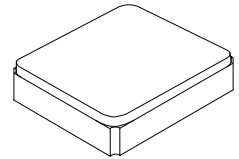


SF2235G

**1542.5 MHz
SAW Filter**



SM2520-5

- **Low-loss SAW Filter**
- **2.5 x 2.0 x 1.0 mm Surface-mount Case**
- **No Matching Circuit Required**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 1**

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:						dB
DC to 1480 MHz			21	41		
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, <u>YW</u>

Electrical Connections

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

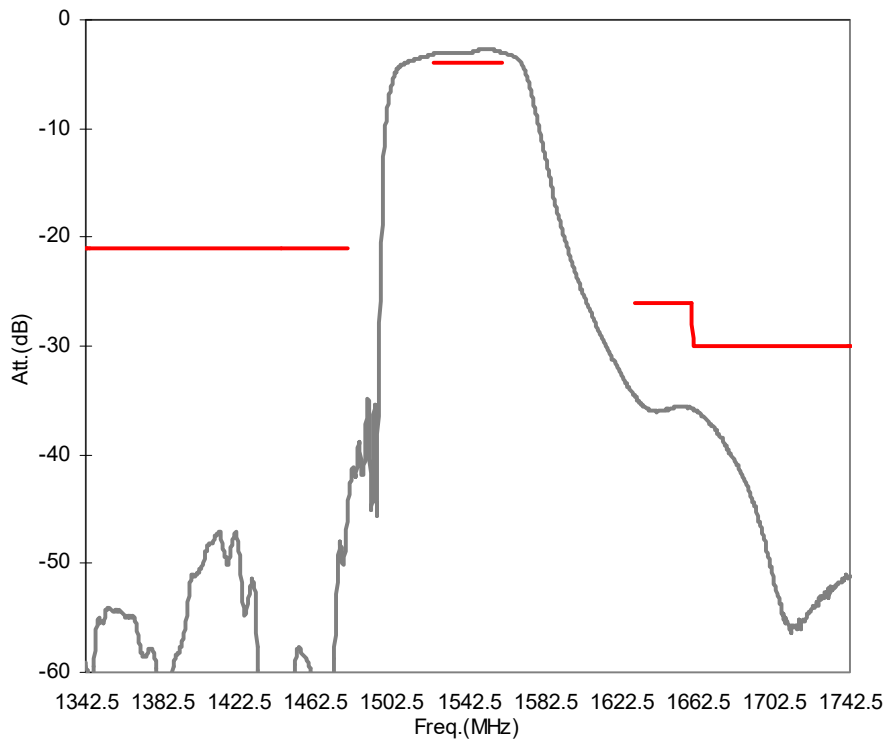
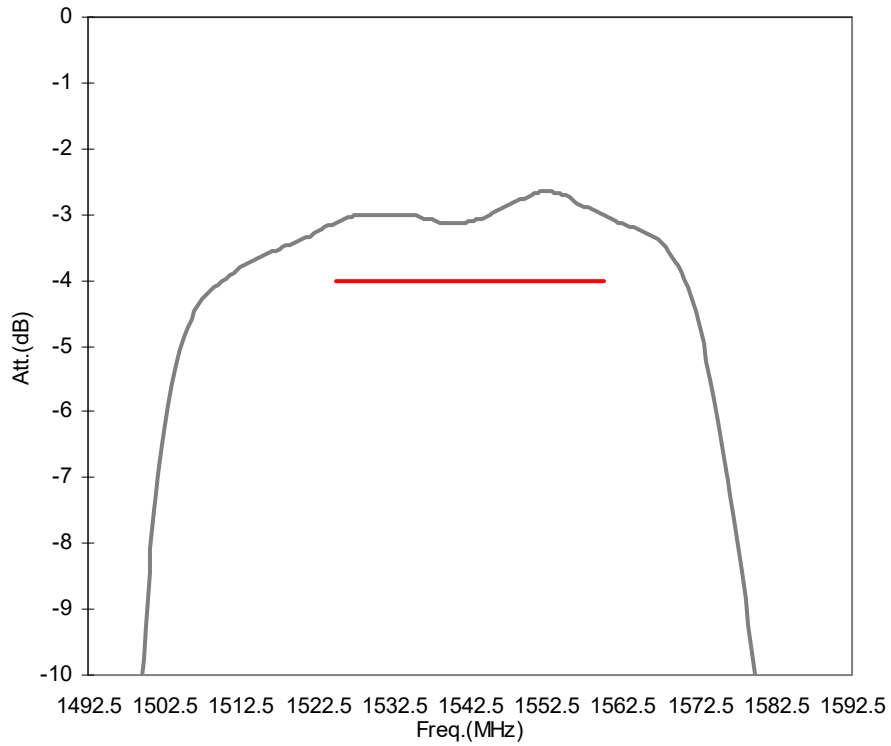


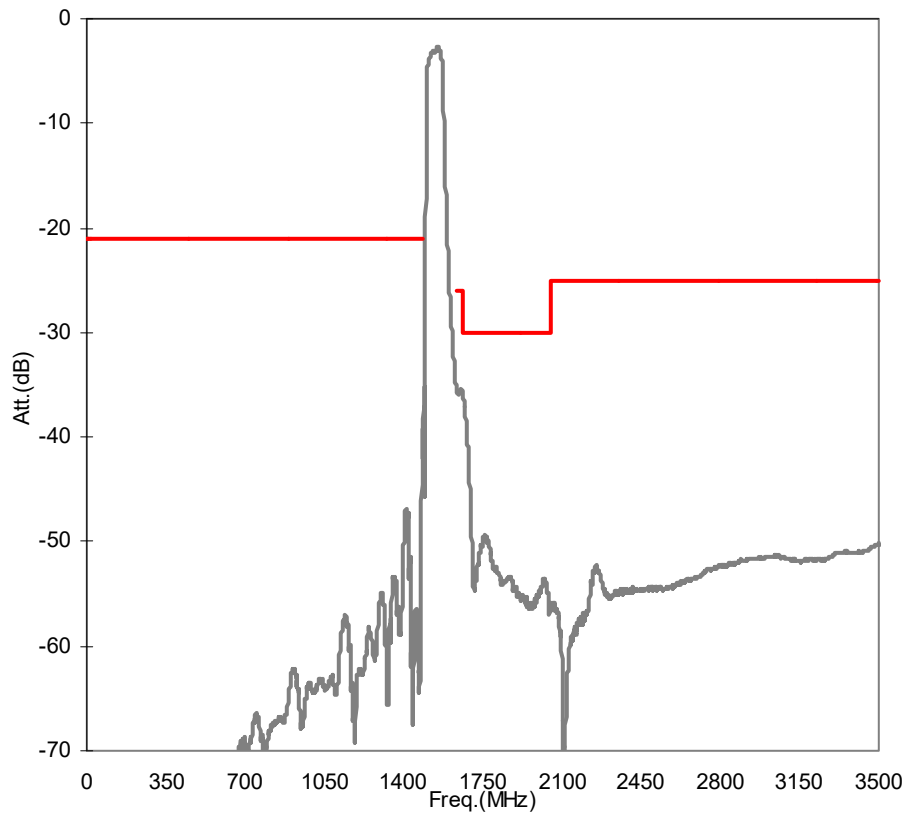
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

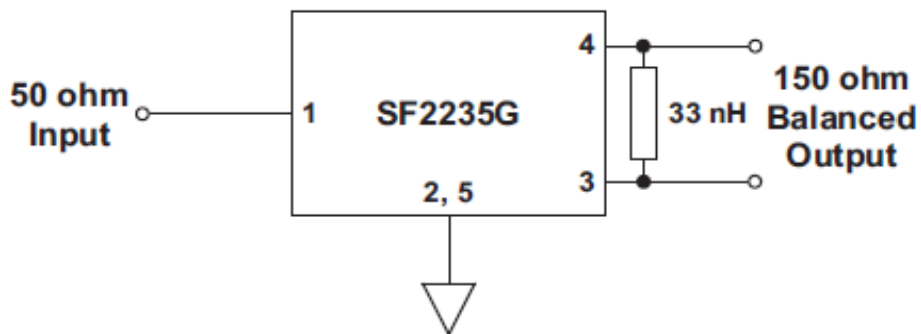
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

Filter Amplitude Plots



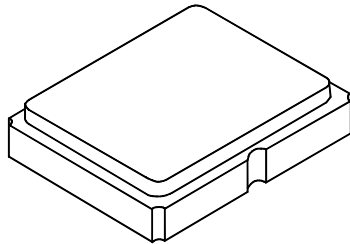


Filter Tuning Network



SM2520-5 Case

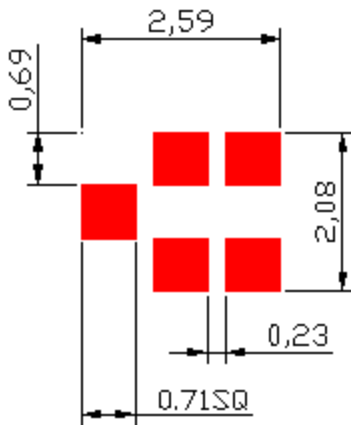
5-Terminal Ceramic Surface-Mount Case 2.5 X 2.0 mm Nominal Footprint



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	

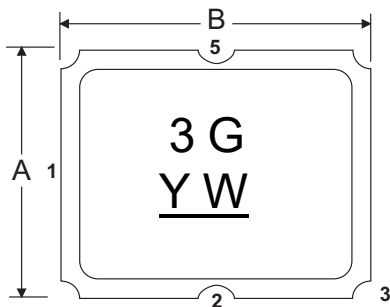
PCB Footprint



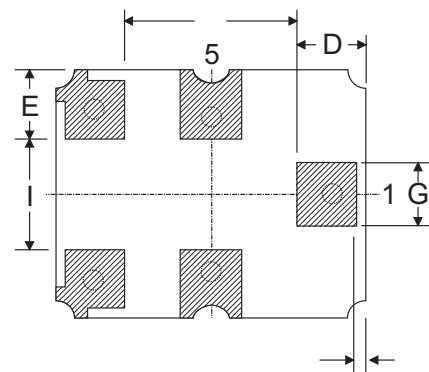
Case Material

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

TOP VIEW



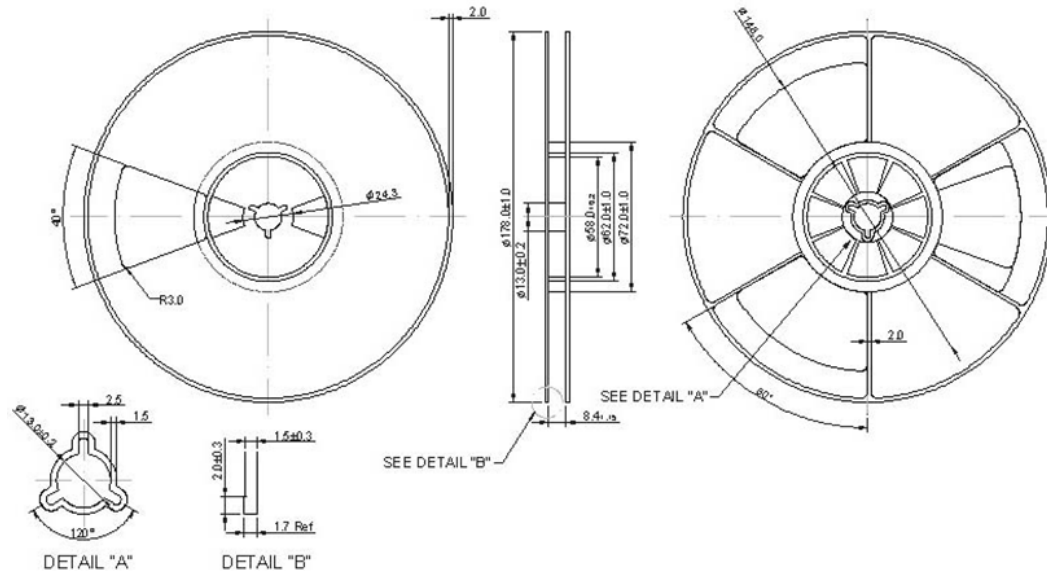
BOTTOM VIEW



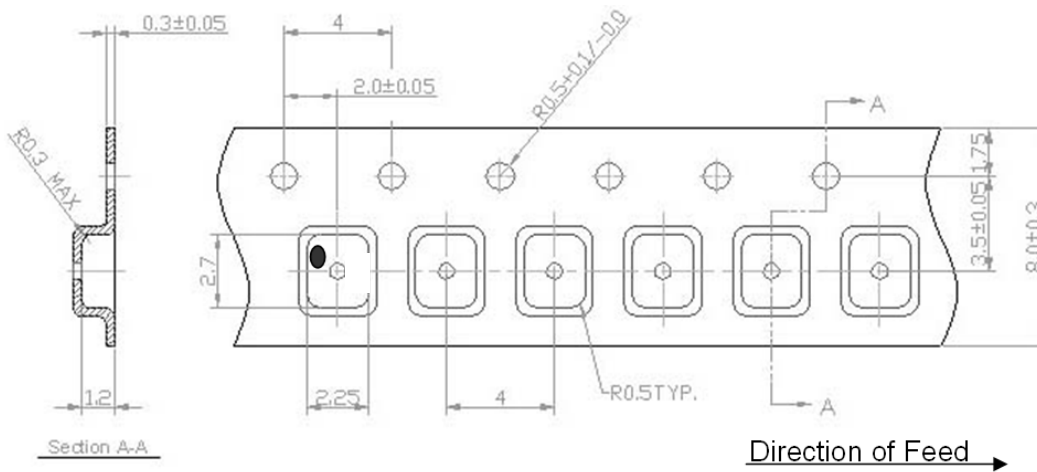
Tape and Reel Standard per ANSI/EIA-481

Reel Dimension

Reel Count:
7" = 500
13" = 3000



Tape Dimension



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.

