

# Preliminary



- **Low-loss SAW Filter**
- **Complies with Directive 2002/95/EC (RoHS)**

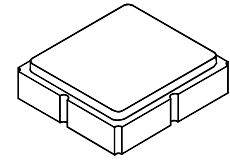
### Characteristics:

Balanced-to-balanced operation  
Terminating source/load impedance :  $Z_S = 150 \Omega$



## SF2256E

## 1076.06 MHz SAW Filter



**SM3030-8**

### Maximum Rating

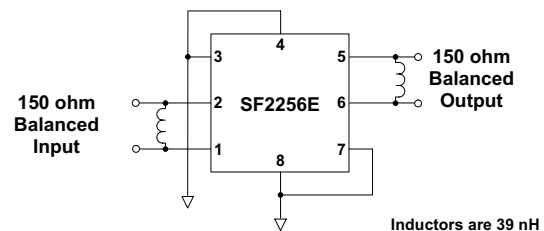
Rating	Value	Units
Input Power Level	+10	dBm
DC Voltage on any Non-ground Terminal	3	V
Operating Temperature Range	-30 to +85	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Suitable for Lead-free Soldering - Maximum Soldering Profile	260°C for 30 s	

### Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	$f_C$			1076.06		MHz
Minimum Insertion Loss, 1056.06 to 1096.06 MHz	$IL_{MIN}$			1.6	5.0	dB
2.7 dB Bandwidth	$BW_{2.7}$		40	47		MHz
Amplitude Ripple, 1056.06 to 1096.06 MHz		2		1.5	2.7	dB
Phase Error, 1056.06 to 1096.06 MHz		2		5.0	6.5	degree
I/O VSWR, 1056.06 to 1096.06 MHz				2.4:1	2.8:1	
Attenuation Referenced to Minimum Insertion Loss:						
50 to 994 MHz			43	46		dB
1158.12 to 1850 MHz			40	43		
1850 to 3000 MHz			35	38		
3000 to 6000 MHz			30	33		

Case Style	SM3030-8 3.0 x 3.0 mm Nominal Footprint	
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	A03, YWWS	
Standard Reel Quantity	Reel Size 7 Inch	500 Pieces/Reel
	Reel Size 13 Inch	3000 Pieces/Reel

### SF2256E Test Circuit



	Connection	Terminals
Port 1	Balanced Input	1,2
Port 2	Balanced Output	5,6
	Ground	All Others

Dot Indicates Pin 1

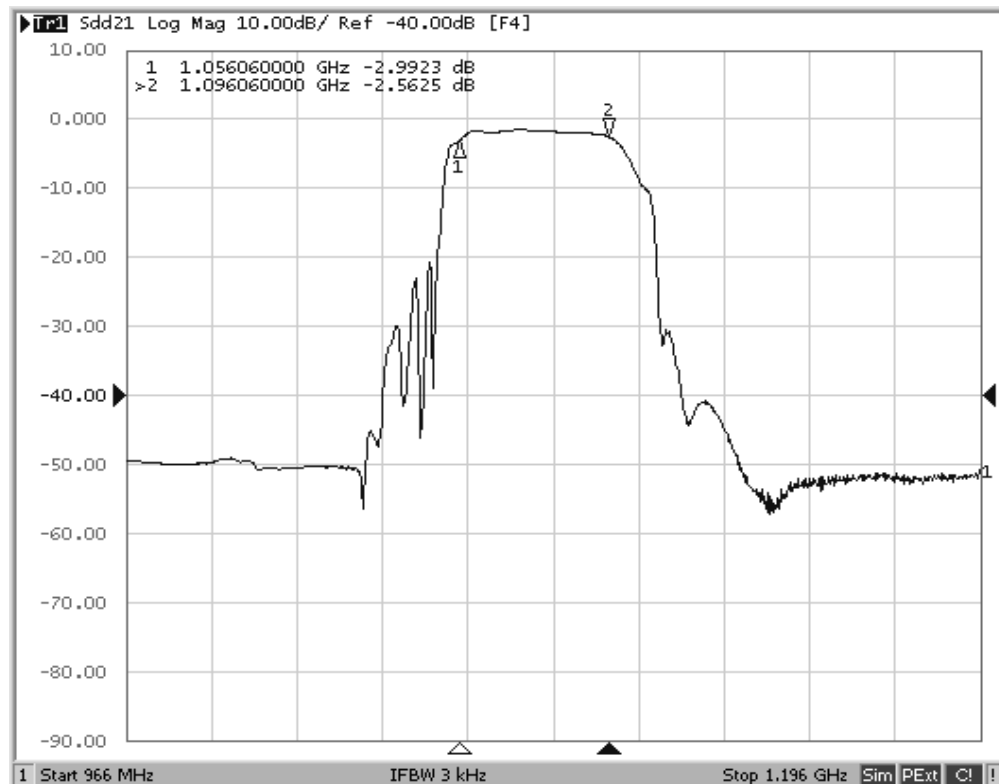
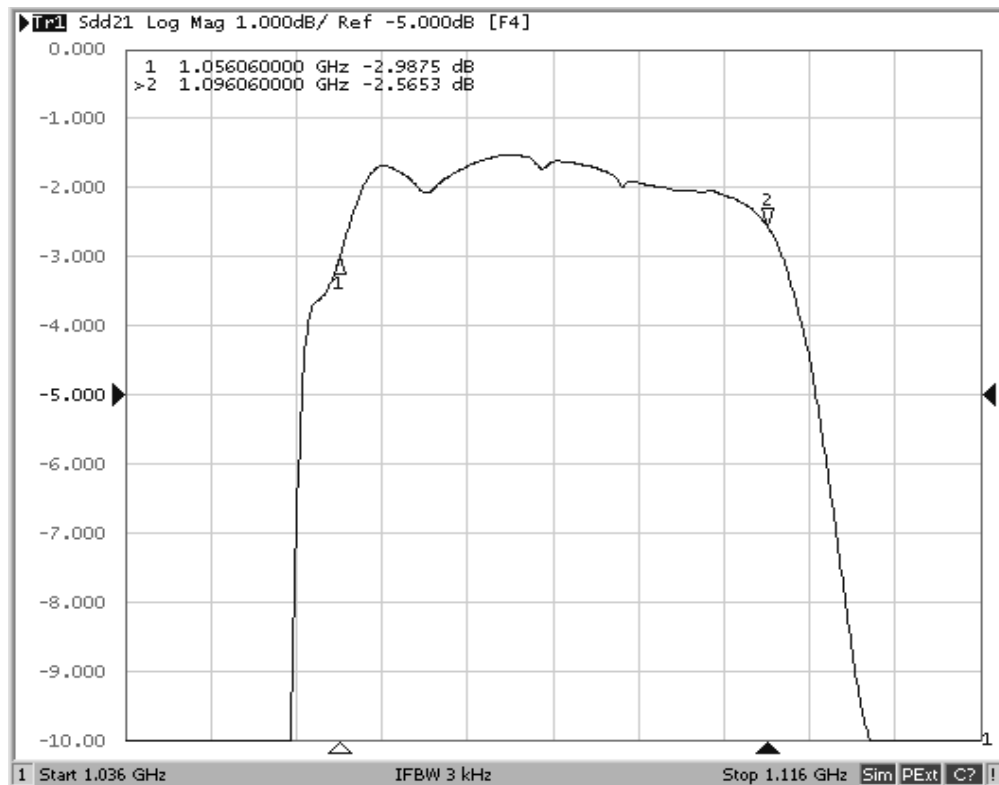


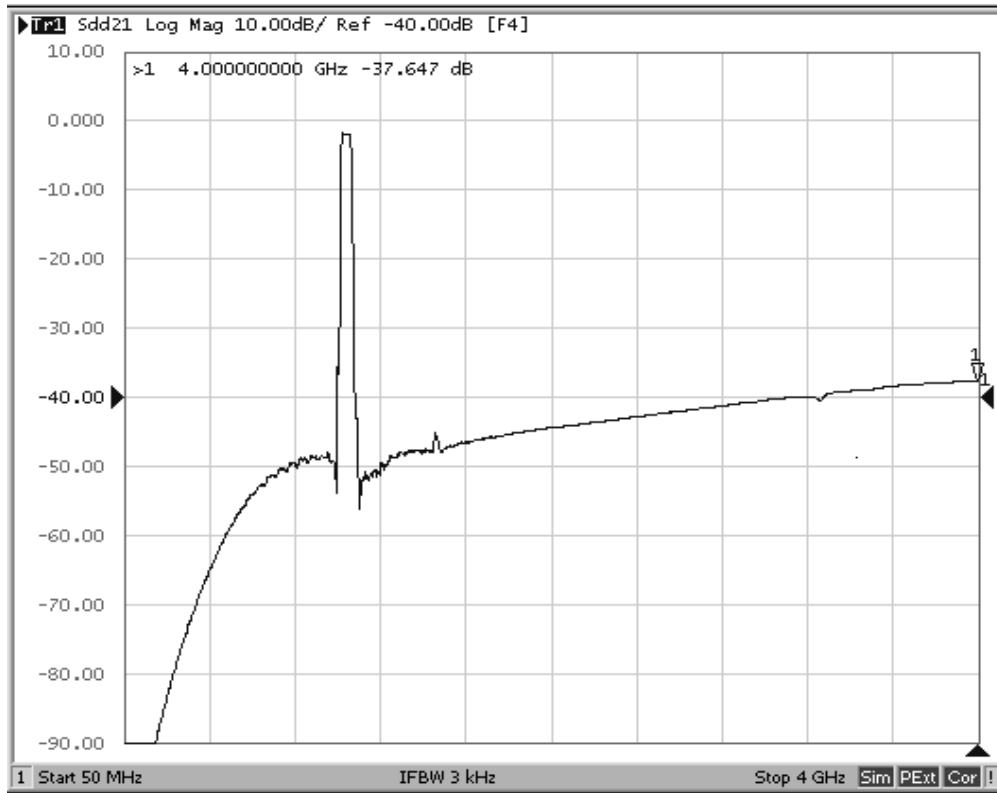
**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

### Notes:

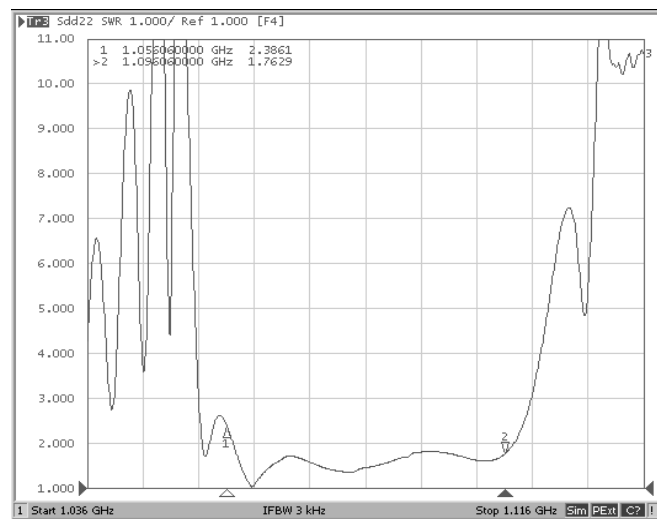
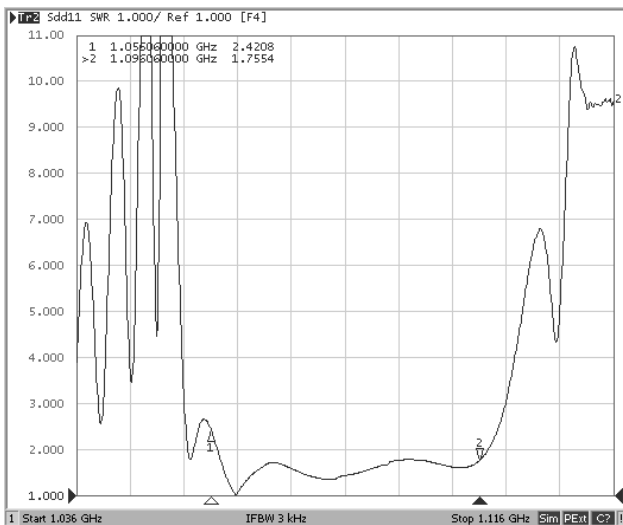
1. US and international patents may apply.
2. Amplitude ripple and phase error as measured over any 30 MHz block of the filter's 2.7 dB bandwidth.
3. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.
4. Electrostatic Sensitive Device. Observe precautions for handling.

# Filter Response Plots

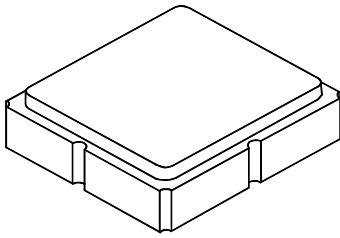




## Filter SWR Plots

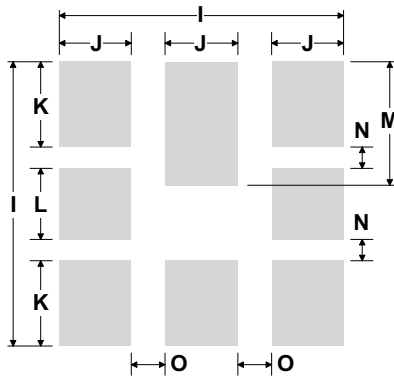


## 8-Terminal Ceramic Surface-Mount Case 3.0 X 3.0 mm Nominal Footprint



### Case and PCB Footprint Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.0	3.13	0.113	0.118	0.123
B	2.87	3.0	3.13	0.113	0.118	0.123
C	1.14	1.27	1.40	0.045	0.050	0.055
D	0.79	0.92	1.05	0.031	0.036	0.041
E	0.62	0.75	0.88	0.024	0.029	0.034
F	0.47	0.60	0.73	0.018	0.024	0.029
G	0.47	0.60	0.73	0.018	0.024	0.029
H	1.07	1.20	1.33	0.042	0.047	0.052
I		3.19			0.126	
J		0.81			0.032	
K		0.96			0.038	
L		0.81			0.032	
M		1.39			0.055	
N		0.23			0.009	
O		0.38			0.015	



PCB Footprint Top View

### Case Materials

Materials	
Solder Pad Plating	0.3 to 1.0 $\mu\text{m}$ Gold over 1.27 to 8.89 $\mu\text{m}$ Nickel
Lid Plating	2.0 to 3.0 $\mu\text{m}$ Nickel
Body	$\text{Al}_2\text{O}_3$ Ceramic
Pb Free	

TOP VIEW

BOTTOM VIEW

