

Preliminary



SF2142G

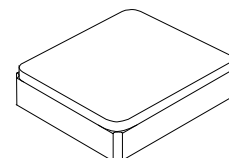
867.5 MHz SAW Filter

- 2.5 x 2.0 x 1.05 mm Surface-Mount Case
- No Matching Circuit Required
- Complies with Directive 2002/95/EC (RoHS)



Absolute Maximum Ratings

| Rating | Value | Units |
|-----------------------|----------------|-------|
| Input Power Level | 13 | dB |
| DC voltage | 3 | V |
| Storage Temperature | -40 to +95 | °C |
| Max Soldering Profile | 265°C for 10 s | |



SM2520-4

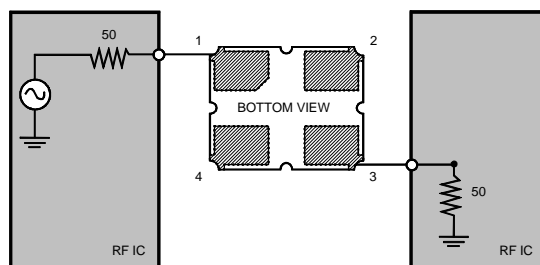
Electrical Characteristics

| Characteristic | Sym | Notes | Min | Typ | Max | Units |
|---|-----------------|-------|-------|-----|-----|----------|
| Center Frequency | f_C | | 867.5 | | | MHz |
| Insertion Loss | 855 ~ 880 MHz | IL | | 2.6 | 3.5 | dB |
| Amplitude Ripple (p-p) | 855 ~ 880 MHz | | | 0.9 | 1.7 | |
| VSWR | 855 ~ 880 MHz | | | 1.5 | 2 | |
| Attenuation (Reference level from 0 dB) | 100 ~ 815 MHz | | 40 | 48 | | dB |
| | 815 ~ 830 MHz | | 38 | 45 | | |
| | 898 ~ 901 MHz | | 15 | 24 | | |
| | 915 ~ 925 MHz | | 30 | 42 | | |
| | 925 ~ 2330 MHz | | 28 | 38 | | |
| | 2330 ~ 3000 MHz | | 20 | 31 | | |
| Source impedance | Z_S | | | 50 | | Ω |
| Load impedance | Z_L | | | 50 | | Ω |
| Operating Temperature | T_A | | -30 | | +85 | °C |

| | |
|---|---|
| Single Ended Input / Output, Impedance match | No matching network required for operation at 50 ohms |
| Lid Symbolization (2J=SF2142G Y=year, W=week) | 2J, YW |

Electrical Connections

| Connection | Terminals |
|------------|------------|
| Input | 1 |
| Output | 3 |
| Ground | All others |

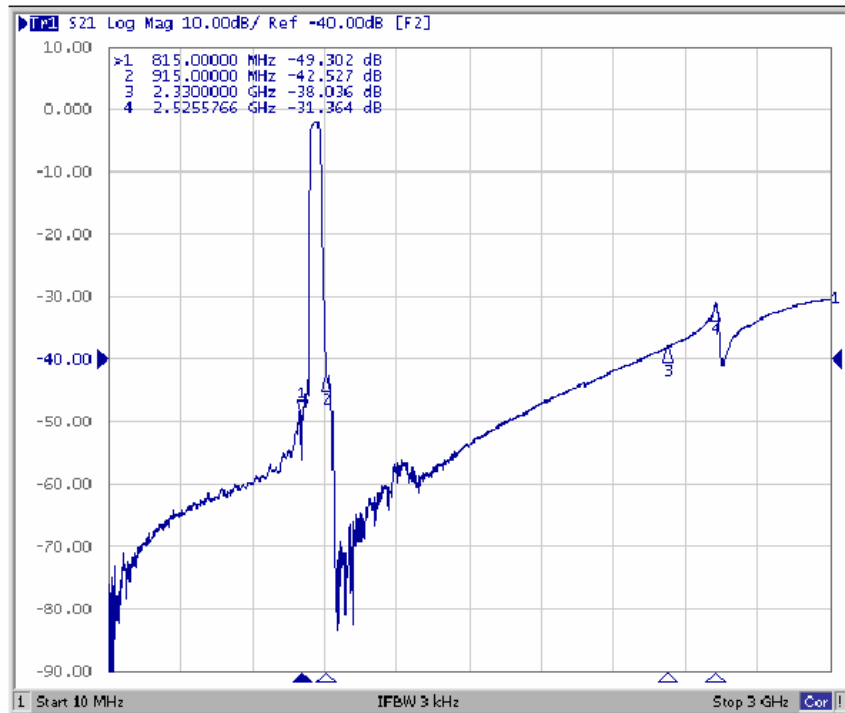
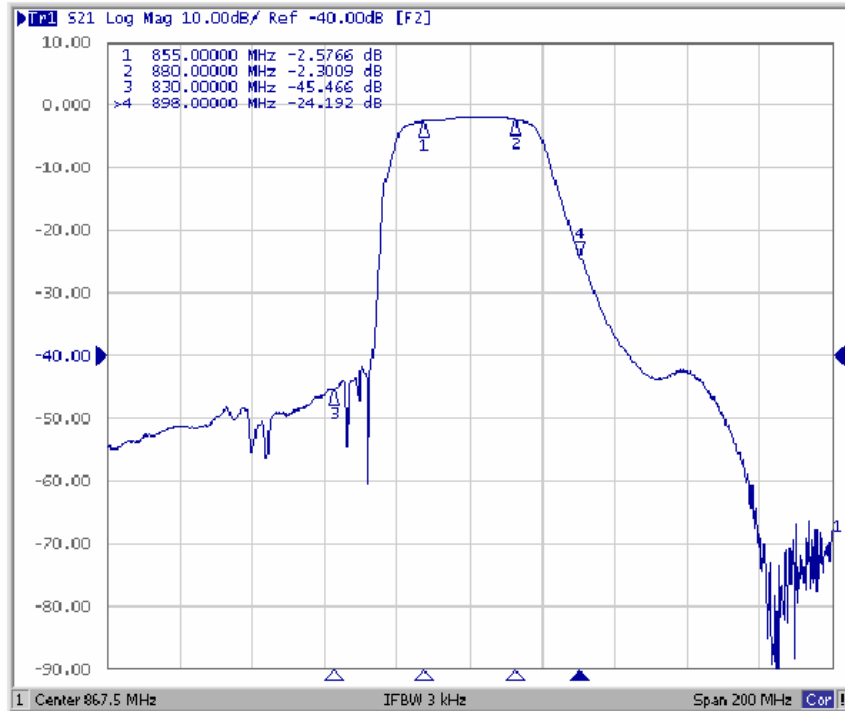


Notes:

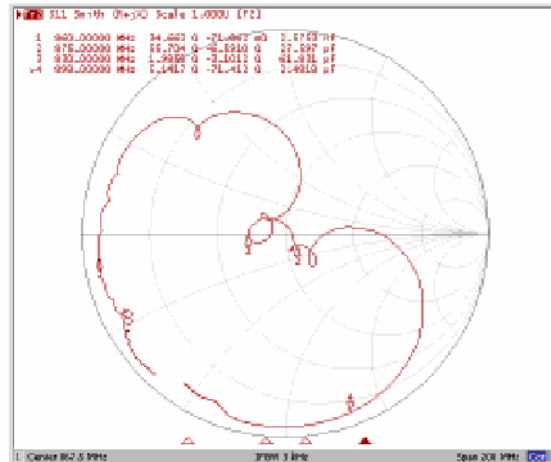
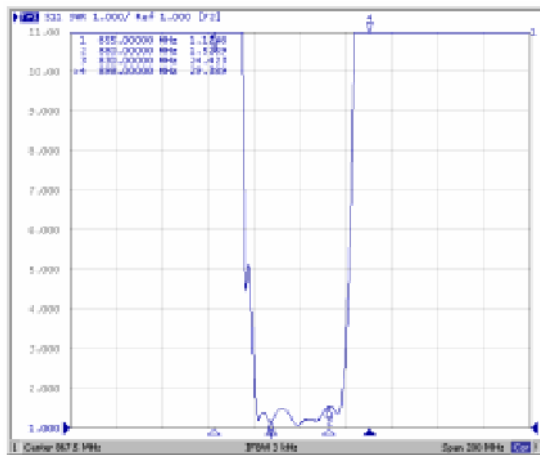
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2. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.
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4. Electrostatic Sensitive Device. Observe precautions for handling

F. Frequency Characteristics :

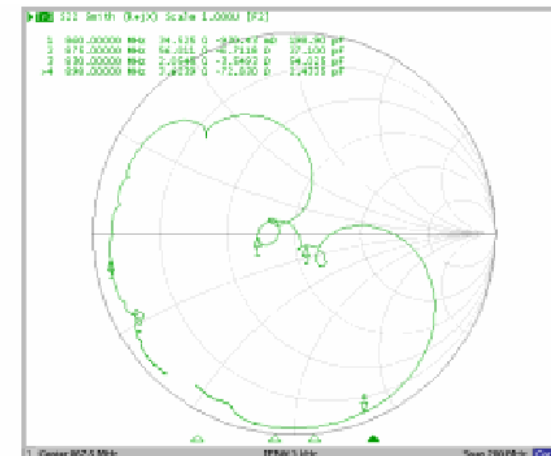
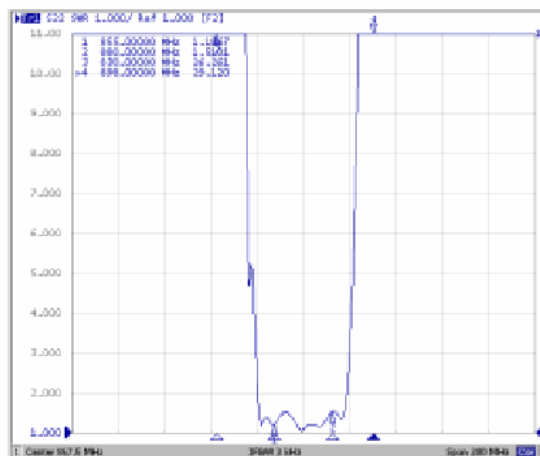
Transfer function



S11 VSWR

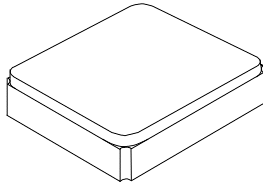


S22 VSWR



SM2520-4 Case

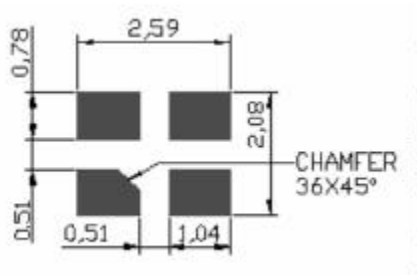
4-Terminal Ceramic Surface-Mount Case 2.5 X 2.0 mm Nominal Footprint



Case Dimensions

| Dimension | mm | | |
|-----------|-----|------|--|
| | Nom | | |
| A | | 2.0 | |
| B | | 2.5 | |
| C | | 1.0 | |
| E | | 0.95 | |
| F | | 0.70 | |
| G | | 0.60 | |

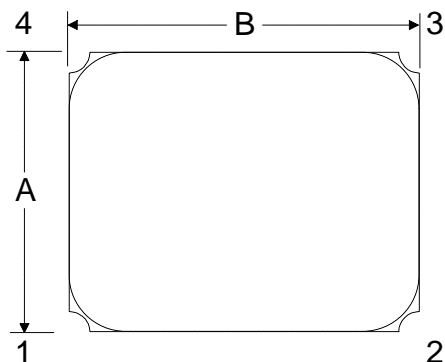
PCB Foot Print



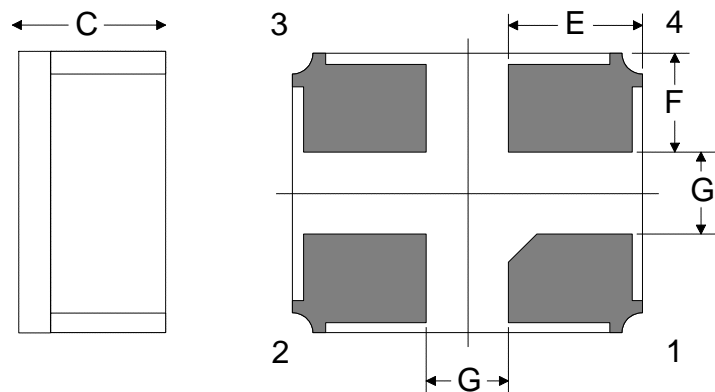
Electrical Connections

| Connection | | Terminals |
|------------------------------------|---------------------|------------|
| Port 1 | Single Ended Input | 1 |
| Port 2 | Single Ended Output | 3 |
| | Ground | All others |
| Single Ended Operation Only | | |

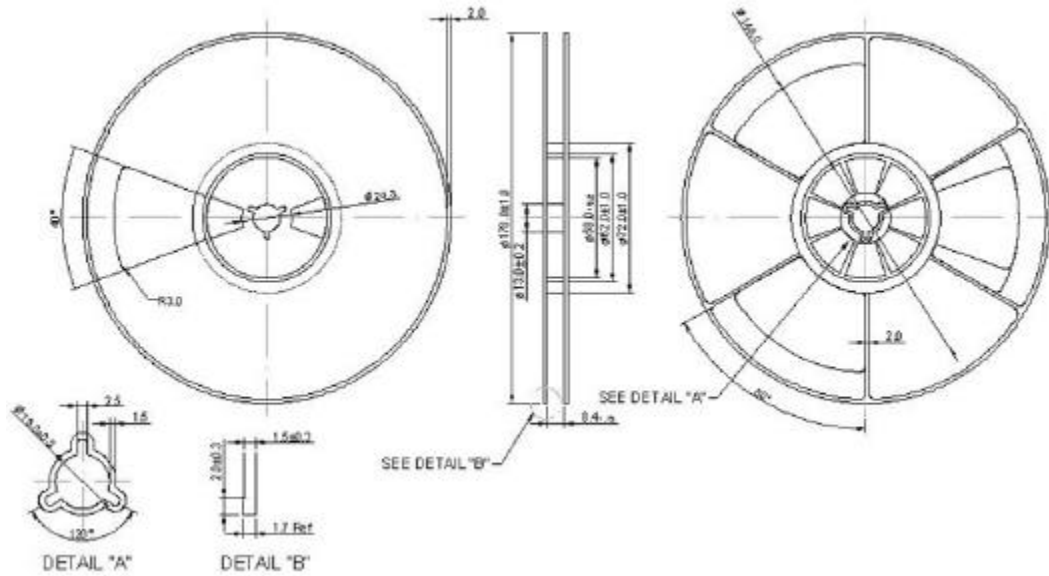
TOP VIEW



BOTTOM VIEW



Reel Dimension



Tape Dimension

