

AEC-Q200 This component was always RoHS compliant from the first date of manufacture.

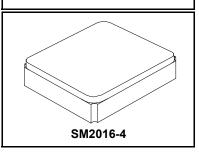
- RF Filter Designed for Front End GPS Applications
- Low Insertion Loss
- Improved Rejection
- 2.0 x 1.6 mm Surface-Mount Case
- Complies with Directive 2002/95/EC (RoHS)
- Tape and Reel Standard per ANSI/EIA-481

### **Absolute Maximum Ratings**

Rating	Value	Units	
Maximum Incident Power in Passband	+10	dBm	
Maximum DC Voltage Between any Two Terminals	3	VDC	
Operating Temperature Range	-40 to +85	°C	
Storage Temperature Range	-55 to +95	°C	
Maximum Soldering Profile	265°C for 10 s		

# SF1186H-2

# 1575.42 MHz **SAW Filter**



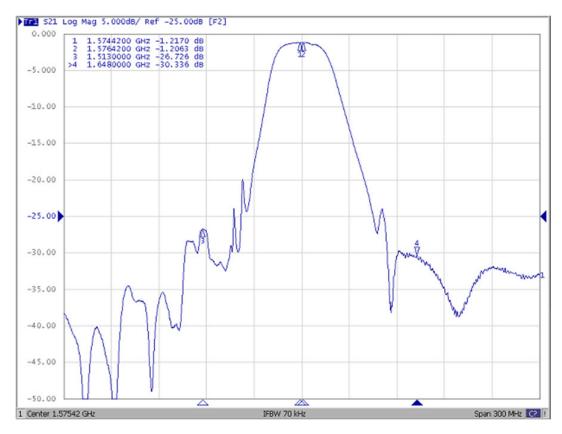
### **Electrical Characteristics**

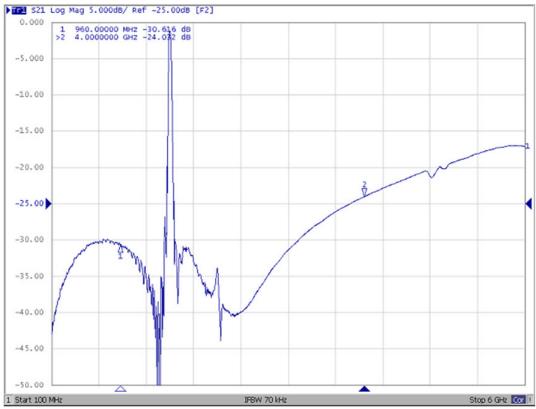
Characteristic		Sym	Notes	Min	Тур	Max	Units
Center Frequency		f <sub>C</sub>			1575.42	•	MHz
Maximum Insertion Loss	1574.42 to 1576.42 MI	Ηz			1.2	1.6	- dB
	1573.42 to 1577.42 MI	HZ IL <sub>MAX</sub>			1.2	1.8	
Amplitude Ripple	1574.42 to 1576.42 MI	Ηz			0.1	0.5	uБ
	1573.42 to 1577.42 MI	Ηz			0.1	0.7	
VSWR	1574.42 to 1576.42 MI	Ηz			1.2	1.9	
	1573.42 to 1577.42 MI	Ηz			1.2	2.0	
Attenuation (Reference to 0 dB)	100 to 960 MI	Ηz		26	29		dB
	960 to 1460 MI	Ηz		27	30		
	1460 to 1513 MI	Ηz		22	26		
	1648 to 1710 MI	Ηz		22	30		
	1710 to 1990 MI	Ηz		25	30		
	1990 to 2300 MI	Ηz		25	33		
	2300 to 4000 MI	Ηz		21	24		
	4000 to 6000 MI	Ηz		13	16		
Source impedance		Z <sub>S</sub>			50		Ω
Load impedance		ZL			50		Ω
Single-ended Input / Output Impedance Match		No matching network required for operation at 50 ohms					
Case Style		SM2016-4					
Lid Symbolization ( Y=year, W=week)				2Y, YV	V		

# CAUTION: Electrostatic Sensitive Device. Observe precautions for handling. NOTES:

- 1. 2. The design, manufacturing process, and specifications of this device are subject to change.
- US or International patents may apply.

## Frequency Characteristics





# Inctions Image: symthmatrix 1.000/Ref 1.000 [F2] 11.00 1.1.5744200 GH2 1.1841 10.00 1.1.5744200 GH2 1.1591 10.00 9.000 8.000 7.000 6.000 5.000 4.000 5.000

S22 SWR 1.000/ Ref 1.000 [F2] 11.00 1.9744200 GHz 1.9764200 GHz 1 >2 1.1729 10.00 9.000 8.000 7.000 6.000 5.000 4.000 3.000 2.000 Ŷ 1.000 1 Center 1.57542 GHz IFBW 70 kHz Span 100 MHz C?

Ù

IFBW 70 kHz

# Reflection Functions

S11

S22

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2.000

1.000

1 Center 1.57542 GHz

Span 100 MHz C?

# SM2016-4 Case

# 4-Terminal Ceramic Surface-Mount Case 2.0 X 1.6 mm Nominal Footprint

Dimensions

A B

С

D

Е

F

G

Н

# **Electrical Connections**

Connection	Terminals			
Input	1			
Output	3			
Ground	2, 4			

Inches

Nom

0.062

0.078

0.035

0.003

0.003

0.027

0.019

0.003

Max

Millimeters

Nom

1.60

2.0

0.90

0.10

0.10

0.70

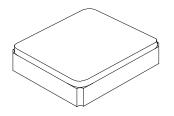
0.50

0.10

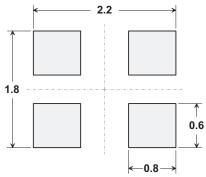
Max

Min

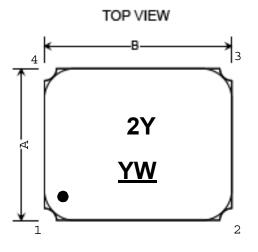
Min

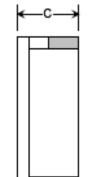






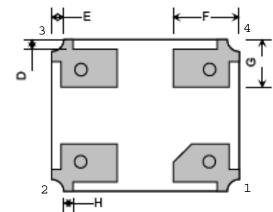
D mens ons n mm All pads have the same d mens ons

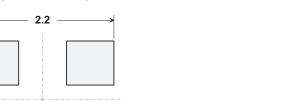




SIDE VIEW

BOTTOM VIEW

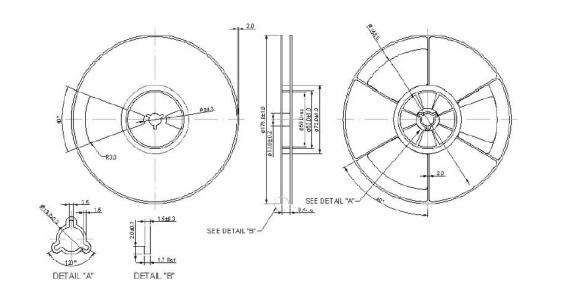




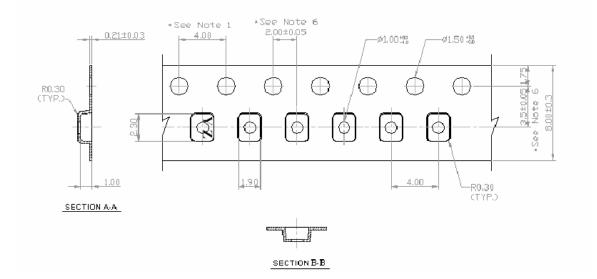
# F. <u>PACKING:</u>

# 1. REEL DIMENSION

( Reel Count : 7"=2000 typ. ; 13"=10000 typ.)

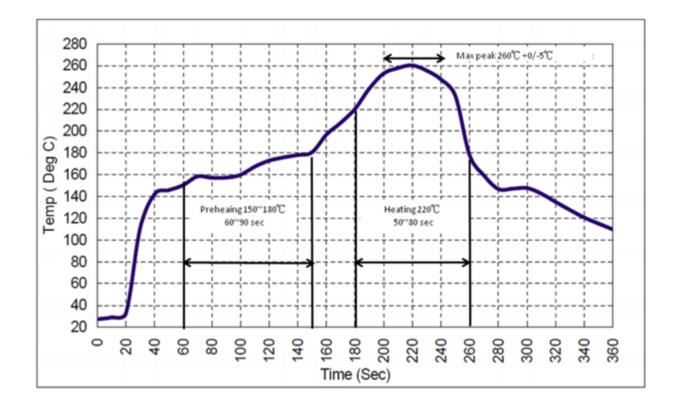


# 2. TAPE DIMENSION



# **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.



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Authorized Distributor

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RFMi: SF1186H-2