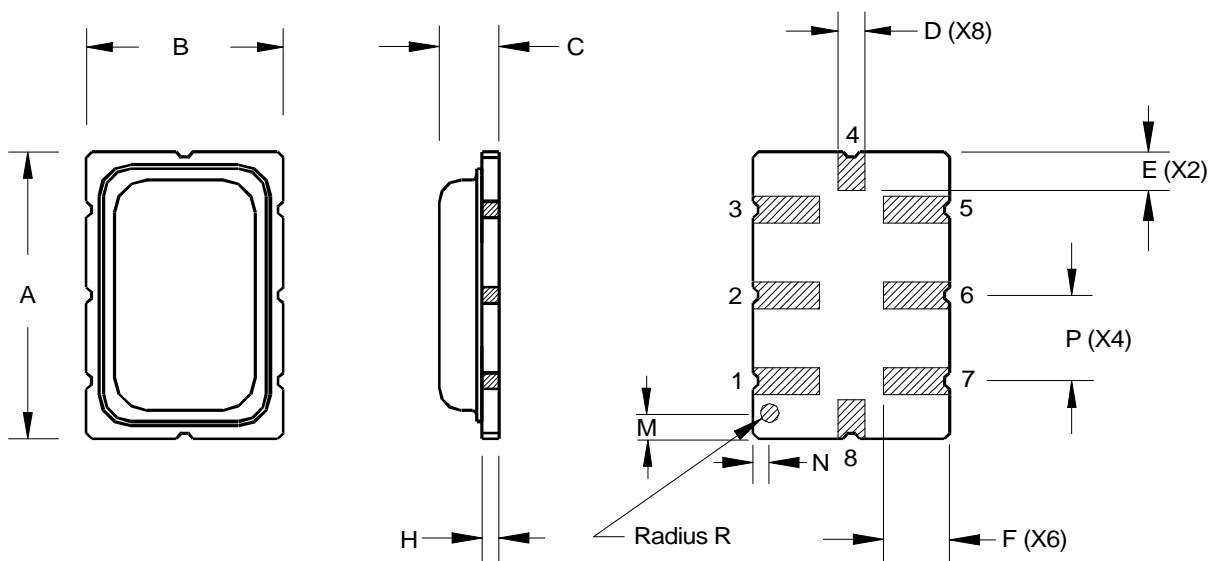
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## 8-Terminal Ceramic Surface-Mount Case 8.5 x 5.8 mm Nominal Footprint



Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	8.26	8.51	8.76	0.325	0.335	0.345
B	5.59	5.84	6.10	0.220	0.230	0.240
C		1.70	2.00		0.067	0.079
D		0.79			0.031	
E		1.14			0.045	
F		1.98			0.078	
H		0.51			0.020	
M		0.76			0.030	
N		0.51			0.020	
P		2.54			0.100	
R		0.51			0.020	



## BILL OF MATERIALS

<u>PART IDENTIFIER</u>	<u>DESCRIPTION 1</u>	<u>DESCRIPTION 2</u>	<u>QTY/ASSY</u>	<u>REFERENCE DESCRIPTION</u>
SF1084B(DEMO)	FILTER,SM,299.000MHZ			
SF1084B-100	ASSY DIAG,DEMO BOARD,	SF1084B	0	
400-1446-001	PCB,DEMO BOARD,CRF		1.0000	CHAS 1
500-0248-001	CONN,COAX,FLANGE MT.JACK	4 HOLE	2.0000	J 1,2
500-0010-470	IND,CHIP,1008CS,47NH,10%		2.0000	L 1,2
500-0003-150	CAP,CHIP,NPO,15(J),STD		2.0000	C1,C2



SIZE

**A**

FSCM NO.

**2U874**

DWG NO.

**SF1084B(DEMO)**

SCALE

**NONE**

W/O or ECN

**7578**

REV

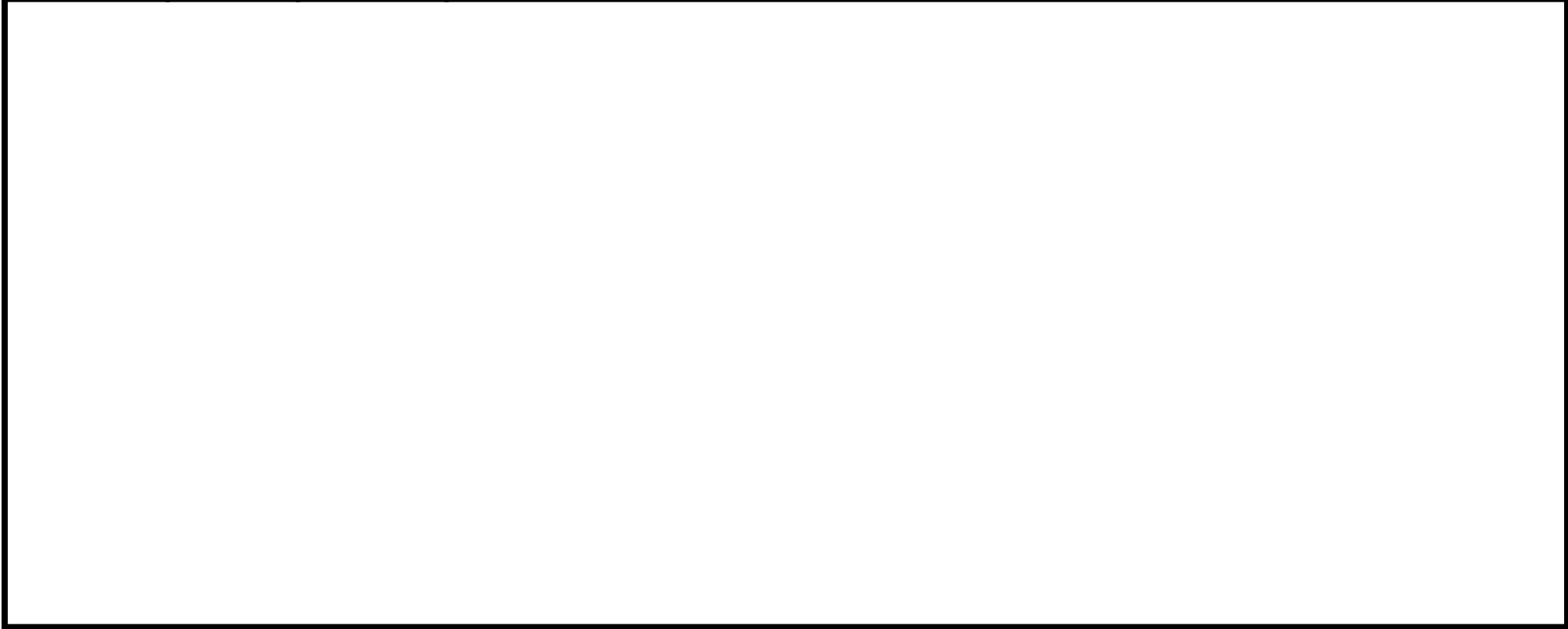
**C**

SHEET

**1 OF 2**

## REV HISTORY

REV	ECN	DATE	DESCRIPTION
A	6645	04/08/98	INITIAL RELEASE
B	6688	05/04/98	UPDATE REFERENCE DESCRIPTIONS L3 AND L4
C	7578	03/22/99	CHANGED TUNING ON DEMO BOARDS



	<b>FRIM</b>	SIZE <b>A</b>	FSCM NO. <b>2U874</b>	DWG NO. <b>SF1084B(DEMO)</b>
SCALE <b>NONE</b>	W/O or ECN <b>7578</b>	REV <b>C</b>	SHEET <b>2</b> OF <b>2</b>	