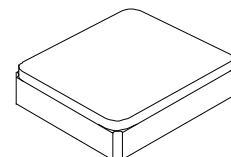


- **Designed for Front End GPS, Beidou, and Glonass Applications**
- **Steep Rejection**
- **2.0 x 1.6 x 1.0 mm Surface-Mount Case**
- **Complies with Directive 2002/95/EC (RoHS)**
- **AEC-Q200 Qualified**

SF2467H

**1542 MHz
SAW Filter**



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	F _c			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, <u>YW</u>	



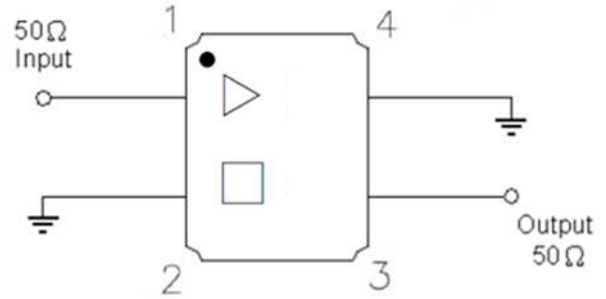
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

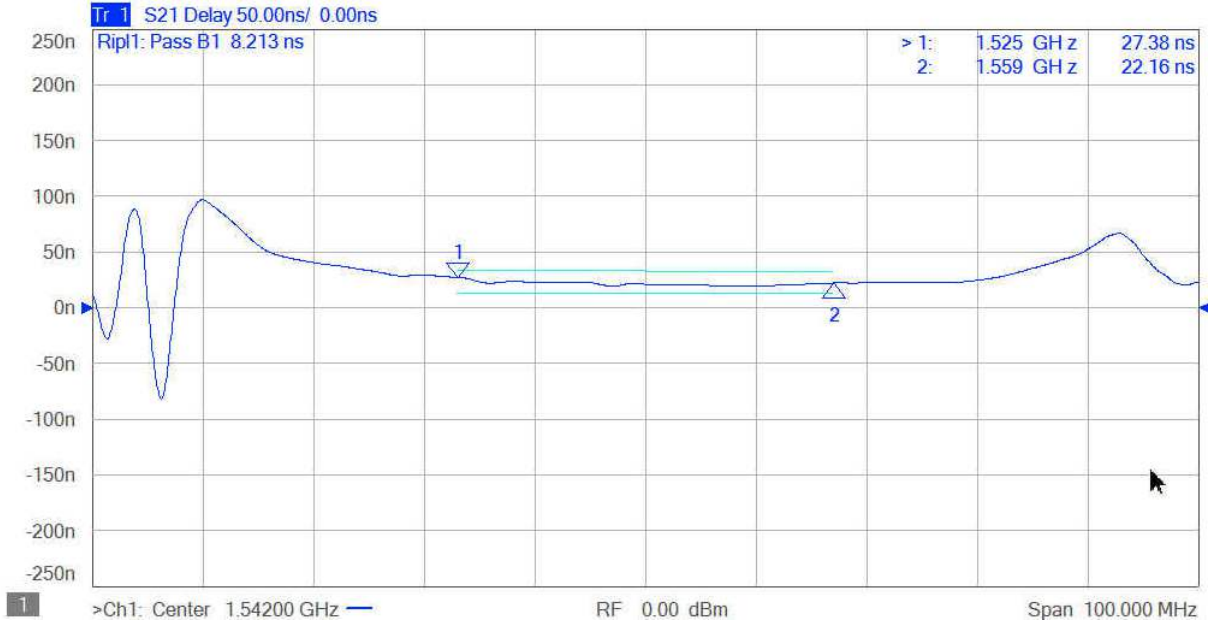
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

Electrical Connections

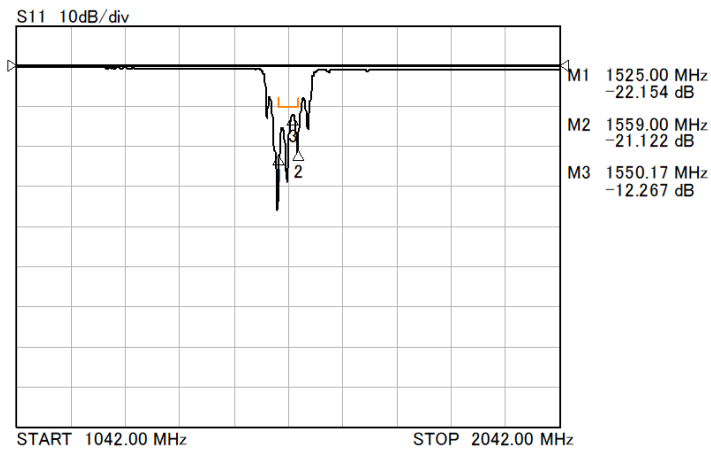
Connection	Terminals
Input	1
Output	3
Ground	All others



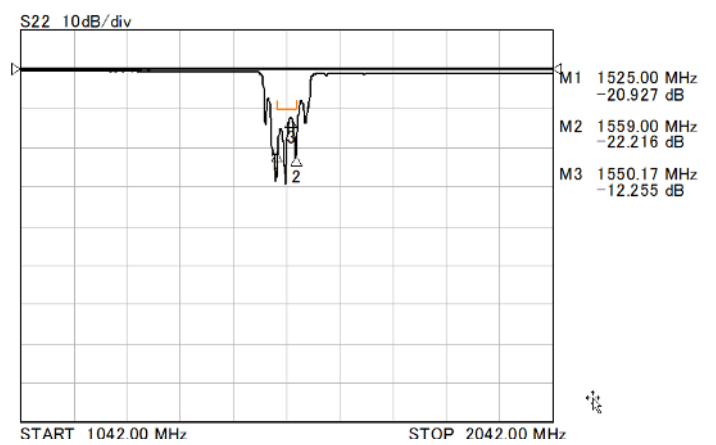
Frequency Characteristics



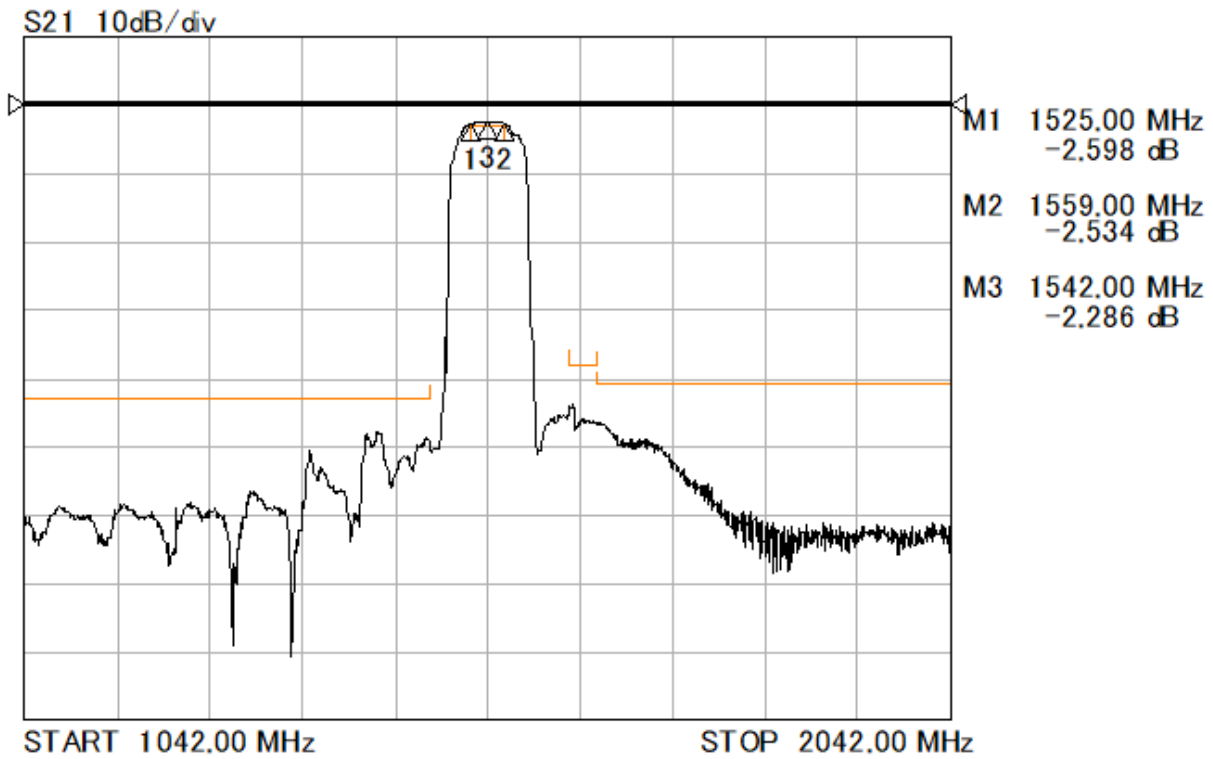
S11 Response



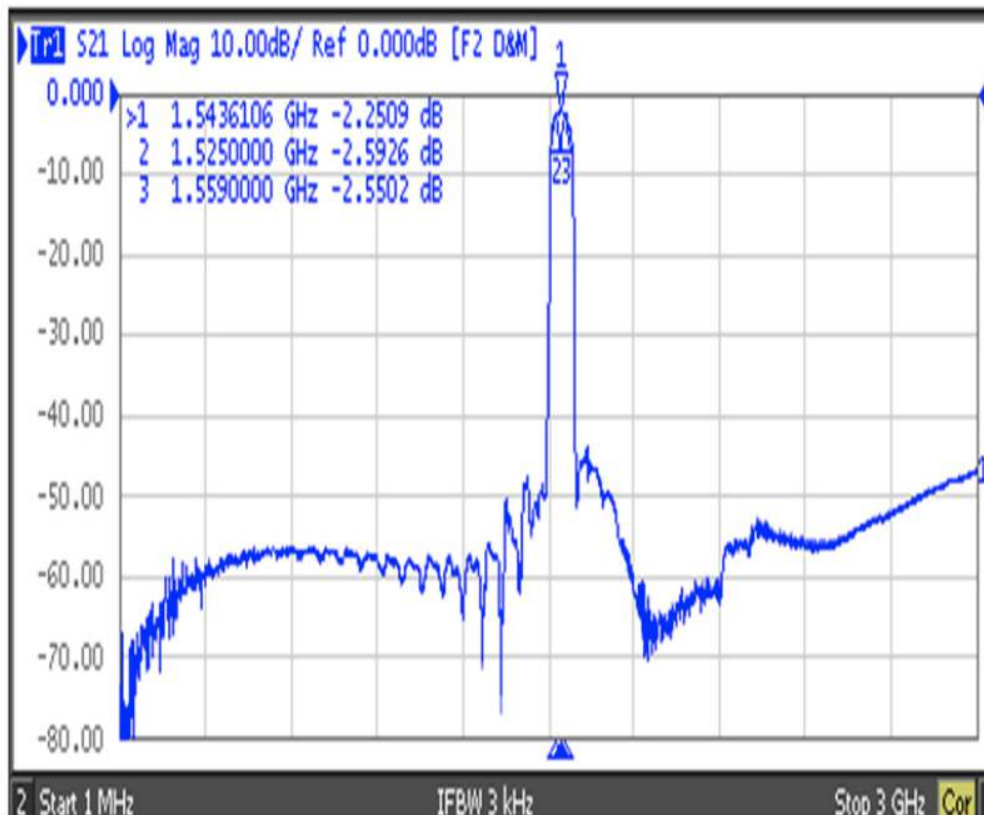
S22 Response



S21 Response: (span 1 GHz)



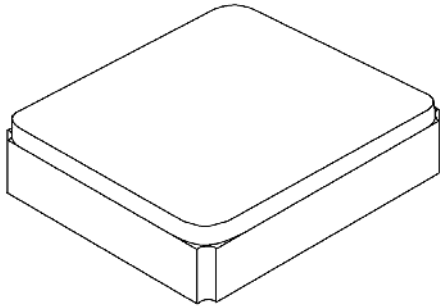
S21 Response: (span 3 GHz)



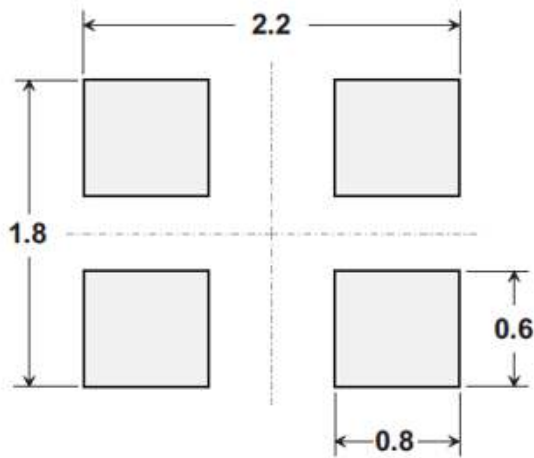
SM2016-4 Case

4-Terminal Ceramic Surface-Mount Case

2.0 X 1.6 mm Nominal Footprint

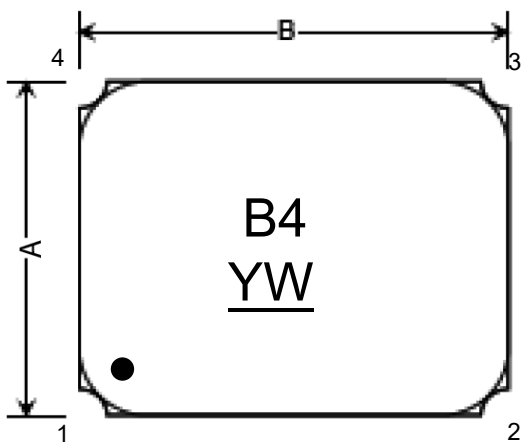


PCB Pad Layout

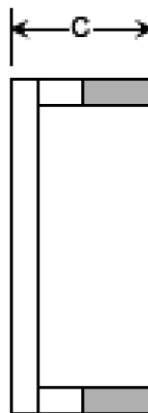


Dimensions are in mm

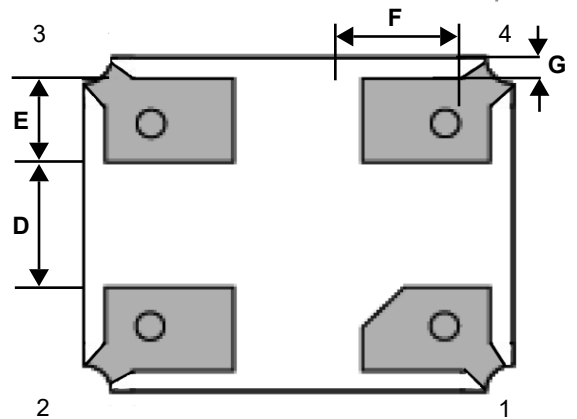
All pads have the same dimension



SIDE VIEW



BOTTOM VIEW



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	

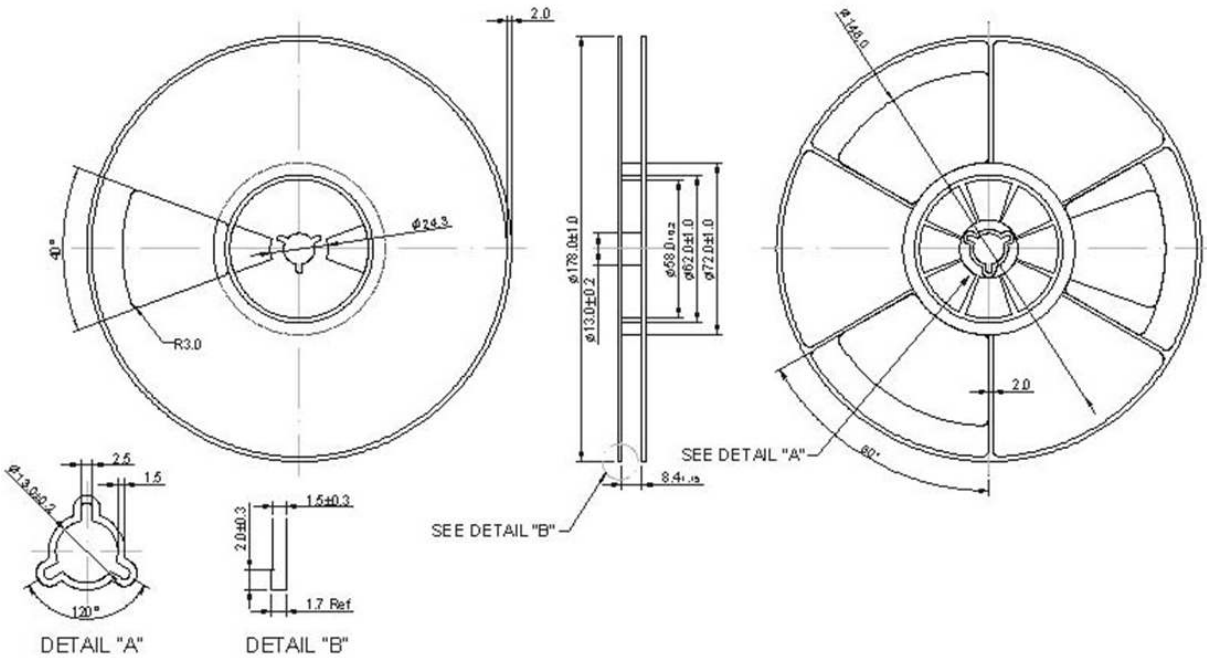
Materials

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

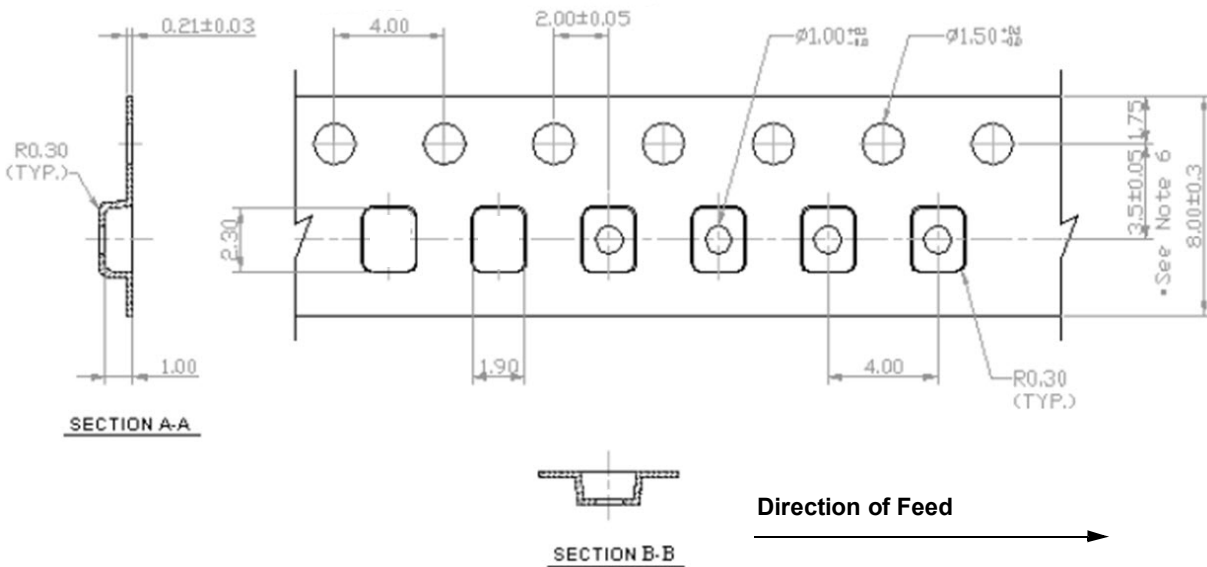
Reel Dimensions

Reel Count:
 7" = 2000
 13" = 10,000

Tape and Reel Standard per ANSI/EIA-481



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.

