

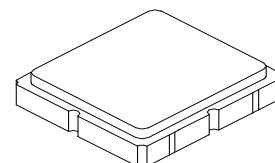
• **Steep Roll-off Filter for 866 MHz ISM band**

Absolute Maximum Ratings

Rating	Value	Units
Input Power Level	18	dBm
DC Voltage on any Non-ground Terminal	3	V
Operating Temperature Range	-40 to +85	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Suitable for Lead-free Soldering - Maximum Soldering Profile	260°C for 30 s	

SF2327E

**866.00 MHz
SAW Filter**



SM3030-6

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_C			866.00		MHz
Insertion Loss at f_C	IL			2.3	3.0	dB
Amplitude Ripple, 863 to 870 MHz				0.3	1.3	
VSWR, 863 to 870 MHz				1.2	2.0	
Attenuation Referenced to IL at f_C :						dB
10 to 830 MHz			45.0	49.0		
830 to 850 MHz			22.0	35.0		
885 to 905 MHz			27.0	35.0		
905 to 950 MHz			45.0	49.0		
950 to 1500 MHz			40.0	47.0		
1500 to 3000 MHz			25.0	28.0		
Temperature Coefficient of Frequency	TCf			-36		ppm/°C
Case Style	SM3030-6 3.0 x 3.0 mm Nominal Footprint					
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	A91, YWWS					
Standard Reel Quantity	Reel Size 7 Inch	500 Pieces/Reel				
	Reel Size 13 Inch	3000 Pieces/Reel				

Electrical Connections

Connection	Terminals
Port 1	2
Port 2	5
Case Ground	All others

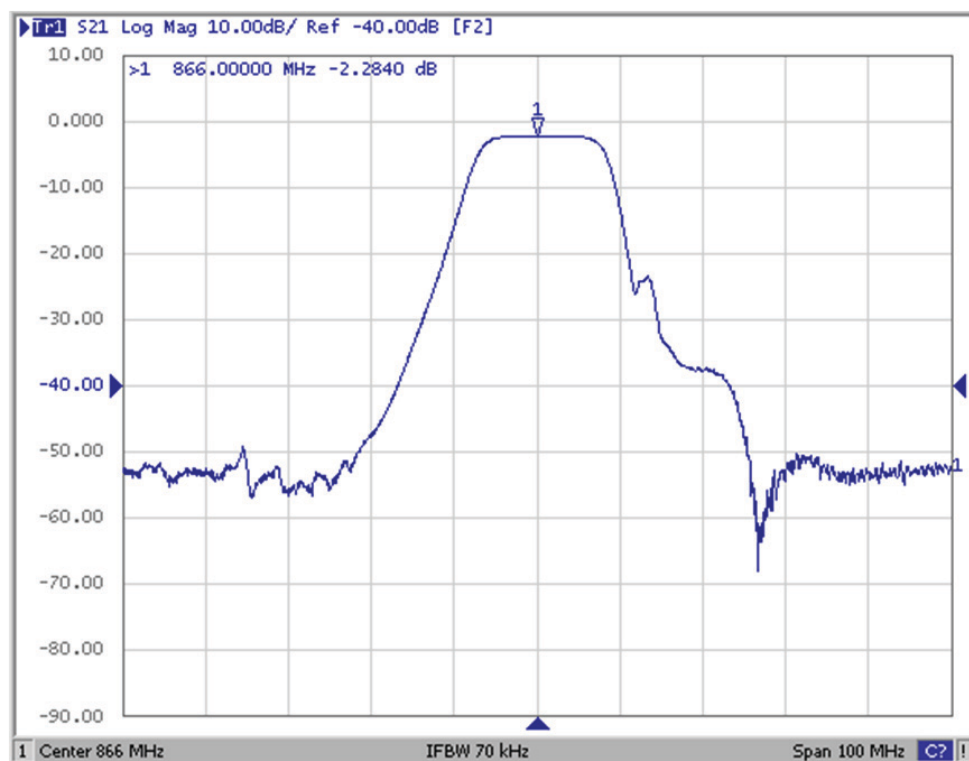


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

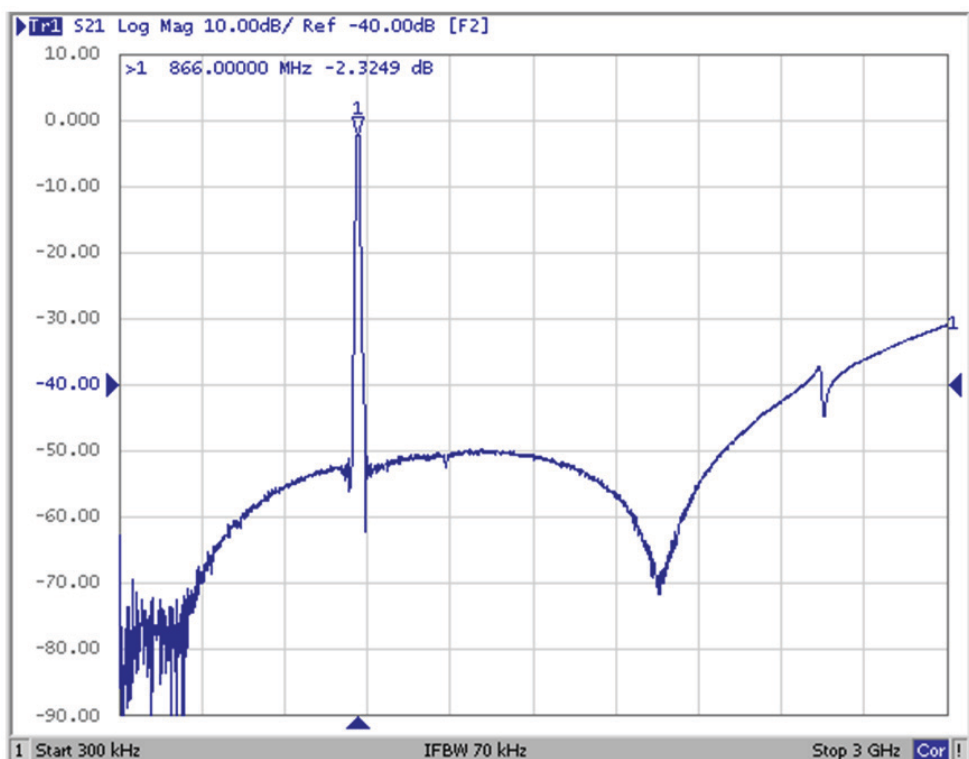
NOTES:

- Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50 Ω and measured with 50 Ω network analyzer.
- Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, f_C .
- Rejection is measured as attenuation below the minimum IL point in the passband. Rejection in final user application is dependent on PCB layout and external impedance matching design. See Application Note No. 42 for details.
- "LRIP" or "L" after the part number indicates "low rate initial production" and "ENG" or "E" indicates "engineering prototypes."
- The design, manufacturing process, and specifications of this filter are subject to change.
- Either Port 1 or Port 2 may be used for either input or output in the design. However, impedances and impedance matching may vary between Port 1 and Port 2, so that the filter must always be installed in one direction per the circuit design.
- US and international patents may apply.
- Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

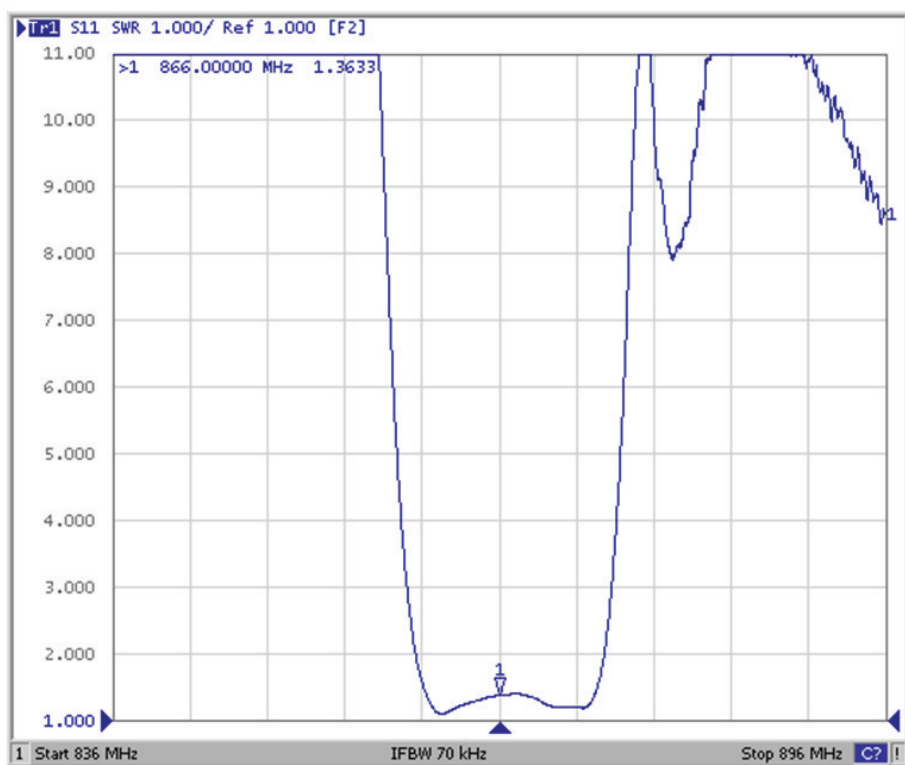
Wide Band Response (span 100 MHz)



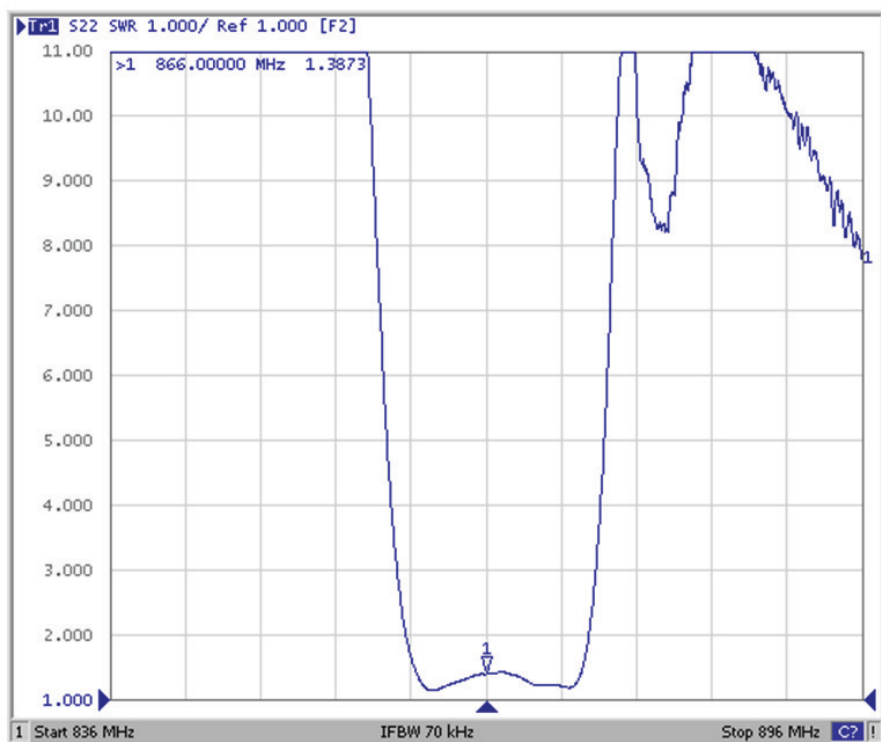
Wide Band Response (300k ~ 3GHz)



S11 VSWR

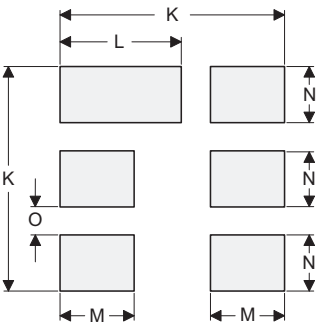
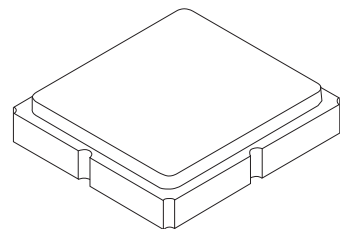


S22 VSWR



SM3030-6 Case

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



PCB Footprint Top View

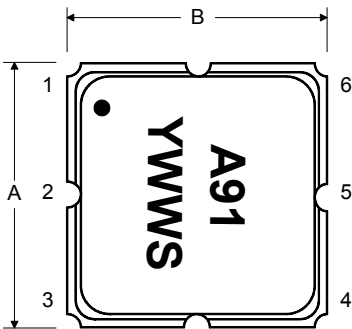
Case and PCB Footprint Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	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	1.40	0.044	0.049	0.050
D	0.77	0.90	1.00	0.030	0.035	0.039
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		2.80			0.110	
L		1.70			0.067	
M		1.05			0.041	
N		0.81			0.032	
O		0.38			0.015	

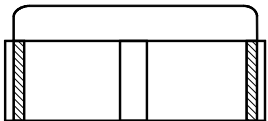
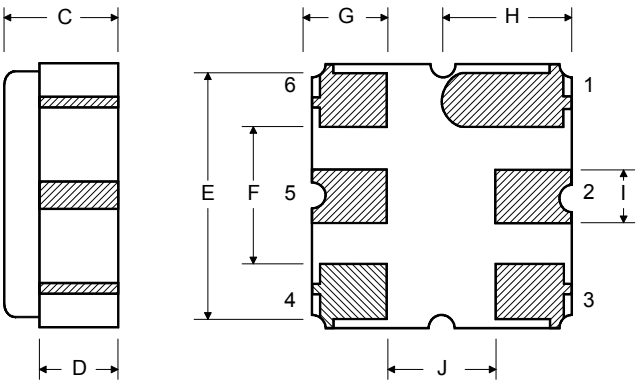
Case Materials

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	

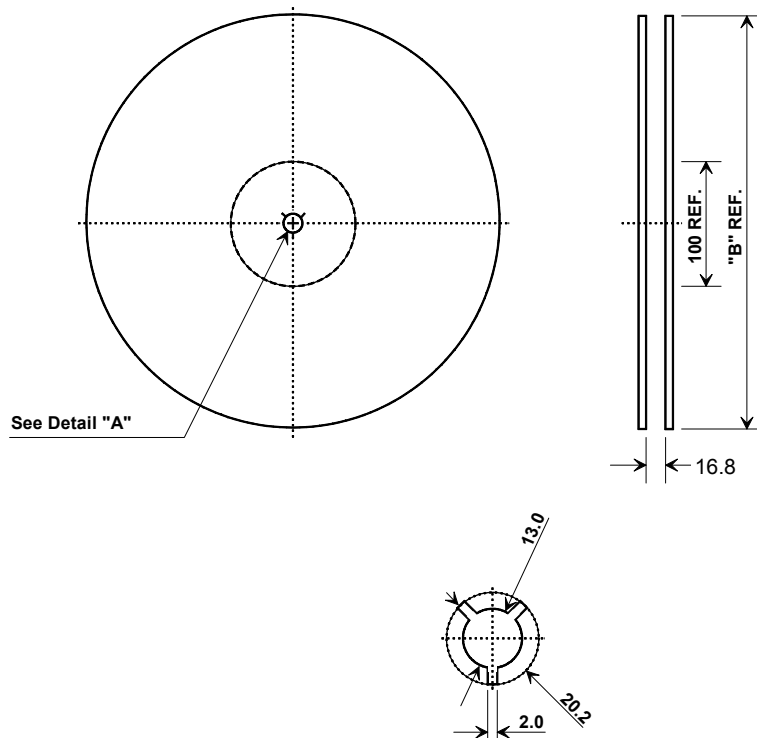
TOP VIEW



BOTTOM VIEW



Tape and Reel Specifications



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

COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	3.30 mm
Bo	3.30 mm
Ko	1.60 mm
Pitch	8.0 mm
W	12.0 mm

