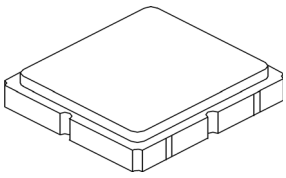
AEC-Q200

RoHS Compliance
This component is compliant with RoHS directive.
This component was always RoHS compliant from the first date of manufacture.

SF2434E-1

1223 MHz SAW Filter



SM3030-6

- ***Designed for Front-end GPS Applications***
- ***Low Insertion Loss***
- ***3.0 x 3.0 x 1.3 mm Surface-mount Case***
- ***No Matching Circuit Required***

Maximum Ratings at +25 °C Unless Stated Otherwise

Rating	Value	Units
Maximum Input Power Level	+10	dBm
DC Voltage	3	Volts
Specification Temperature Range	-40 to +105	°C
Operable Temperature Range	-45 to +125	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C

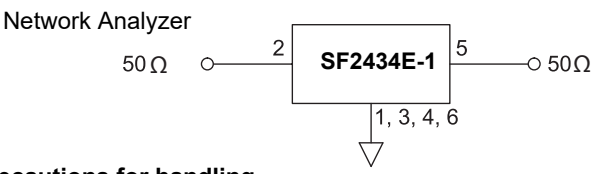
Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	**Fc**	1		1223		MHz
3 dB Bandwidth				75		MHz
Maximum Insertion Loss (1196 to 1250 MHz)	**IL**			3.0	3.5	dB
Return Loss (1196 to 1250 MHz)				7.5		dB
Amplitude Ripple (1196 to 1250 MHz)				1.0	2.0	
Group Delay Ripple (1196 to 1250 MHz)				11	15	ns
(1196 to 1250 MHz) 2 MHz Sliding Window				3.0	5.0	
(ref - 1226.577 to 1228.623 MHz)				2.0	7.0	
(ref - 1196.91 to 1217.37 MHz)				4.5	7.0	
(ref - 1242.426 to 1249.886 MHz)				4.0	7.0	
Attenuation Referenced to 0 dB:						dB
100 to 703 MHz				44		
703 - 748 MHz			35	44		
880 - 915 MHz			35	40		
1710 - 1785 MHz			35	39		
1850 - 1910 MHz			35	41		
1920 - 1980 MHz			35	40		
1980 - 4000 MHz				13		
4000 - 6000 MHz				4.5		
Temperature Coefficient of Frequency				-36		ppmk
Lid Symbolization (Y=year, WW=week, S=shift), dot = Pin 1 Indicator	9G, YWWS					

Electrical Connections

Pin #	Description	Pin #	Description
1	Ground	4	Ground
2	Input	5	Output
3	Ground	6	Ground

Measurement Circuit

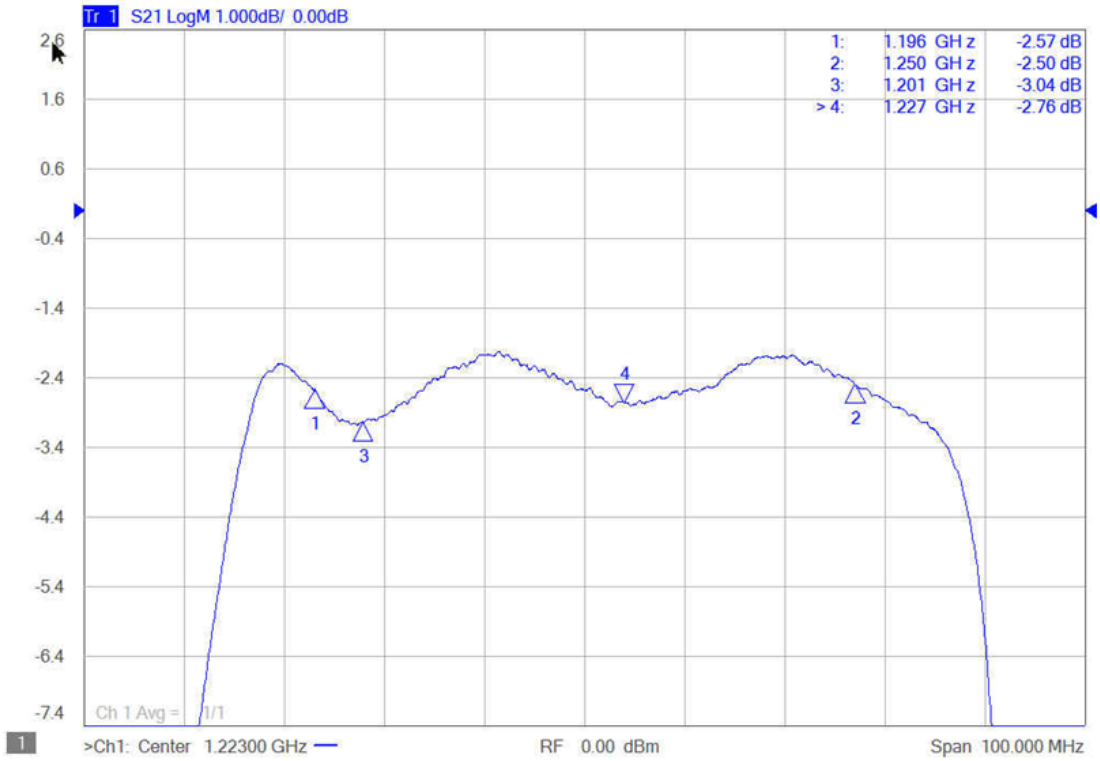


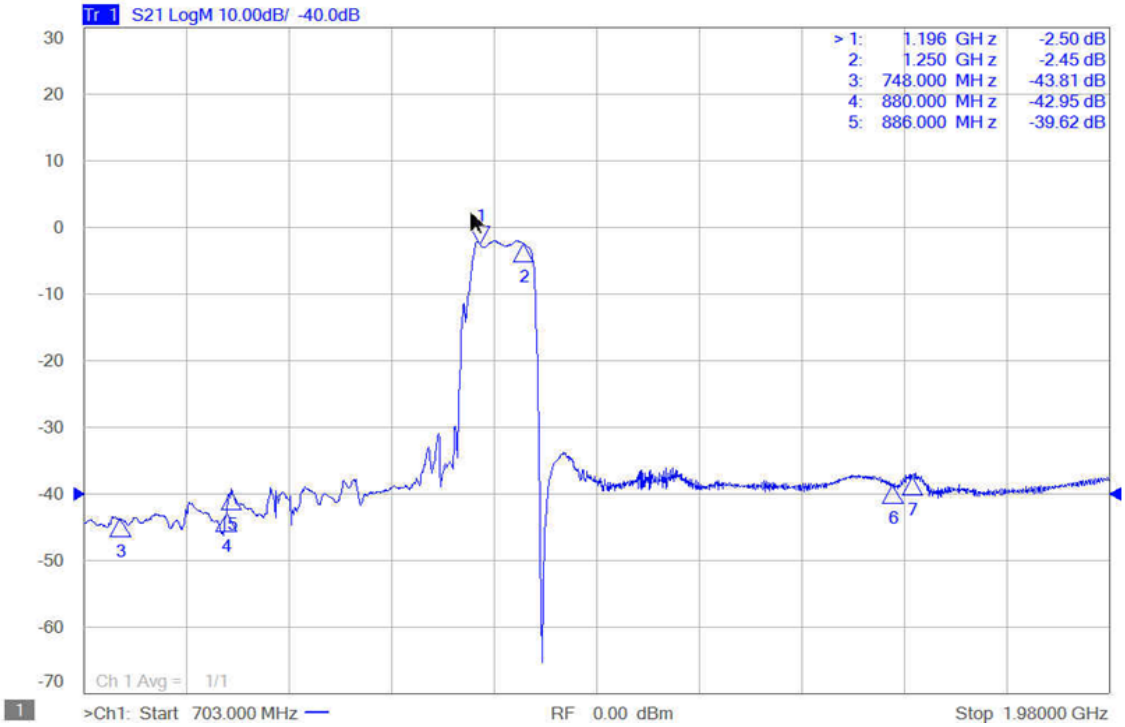
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

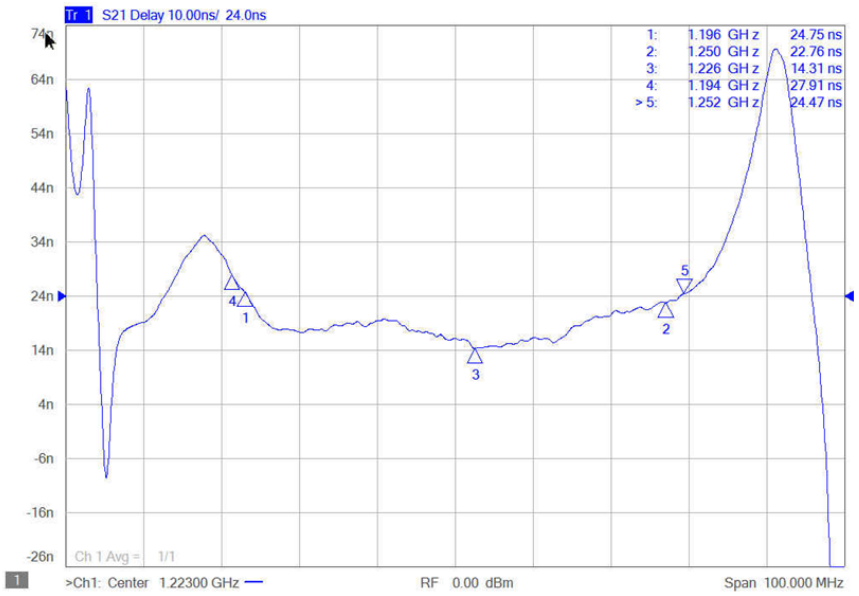
NOTES:

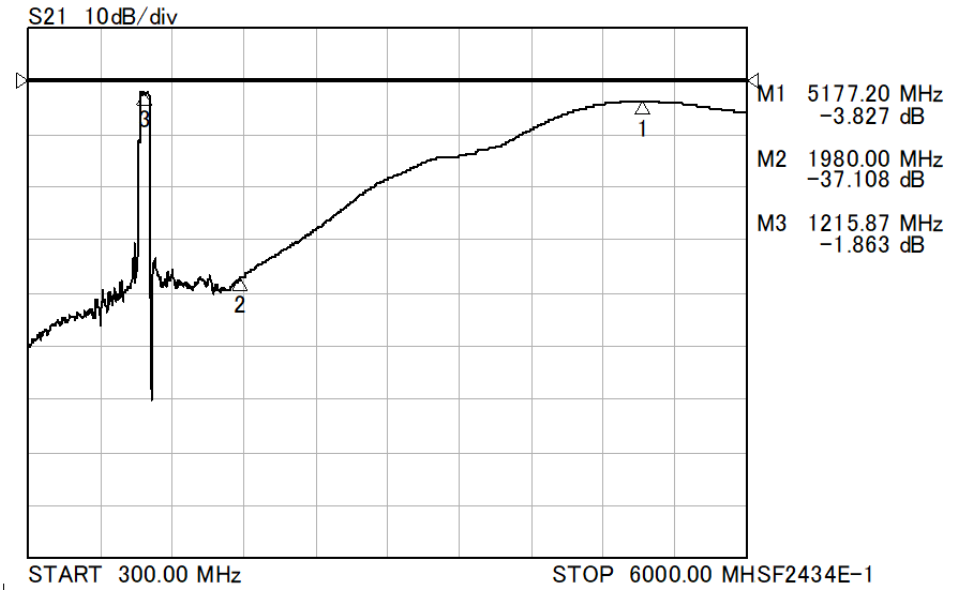
1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board without impedance matching and measured with 50 Ω network analyzer.
2. The design, manufacturing process, and specifications of this filter are subject to change.
3. Either Port 1 or Port 2 may be used for either input or output in the design. However, impedances and impedance matching may vary between Port 1 and Port 2, so that the filter must always be installed in one direction per the circuit design.
4. US and international patents may apply.
5. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.
6. Tape and Reel Standard Per ANSI/EIA 481.

Frequency Characteristics

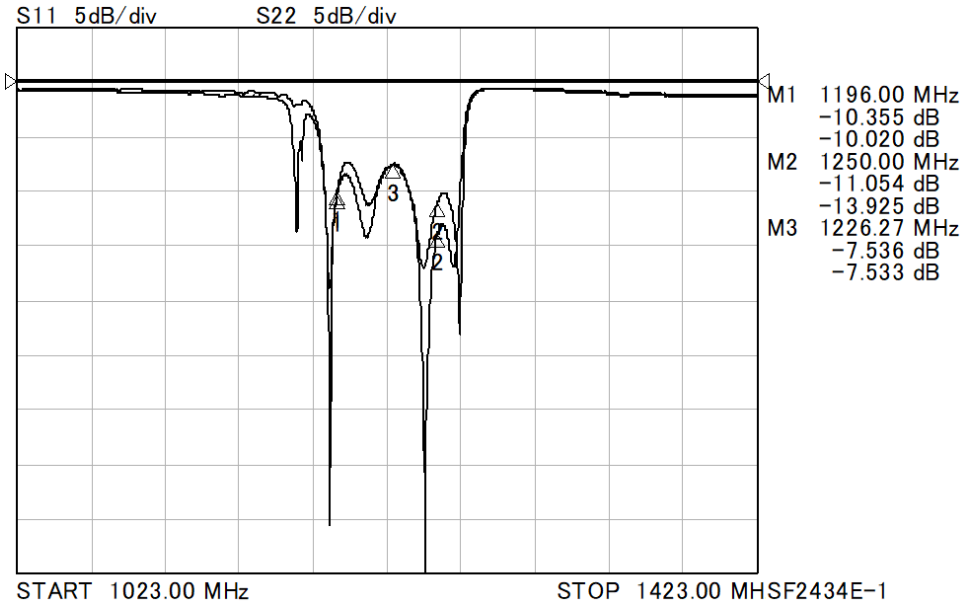








SF2434E-1

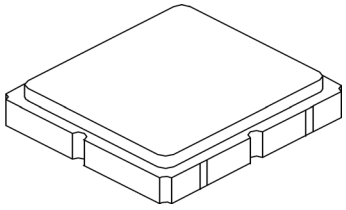


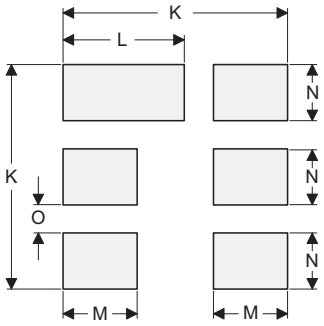
SF2434E-1

SM3030-6 Case

6-Terminal Ceramic Surface-Mount Case

3.0 X 3.0 mm Nominal Footprint





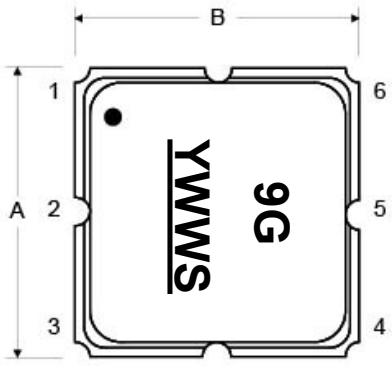
PCB Land Pattern
Top View

Case and PCB Footprint Dimensions

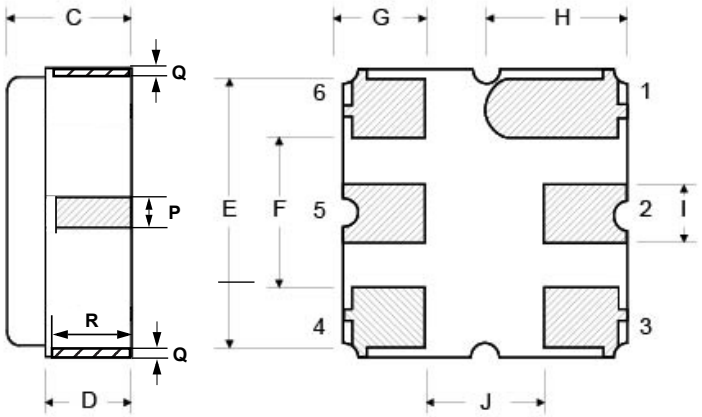
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.00	3.13	0.113	0.118	0.123
B	2.87	3.00	3.13	0.113	0.118	0.123
C	1.12	1.25	1.38	0.044	0.049	0.054
D	0.77	0.90	1.03	0.030	0.035	0.040
E	2.67	2.80	2.93	0.105	0.110	0.115
F	1.47	1.60	1.73	0.058	0.063	0.068
G	0.72	0.85	0.98	0.028	0.033	0.038
H	1.37	1.50	1.63	0.054	0.059	0.064
I	0.47	0.60	0.73	0.019	0.024	0.029
J	1.17	1.30	1.43	0.046	0.051	0.056
K		3.20			0.126	
L		1.70			0.067	
M		1.05			0.041	
N		0.81			0.032	
O		0.38			0.015	
P	0.15	0.30	0.45	0.005	0.011	0.017
Q	0.07	0.20	0.36	0.002	0.007	0.014
R	0.62	0.7	0.78	0.024	0.027	0.030

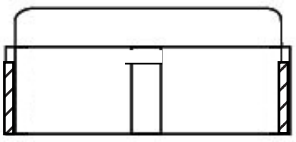
Case Materials	
Solder Pad Plating	0.3 to 1.0 µm Gold over 1.27 to 8.89 µm Nickel
Lid Plating	2.0 to 3.0 µm Nickel
Body	Al_2O_3 Ceramic
Pb Free	

TOP VIEW

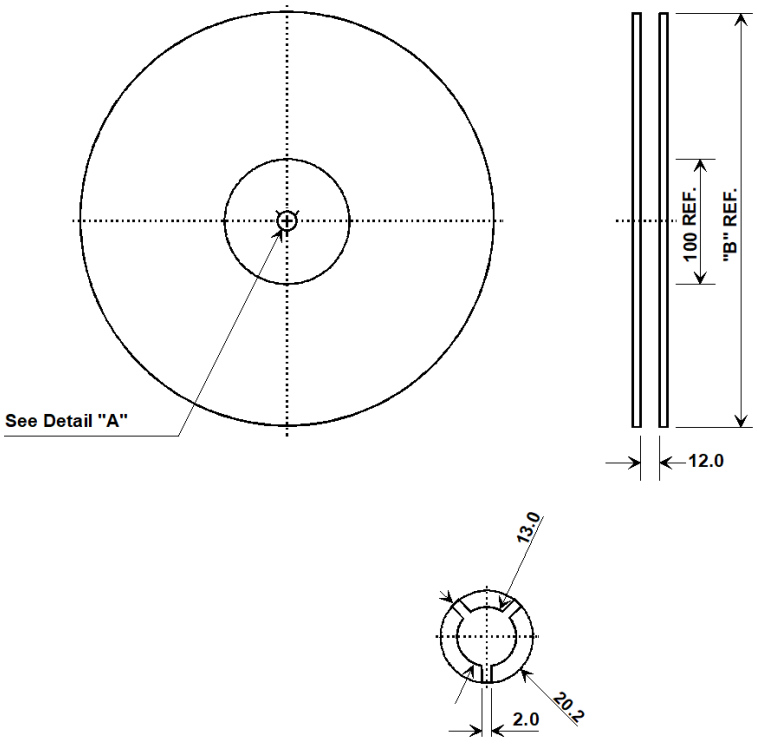


BOTTOM VIEW





Tape and Reel Specifications



"B"		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000

COMPONENT ORIENTATION