



- SAW Filter for Digital Television
- Complies with Directive 2002/95/EC (RoHS)



Characteristics :

Balance-to-Balanced Operation

Terminating Source Impedance : $Z_S = 150 \Omega$

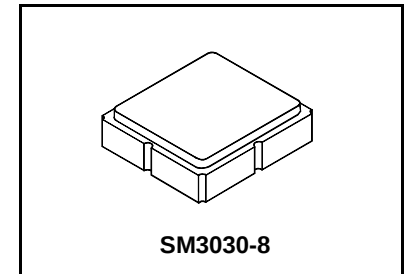
Terminating Load Impedance : $Z_L = 150 \Omega$

Maximum Rating

Rating	Value	Units
Input Power Level	0	dBm
DC Voltage	3	V
Operating Temperature	-40 to +85	°C
Storage Temperature in Tape and Reel	-40 to +85	°C

SF2159E

**974 MHz
SAW Filter**



Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_C			974		MHz
Maximum Insertion Loss, 954 to 994 MHz	IL_{MAX}			3.1	4.5	dB
1.5 dB Passband				50		MHz
Amplitude Ripple, 954 to 994 MHz				1.0	2.4	dB
Attenuation, Referenced to IL_{MAX}						
50 to 891.94 MHz			45	51		dB
1056.06 to 1100 MHz			44	55		
2000 to 6000 MHz			15	20		
Group Delay Ripple, 954 to 994 MHz				23	30	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	825, YWWS					
Standard Reel Quantity	Reel Size 7 Inch	1000 Pieces/Reel				
	Reel Size 13 Inch	3000 Pieces/Reel				

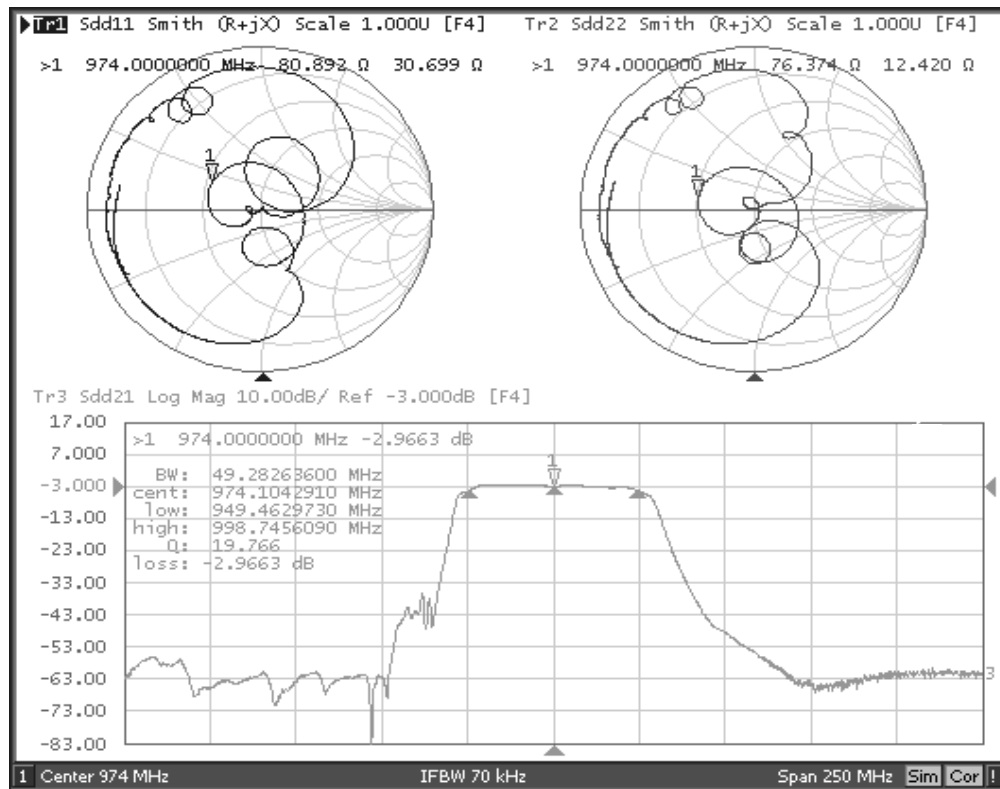


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

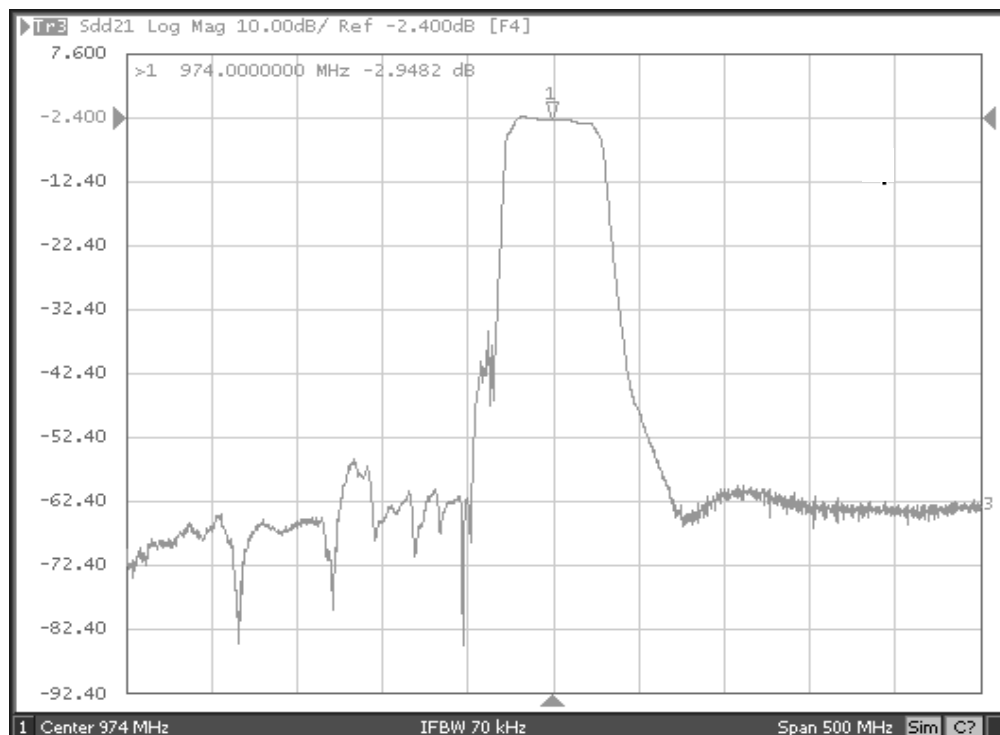
Notes:

1. US and international patents may apply.
2. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.

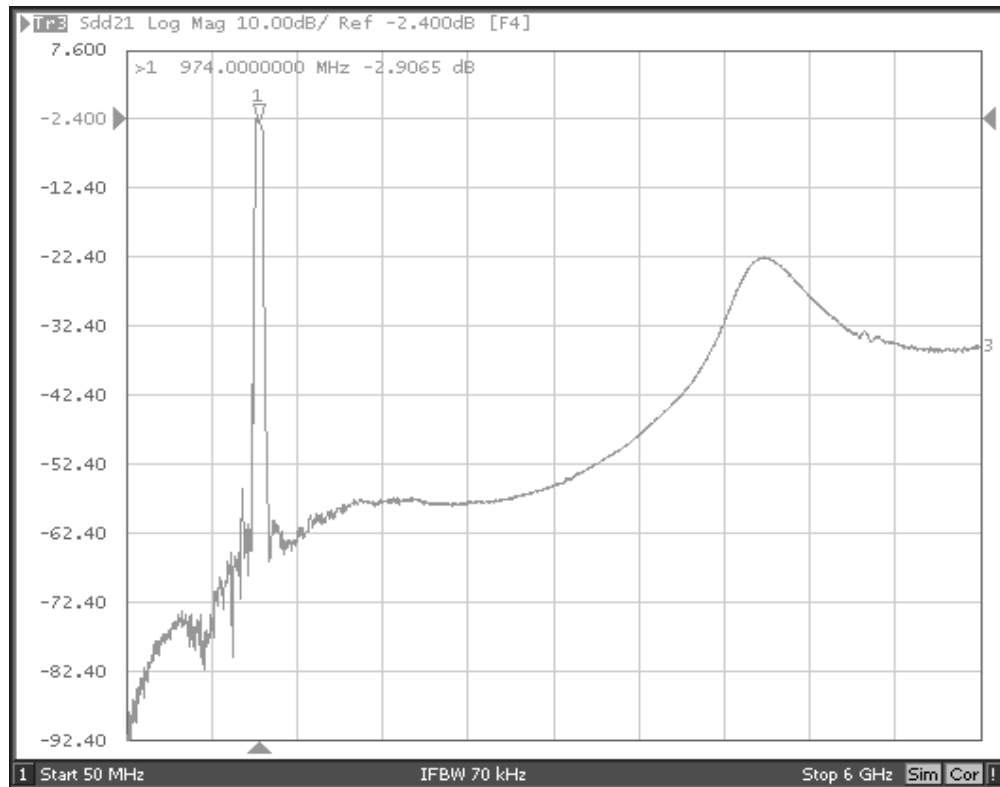
Filter S_{11} , S_{22} and S_{21} Plots



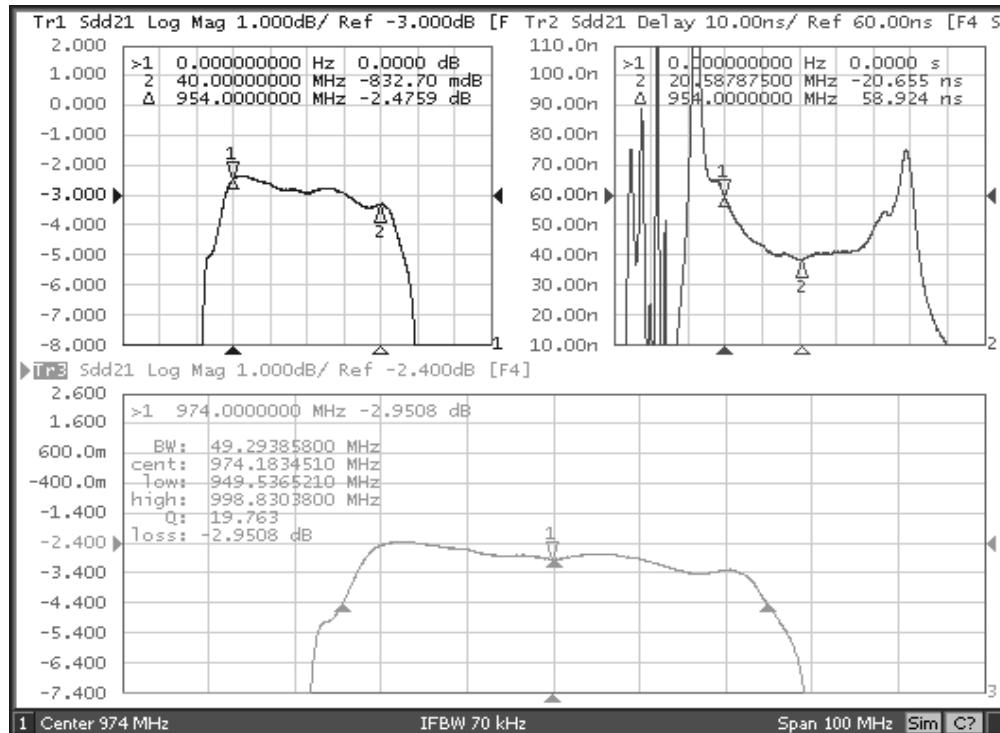
Filter Near-in Rejection



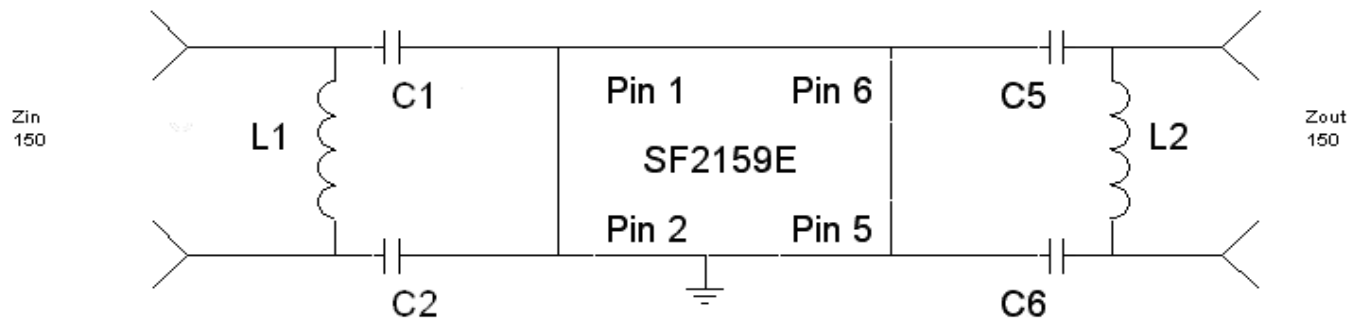
Filter Broadband Rejection



Filter Passband Amplitude and Group Delay Detail



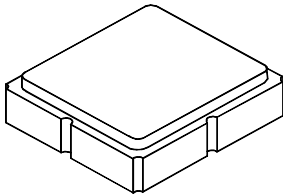
Tuning Network, 150 ohm Balanced Source/Load



All other pins grounded

L1, L2 24 nH
C1, C2, C3, C4 22 pF

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



Case Dimensions

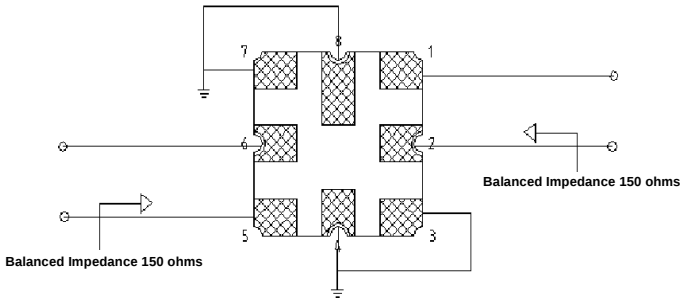
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A		3.0				
B		3.0				
C			1.40			
D						
E		0.75				
F		0.60				
G		0.60				
H		1.20				

Electrical Connections

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

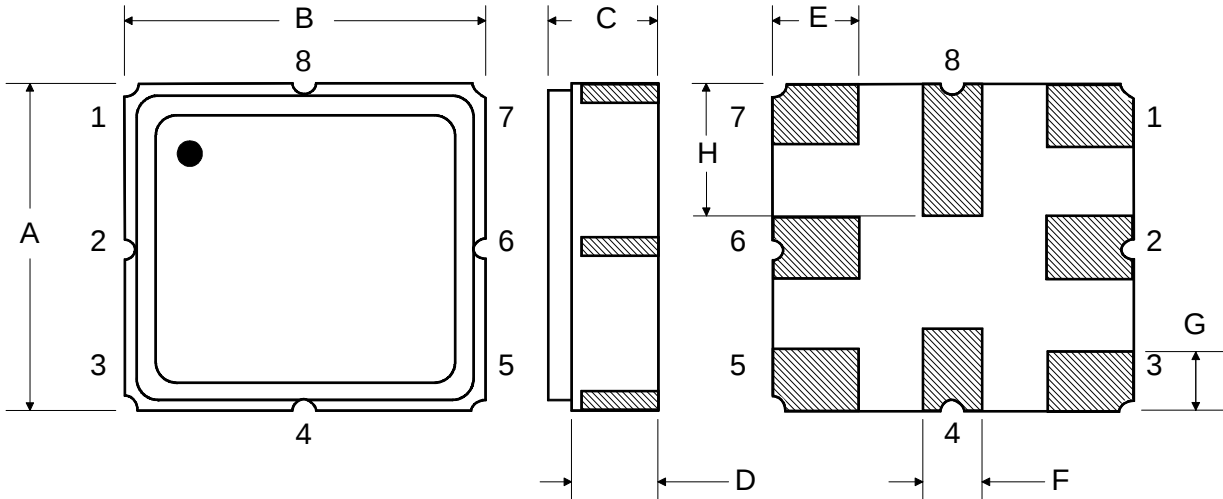
Dot Indicates Pin 1

Differential Package Connection

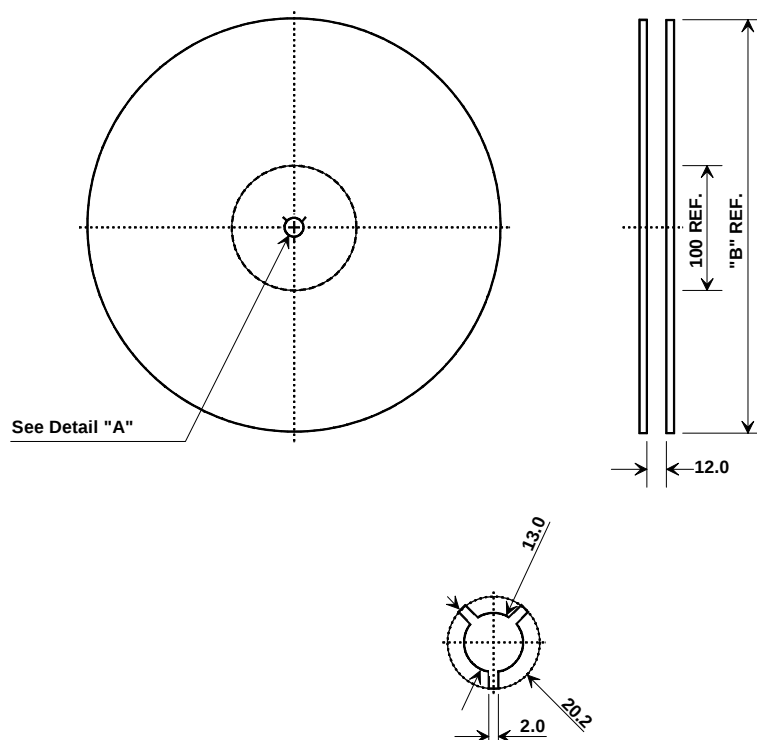


TOP VIEW

BOTTOM VIEW



Tape and Reel Specifications



“B “ Nominal Size		Quantity Per Reel
Inches	millimeters	
7	178	1000
13	330	3000

COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	3.35 mm
Bo	3.35 mm
Ko	1.4 mm
Pitch	8.0 mm
W	12.0 mm

