



Preliminary

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



Characteristics:

Differential Source and Load Configuration

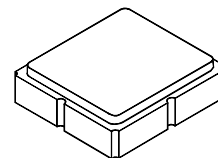
Terminating Source/Load Impedance : $Z_S = 150 \Omega$

Maximum Rating

Rating	Value	Units
Input Power Level	+10	dBm
DC Voltage on any Non-ground Terminal	3	V
Operating Temperature Range	-40 to +85	°C
Storage Temperature Range	-50 to +95	°C
Suitable for Lead-free Soldering - Maximum Soldering Profile	260°C for 30 s	

SF2164E

1484.3 MHz SAW Filter



SM3030-8

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_c			1484.3		MHz
Insertion Loss, 1464.3 to 1504.3 MHz	IL			2.0	4.5	dB
Amplitude Ripple, 1464.3 to 1504.3 MHz		1		0.6	2.0	dB
Phase Error, 1464.3 to 1504.3 MHz		1		3.2	6.0	deg
Input/Output VSWR, 1464.3 to 1504.3 MHz				2:1	2.5:1	
2 dB Bandwidth			40	60		MHz
Attenuation Referenced to 0 dB:						
50 to 1402.3 MHz			48	60		dB
1566.3 to 1810.5 MHz			50	60		
1810.5 to 4250 MHz			55	65		
4250 to 6000 MHz			30	38		

Case Style	SM3030-8 3.0 x 3.0 mm Nominal Footprint	
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	860, YWWS	
Standard Reel Quantity	Reel Size 7 Inch	500 Pieces/Reel
	Reel Size 13 Inch	3000 Pieces/Reel

Electrical Connections

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

Dot Indicates Pin 1

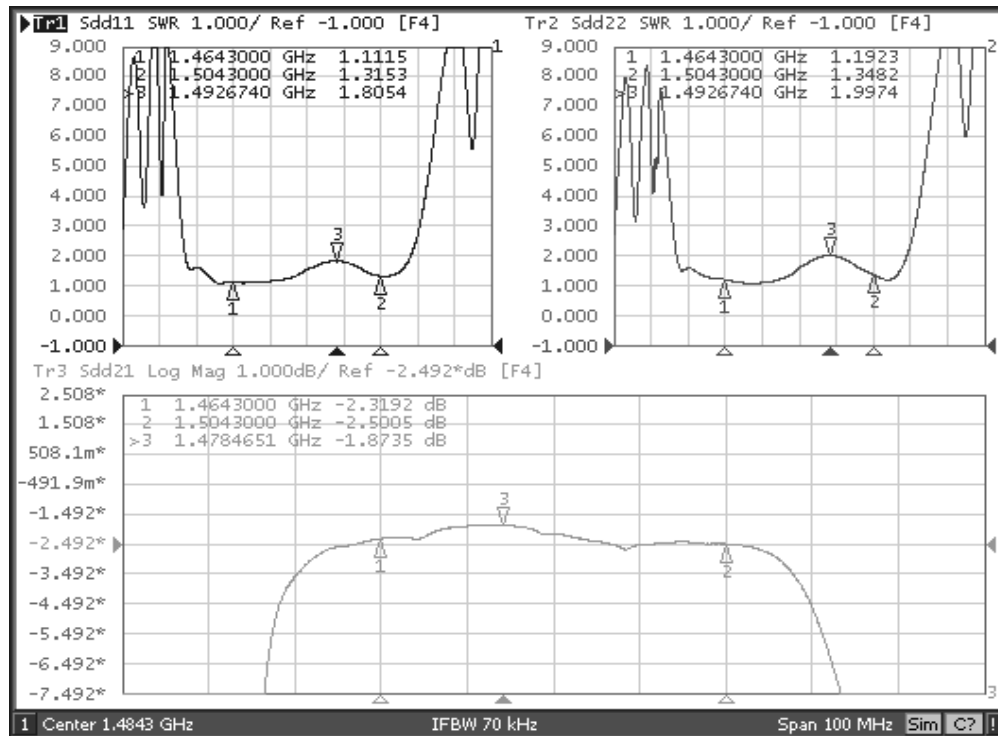


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

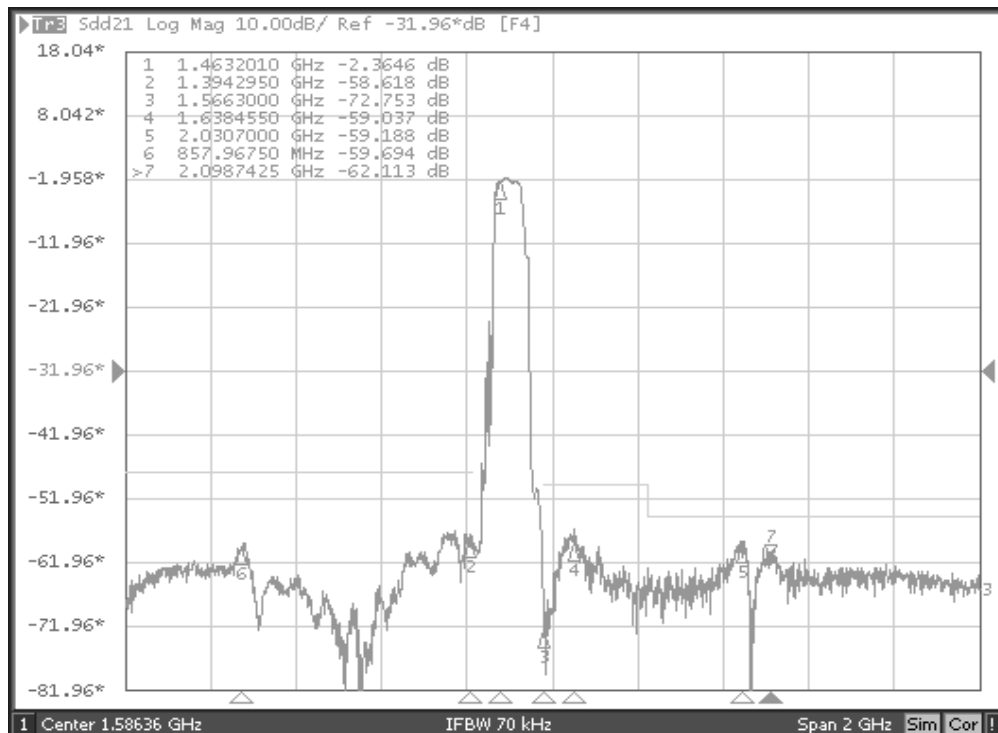
Notes:

1. Specification applies to any 30 MHz segment within the passband.
2. US and international patents may apply.
3. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.

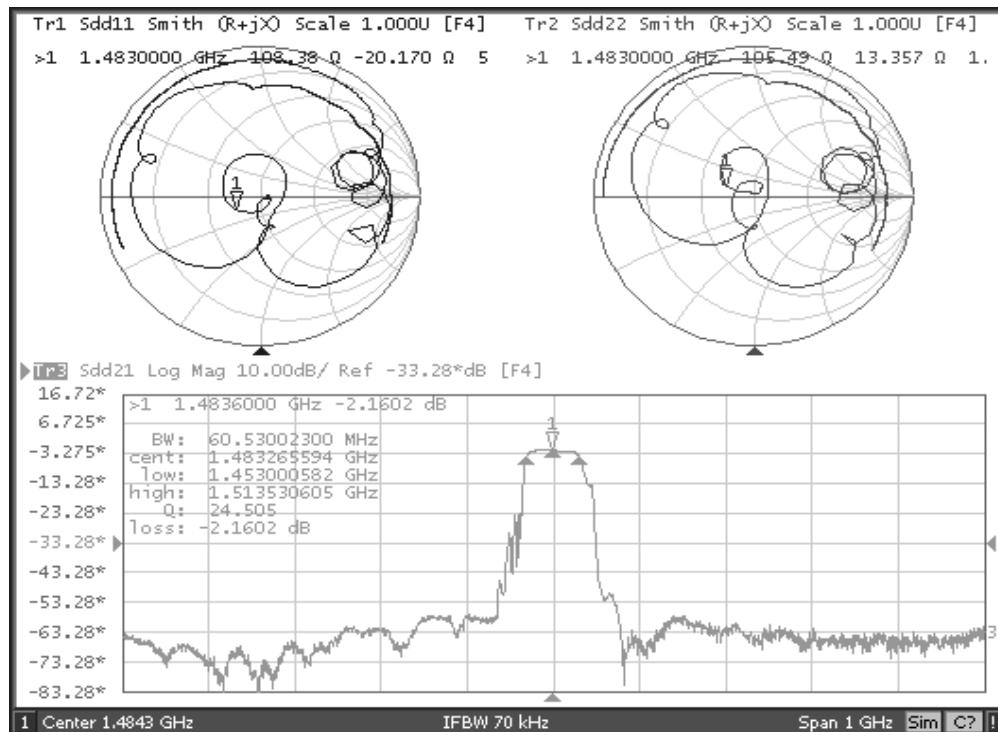
Passband Amplitude and SWR Response



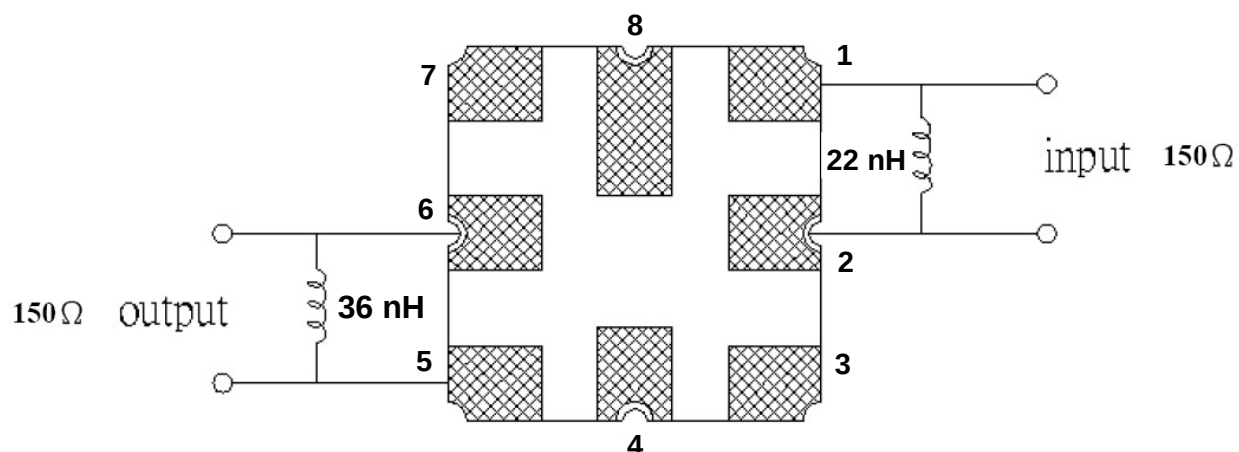
Broadband Response



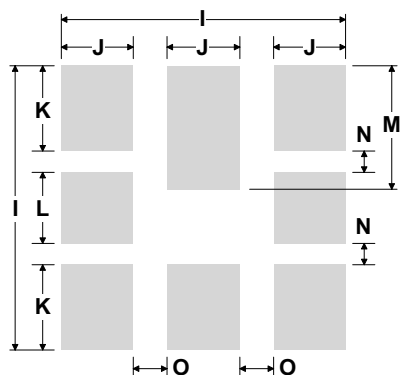
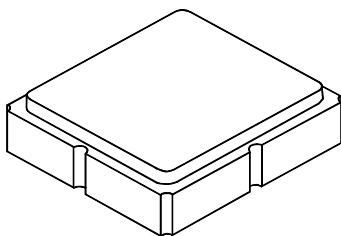
S₁₁, S₂₂ and S₂₁ Plots



Test Circuit, Bottom View



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



PCB Footprint Top View

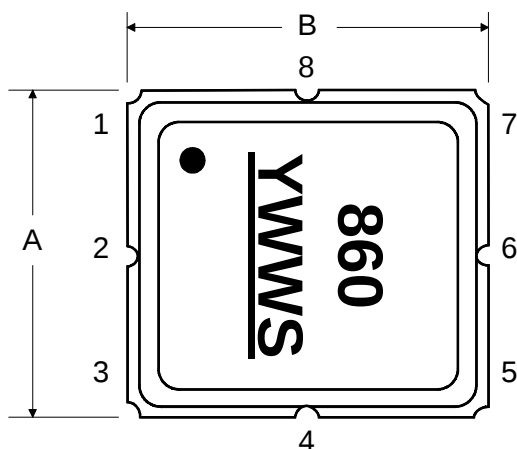
Case and PCB Footprint Dimensions

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	

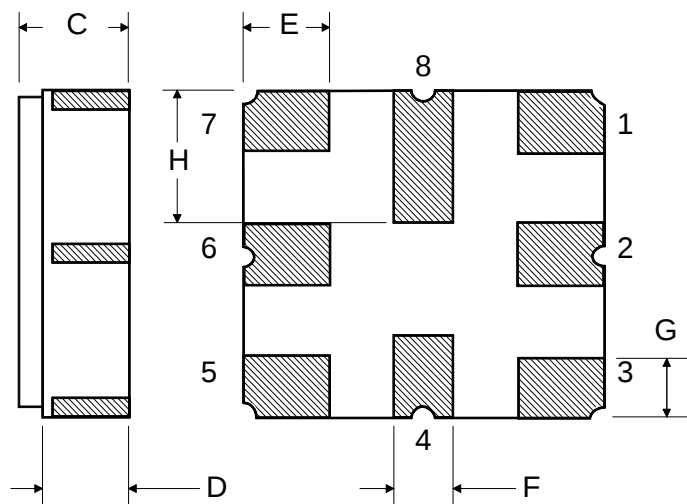
Case Materials

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 component, likely a flange or end plate, showing three views: a top view, a side view, and a detail view.

Top View: A large circle with a smaller concentric circle in the center. A horizontal dashed line and a vertical dashed line intersect at the center. A leader line points from the text "See Detail 'A'" to the center of the inner circle.

Side View: Two vertical lines representing the thickness of the component. The total thickness is dimensioned as 12.0. The distance from the centerline to the outer edge is dimensioned as 100 REF. The distance from the centerline to the inner edge is dimensioned as "B" REF.

Detail View (Detail A): A cross-sectional view of the central hole. It shows a circular hole with a diameter of 13.0. The hole is surrounded by a flange with a thickness of 2.0. The distance from the centerline to the outer edge of the flange 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

