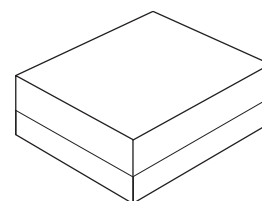


SF2324K-3

**1583 MHz
SAW Filter**



SM1411-5

- **Miniature High Performance SAW Filter**
- **Low Passband Loss**
- **1.4 x 1.1 mm Surface-mount Case**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 2A**

Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+13	dBm
Maximum DC Voltage On any Non-ground Terminal	3	VDC
Component Operating Temperature Range	-40 to +85	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Maximum Soldering Temperature Profile (5 cycles maximum)	265 °C for 10 s	

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_c			1583		MHz
Insertion Loss, 1559.10 to 1563.10 MHz	I_{L-MAX}			1.8	2.1	dB
Insertion Loss, 1573.42 to 1577.42 MHz				1.4	1.6	
Insertion Loss, 1597.55 to 1605.89 MHz				1.7	2.1	
Amplitude Ripple, 1559.10 to 1563.10 MHz				0.5	0.8	dB _{P-P}
Amplitude Ripple, 1573.42 to 1577.42 MHz				0.2	0.5	
Amplitude Ripple, 1597.55 to 1605.89 MHz				0.3	0.6	
Rejection Referenced to 0 dB						dB
10 to 824 MHz			40	46		
824 to 925 MHz			40	46		
1427 to 1463 MHz			40	45		
1710 to 1785 MHz			36	40		
1850 to 1980 MHz			36	40		
2400 to 2570 MHz			36	40		
2570 to 3000 MHz			33	40zp		
VSWR, 1559.10 to 1563.10 MHz				1.4:1	1.8:1	
VSWR, 1573.42 to 1577.42 MHz				1.6:1	2.0:1	
VSWR, 1597.55 to 1605.89 MHz				1.6:1	1.9:1	
Terminating Source impedance	Z_s			50		Ω
Terminating Load impedance	Z_L			50		Ω



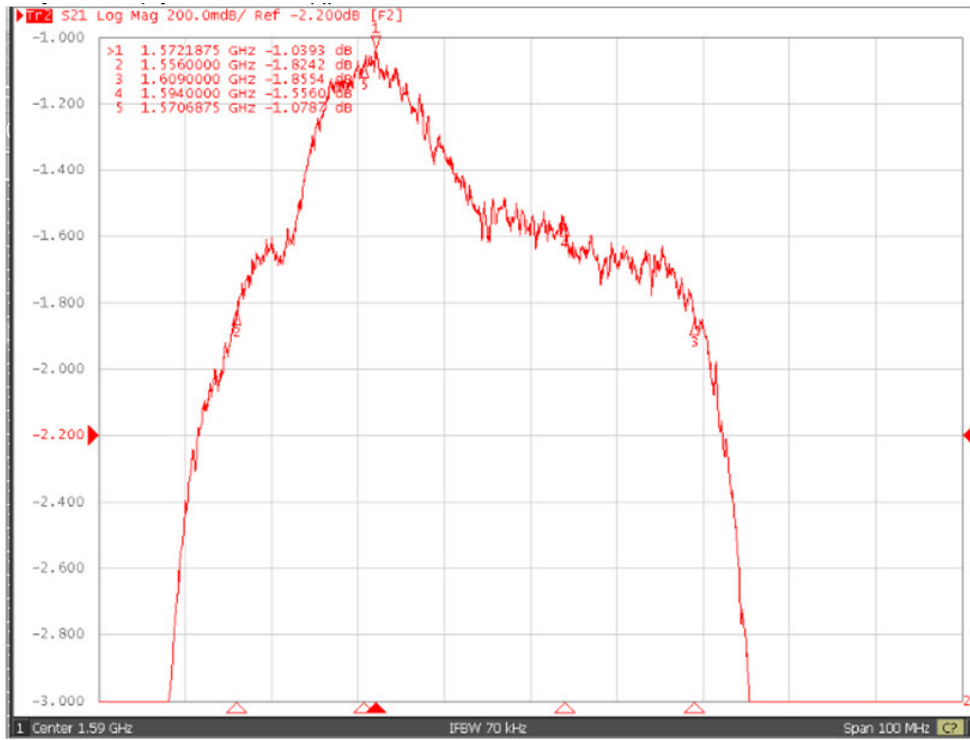
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

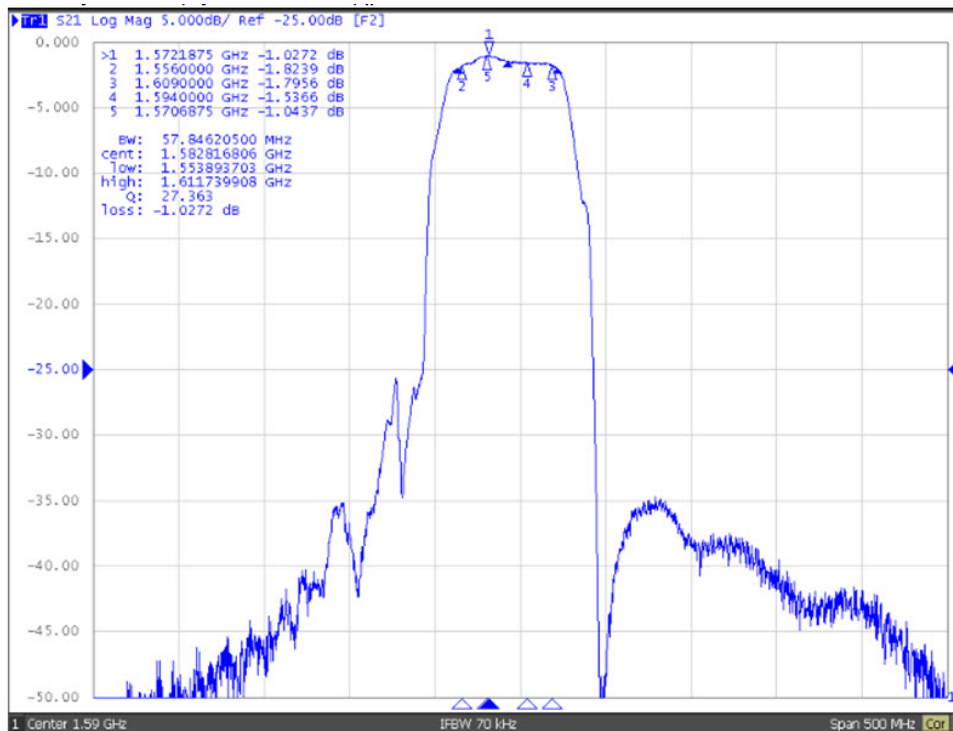
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

Frequency Response Plots

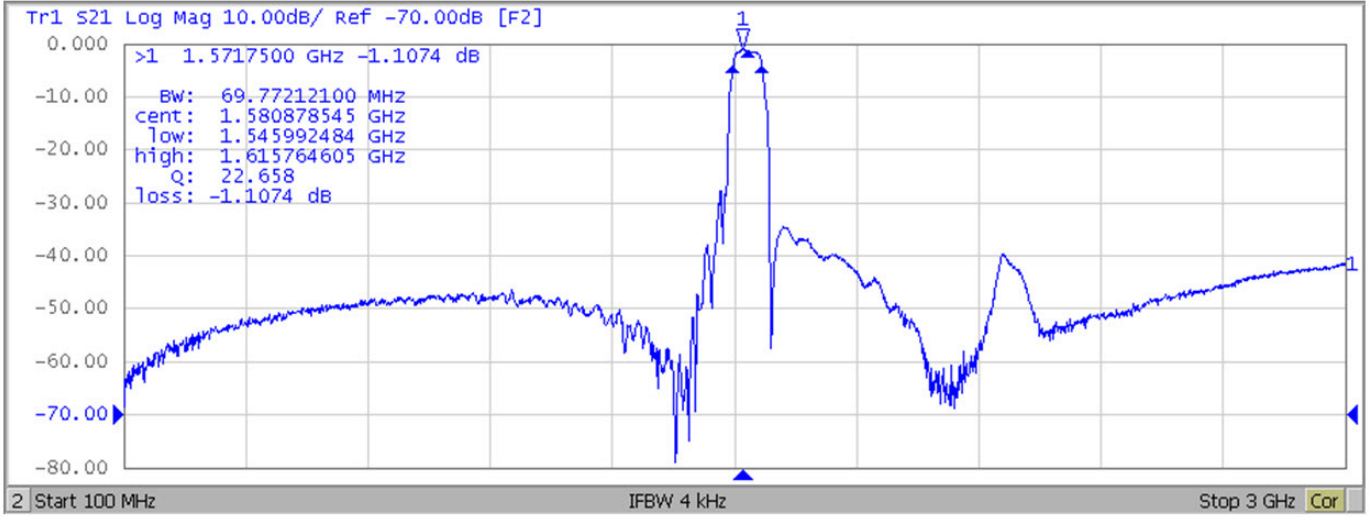
S21 response: (span 100MHz)



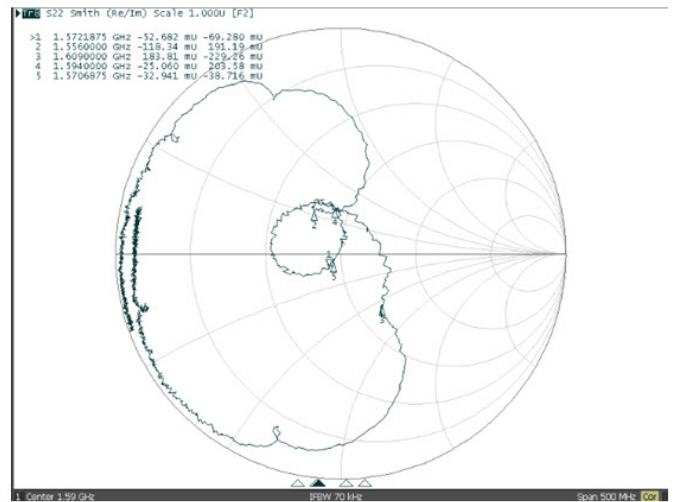
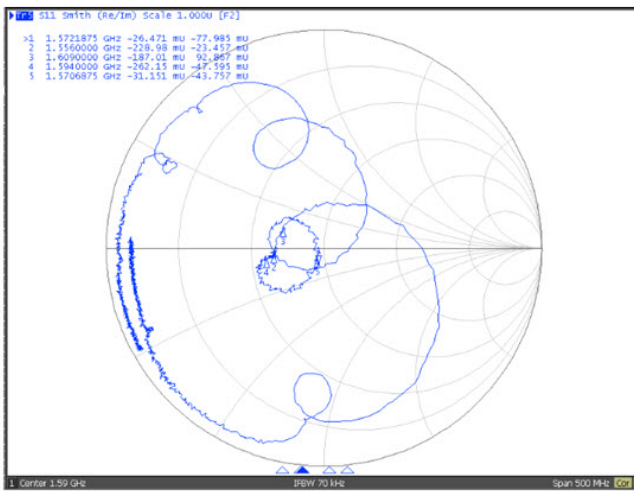
S21 response: (span 500MHz)



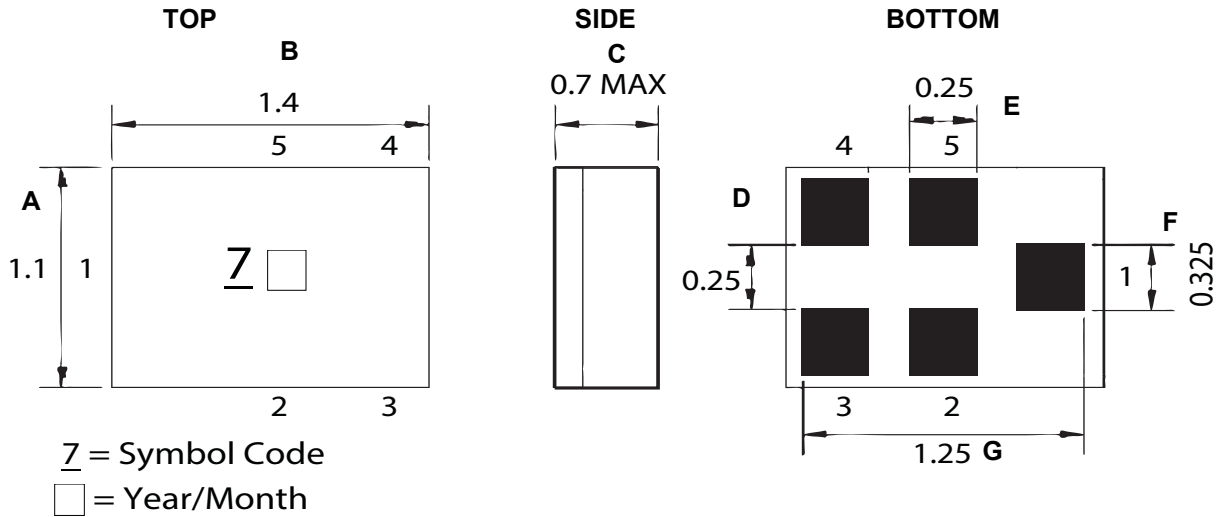
S21 response: (span 3GHz)



S11/S22 response:



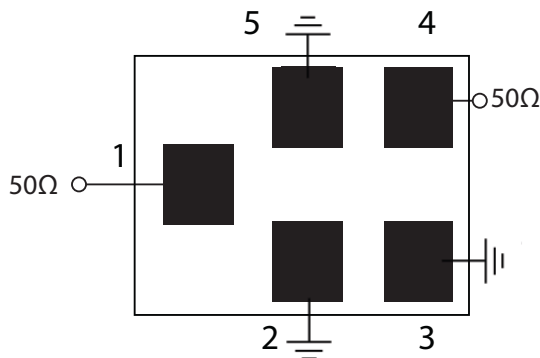
SM1411-5 1.4 X 1.1 mm 5-Terminal Surface-mount Case



Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A		1.100			0.043	
B	-	1.40	-	-	0.055	-
C			0.7			0.027
D		0.25			0.009	
E	-	0.25	-	-	0.009	-
F		0.325			0.012	
G	-	1.25	-	-	0.049	-

Materials	
Solder Pad Plating	0.3 to 1.0 μm Gold over 1.27 to 8.89 μm Nickel
Body	Al_2O_3 Ceramic

Test Circuit



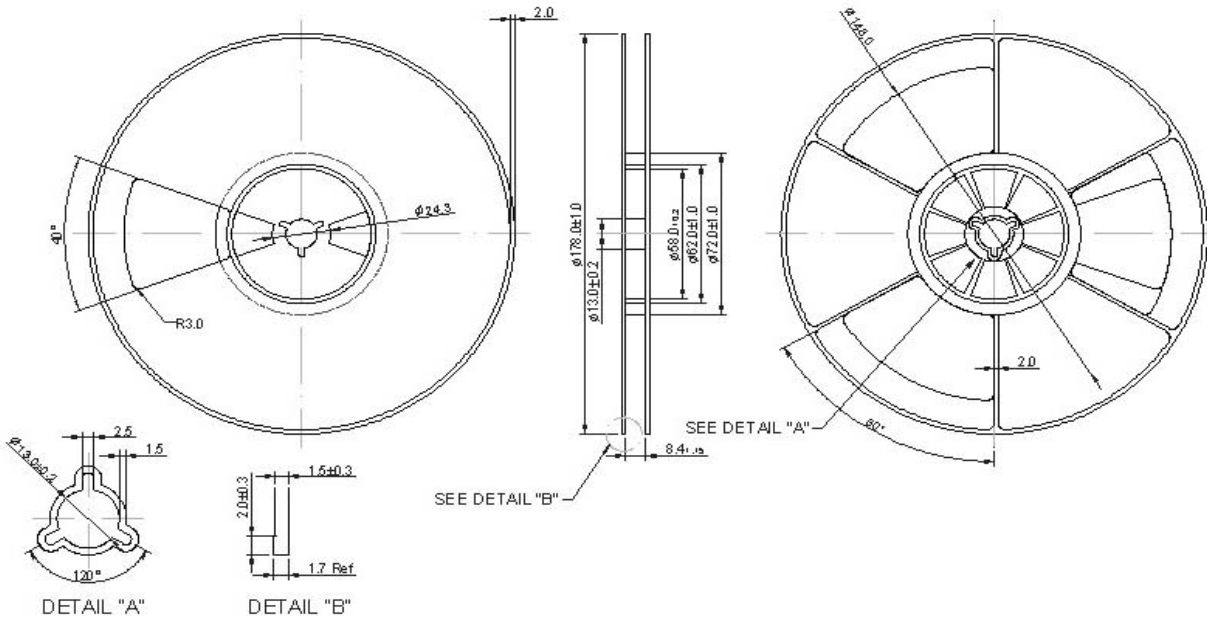
Electrical Connection

Connection	Terminal
Input	1
Output	4
Ground	2, 3, 5

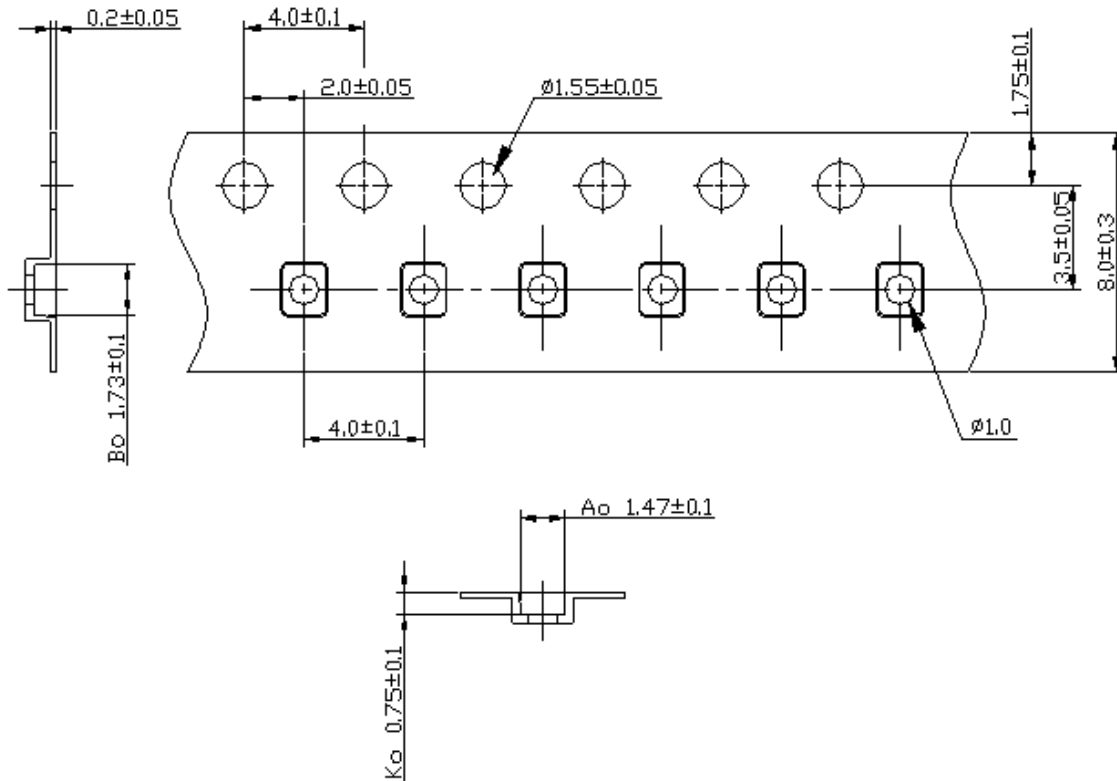
Reel Dimensions

Tape and Reel Standard per ANSI/EIA-481

Reel Count:
 7" = 3000
 13" = 10,000



Tape Dimensions



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.

