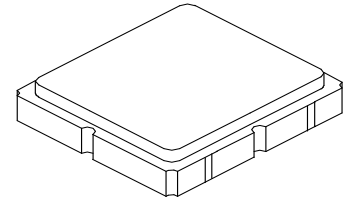


SF2422E

**869 MHz
SAW Filter**



SM3030-6

- *Low-loss RF SAW Filter*
- *Surface-mount 3.0 x 3.0 x 1.3 mm Package*
- *Complies with Directive 2002/95/EC (RoHS)*
- *Moisture Sensitivity Level: 1*

Absolute Maximum Ratings

Rating	Value	Units
Input Power Level	13	dBm
DC Voltage	6	V
Storage Temperature Range in Tape and Reel	-40 to +80	°C
Operating Temperature Range	-40 to +80	°C
Solder Reflow Temperature, 20 - 40 seconds, 2 cycles maximum	260	°C

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	F_C			869		MHz
Insertion Loss, 868 to 870 MHz	IL_{MAX}			3.0	3.5	dB
Amplitude Ripple, 868 to 870 MHz				0.5	1.2	dB
VSWR, 868 to 870 MHz				1.5	2.0	
Attenuation Referenced to 0 dB:						
50 to 791 MHz			45	50		dB
791 to 835 MHz			45	50		
835 to 848 MHz			43	48		
848 to 862 MHz			20	30		
880 to 883 MHz			35	45		
883 to 1000 MHz			49	54		
Source Impedance	Z_S			50		Ω
Load Impedance	Z_L			50		
Case Style	SM3030-6 3.0 x 3.0 mm Nominal Footprint					
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	8H, <u>YWWS</u>					



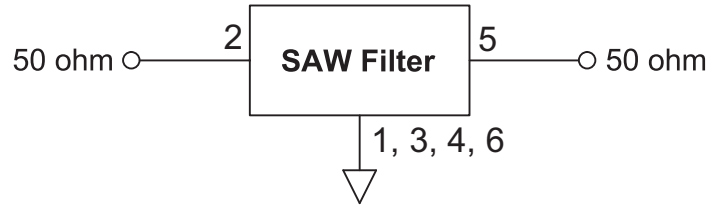
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

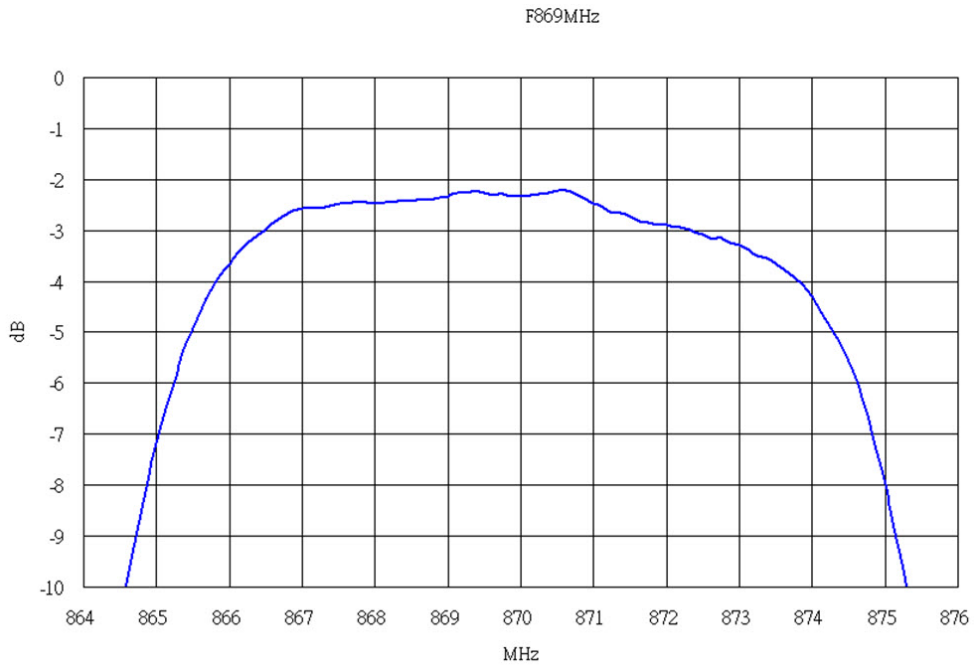
Filter Test Circuit

Connection	Terminals
Input	2
Output	5
Ground	All Others

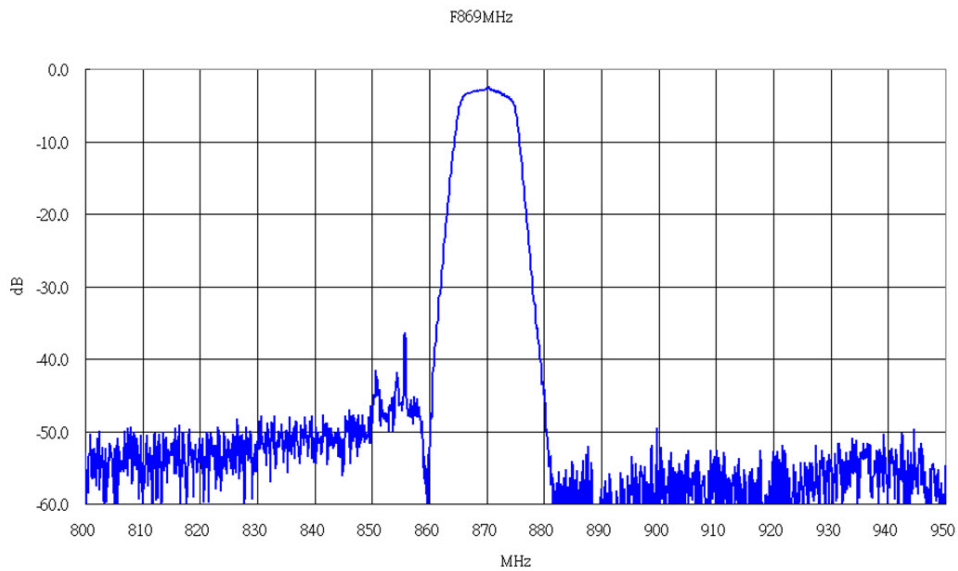


Frequency Characteristics

S21 Response: Span - 20 MHz

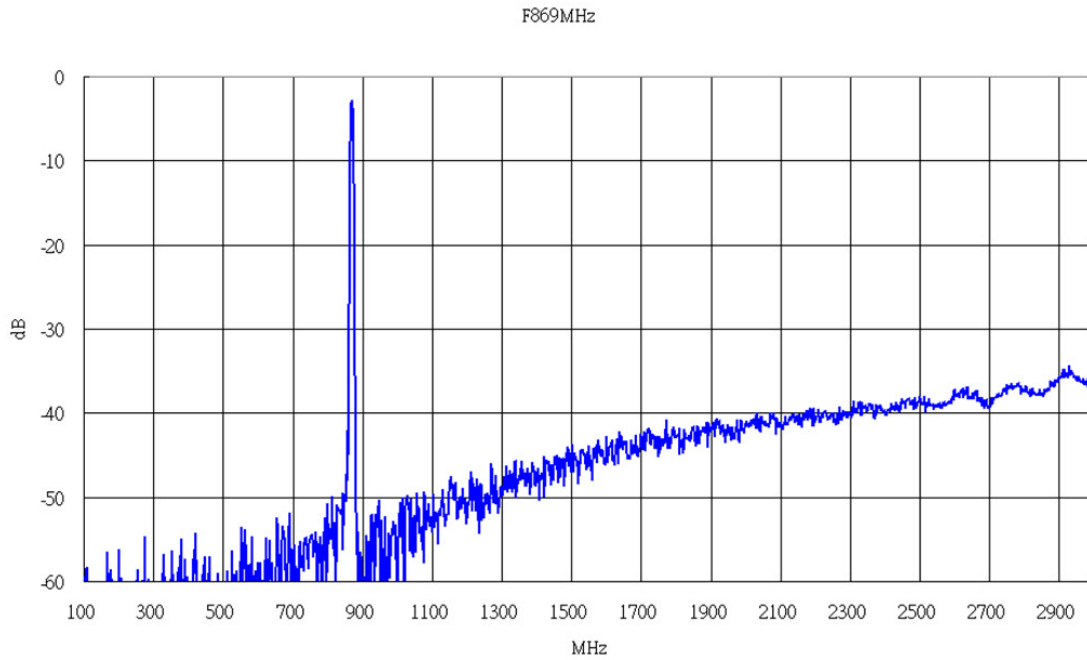


S21 Response: Span - 150 MHz

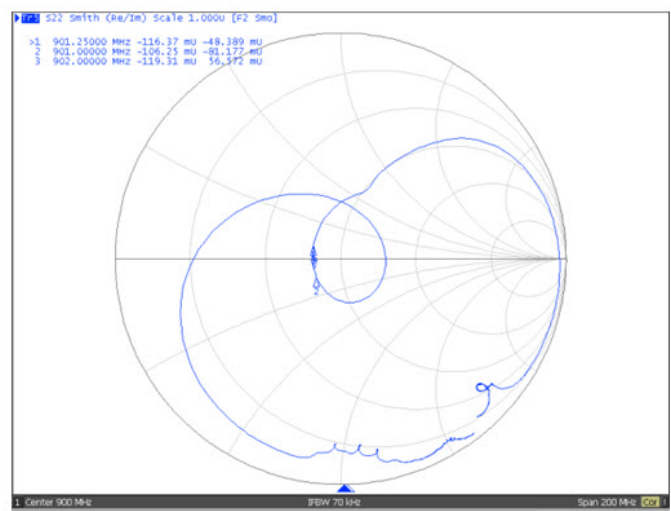
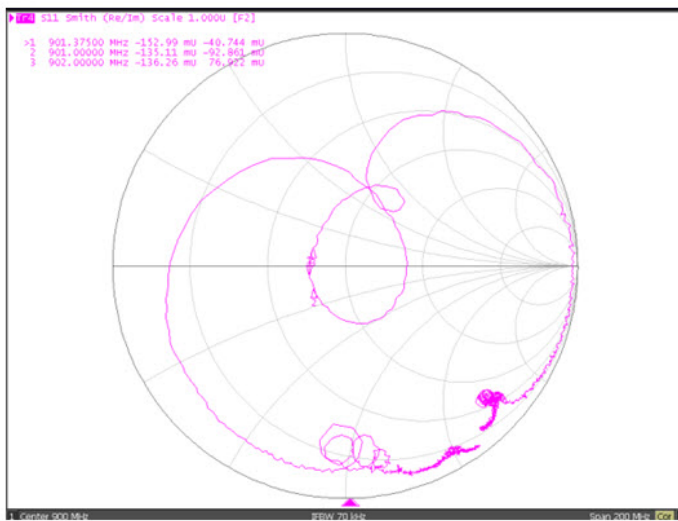


Frequency Characteristics

S21 Response: Span - 3 GHz



S11/S22 Response



SM3030-6 Case

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



PCB Footprint Top View

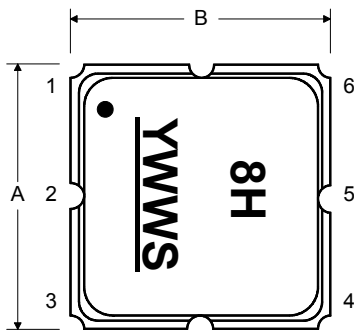
Case and PCB Footprint Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.99	3.00	3.10	0.117	0.118	0.122
B	2.99	3.00	3.10	0.117	0.118	0.122
C	-	1.4	-	-	0.055	-
D	-	1.0	-	-	0.039	-
E	-	2.80	-	-	0.110	-
F	-	1.60	-	-	0.063	-
G	-	0.85	-	-	0.033	-
H	-	1.50	-	-	0.059	-
I	-	0.60	-	-	0.024	-
J	-	1.30	-	-	0.051	-
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	-

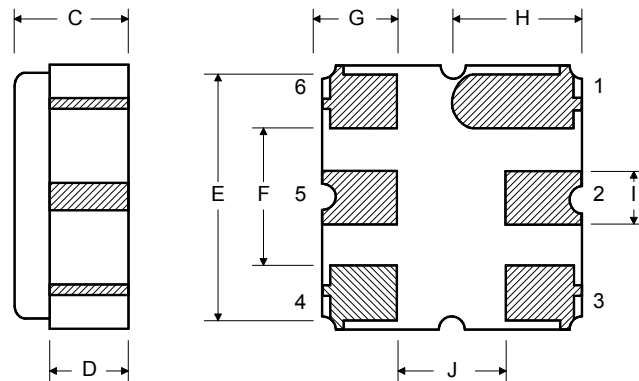
Case Materials

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

TOP VIEW



BOTTOM VIEW



Recommended Reflow Profile

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C +0/-5°C peak (10 seconds).
4. Time: 5 times maximum.

