



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



Characteristics :

Balance-to-Balanced Operation

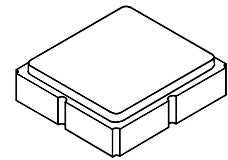
Terminating Source/Load Impedance : $Z_S = 150 \Omega$

Maximum Rating

Rating	Value	Units
Input Power Level	0	dBm
DC Voltage on any Non-ground Terminal	3	V
Operating Temperature Range	-40 to +85	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Maximum Soldering Profile, 5 cycles/ 10 seconds maximum	265	°C

SF2169E

**1790.48 MHz
SAW Filter**



SM3030-8

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_C			1790.48		MHz
Maximum Insertion Loss, 1770.48 to 1810.48 MHz	IL_{MAX}			4.5	5.5	dB
1.5 dB Passband				61		MHz
Amplitude Ripple, 1770.48 to 1810.48 MHz				1.0	1.8	dB
Attenuation, Referenced to IL_{MAX}						
50 to 1708.42 MHz			40	45		dB
1872.54 to 1900 MHz			37	50		
1900 to 2000 MHz			44	48		
2000 to 6000 MHz			20	30		
Group Delay Ripple, 1770.48 to 1810.48 MHz				5	20	ns _{P-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	856, YWWS					
Standard Reel Quantity	Reel Size 7 Inch	500 Pieces/Reel				
	Reel Size 13 Inch	3000 Pieces/Reel				

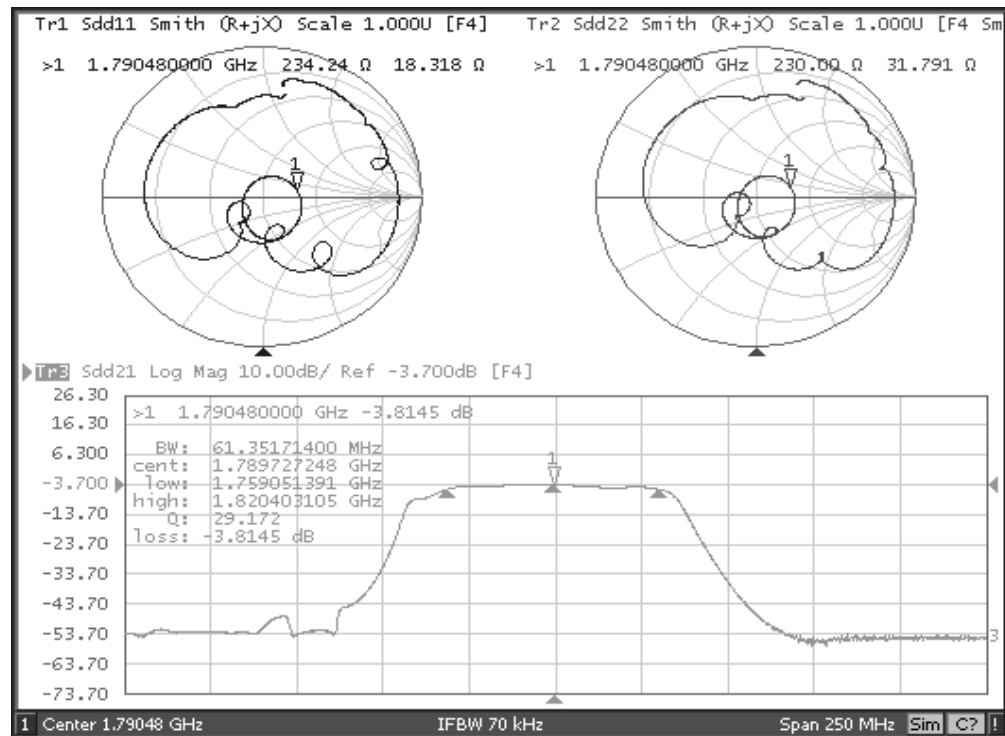


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

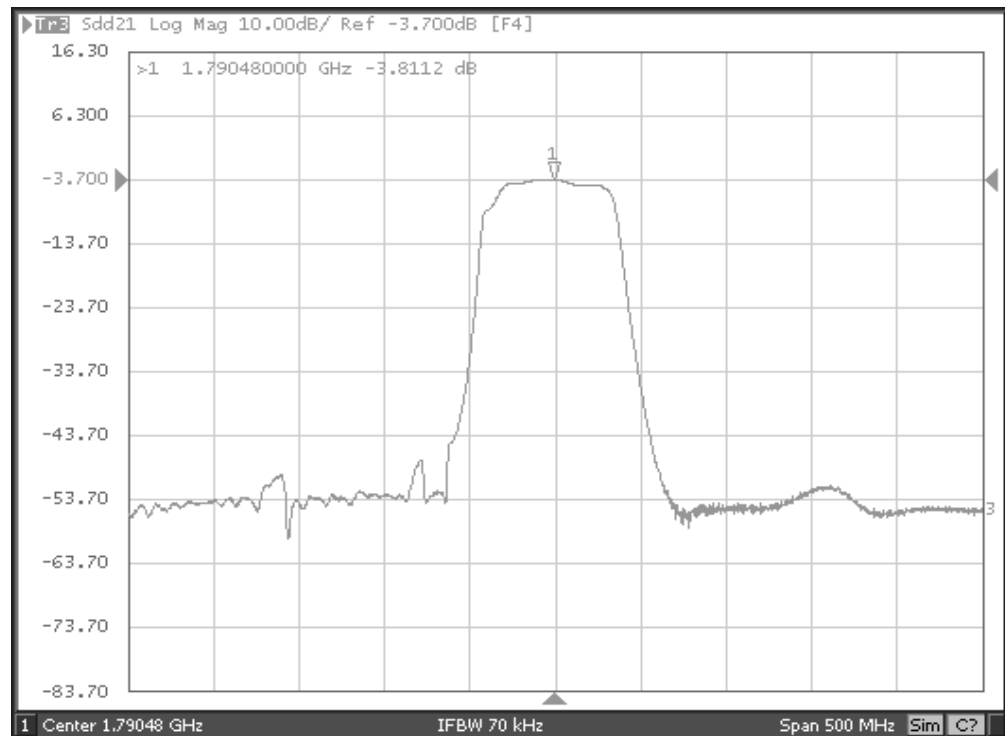
Notes:

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

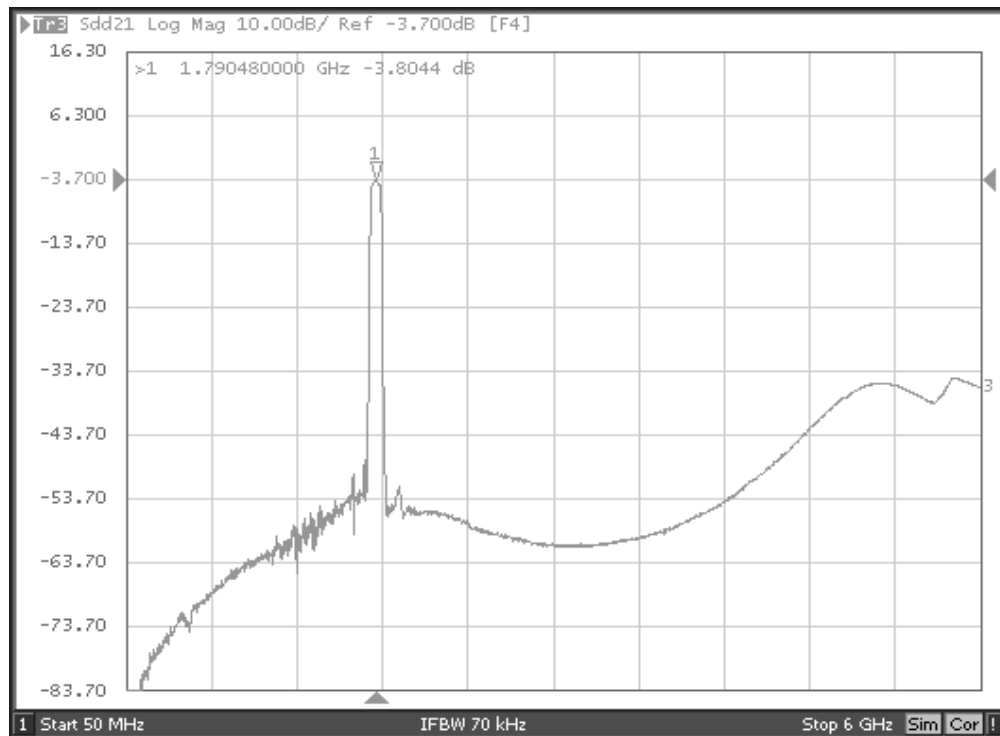
Filter S_{11} , S_{22} and S_{21} Plots



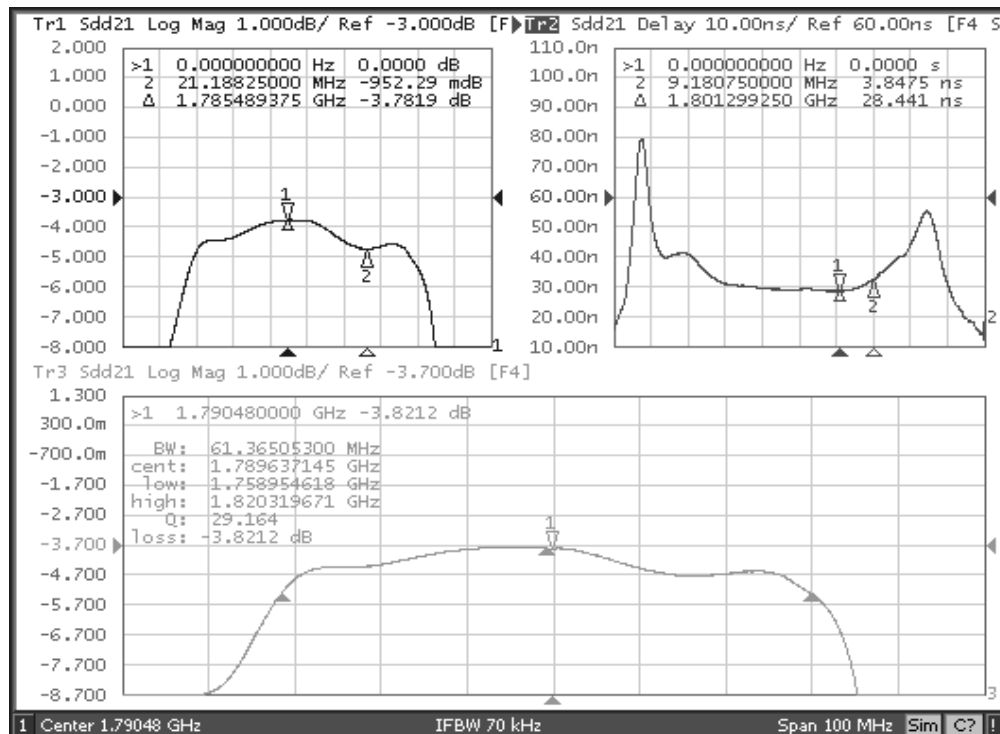
Filter Near-in Rejection



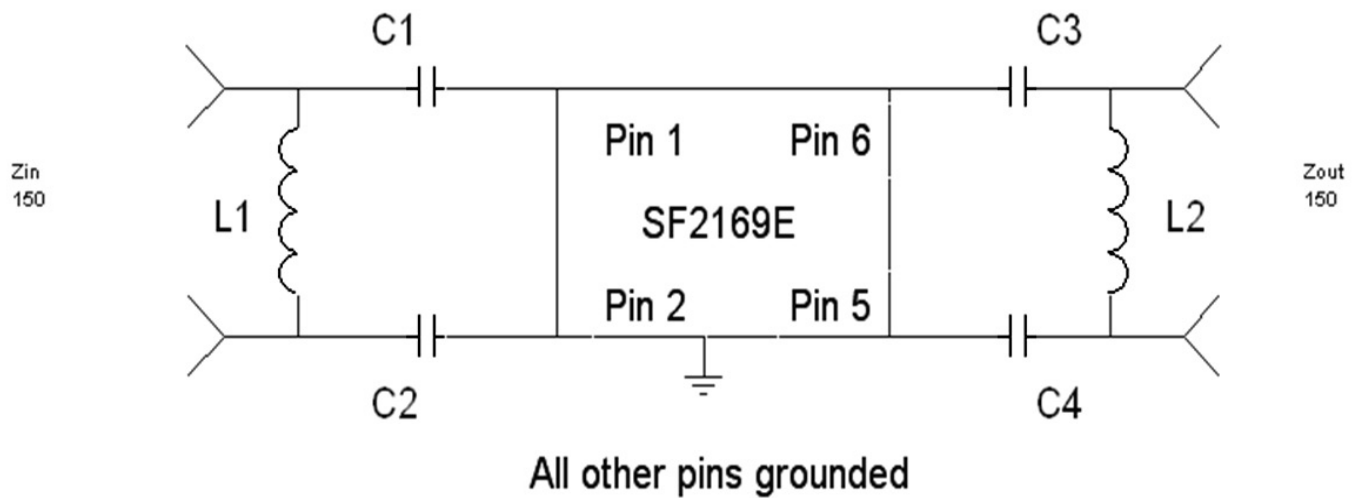
Filter Broadband Rejection



Filter Passband Amplitude and Group Delay Detail

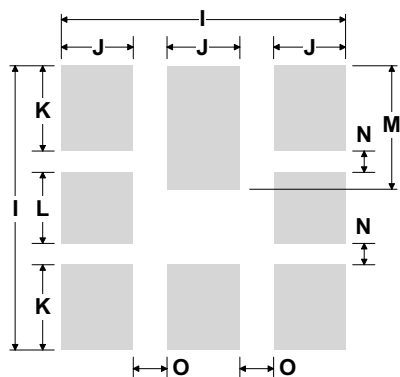
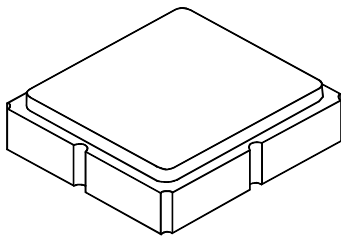


Tuning Network, 150 ohm Balanced Source/Load



L1, L2 10 nH
C1, C2, C3, C4 10 pF

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



PCB Footprint Top View

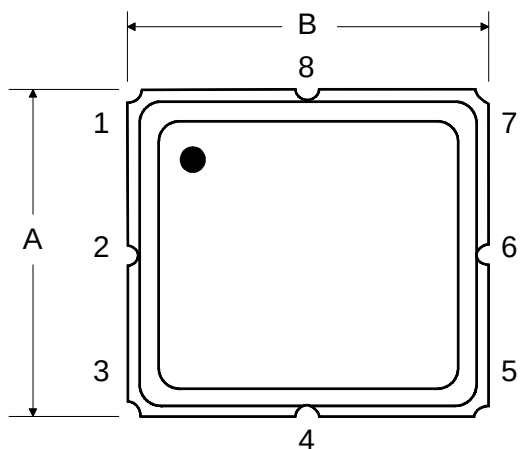
Case and PCB Footprint Dimensions

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	

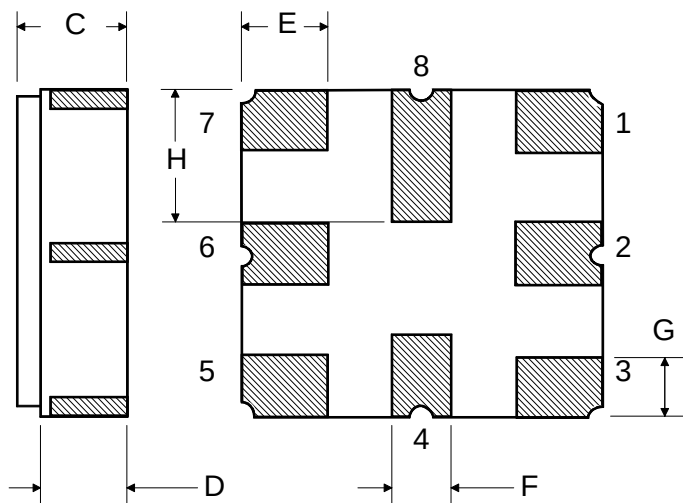
Case Materials

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
Pb Free	

TOP VIEW



BOTTOM VIEW



Technical drawing of a circular part, likely a flange or end view of a pipe. The drawing includes three views:

- Top View (Main View):** A large circle with a smaller concentric circle in the center. A crosshair (dashed lines) is centered on the circles. A leader line points from the text "See Detail 'A'" to the center of the inner circle.
- Side View:** A vertical cross-section showing the thickness of the part. The total thickness is dimensioned as 12.0. The inner hole is dimensioned as 100 REF. (Reference). The outer diameter is dimensioned as "B" REF. (Reference).
- Detail View (Detail A):** A magnified view of the center of the inner circle. It shows a circular hole with a diameter of 13.0. The hole is surrounded by a ring with a thickness of 2.0. The outer diameter of this ring is dimensioned as 20.2.

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

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

0.3 ± 0.05

RO.3 (MAX.)

PIN #1

2.0

4.0

Ø1.50

A

1.75

5.5

12.0

Bo

B

Pitch

Ao

Ø1.5

R0.5 (MAX.)

SECTION A-A

SECTION B-B

USER DIRECTION OF FEED