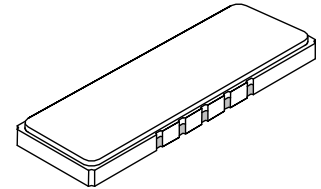


SF1088A

170.6 MHz
SAW Filter



SMP-75

- **Designed for GSM BTS Receiver IF Applications**
- **Low Insertion Loss**
- **Excellent Size-to-Performance Ratio**
- **Hermetic SMP-75 Surface-Mount Case**
- **Unbalanced Input and Output**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Tape and Reel Standard per ANSI/EIA-481**
- **Moisture Sensitivity Level: 1**

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
Suitable for lead-free soldering - Max. Soldering Profile	260°C for 30 s	

Electrical Specifications

Characteristic	Sym	Notes	Min	Typ	Max	Units
Nominal Center Frequency	f_c		170.600			MHz
Passband	IL	Insertion Loss at f_c			8.0	dB
		1 dB Passband		± 90		kHz
		Amplitude Ripple over $f_c \pm 90$ kHz			1.0	dB _{P-P}
	GDV	Group Delay Variation over $f_c \pm 190$ kHz		<500	1000	ns _{P-P}
Rejection		$f_c - 0.6$ to $f_c - 0.4$ and $f_c + 0.4$ to $f_c + 0.6$ MHz	13	15		dB
		$f_c - 0.8$ to $f_c - 0.6$ and $f_c + 0.6$ to $f_c + 0.8$ MHz	27	35		
		$f_c - 1.6$ to $f_c - 0.8$ and $f_c + 0.8$ to $f_c + 1.6$ MHz	40	45		
		$f_c - 3.0$ to $f_c - 1.6$ and $f_c + 1.6$ to $f_c + 3.0$ MHz	43	55		
		$f_c - 5.8$ to $f_c - 3.0$ and $f_c + 3.0$ to $f_c + 5.8$ MHz	47	55		
		$f_c - 35$ to $f_c - 5.8$ and $f_c + 5.8$ to $f_c + 35$ MHz	50	55		
		$f_c - 75$ to $f_c - 35$ and $f_c + 35$ to $f_c + 75$ MHz	45	55		
		DC to $f_c - 75$ and $f_c + 75$ to $f_c + 1000$ MHz	40			
Operating Temperature Range	T_A		-10		+85	°C

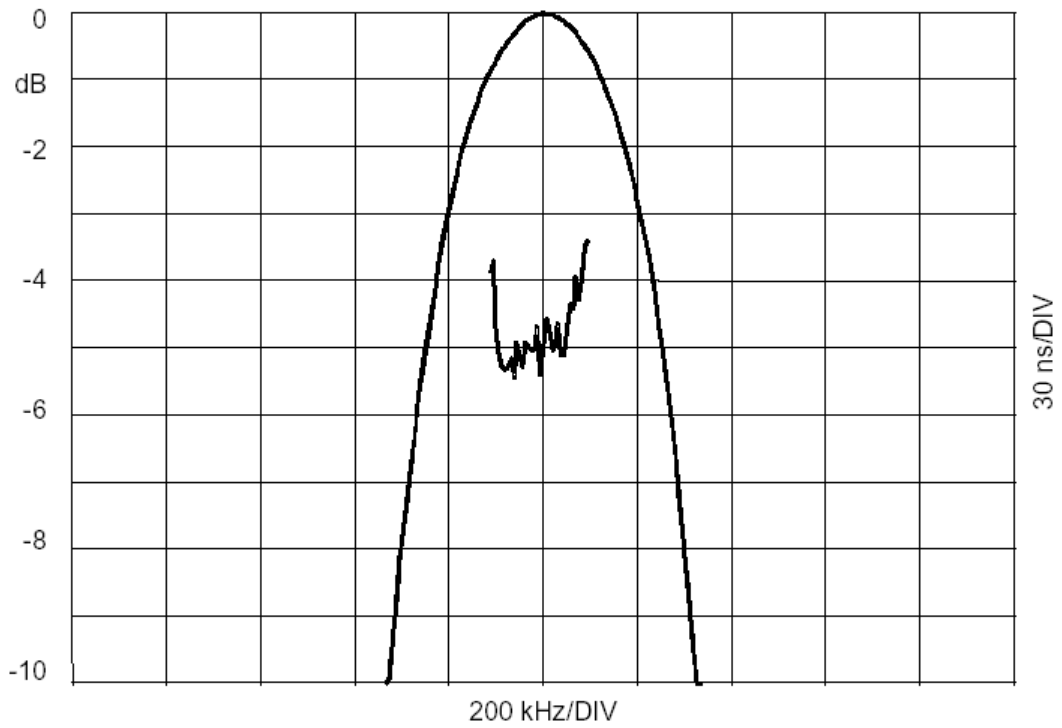
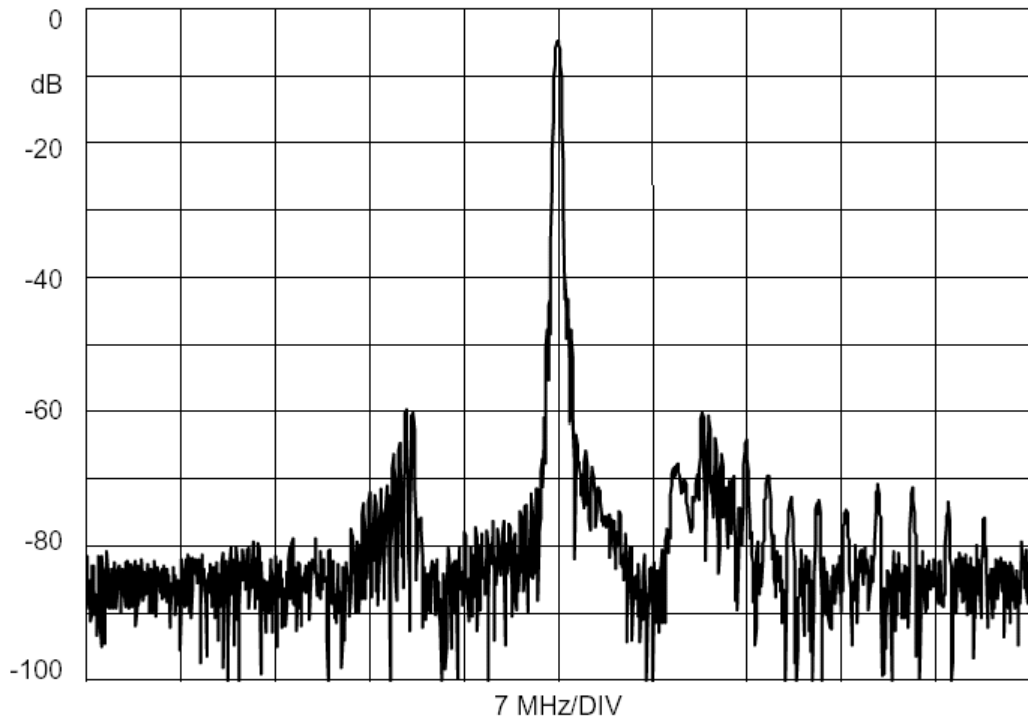
Impedance Matching to 50 Ω unbalanced	External L-C
Lid Symbolization (YY = year, WW = week, S = shift, ## = sequence code)	RFM, SF1088A, <u>YYWWS##</u>
Case Style: SMP-75 19 x 6.5 mm Nominal Footprint	Reel Count: 7" = 500, 13" = 1000



CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

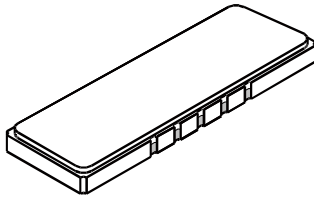
NOTES:

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.



SMP-75 Case

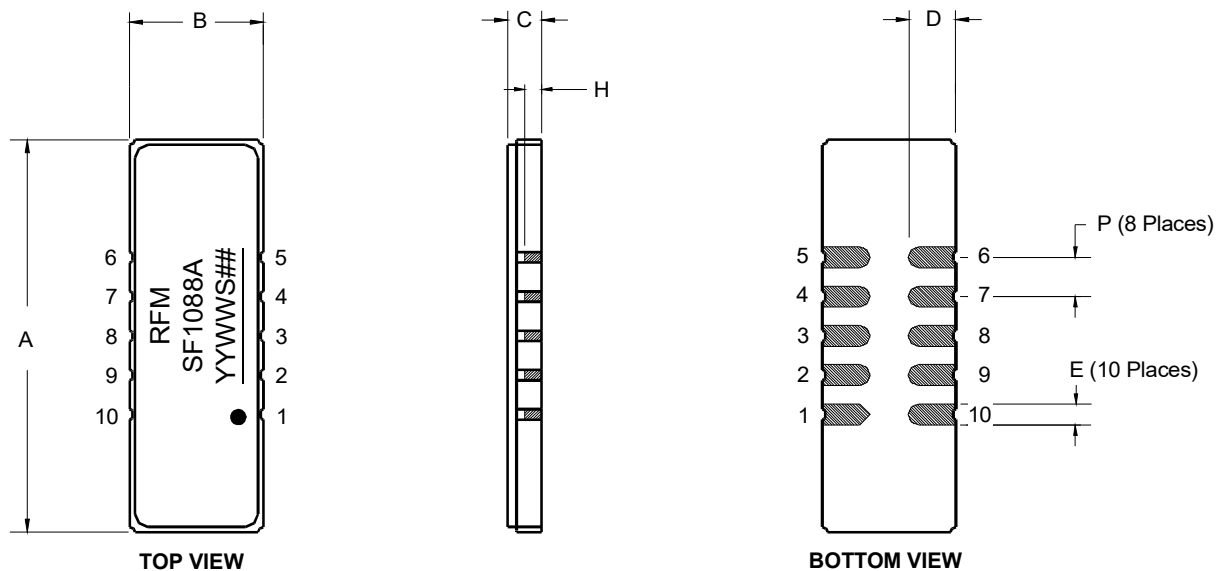
10-Terminal Ceramic Surface-Mount Case 19 x 6.5 mm Nominal Footprint



Case Dimensions						
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	18.80	19.00	19.30	0.740	0.748	0.760
B	6.30	6.50	6.80	0.248	0.256	0.268
C		1.75	2.00		0.069	0.079
D		2.29			0.090	
E		1.02			0.040	
H		1.0			0.039	
P		1.905			0.075	

Materials	
Solder Pad Termination	Au plating 30 - 60 μ inches (76.2-152 μ m) over 80-200 μ inches (203-508 μ m) Ni.
Lid	Fe-Ni-Co Alloy Electroless Nickel Plate (8-11% Phosphorus) 100-200 μ inches Thick
Body	Al ₂ O ₃ Ceramic

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



Recommended Reflow Profile

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C+0/-5°C peak (10 seconds).
4. Time: 5 times maximum.

