

Preliminary

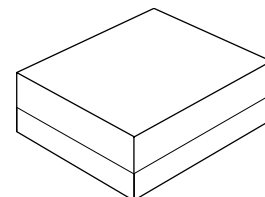


- Designed for RF Front-end Applications
- Excellent Rejection
- 1.45 x 1.15 mm Surface-mount Case
- Complies with Directive 2002/95/EC (RoHS)



SF2217K

**1591.5 MHz
SAW Filter**



SM1411-5 Case

Absolute Maximum Ratings

| Rating | Value | Units |
|--|------------|-------|
| Maximum Incident Power in Passband | +10 | dBm |
| Maximum DC Voltage On any Non-ground Terminal | 3 | VDC |
| Operating Temperature Range | -40 to +85 | °C |
| Storage Temperature Range in Tape and Reel | -40 to +85 | °C |
| Soldering Temperature Profile, 5 cycles/10 seconds maximum | 265 | °C |

Electrical Characteristics

| Characteristic | Sym | Notes | Min | Typ | Max | Units |
|--|------------|-------|-----|----------|-------|-------------------|
| Center Frequency | f_C | | | 1591.5 | | MHz |
| Insertion Loss, 1574 to 1609 MHz | IL_{MAX} | | | 2.4 | 3.7 | dB |
| Amplitude Ripple, 1574 to 1609 MHz | | | | 1.3 | 2.6 | dB _{P-P} |
| Group Delay Ripple, 1574 to 1609 MHz | | | | 17 | 50 | ns _{P-P} |
| Rejection Referenced to 0 dB: | | | | | | dB |
| 10 to 1200 MHz | | | 28 | 34 | | |
| 1200 to 1450 MHz | | | 28 | 34 | | |
| 1450 to 1540 MHz | | | 20 | 37 | | |
| 1626 to 1710 MHz | | | 9 | 31 | | |
| 1710 to 2000 MHz | | | 30 | 37 | | |
| 2000 to 2500 MHz | | | 30 | 37 | | |
| VSWR, 1574 to 1609 MHz | | | | 2.0:1 | 2.4:1 | |
| Terminating Source impedance | Z_S | | | 50 | | Ω |
| Terminating Load impedance | Z_L | | | 50 | | Ω |
| Case Style | | | | SM1411-5 | | |
| Lid Symbolization □= year/month manufacturing code | | | | B□ | | |

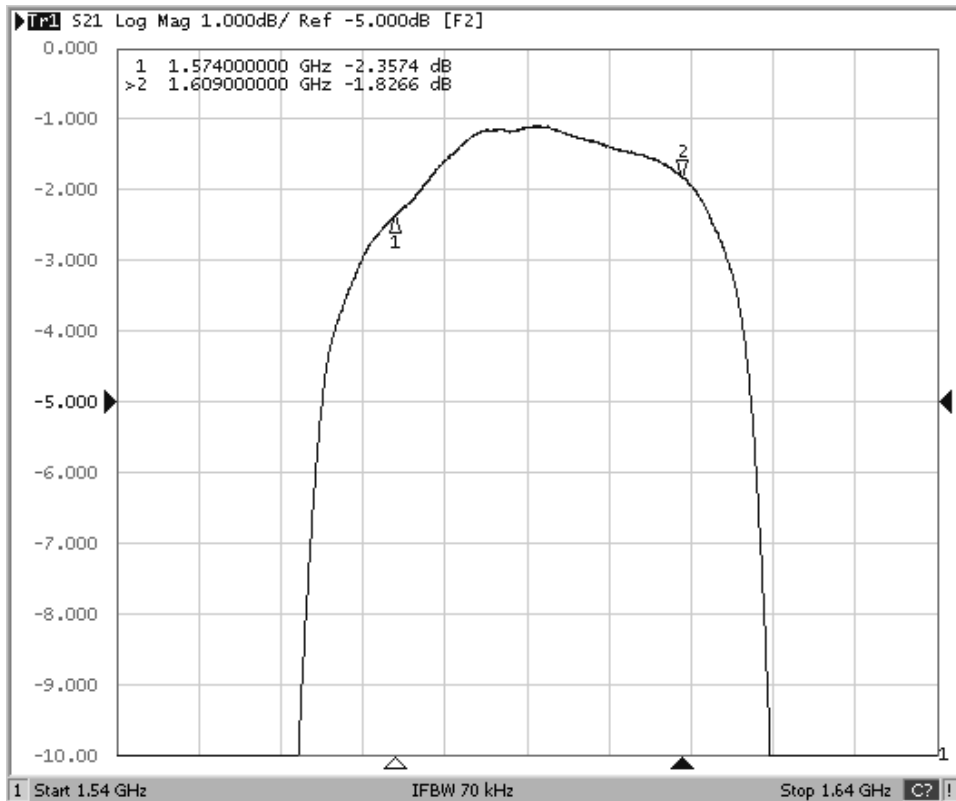
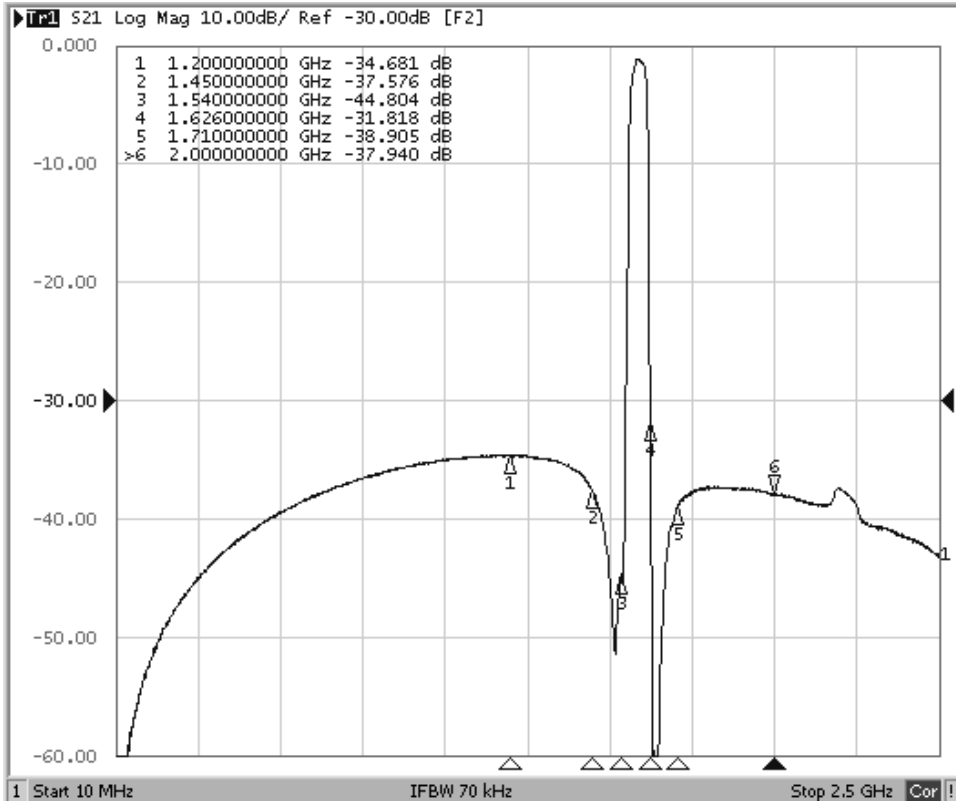


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

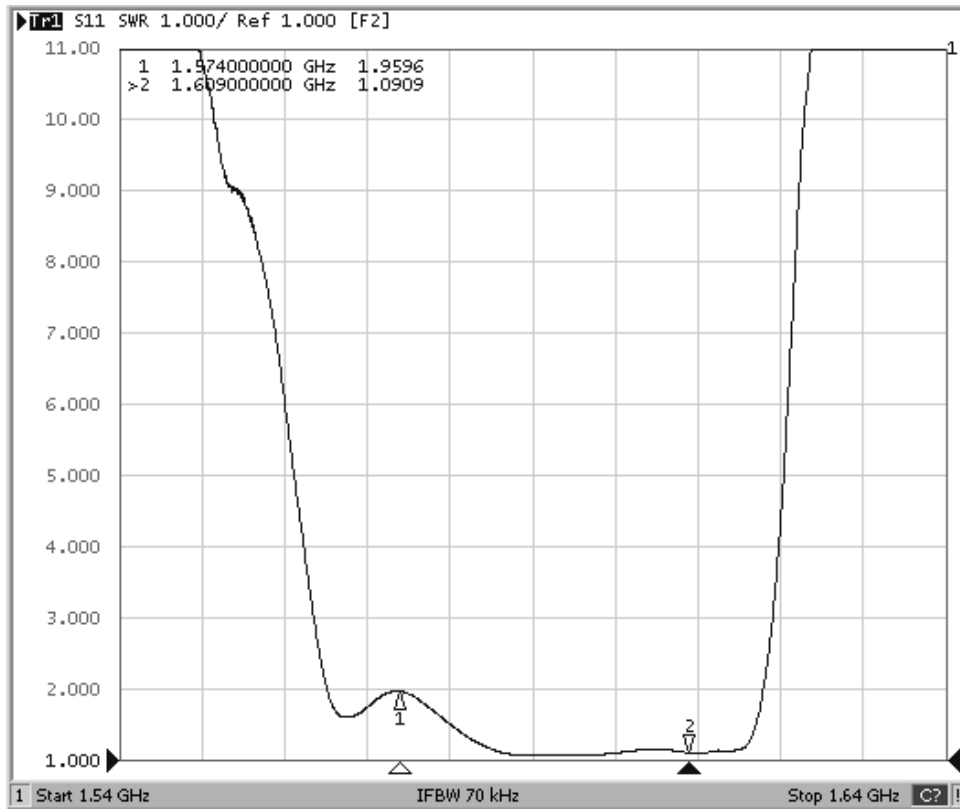
Notes:

1. US and international patents may apply.
2. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.

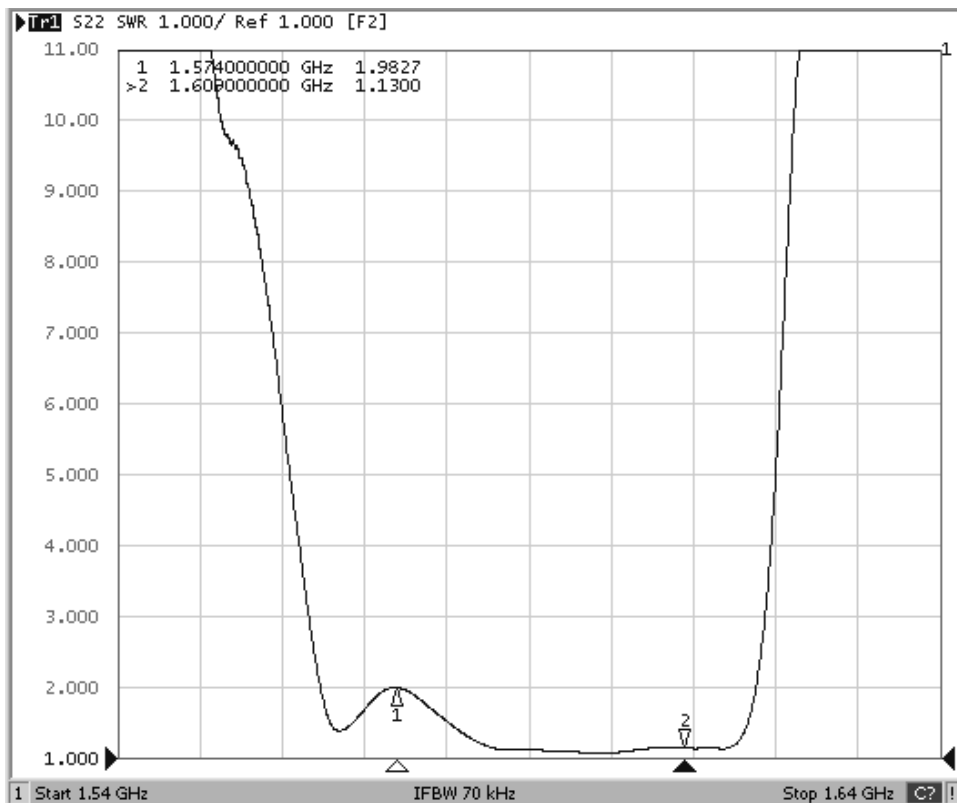
Frequency Response Plots



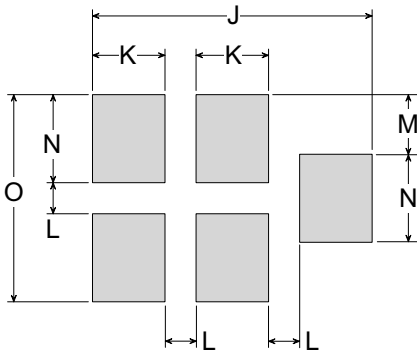
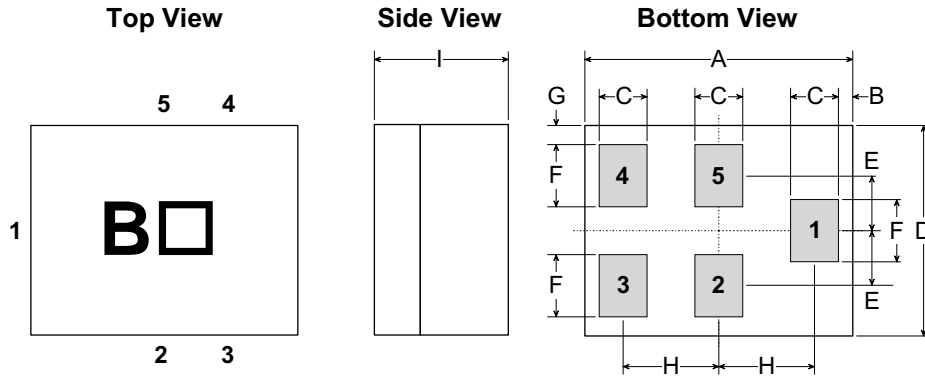
Input VSWR Plot



Output VSWR Plot



SM1411-5 1.4 X 1.1 mm 5-Terminal Surface-mount Case Drawing



PCB Footprint

Case and PCB Footprint Dimensions

| Dimension | mm | | | Inches | | |
|-----------|--------|--------|--------|--------|--------|--------|
| | Min | Nom | Max | Min | Nom | Max |
| A | 1.3500 | 1.4000 | 1.4500 | 0.0531 | 0.0551 | 0.0571 |
| B | - | 0.0750 | - | - | 0.0030 | - |
| C | 0.1700 | 0.250 | 0.3300 | 0.0067 | 0.0098 | 0.0130 |
| D | 1.0500 | 1.1000 | 1.1500 | 0.0413 | 0.0433 | 0.0453 |
| E | - | 0.2875 | - | - | 0.0113 | - |
| F | 0.2450 | 0.3250 | 0.4050 | 0.0096 | 0.0128 | 0.0159 |
| G | - | 0.100 | - | - | 0.0039 | - |
| H | - | 0.5000 | - | - | 0.0197 | - |
| I | 0.6000 | 0.6500 | 0.700 | 0.0236 | 0.0256 | 0.0276 |
| J | - | 1.3500 | - | - | 0.0531 | - |
| K | - | 0.3500 | - | - | 0.0138 | - |
| L | - | 0.1500 | - | - | 0.0059 | - |
| M | - | 0.2875 | - | - | 0.0113 | - |
| N | - | 0.4250 | - | - | 0.0167 | - |
| O | - | 1.0000 | - | - | 0.0394 | - |

| 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 | |

Test Circuit

