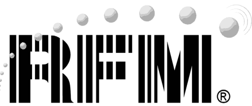


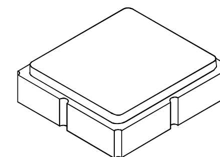
SF2177E

1472 MHz SAW Filter

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

Characteristics:

Single-ended source impedance : Z_S = 50 Ω
Balanced load impedance : Z_L = 100 Ω



SM3030-8

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

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	dB
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		dB
Attenuation, 0 dB Reference:						
880 to 915 MHz			50	54		dB
1410 MHz			30	35		dB
1530 to 1570 MHz			15	29		dB
1575 MHz			30	38		dB
1710 to 1785 MHz			35	40		dB
1920 to 1980 MHz			35	37.5		dB
2400 to 2500 MHz			26	31.5		dB

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.

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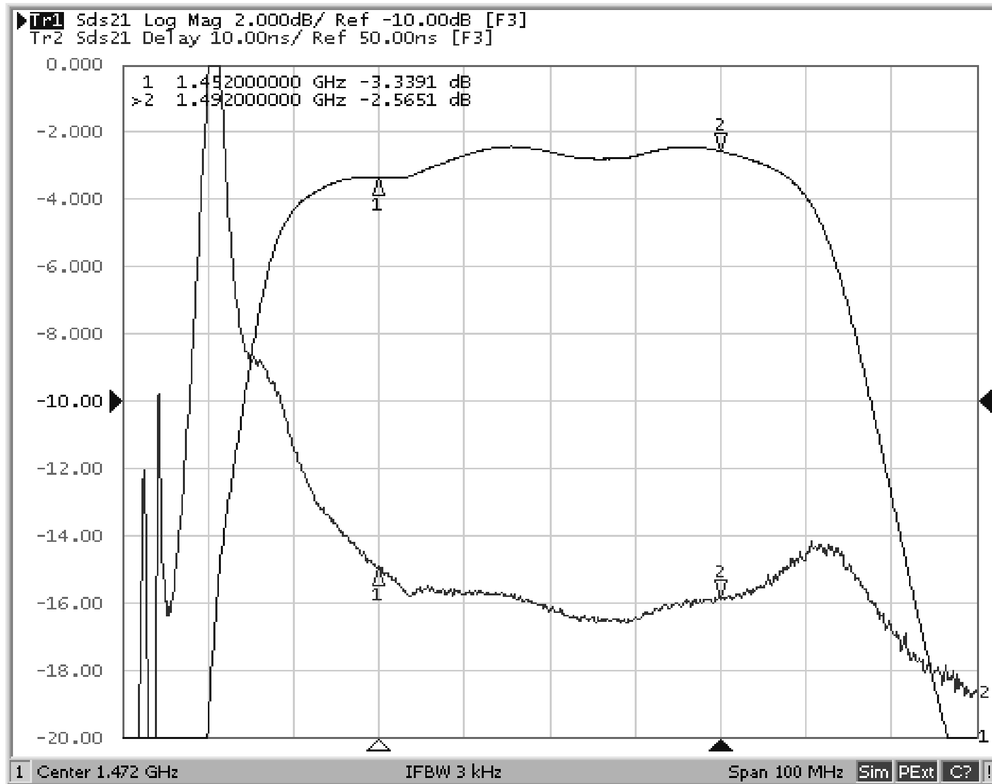
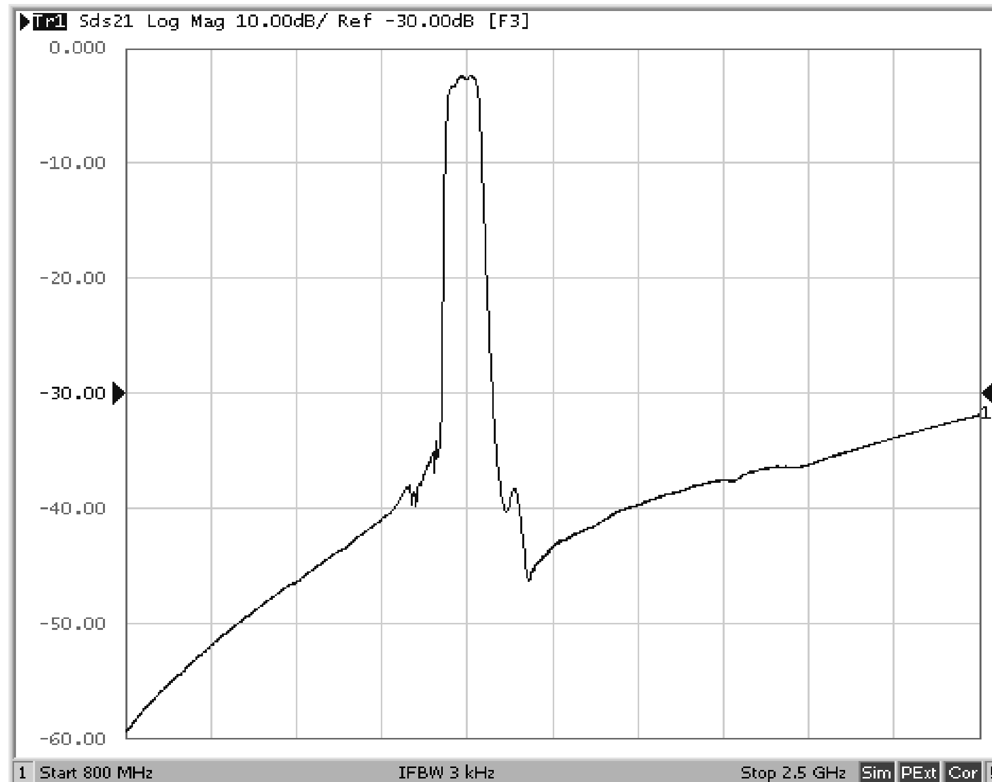
Filter Passband Amplitude and Group Delay Plots



Filter Broadband Plot



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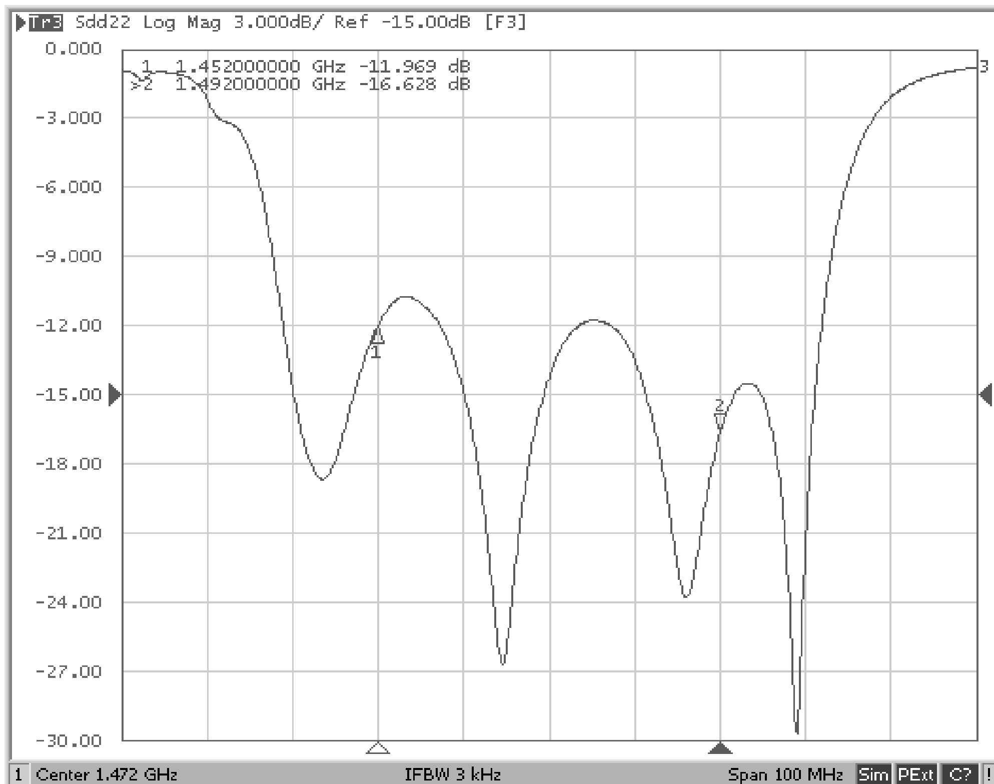
Filter Input Return Loss

Filter Output Return Loss



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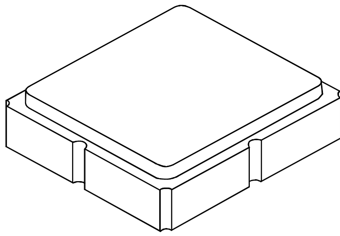
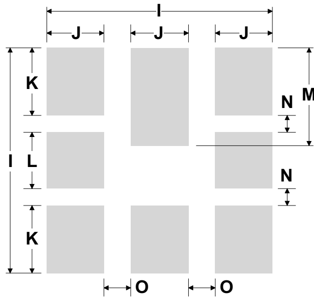
8-Terminal Ceramic Surface-Mount Case
3.0 X 3.0 mm Nominal Footprint



Case and PCB Footprint Dimensions

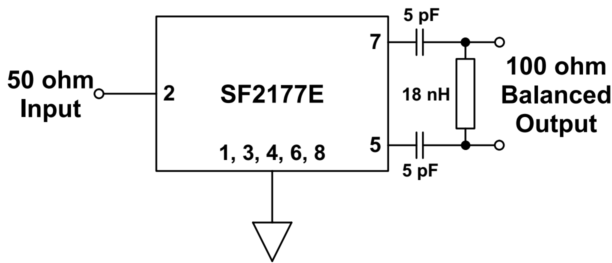
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.00	3.13	0.113	0.118	0.123
B	2.87	3.00	3.13	0.113	0.118	0.123
C	-	-	1.10	-	-	0.043
D	0.79	0.92	1.05	0.031	0.036	0.041
E	0.62	0.75	0.88	0.024	0.029	0.034
F	0.47	0.60	0.73	0.018	0.024	0.029
G	0.47	0.60	0.73	0.018	0.024	0.029
H	1.07	1.20	1.33	0.042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



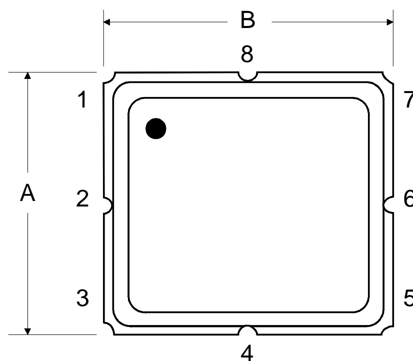
PCB Footprint Top View

Case Materials

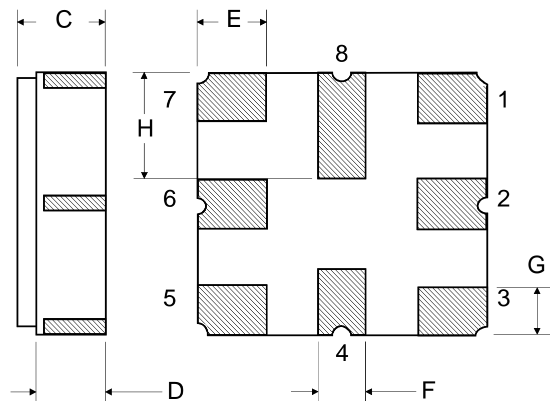
Materials	
Solder Pad Plating	0.3 to 1.0 µm Gold over 1.27 to 8.89 µm Nickel
Lid Plating	2.0 to 3.0 µm Nickel
Body	Al_2O_3 Ceramic
Pb Free	



TOP VIEW



BOTTOM VIEW



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Tape and Reel Specifications

"B" Nominal Size		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

COMPONENT ORIENTATION and DIMENSIONS

USER DIRECTION OF FEED

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