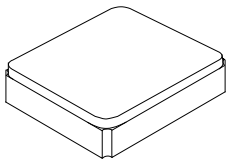
Preliminary

muRata
INNOVATOR IN ELECTRONICS

SF2235G

1542.5 MHz SAW Filter

- ***Low-loss SAW Filter***
- ***2.5 x 2.0 x 1.0 mm Surface-mount Case***
- ***No Matching Circuit Required***



SM2520-5

Absolute Maximum Ratings

Rating	Value	Units
Maximum Input Power	+5	dBm
Maximum DC Voltage on any Non-ground Terminal	5	VDC
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Maximum Soldering Profile, 5 cycles maximum	265 °C for 10 s	

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Nominal Operating Frequency	f_C			1542.5		MHz
Passband Insertion Loss, 1525 to 1560 MHz	IL			2.1	3.5	dB
Amplitude Ripple, 1525 to 1560 MHz				0.9	2.0	dB_{P-P}
Attenuation Referenced to 0 dB:						
DC to 1480 MHz			21	41		dB
1630 to 1660 MHz			26	34		
1660 to 2050 MHz			30	35		
2050 to 3500 MHz			25	50		
Source impedance, Single-ended	Z_S			50 Ω		
Load impedance, Balanced	Z_L			150 Ω || 33 nH		
Operating Temperature Range	T_A		-10		+75	°C

Case Style	SM2520-4
Lid Symbolization (3G = Filter ID, Y = year, W = week)	3G, YW

Electrical Connections

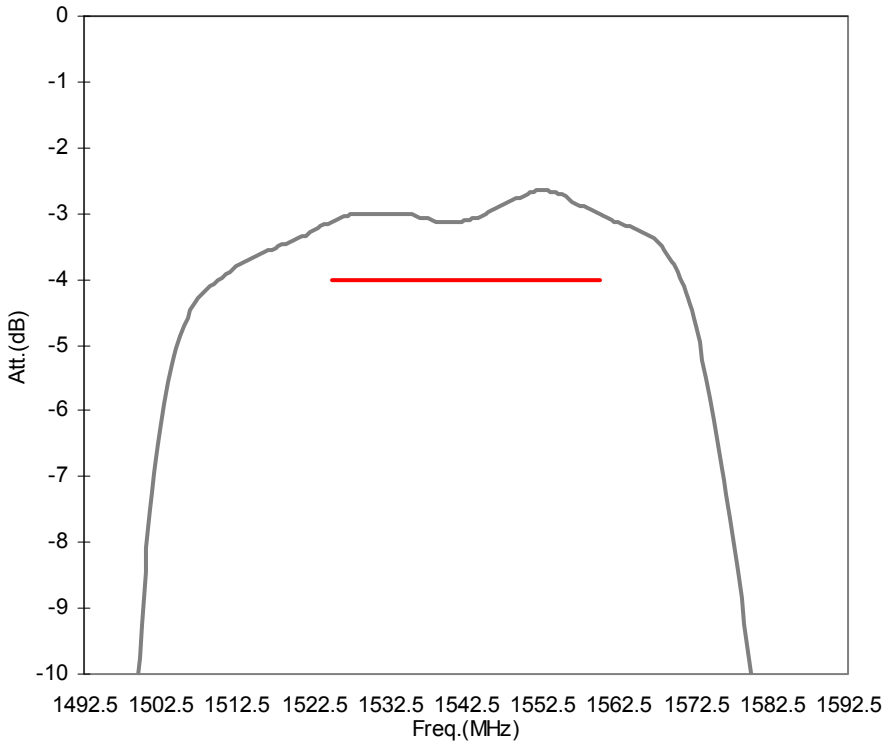
Connection	Terminals
Input, Single-ended	1
Output, Balanced	3, 4
Ground	All others

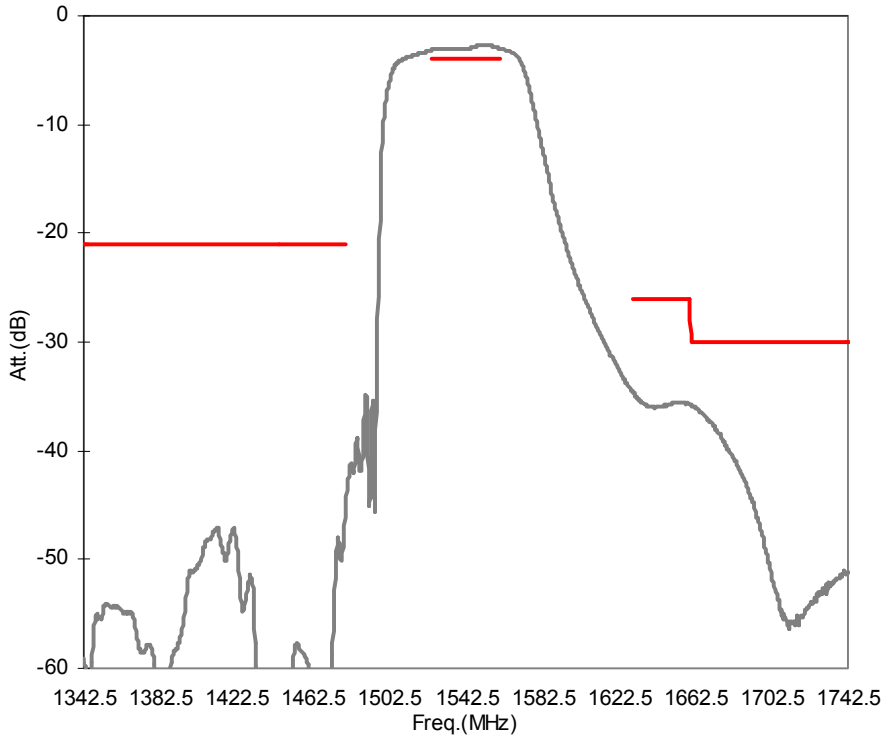
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

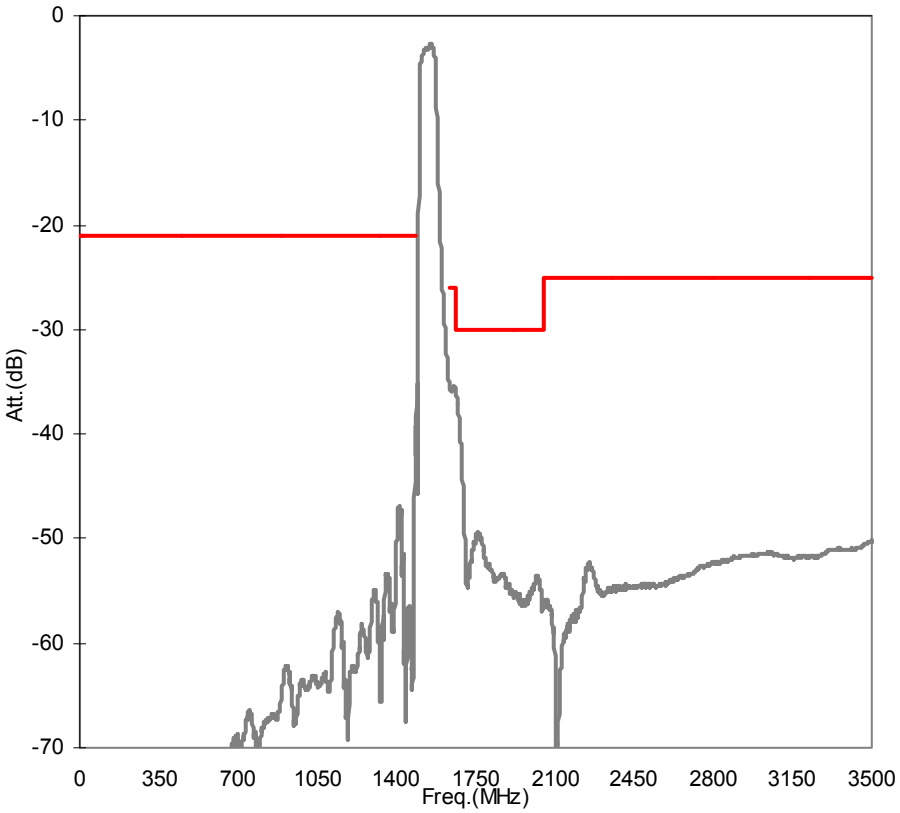
NOTES:

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.

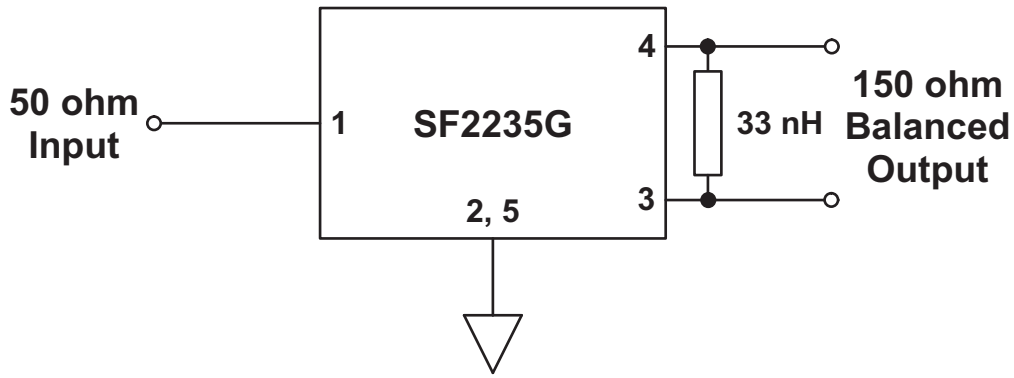
Filter Amplitude Plots





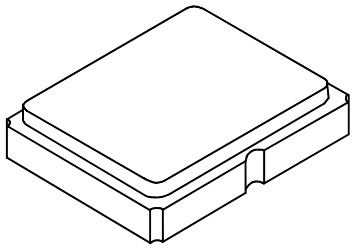


Filter Tuning Network



SM2520-5 Case

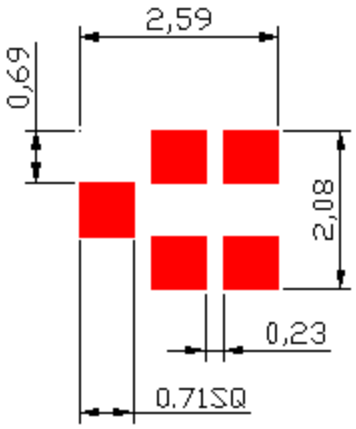
5-Terminal Ceramic Surface-Mount Case
2.5 X 2.0 mm Nominal Footprint



Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	1.88	2.00	2.12	0.074	0.079	0.083
B	2.38	2.50	2.62	0.094	0.098	0.103
C	0.92	1.00	1.08	0.036	0.039	0.043
D		0.55			0.022	
E		0.55			0.022	
F		1.40			0.055	
G		0.50			0.020	
H		0.08			0.003	
I		0.90			0.035	

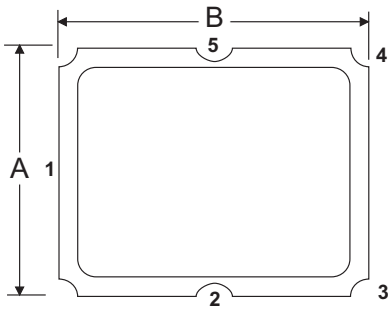
PCB Footprint

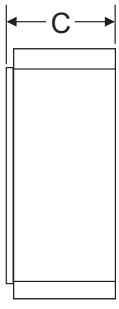


Case Material

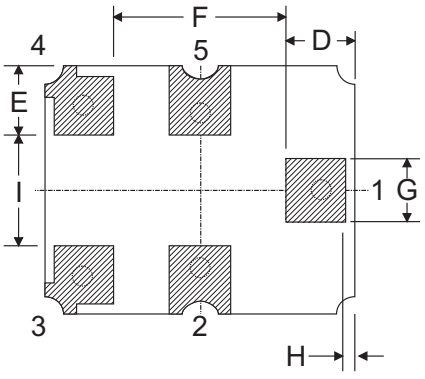
Materials	
Solder Pad Plating	0.3 to 1.0 µm Gold over 1.27 to 8.89 µm Nickel
Lid Plating	2.0 to 3.0 µm Nickel
Body	Al_2O_3 Ceramic
Pb Free	

TOP VIEW

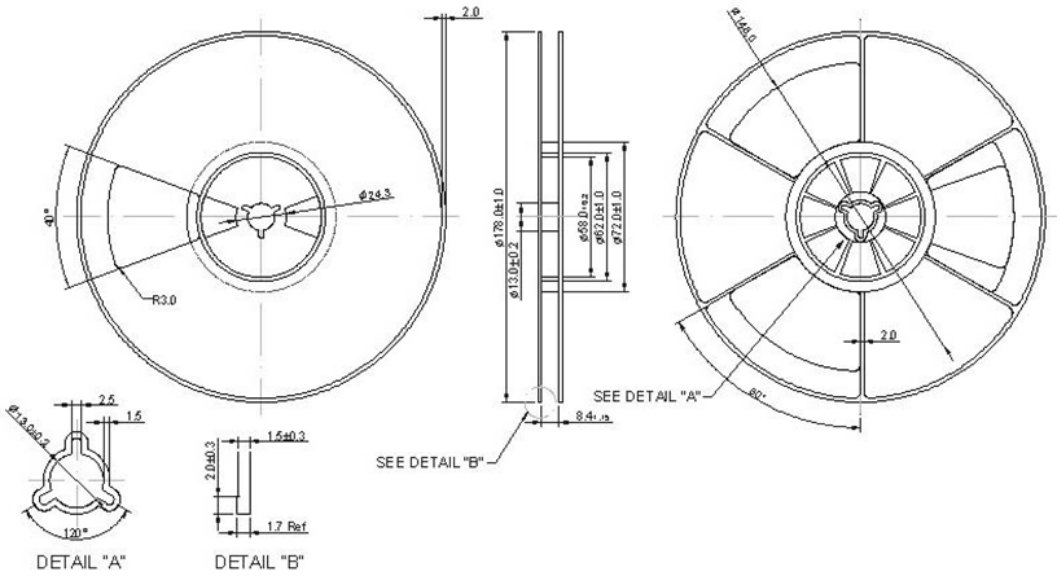




BOTTOM VIEW



Reel Dimension



Tape Dimension