



- **Low-loss UHF SAW Filter**
- **Complies with Directive 2002/95/EC (RoHS)**



Characteristics:

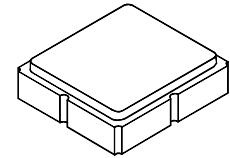
Single-ended source impedance : $Z_S = 50 \Omega$
 Balanced load impedance : $Z_L = 100 \Omega$

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
Tape and Reel Storage Temperature Range	-40 to +85	°C
Component Storage Temperature Range	-50 to +95	°C
Solder Reflow Temperature, 10 seconds/5 cycles maximum	260	°C

SF2177E

1472 MHz SAW Filter



SM3030-8

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_C			1472		MHz
Insertion Loss, 1452 to 1492 MHz	IL			3.2	4.5	dB
Amplitude Ripple, 1452 to 1492 MHz				1.0	2.0	
Group Delay Ripple, 1452 to 1492 MHz				8	40	ns _{p-p}
Input Return Loss, 1452 to 1492 MHz			6.5	8.0		dB
Output Return Loss, 1452 to 1492 MHz			8.8	10.5		
Attenuation, 0 dB Reference:						
880 to 915 MHz			50	54		dB
1410 MHz			30	35		
1530 to 1570 MHz			15	29		
1575 MHz			30	38		
1710 to 1785 MHz			35	40		
1920 to 1980 MHz			35	37.5		
2400 to 2500 MHz			26	31.5		

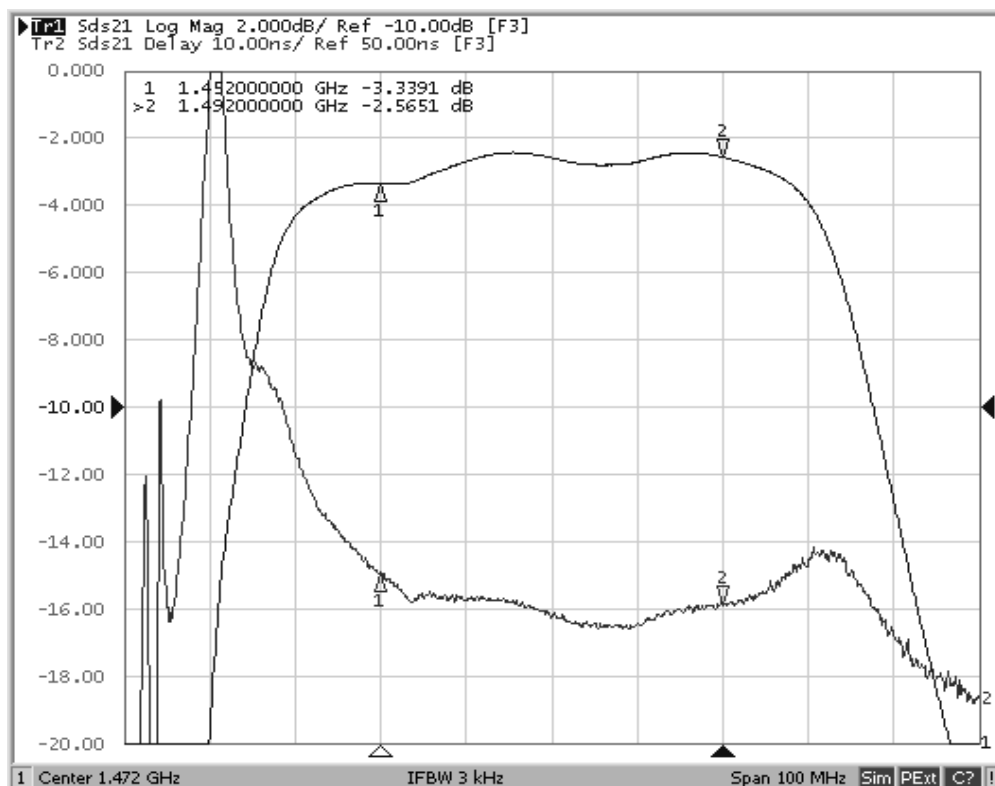
Case Style	SM3030-8 3.0 x 3.0 mm Nominal Footprint		
Lid Symbolization, Y=year, WW=week, S=shift, dot=pin 1 indicator	866, YWWS		
Standard Reel Quantity	Reel Size 7 inch	500 Pieces/Reel	
	Reel Size 13 inch	3000 Pieces/Reel	



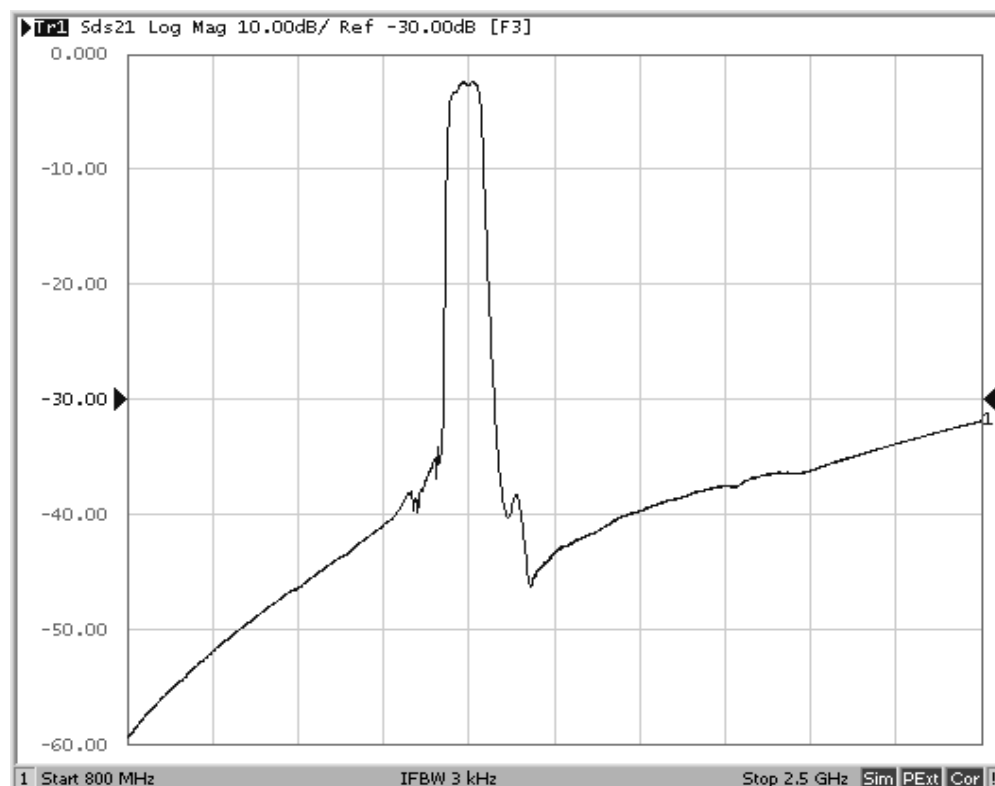
Notes:

1. US and international patents may apply.
2. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.
3. Electrostatic Sensitive Device. Observe precautions for handling.

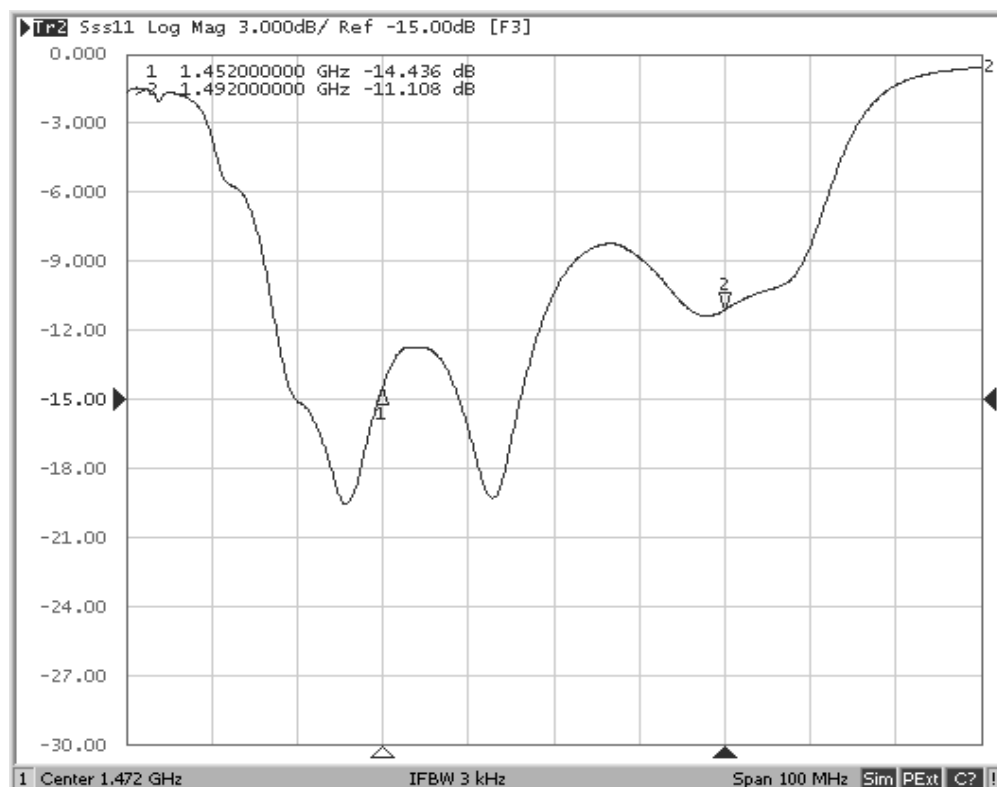
Filter Passband Amplitude and Group Delay Plots



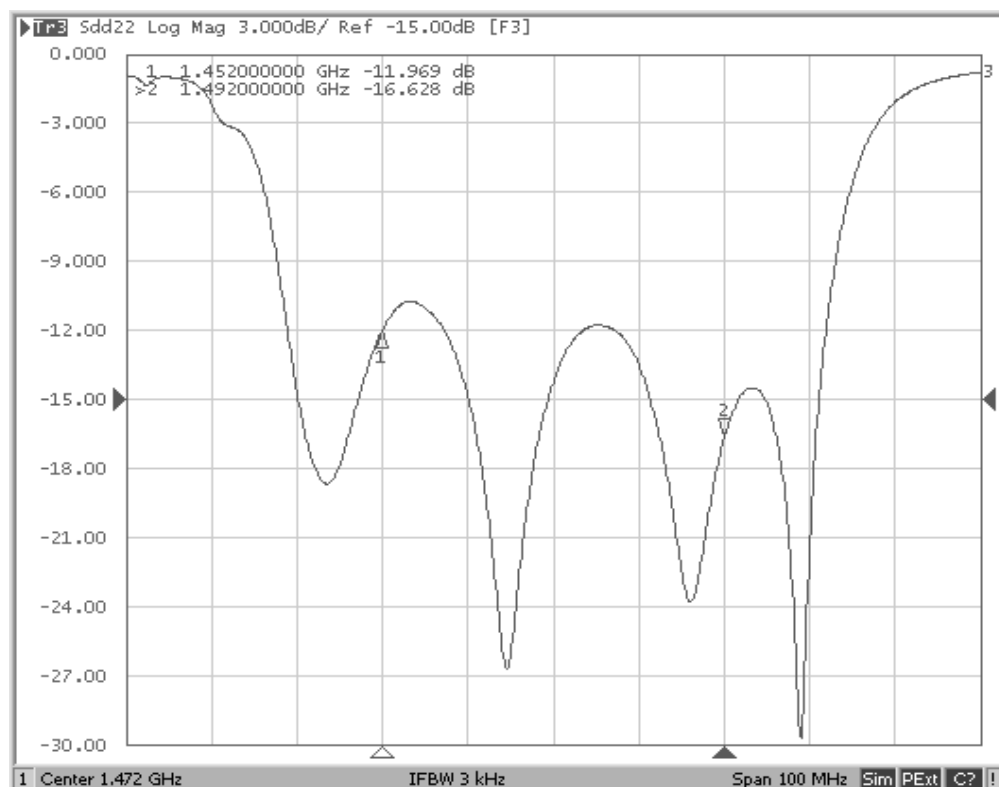
Filter Broadband Plot



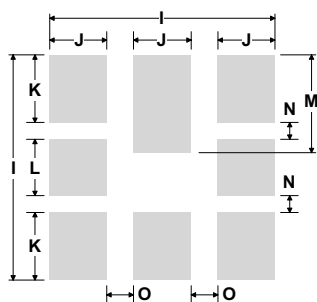
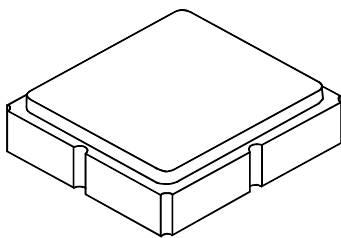
Filter Input Return Loss



Filter Output Return Loss



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



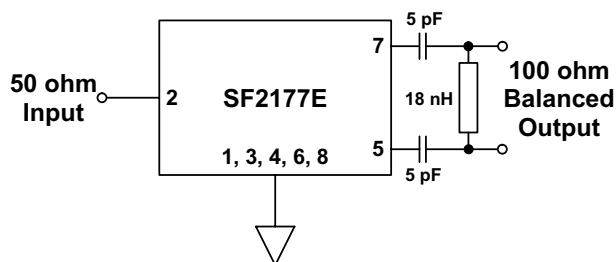
PCB Footprint Top View

Case and PCB Footprint Dimensions

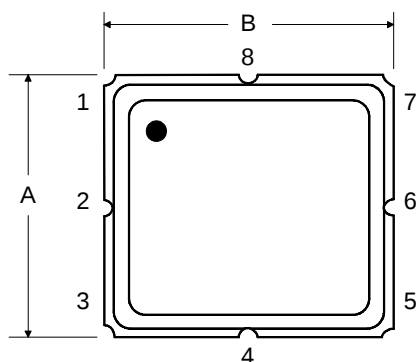
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.00	3.13	0.113	0.118	0.123
B	2.87	3.00	3.13	0.113	0.118	0.123
C	-	-	1.10	-	-	0.043
D	0.79	0.92	1.05	0.031	0.036	0.041
E	0.62	0.75	0.88	0.024	0.029	0.034
F	0.47	0.60	0.73	0.018	0.024	0.029
G	0.47	0.60	0.73	0.018	0.024	0.029
H	1.07	1.20	1.33	0.042	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

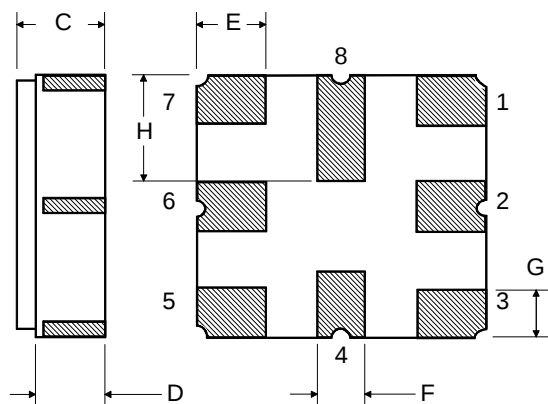
Materials	
Solder Pad Plating	0.3 to 1.0 μm Gold over 1.27 to 8.89 μm Nickel
Lid Plating	2.0 to 3.0 μm Nickel
Body	Al_2O_3 Ceramic
	Pb Free



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:** 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:** Two vertical parallel lines representing the thickness of the part. A dimension line indicates a thickness of 12.0. A vertical dimension line on the right indicates a height of 100 REF. and a total height of "B" REF.
- Detail View (Detail A):** A circular detail showing a cross-section of the central hole. It features a central circle with a crosshair. Four radial lines extend from the center to the outer edge, dividing the detail into four quadrants. Dimensions are provided: 13.0 for the radius of the outer circle, 20.2 for the radius of the inner circle, and 2.0 for the thickness of the material.

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

Ao

Pitch

B

A

R0.5 (MAX.)

Ø1.5

SECTION A-A

SECTION B-B

USER DIRECTION OF FEED