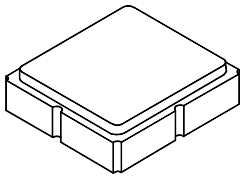
Preliminary

muRata
INNOVATOR IN ELECTRONICS

SF1219E

2338.75 MHz SAW Filter

- ***Low-loss UHF SAW Filter***
- ***Single-ended Input, Balanced Output***
- ***3.0 x 3.0 mm Surface-mount Package***
- ***Complies with Directive 2002/95/EC (RoHS)***



SM3030-8

Maximum Rating

Rating	Value	Units
Input Power Level	+15	dBm
DC Voltage on any Non-ground Terminal	3	V
Operating Temperature Range	-40 to +105	°C
Component Storage Temperature Range	-40 to +105	°C
Tape and Reel Storage Temperature Range	-40 to +85	°C
Solder Reflow Temperature, 10 seconds/5 cycles maximum	260	°C

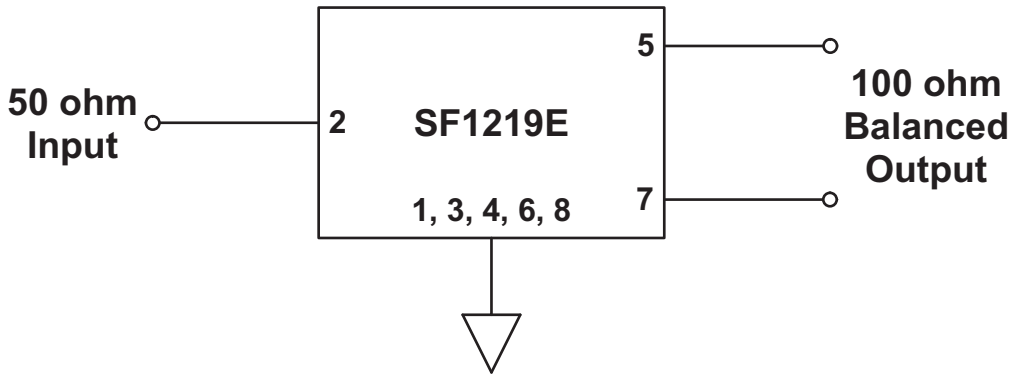
Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_C			2338.75		MHz
Maximum Insertion Loss, 2332.5 to 2345 MHz	IL_{MAX}			2.8	4.5	dB
Amplitude Ripple, 2332.5 to 2345 MHz				0.2	1.4	dB_{P-P}
Group Delay Ripple, 2332.5 to 2345 MHz				4	12	ns_{P-P}
Input Return Loss, 2332.5 to 2345 MHz			6.5	13		dB
Output Return Loss, 2332.5 to 2345 MHz			6.5	10		dB
Attenuation, 0 dB Reference:						
88 to 108 MHz			60	80		dB
880 to 960 MHz			55	69		
1710 to 1910 MHz			40	50		
2305 MHz				22		
2310 MHz				17		
2315 MHz				11		
2320 MHz				7		
2450 MHz			30	44		
3060 MHz			35	58		
Single-ended Source Impedance				50		ohm
Balanced Load Impedance				100		

Case Style	SM3030-8 3.0 x 3.0 mm Nominal Footprint
Lid Symbolization, Y=year, WW=week, S=shift, dot=pin 1 indicator	953, YWWS
Standard Reel Quantity Reel Size 7 inch	500 Pieces/Reel
Reel Size 13 inch	3000 Pieces/Reel

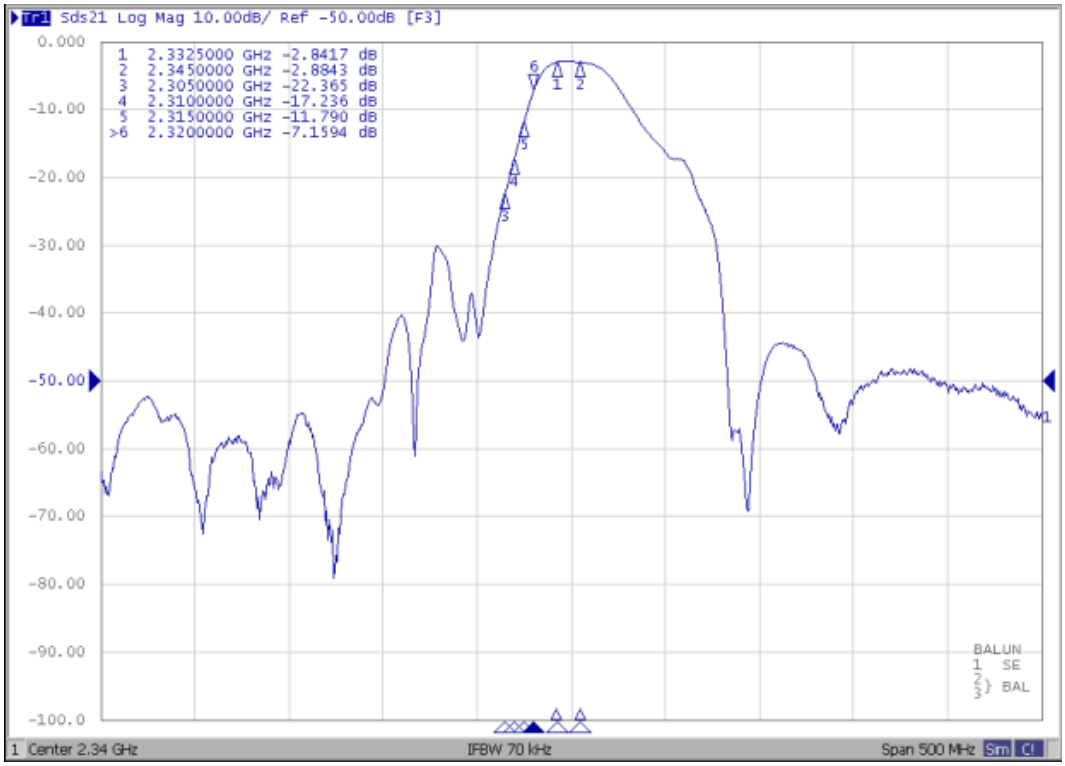
NOTES:

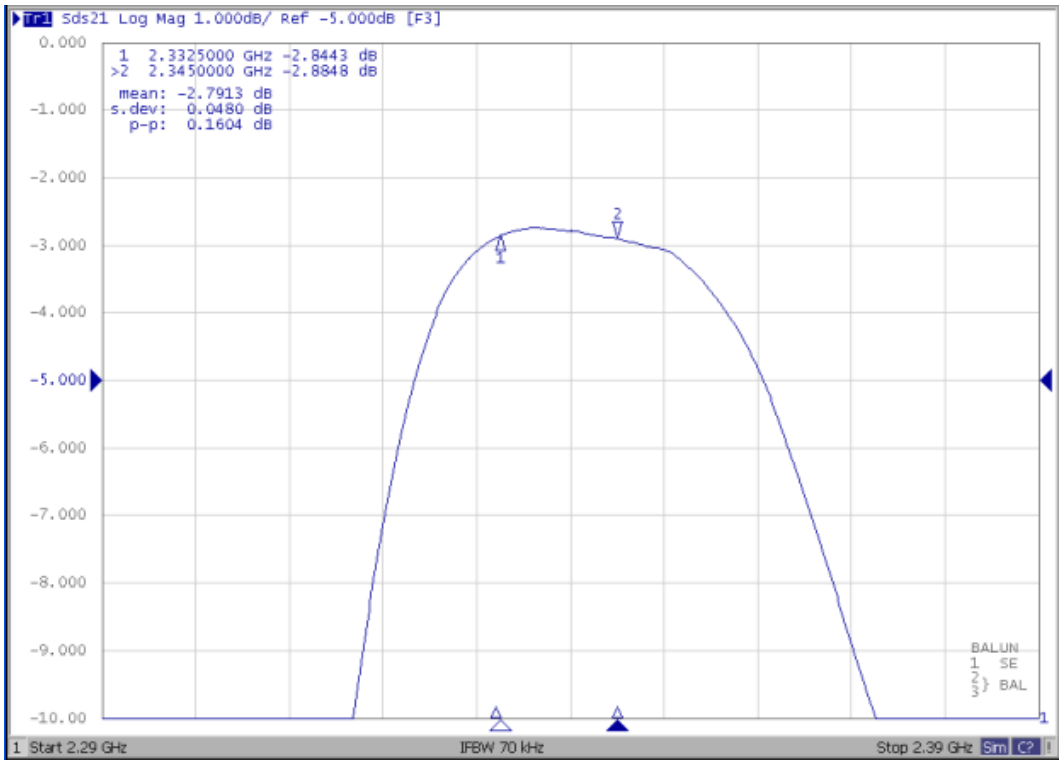
1. US and international patents may apply.
2. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.
3. Electrostatic Sensitive Device. Observe precautions for handling.

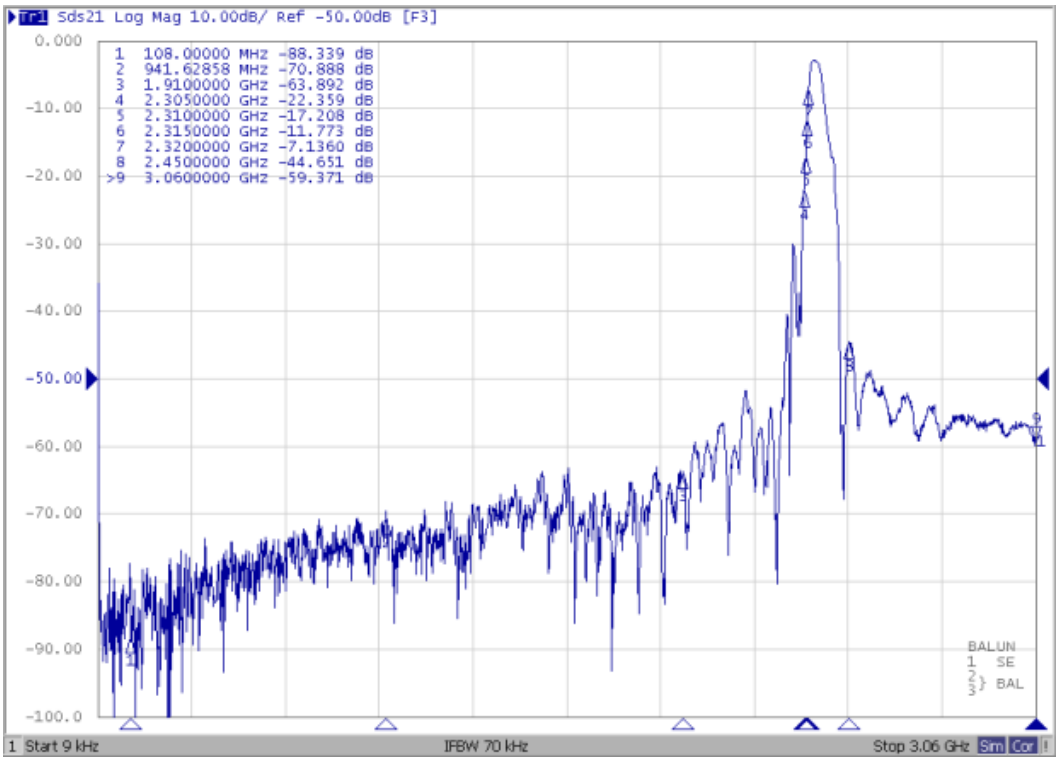
Test Circuit



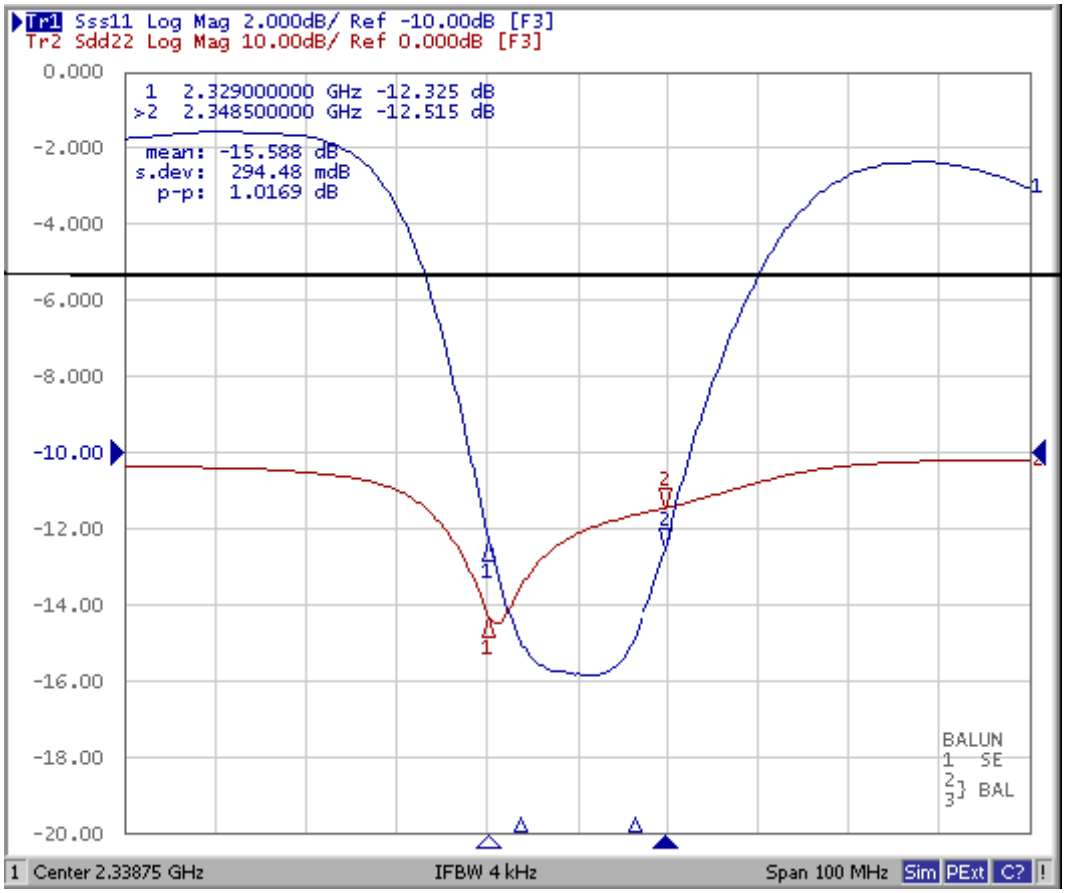
Filter Response Plots



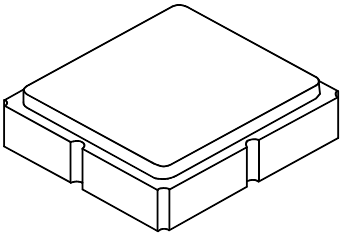


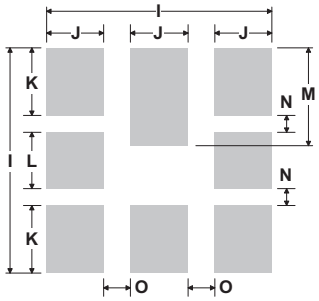


Filter Return Loss Plot



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





PCB Footprint Top View

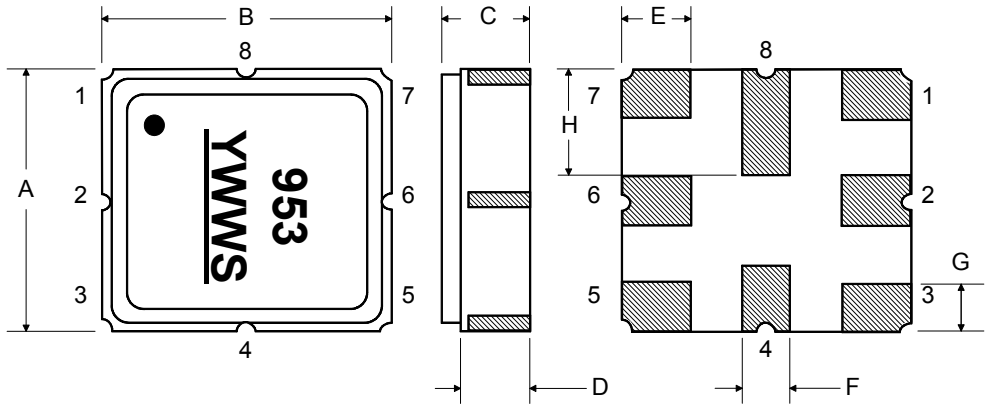
Case and PCB Footprint Dimensions

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	

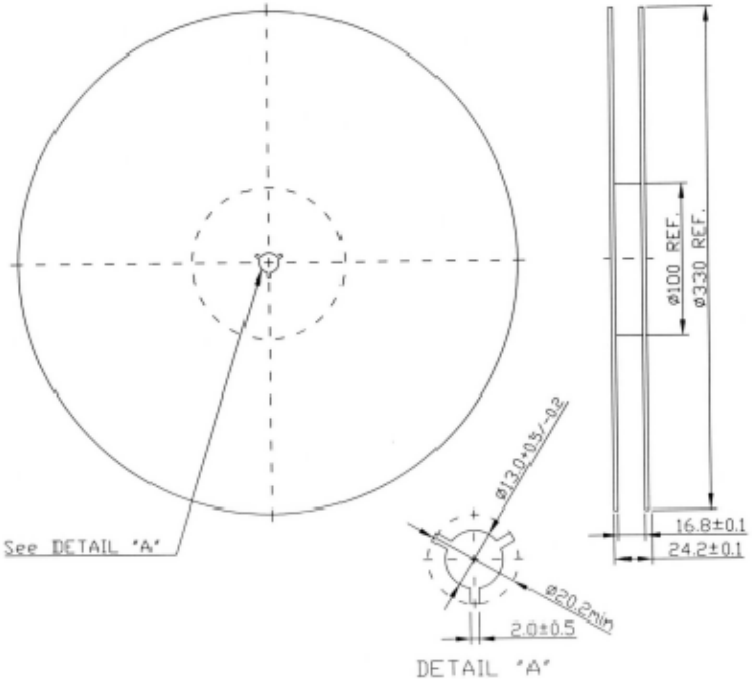
Case Materials

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



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