

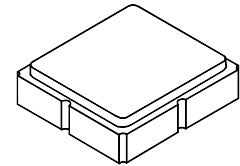


- Low-loss RF SAW Filter
- 3.0 x 3.0 x 1.4 mm Surface-mount Case
- No Matching Required for 50Ω Operation
- Complies with Directive 2002/95/EC (RoHS)



SF2251E

1600 MHz SAW Filter



SM3030-6

Absolute Maximum Ratings

Rating	Value	Units
Incident Power in Passband	+10	dBm
DC Voltage on any Non-ground Terminal	3	VDC
Operating Temperature Range	-55 to +85	°C
Storage Temperature Range in Tape and Reel	-55 to +95	°C
Maximum Soldering Profile, 5 cycles/10 seconds maximum	265	°C

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_c			1600		MHz
Insertion Loss, 1580 to 1620 MHz	IL			3.15	5.00	dB
1500 MHz Attenuation Referenced to 0 dB			45	64		dB
1700 MHz Attenuation Referenced to 0 dB			40	47		dB
Terminating Source Impedance	Z_S			50		Ω
Terminating Load Impedance	Z_L			50		Ω
Input/Output Impedance Match	No matching network required for 50 ohm source/load					
Case Style	SM3030-6					
Lid Symbolization	992					

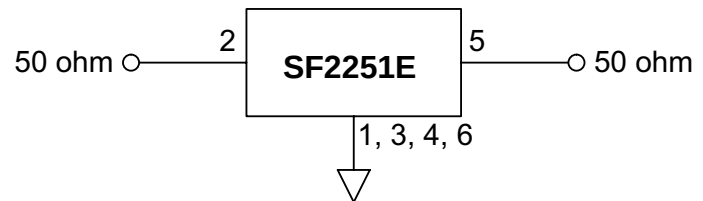


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

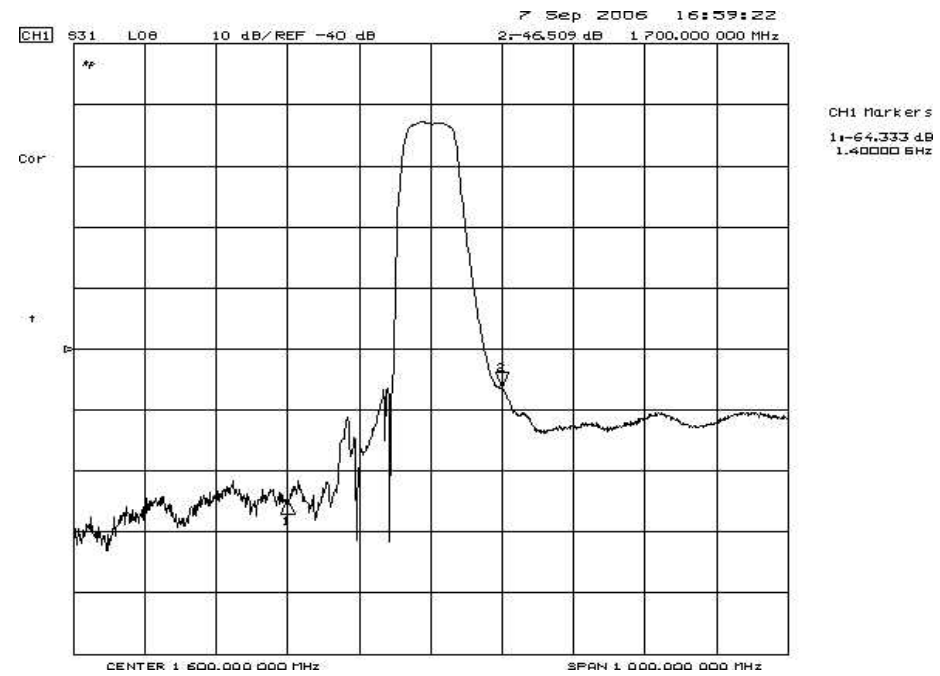
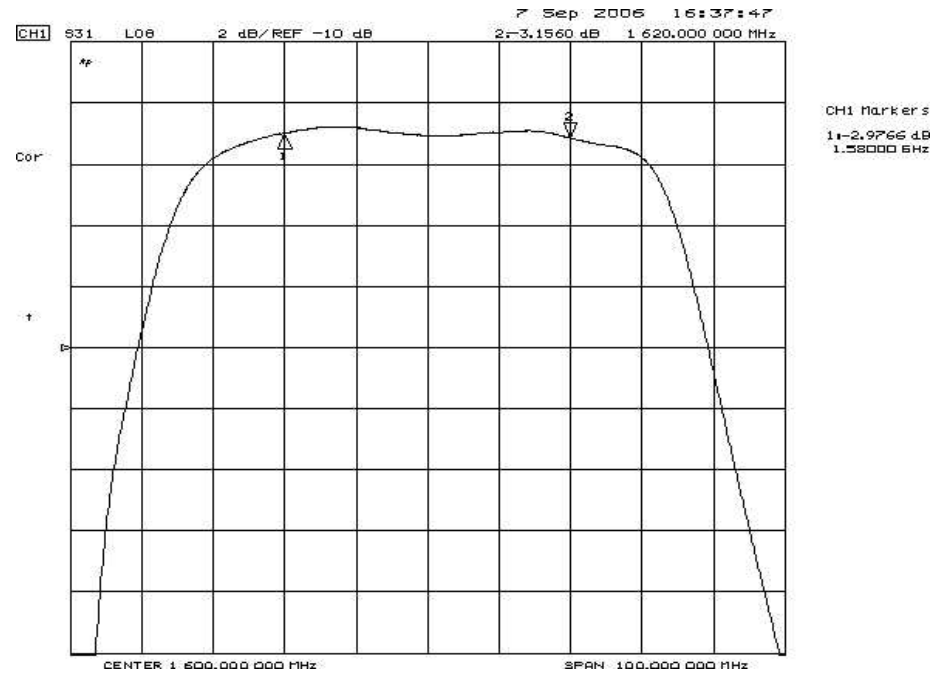
Notes:

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

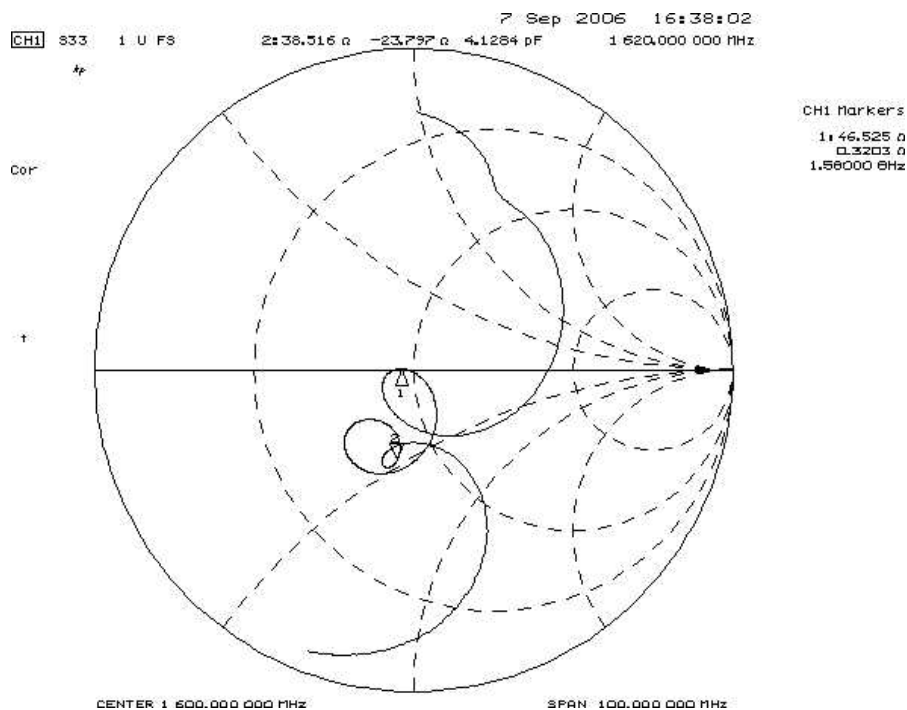
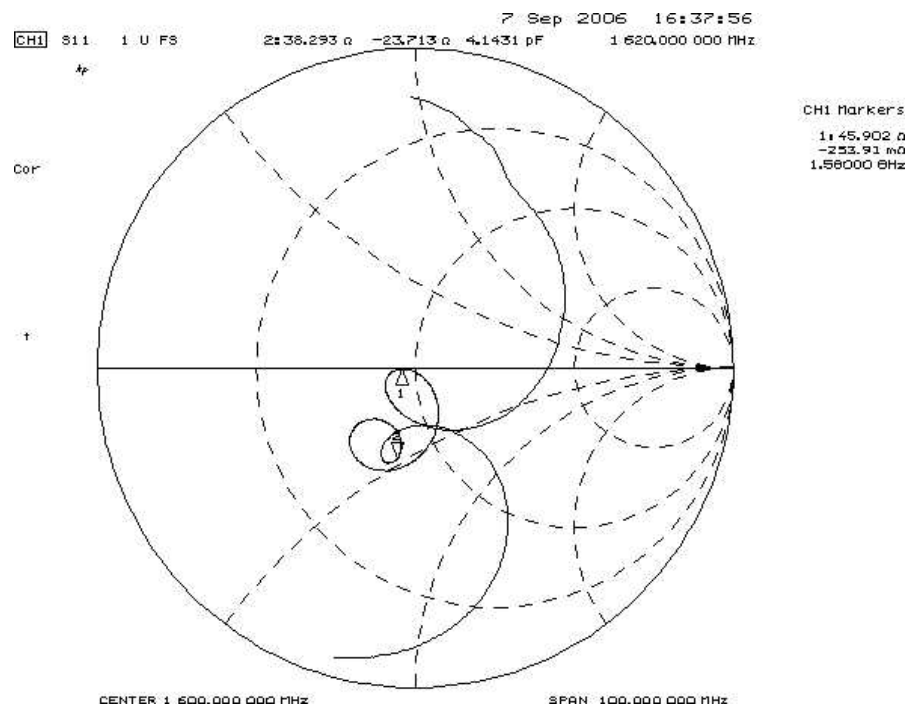
Matching Circuit



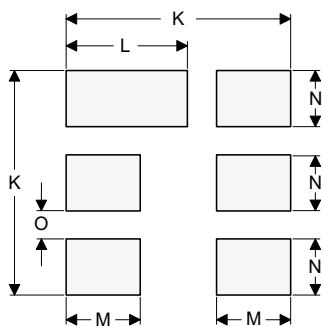
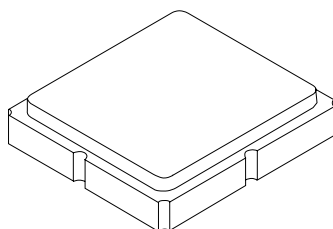
Frequency Response Plots



Input/Output Impedance Plots



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



PCB Footprint Top View

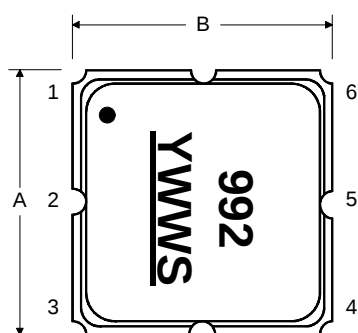
Case and PCB Footprint Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.00	3.13	0.113	0.118	0.123
B	2.87	3.00	3.13	0.113	0.118	0.123
C	1.12	1.25	1.38	0.044	0.049	0.054
D	0.77	0.90	1.03	0.030	0.035	0.040
E	2.67	2.80	2.93	0.105	0.110	0.115
F	1.47	1.60	1.73	0.058	0.063	0.068
G	0.72	0.85	0.98	0.028	0.033	0.038
H	1.37	1.50	1.63	0.054	0.059	0.064
I	0.47	0.60	0.73	0.019	0.024	0.029
J	1.17	1.30	1.43	0.046	0.051	0.056
K		3.20			0.126	
L		1.70			0.067	
M		1.05			0.041	
N		0.81			0.032	
O		0.38			0.015	

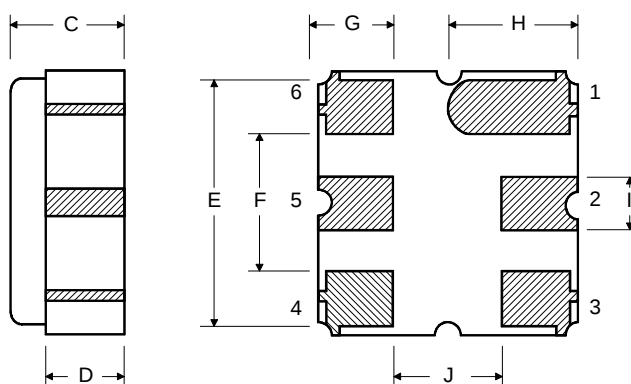
Case Materials

Materials	
Solder Pad Plating	0.3 to 1.0 μ m Gold over 1.27 to 8.89 μ m Nickel
Lid Plating	2.0 to 3.0 μ m Nickel
Body	Al ₂ O 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.

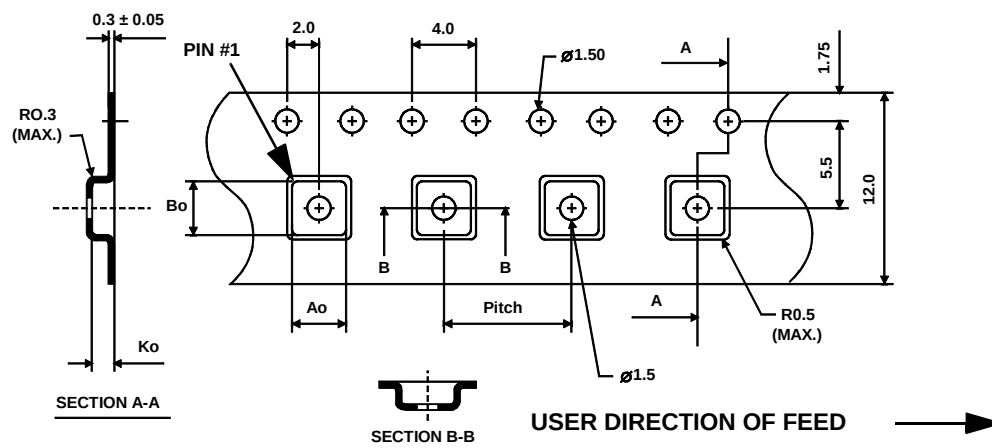
Top View: A large circle with a smaller concentric circle in the center. A horizontal dashed line and a vertical dashed line intersect at the center. A leader line points from the text "See Detail 'A'" to the center of the inner circle.

Side View: A vertical cross-section showing the thickness of the component. The total thickness is dimensioned as 12.0. The inner hole is dimensioned as 100 REF. and "B" REF. (Reference B).

Detail View (Detail A): A cross-section of the central hole. The inner diameter is dimensioned as 13.0. The outer diameter of the hole is dimensioned as 20.2. The thickness of the flange is dimensioned as 2.0.

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

Carrier Tape Dimensions	
Ao	3.35 mm
Bo	3.35 mm
Ko	1.40 mm
Pitch	8.0 mm
W	12.0 mm



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