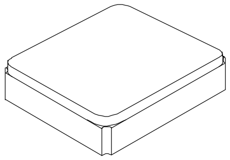
SF2467H

1542 MHz SAW Filter

- ***Designed for Front End GPS, Beidou, and Glonass Applications***
- ***Steep Rejection***
- ***2.0 x 1.6 x 1.0 mm Surface-Mount Case***
- ***Complies with Directive 2002/95/EC (RoHS)***
- ***AEC-Q200 Qualified***

RoHS
Compliant



SM2016-4

Absolute Maximum Ratings

Rating	Value	Units
Input Power Level	+20	dBm
DC Voltage	5	VDC
Operable Temperature Range	-45 to +125	°C
Specification Temperature Range	-40 to +105	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Moisture Sensitivity Level	Level 1 (MSL1)	

Electrical Characteristics

Characteristic	Sym	NOTE	-40 to +105°C			UNITS
			MIN	TYPICAL	MAX	
Center Frequency	Fc			1542		MHz
Insertion Loss, 1525 to 1559 MHz	IL	3		2.5	3.3	dB
S11, 1525 to 1559 MHz			10			
Group Delay Variation, 1525 to 1559 MHz				10	20	ns
Attenuation Referenced to 0 dB:						dB
100 to 1480 MHz			43	48		
1630 to 1660 MHz			38	43		
1660 to 2050 MHz			41	46		
2050 to 3500 MHz			35	40		
Temperature Coefficient of Frequency				-36		ppm/°C
Source impedance	Z_S			50		Ω
Load impedance	Z_L			50		Ω

Standard Reel Quantity	Reel Size: 7 inch	2000 Pieces/Reel
	Reel size: 13 inch	10,000 Pieces/Reel
Single-ended Input / Output Impedance Match		No matching network required for operation at 50 ohms
Package Size		SM2016-4
Lid Symbolization (Y=year, W=week)		B4, YW

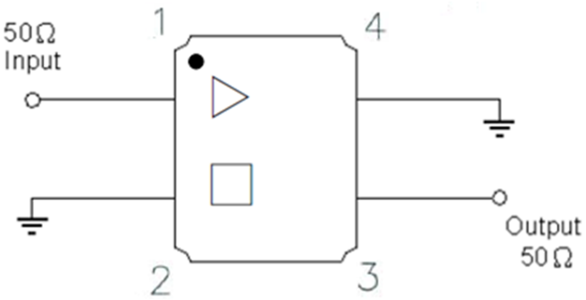
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

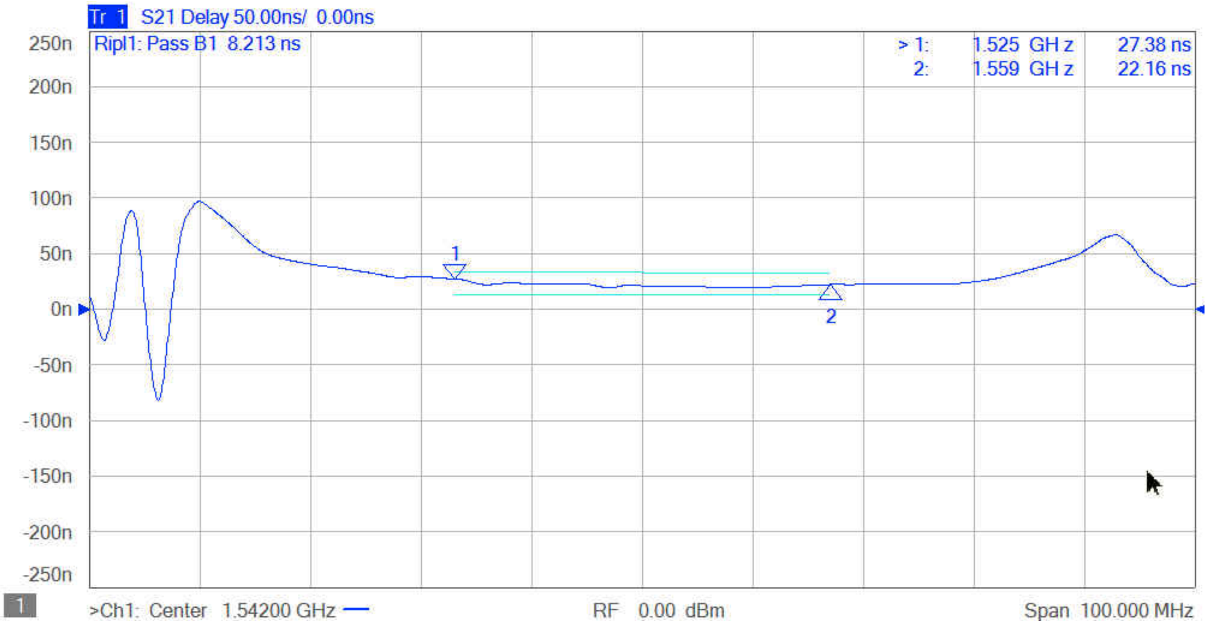
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. Maximum insertion loss = 3.0 dB @ 85°C

Electrical Connections

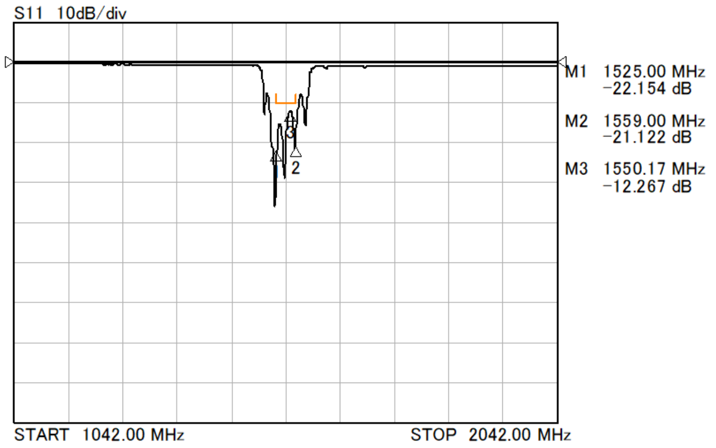
Connection	Terminals
Input	1
Output	3
Ground	All others



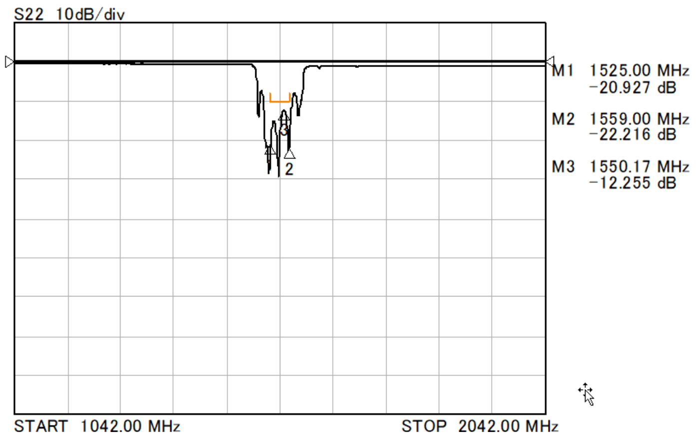
Frequency Characteristics



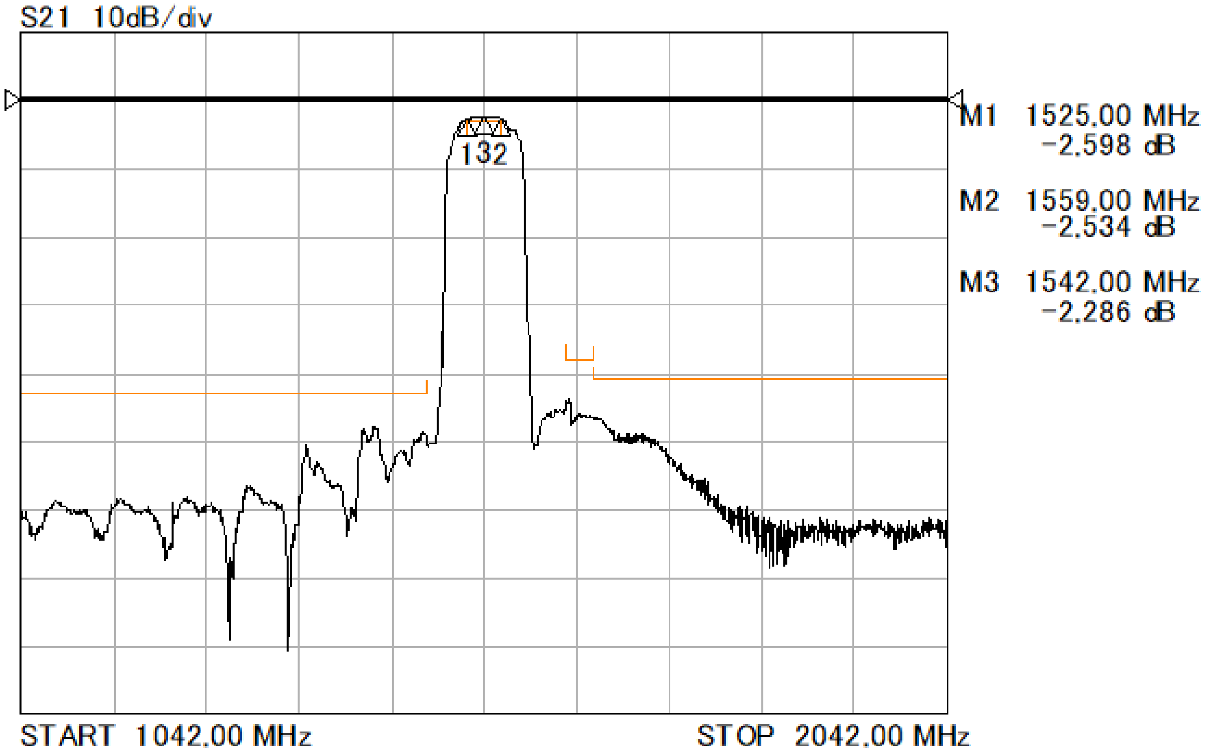
S11 Response



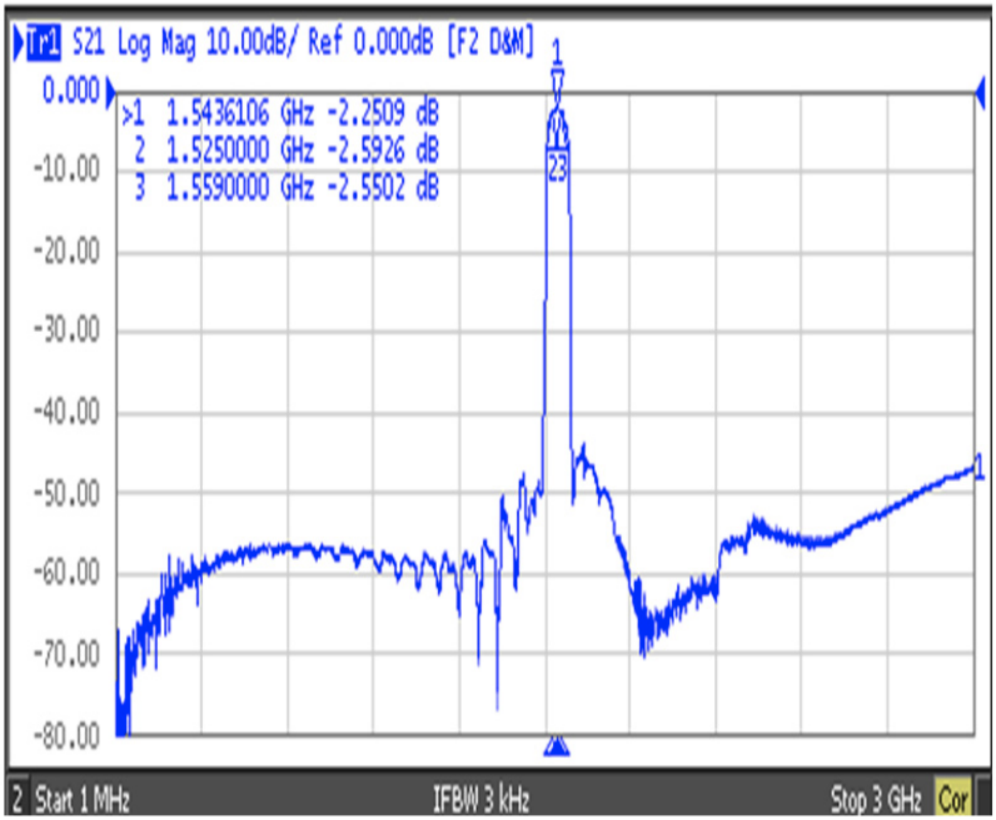
S22 Response



S21 Response: (span 1 GHz)



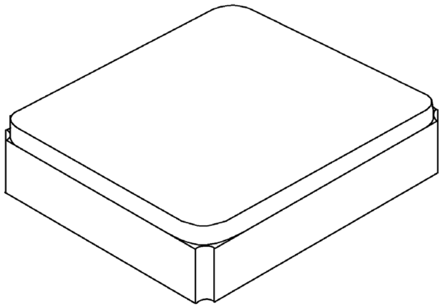
S21 Response: (span 3 GHz)



SM2016-4 Case

4-Terminal Ceramic Surface-Mount Case

2.0 X 1.6 mm Nominal Footprint

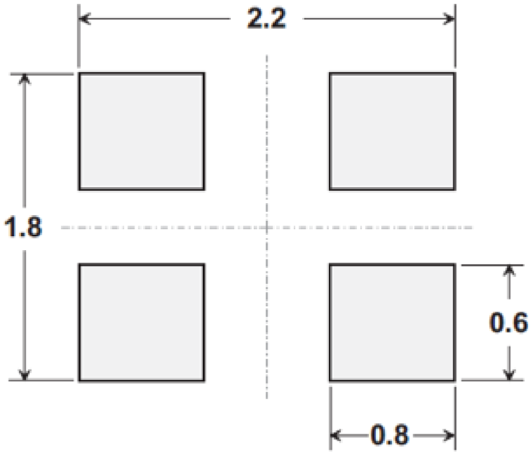


Case Dimensions

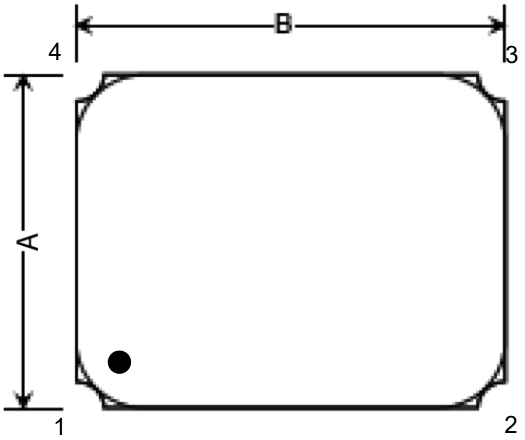
Dimension	mm		
	Min	Nom	Max
A	1.58	1.65	1.72
B	1.98	2.05	2.12
C	0.44	0.52	0.58
D		0.60	
E		0.425	
F		0.625	
G		0.10	

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	

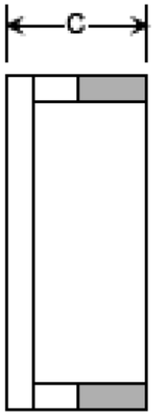
PCB Pad Layout



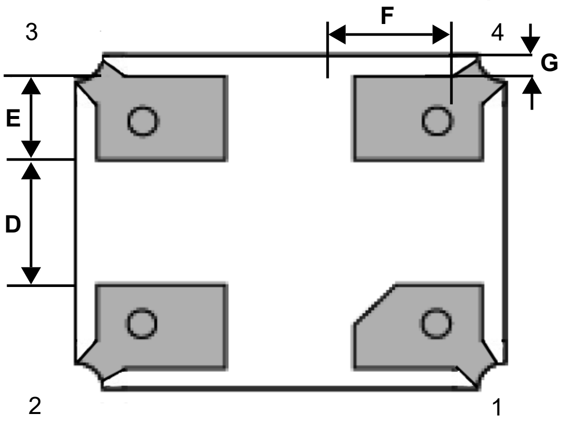
Dimensions are in mm
All pads have the same dimension



SIDE VIEW

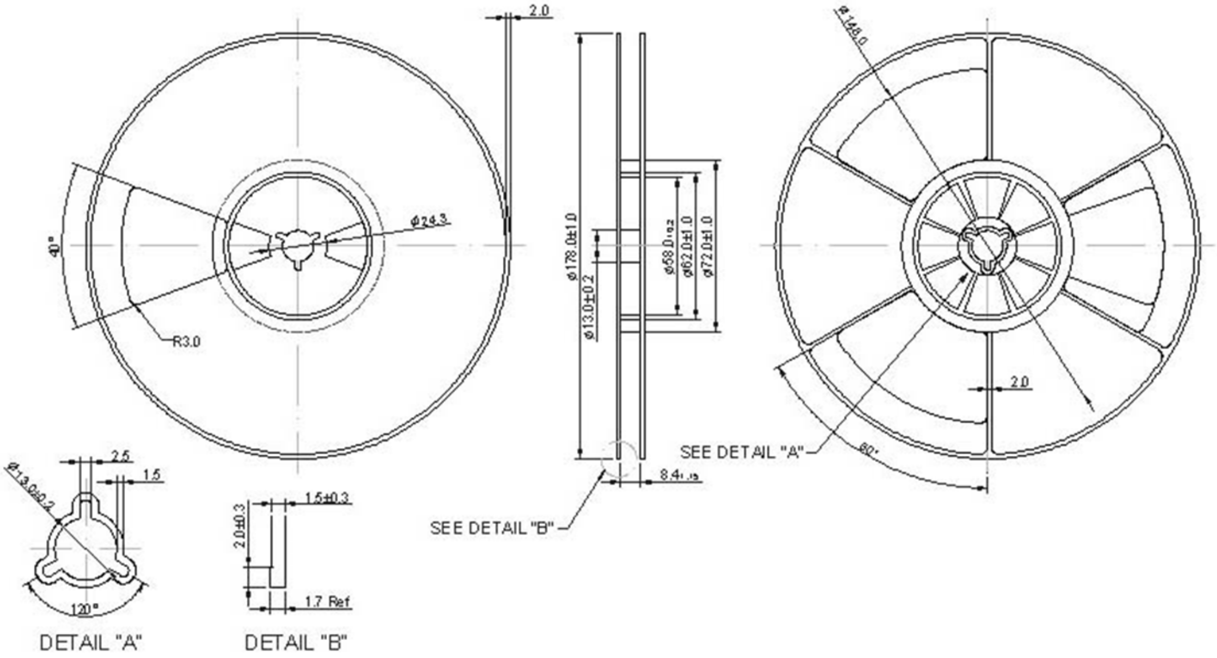


BOTTOM VIEW

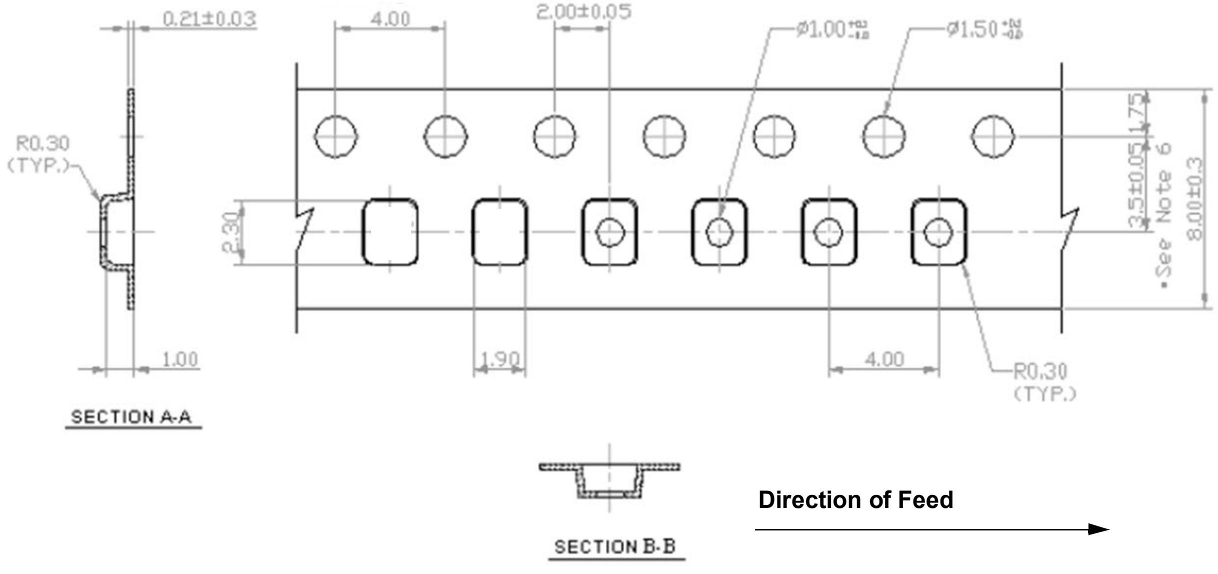


Tape and Reel Standard per ANSI/EIA-481

Reel Dimensions



Tape Dimensions



Recommended Reflow Profile

1. Preheating shall be fixed at 150~180ºC for 60~90 seconds.
2. Ascending time to preheating temperature 150ºC shall be 30 seconds min.
3. Heating shall be fixed at 220ºC for 50~80 seconds and at 260ºC +0/-5ºC peak (10 seconds).
4. Time: 5 times maximum.