



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

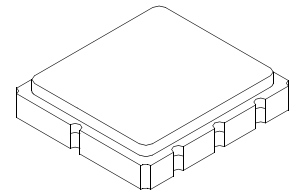
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# SF1189B

## 280.00 MHz SAW Filter



SM5050-8

- **Designed for WLAN IF Applications**
- **Low Insertion Loss**
- **5.0 x 5.0 x 1.7 mm Surface-Mount Case**
- **Single Ended or Differential Input and Output**

### Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Max. DC voltage between any 2 terminals	0	VDC
Storage Temperature Range	-40 to +85	°C
Max Soldering Profile	265°C for 10 s	

Characteristic	Sym	Notes	Min	Typ	Max	Units
Nominal Center Frequency	$f_C$	1	280.0			MHz
Passband	Insertion Loss at $f_C$	IL		8.2	8.5	dB
		$BW_3$	1, 2	18.5	20.1	MHz
	3 dB Passband Amplitude Ripple over $f_C \pm 9.0$ MHz			2.0	2.5	dB <sub>P-P</sub>
	Group Delay Variation over $f_C \pm 9.0$ MHz	GDV			72	100
Rejection	$f_C - 60$ to $f_C - 40$ MHz	$f_C - 40$ to $f_C - 22$ MHz	1, 2, 3	40	47	dB
		$f_C - 22$ to $f_C - 17$ MHz		38	41	
		$f_C + 17$ to $f_C + 22$ MHz		30	39	
		$f_C + 22$ to $f_C + 40$ MHz		25	36	
		$f_C + 40$ to $f_C + 60$ MHz		34	36	
				40	41	
Operating Temperature Range	$T_A$	1	-10		+85	°C

Differential Input / Output Impedance Match	External L-C
Case Style	SM5050-8 5 X 5 mm Nominal Footprint
Lid Symbolization (YY=year, WW=week, S=shift)	453, YYWWS

### Electrical Connections

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

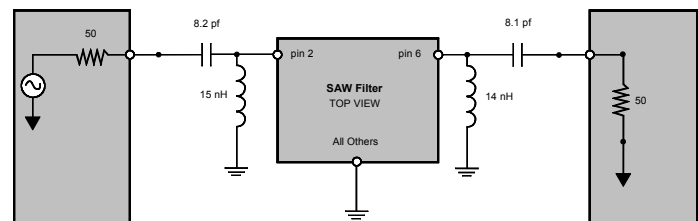

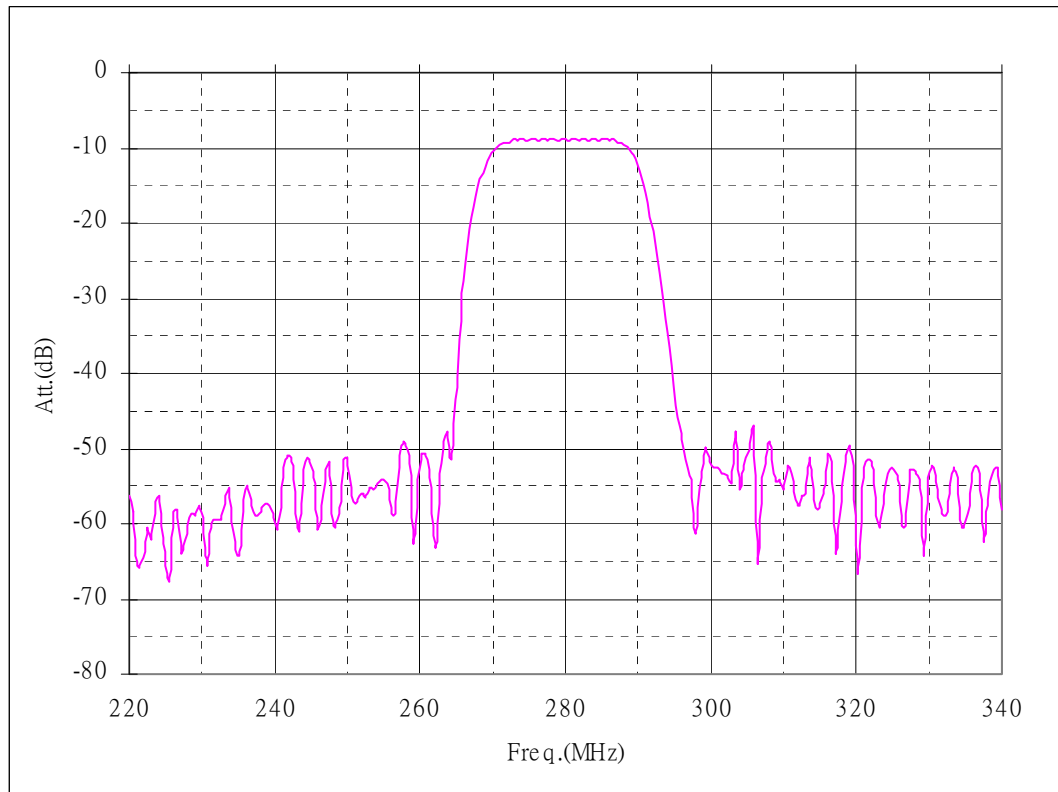
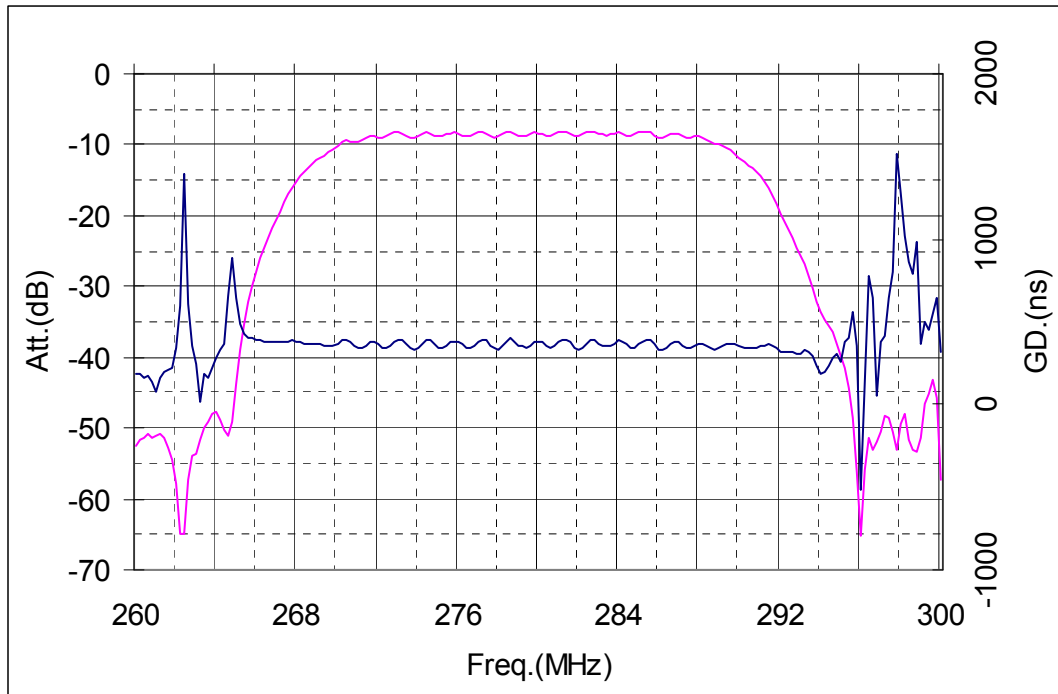


figure 1

### NOTES:

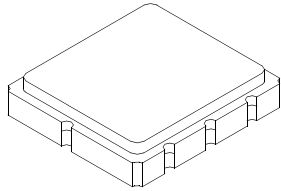
1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50  $\Omega$  and measured with 50  $\Omega$  network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency,  $f_C$ .
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. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.
8. Electrostatic Sensitive Device. Observe precautions for handling. 

## Frequency Characteristics



# SM5050-8 Case

## 8-Terminal Ceramic Surface-Mount Case 5.0 X 5.0 mm Nominal Footprint



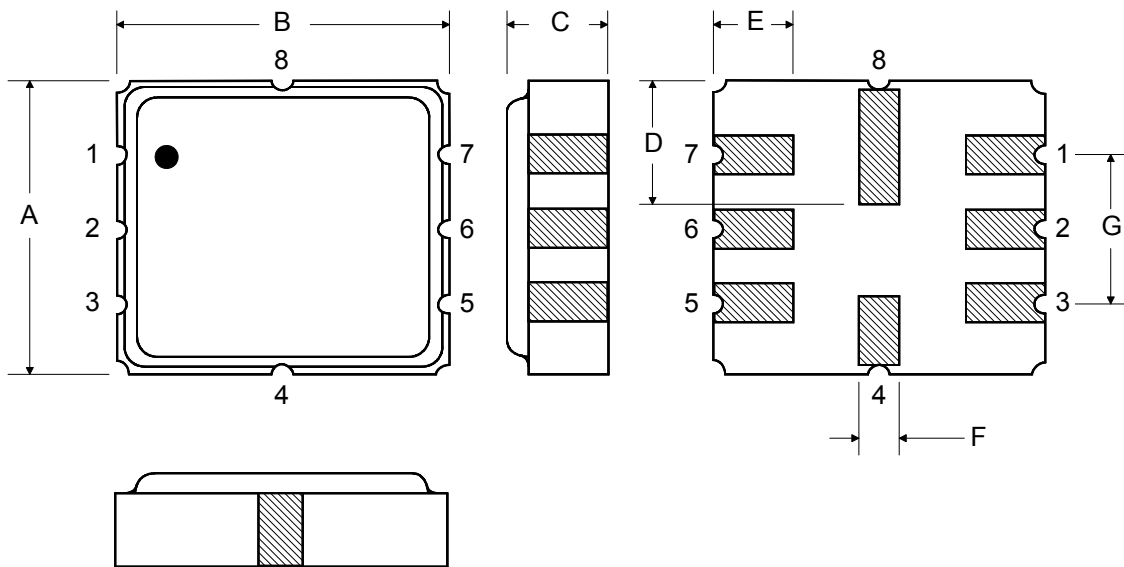
Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	4.8	5.0	5.2		0.1968	
B	4.8	5.0	5.2		0.1968	
C			1.7			0.0669
D		2.08			0.0818	
E		1.17			0.046	
F		0.64			0.0252	
G	2.39	2.54	2.69		0.100	

Electrical Connections	Terminals
Input	2
Output	6
Ground	All others
Single Ended Operation	Return is ground
Differential Operation	Return is hot
Dot indicates Pin 1	

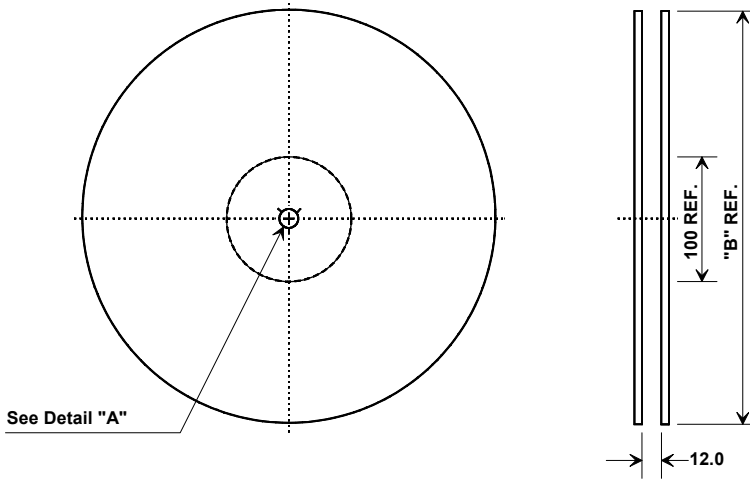
TOP VIEW

BOTTOM VIEW

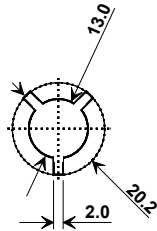




## Tape and Reel Specifications



"B" Nominal Size		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000



## COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	5.3 mm
Bo	5.3 mm
Ko	2.0 mm
Pitch	8.0 mm
W	12.0 mm

