RFMi
A BRAND OF AKOUSTIS

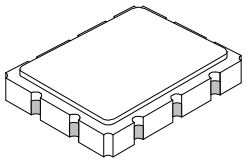
RoHS compliant

SF1080A

499.25 MHz SAW Filter

- ***Designed for CATV Applications (Pilot Tone)***
- ***Tightly-controlled Insertion Loss***
- ***9.1 x 7.1 mm Surface-mount Case***
- ***Unbalanced Input and Output***
- ***Complies with Directive 2002/95/EC (RoHS)***
- **Absolute Maximum Ratings**
- **Tape and Reel Standard per ANSI/EIA-481**
- **Moisture Sensitivity Level: 1**

Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Maximum DC Voltage between any 2 Terminals	30	VDC
Storage Temperature Range	-54 to +85	°C
Suitable for lead-free soldering - Max Soldering Profile	260°C for 30 s	



SM9171-10

Electrical Characteristics

Characteristic		Sym	Notes	Min	Typ	Max	Units
Nominal Center Frequency		f_C			499.250		MHz
Passband	Insertion Loss at fc	IL		6.0	7.5	9.0	dB
	0.5 dB Passband	$BW_{0.5}$		±100			kHz
	3 dB Passband	BW_3		±800	±970		
	Amplitude Ripple over fc ±100 kHz					0.5	dB_{P-P}
Rejection	fc-200 to fc-3.0 and fc+3.0 to fc+200 MHz			35			dB
	Ultimate			40			
Operating Temperature Range		T_A		-25		+75	°C

Impedance Matching to 50 Ω unbalanced	External L-C
Lid Symbolization (YY=year, WW=week, S=shift, ##=sequence code)	RFM, SF1080A, YYWWS##
Case Style: SM9171-10 9.1 x 7.1 mm Nominal Footprint	Reel Count: 7" = 500, 13" = 1000

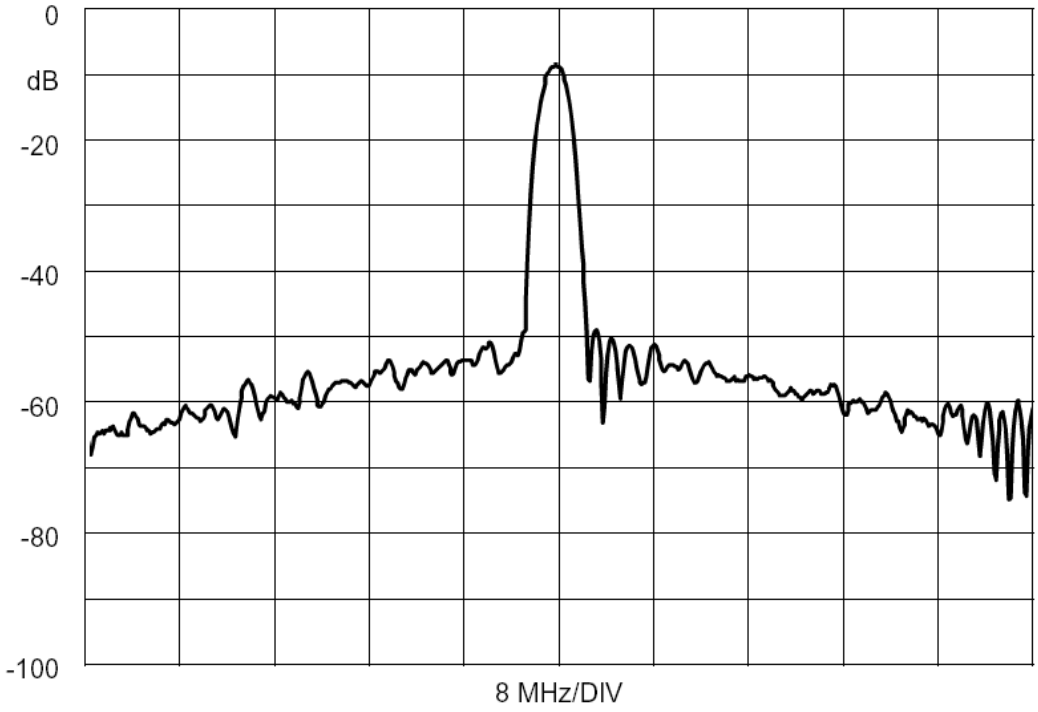
Electrical Connections

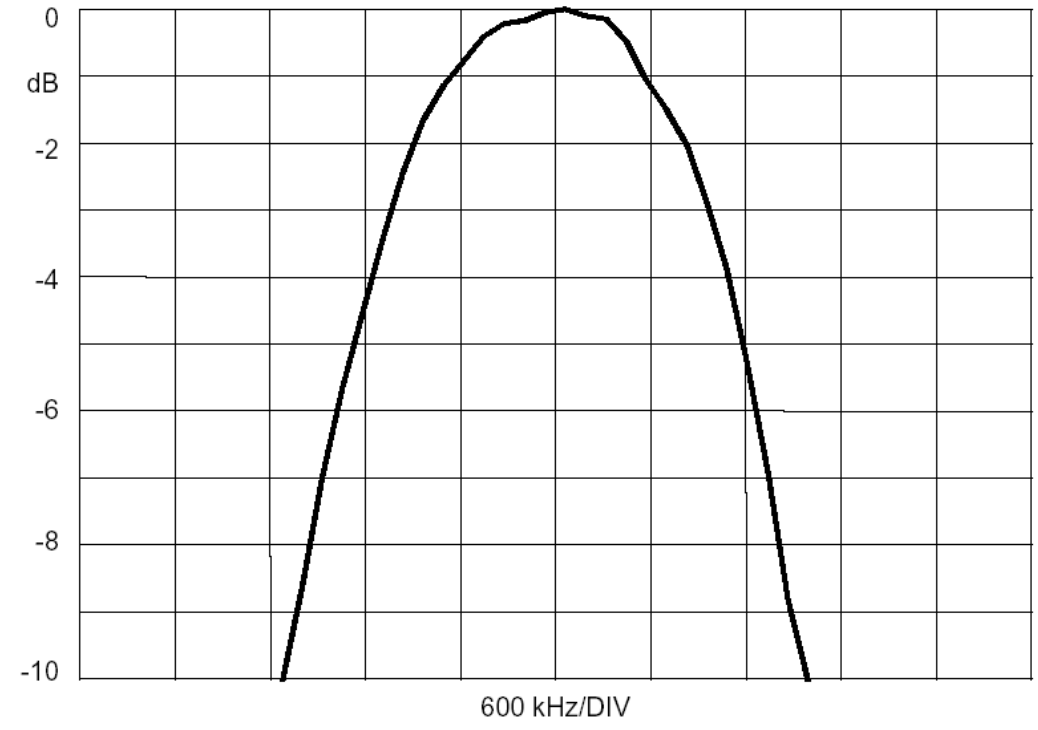
Connection	Terminals
Port 1 Hot	10
Port 1 Gnd Return	1
Port 2 Hot	5
Port 2 Gnd Return	6
Case Ground	All others

CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

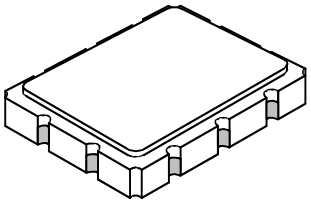
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.


0
dB
-20
-40
-60
-80
-100
8 MHz/DIV


0
dB
-2
-4
-6
-8
-10
600 kHz/DIV

SM9171-10 Case

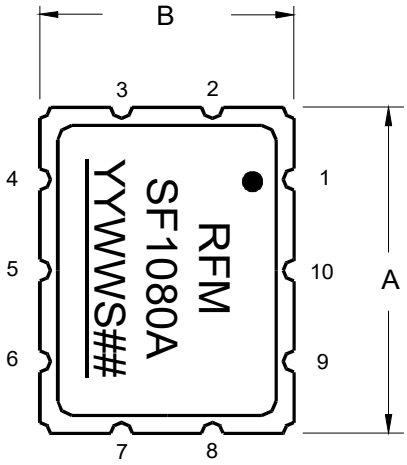
10-Terminal Ceramic Surface-Mount Case
9.1 x 7.1 mm Nominal Footprint

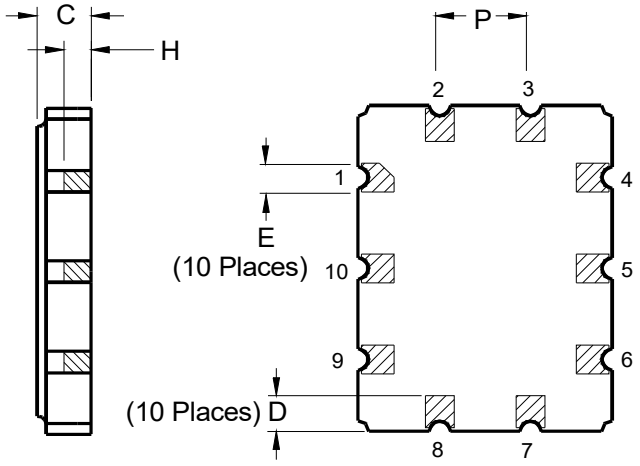


Case Dimensions						
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	8.86	9.09	9.40	0.349	0.358	0.370
B	6.88	7.11	7.40	0.271	0.280	0.291
C		1.91	2.00		0.075	0.079
D		0.99			0.039	
E		0.79			0.031	
H		1.0			0.039	
P		2.54			0.100	

Materials	
Solder Pad Plating	0.3 to 1.0 µm Gold over 1.27 to 8.89 µm Nickel
Lid Plating	2.0 to 3.0 µm Nickel
Body	Al_2O_3 Ceramic

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**





Recommended Reflow Profile

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