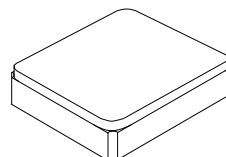


SF2434H

**1223MHz
SAW Filter**



SM2016-4

- **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 2011/65/EU (RoHS)**
- **Moisture Sensitivity Level: 1**
- **AEC-Q200 Qualified**

Absolute Maximum Ratings

Rating	Value	Units
Maximum Input Power	+10	dBm
DC Voltage	3	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
Maximum Soldering Profile (2 cycles maximum)	260 °C for 20 - 40 s	

Electrical Characteristics

Characteristic 25°C	Sym	NOTE	MIN	TYPICAL	MAX	Units
Center Frequency	f _C			1223		MHz
Insertion Loss, 1196 to 1250 MHz	IL			1.6	3.5	dB
Amplitude Ripple, 1196 to 1250 MHz				0.4	2.0	
Group Delay Ripple						ns
1196 to 1250 MHz				11	15	
1196 to 1250 MHz (2 MHz moving windows)				2.0	5.0	
1226.577 to 1228.623 MHz				2.0	7.0	
1196.91 to 1217.37 MHz				4.0	6.0	
1242.426 to 1249.886 MHz				3.5	7.0	
Attenuation Referenced to 0 dB:						dB
703 to 748 MHz			35	42		
880 to 915 MHz			35	38		
1710 to 1785 MHz			35	39		
1850 to 1910 MHz			35	38		
1920 to 1980 MHz			35	38		
Temperature Coefficient of Frequency				-36		ppm/k
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)	9Z, <u>YW</u>	

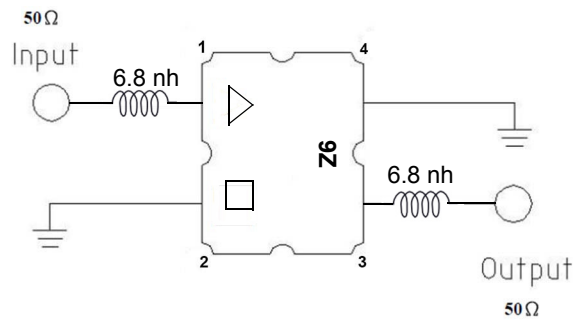
 **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

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.

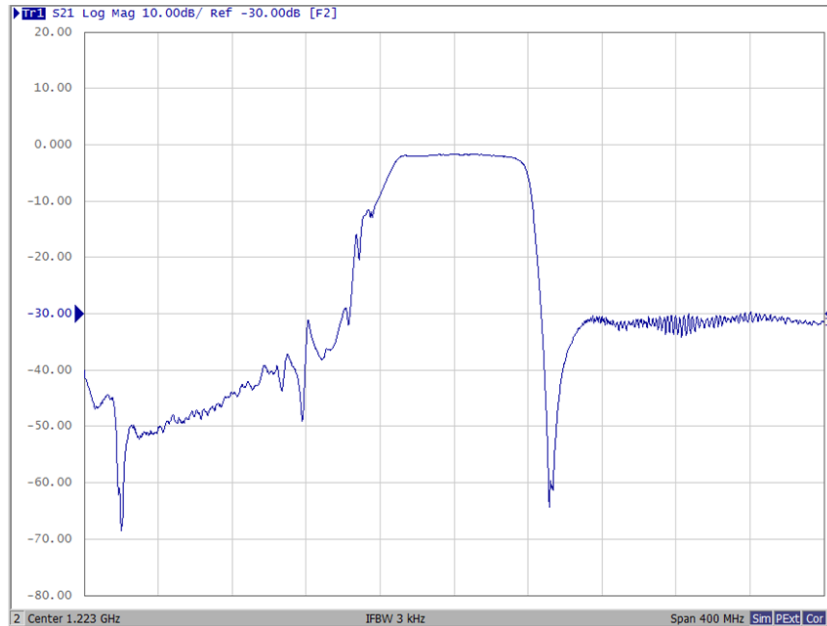
Electrical Connections

Connection	Terminals
Input	1
Output	3
Ground	All others

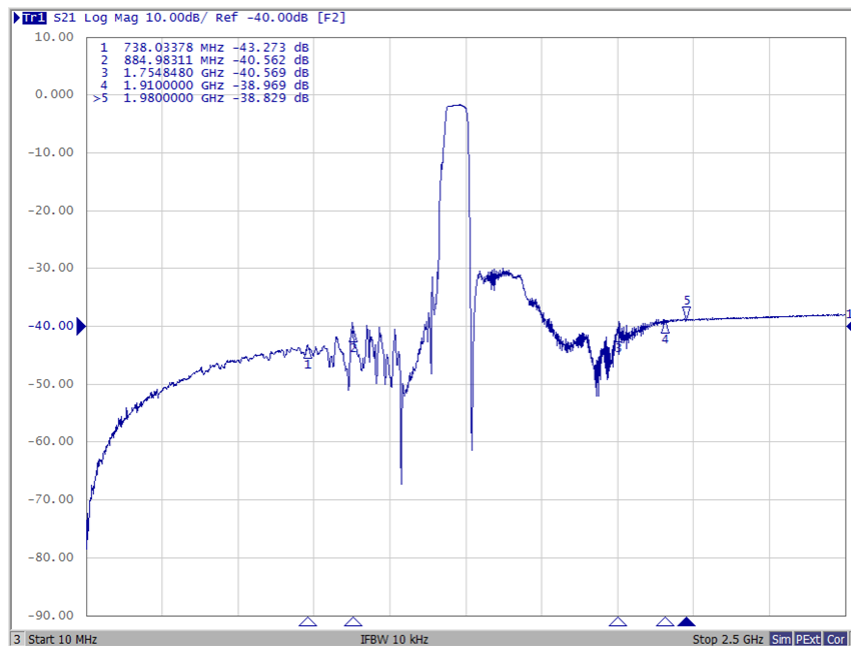


Frequency Characteristics

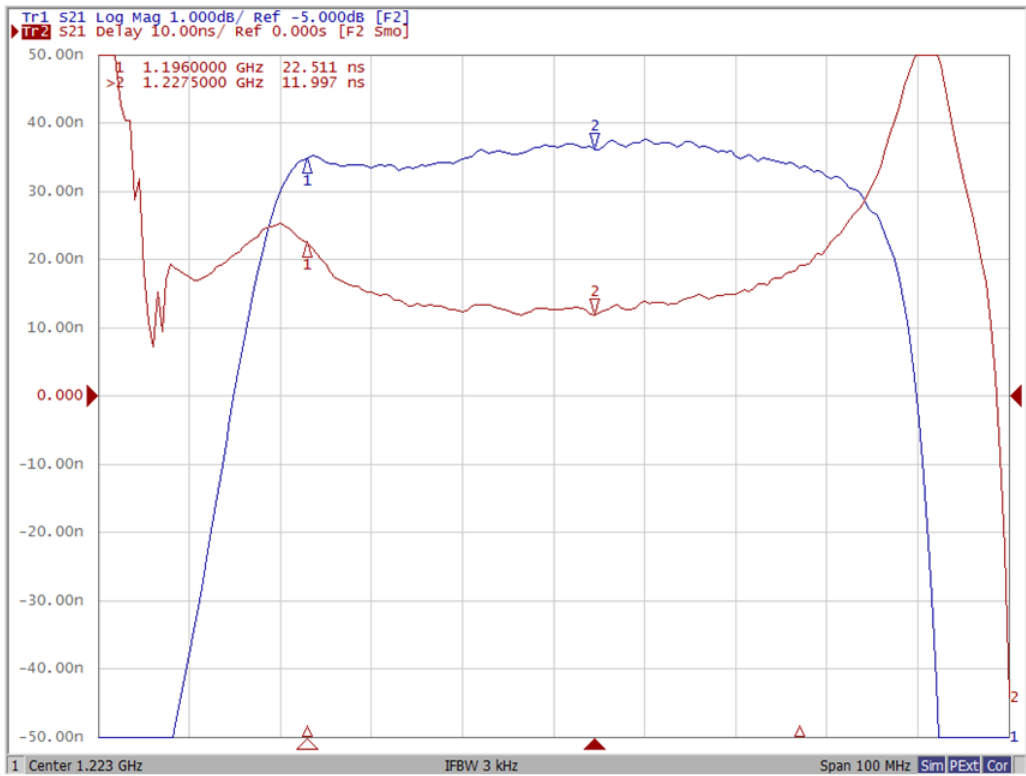
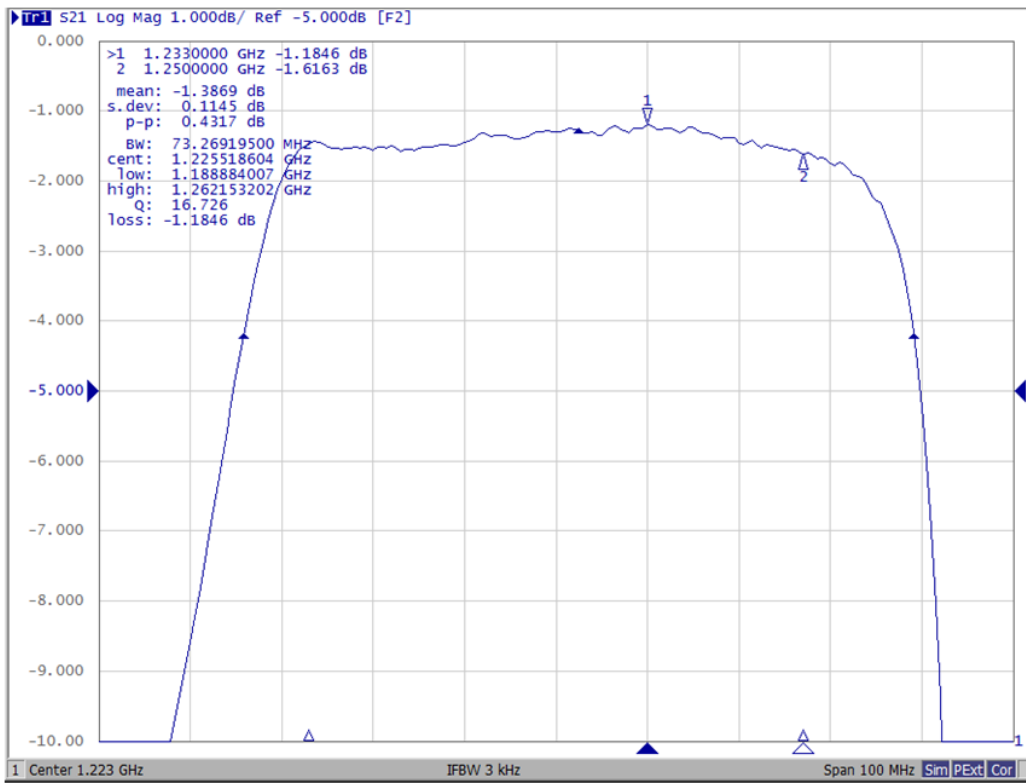
Span 400 MHZ



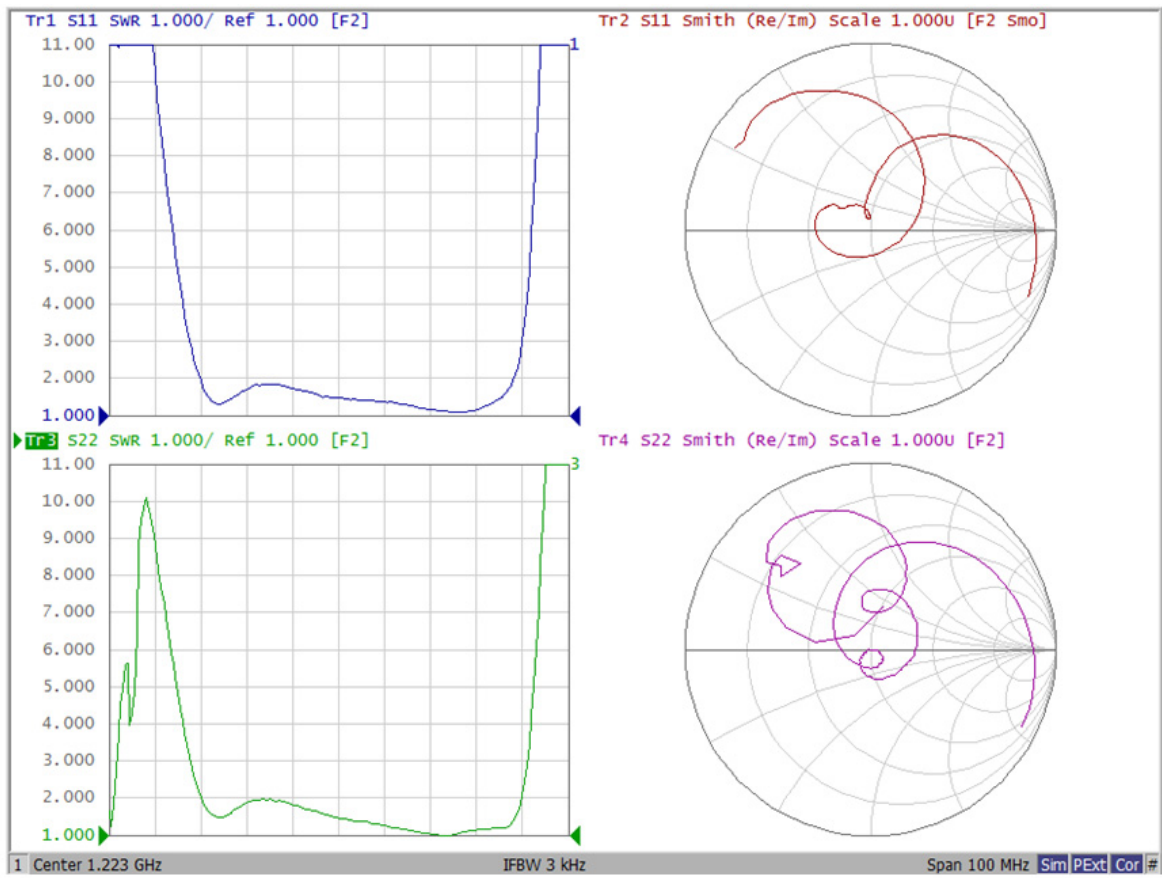
Wideband Response: Span 2500 MHZ



Passband Response: Span 100 MHz



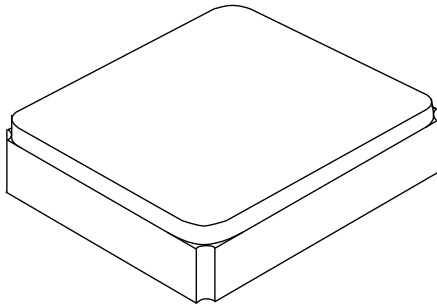
Reflection Functions



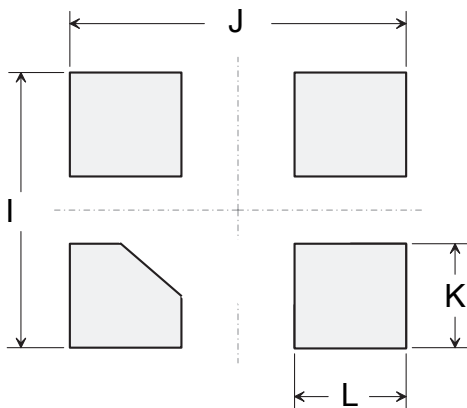
SM2016-4 Case

4-Terminal Ceramic Surface-Mount Case

2.0 X 1.6 mm Nominal Footprint



PCB PAD LAYOUT



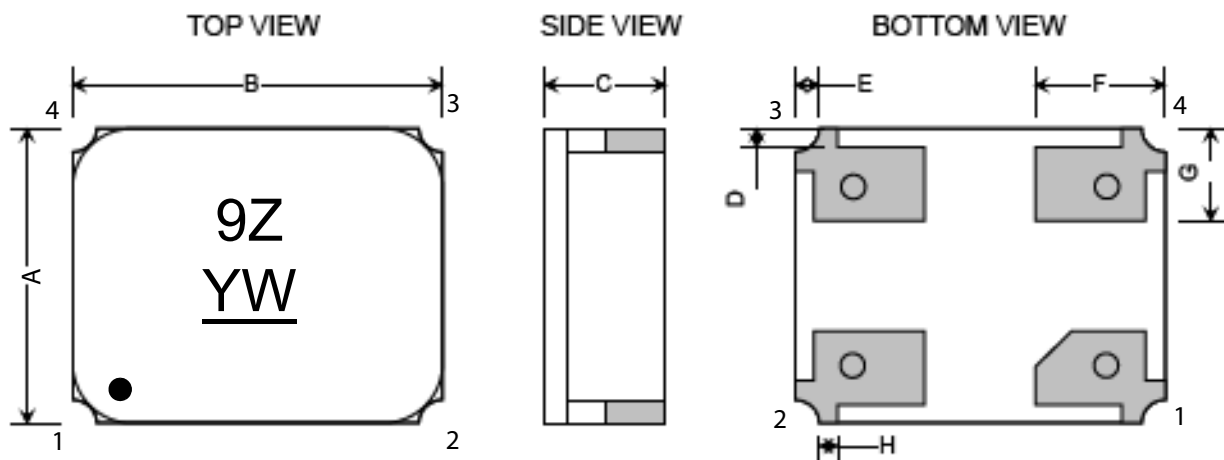
Dimensions in mm
All pads have the same dimensions

Case Dimensions

Dimension	mm		
	Min	Nom	Max
A	1.57	1.60	1.73
B	1.97	2.00	2.13
C	0.55	0.65	0.75
D		0.10	
E		0.10	
F		0.70	
G		0.50	
H		0.10	
I		1.80	
J		2.20	
K		0.60	
L		0.80	

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

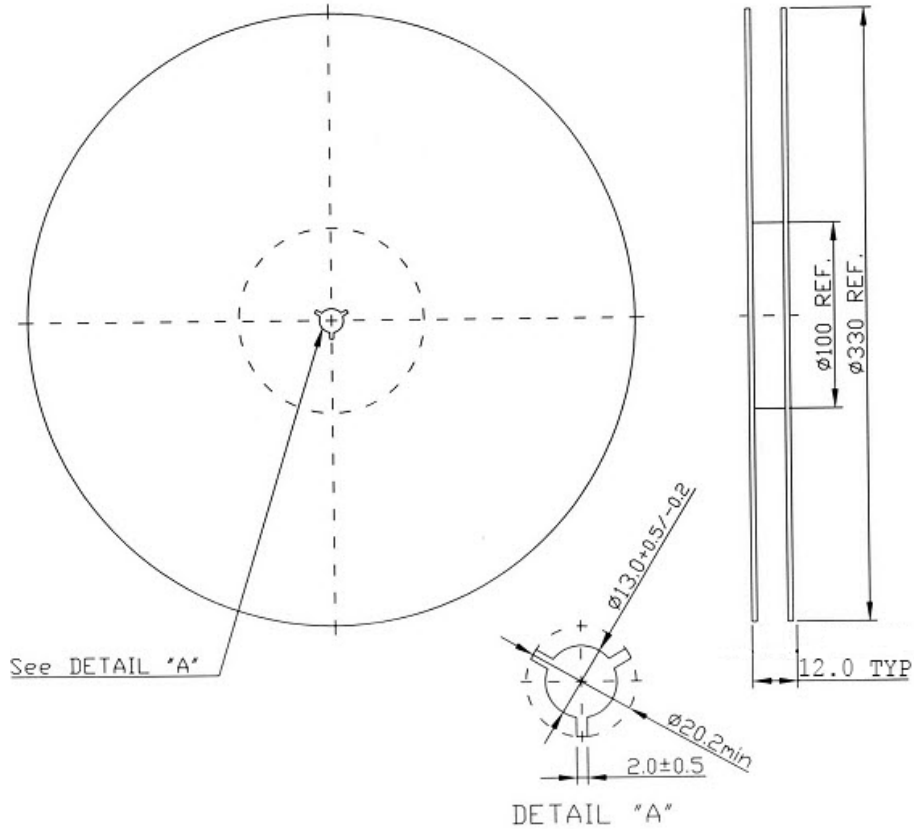


Packing

Reel Dimensions

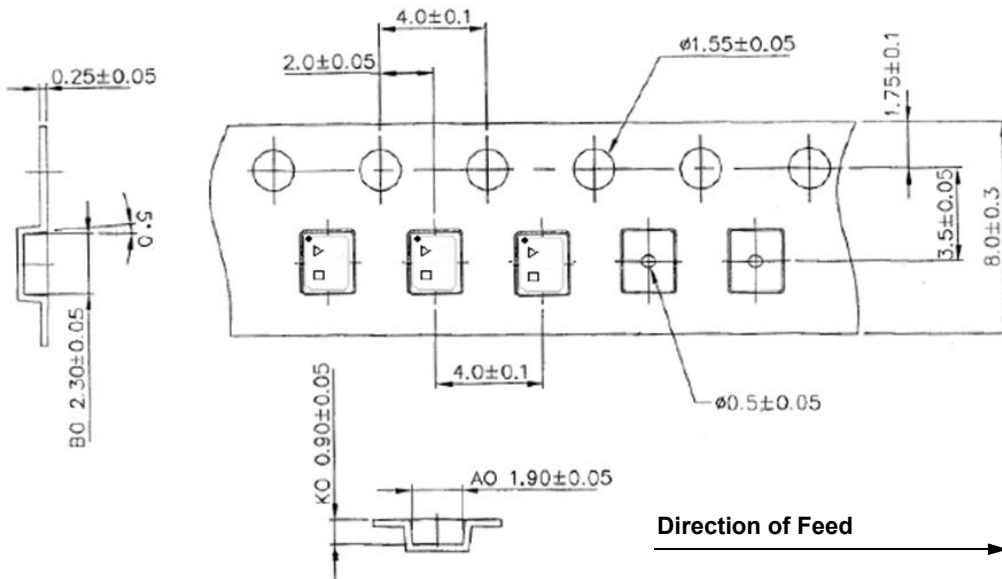
Tape and Reel Standard per ANSI/EIA-481

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



Tape Dimensions

Carrier Tape Dimensions	
AO	1.90 mm
BO	2.30 mm
KO	0.90 mm
Pitch	4.0 mm
W	3.5 mm



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.

