

# Preliminary



- SAW Filter for Cable System
- Complies with Directive 2002/95/EC (RoHS)



### Characteristics:

Balanced-to-balanced operation

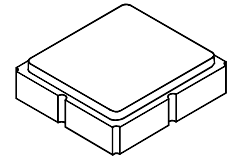
Terminating source/load impedance :  $Z_S = 200 \Omega$

### Maximum Rating

Rating	Value	Units
Input Power Level	0	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	

**SF2081E**

**1220 MHz  
SAW Filter**



**SM3030-8**

### Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	$f_C$			1220		MHz
Insertion Loss, 1195 to 1245 MHz	IL			3.0	4.0	dB
3 dB Bandwidth	$BW_3$		50	56		MHz
Amplitude Ripple, 1200 to 1240 MHz, -30 to +45 °C				2.0	2.2	dB
Attenuation Referenced to Minimum Insertion Loss: F < $f_C$ - 48 MHz F > $f_C$ + 48 MHz			35	44		dB
			30	40		
Group Delay Ripple				35	100	nsp,p

Case Style	SM3030-8 3.0 x 3.0 mm Nominal Footprint	
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	840, YWWS	
Standard Reel Quantity	Reel Size 7 Inch	500 Pieces/Reel
	Reel Size 13 Inch	3000 Pieces/Reel

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

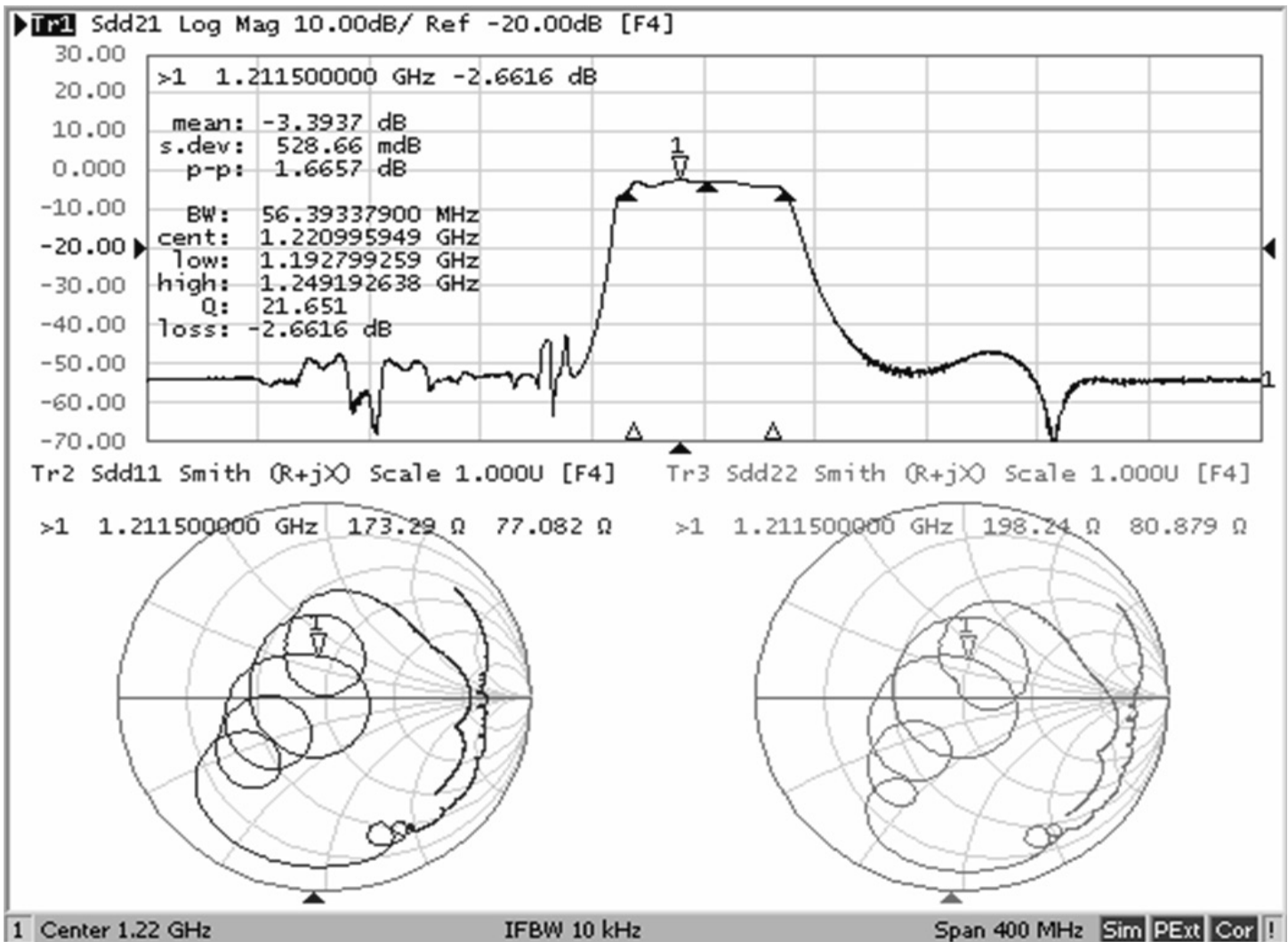
Dot Indicates Pin 1



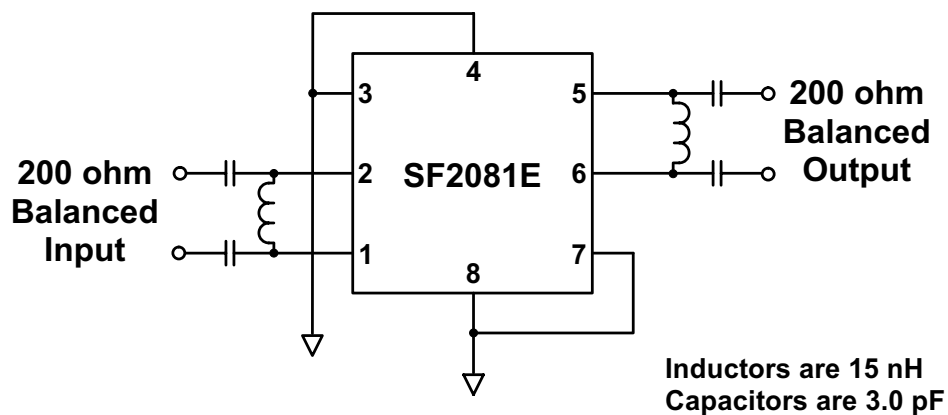
**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

### Notes:

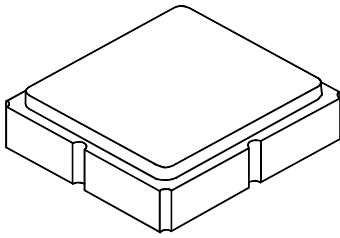
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2. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.
3. Electrostatic Sensitive Device. Observe precautions for handling.



## SF2081E Test Circuit

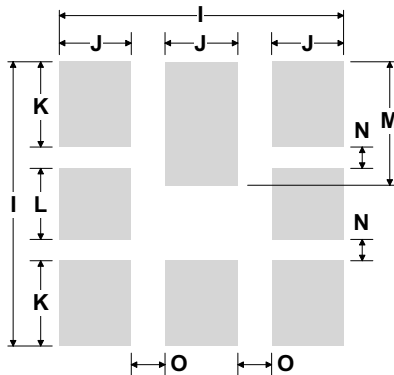


## 8-Terminal Ceramic Surface-Mount Case 3.0 X 3.0 mm Nominal Footprint



### 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

