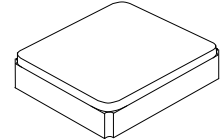


**SF2427H**

**1227.6 MHz  
SAW Filter**



**SM2016-4**

- 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)
- AEC-Q200 Qualified

**Absolute Maximum Ratings**

Rating	Value	Units
Input Power Level	+20	dBm
Maximum DC Voltage Between any Two Terminals	3	VDC
Operating Temperature Range	-55 to +105	°C
Storage Temperature Range	-55 to +105	°C
Maximum Soldering Profile	265°C for 10 s	

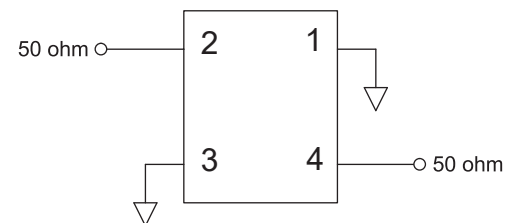
**Electrical Characteristics**

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	$f_c$		1227.6			MHz
Bandwidth @ -3dB			20	45		
Minimum Insertion Loss	$IL_{MAX}$			1.6	2.5	dB
Amplitude Ripple		1217.6 to 1237.6 MHz		0.9	2.0	
Return Loss		1217.6 to 1237.6 MHz	8	11		
Group Delay		1217.6 to 1237.6 MHz		7	26	ns
Group Delay Ripple		1217.6 to 1237.6 MHz		59	70	
Attenuation (Reference to 0 dB)		300 to 1152 MHz	15	20		dB
		1302 to 1900 MHz	15	21		
		1900 to 3000 MHz	15	22		
Source impedance	$Z_S$			50		$\Omega$
Load impedance	$Z_L$			50		$\Omega$

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)	8L, <u>YW</u>

**Matching Circuit**

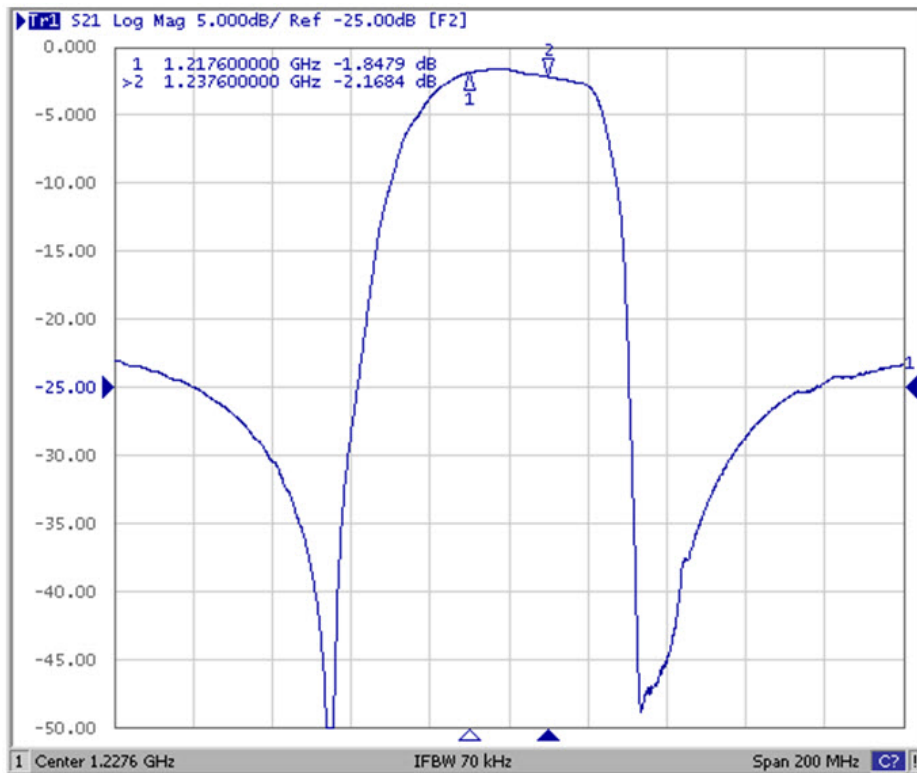
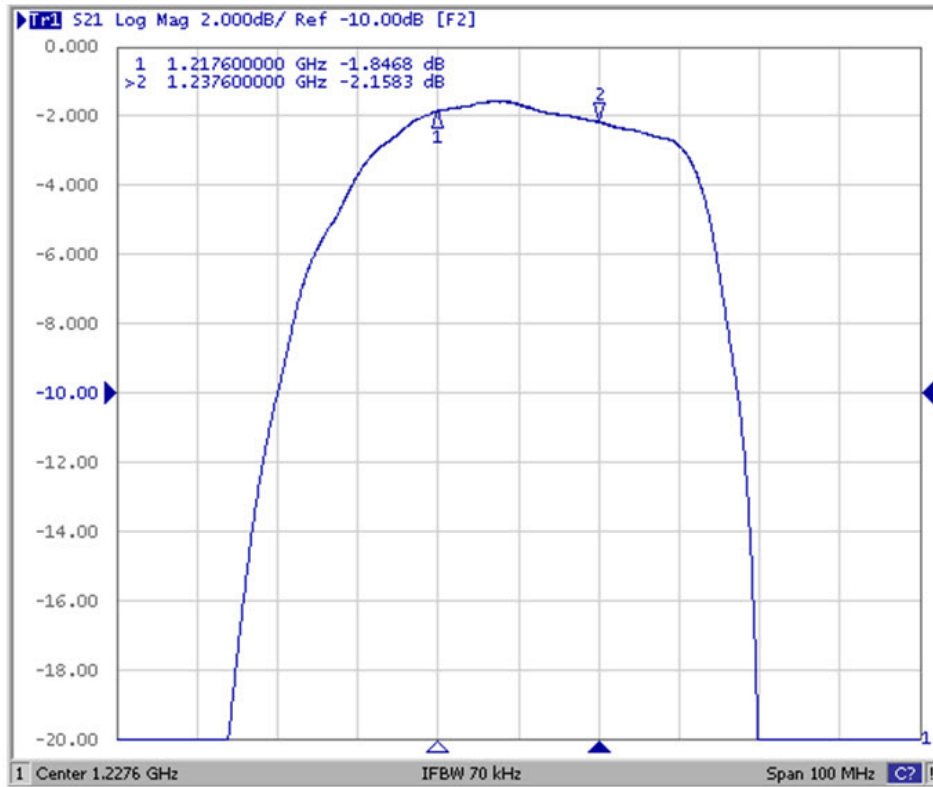
Pin Description	
2	Input
4	Output
1, 3	Ground



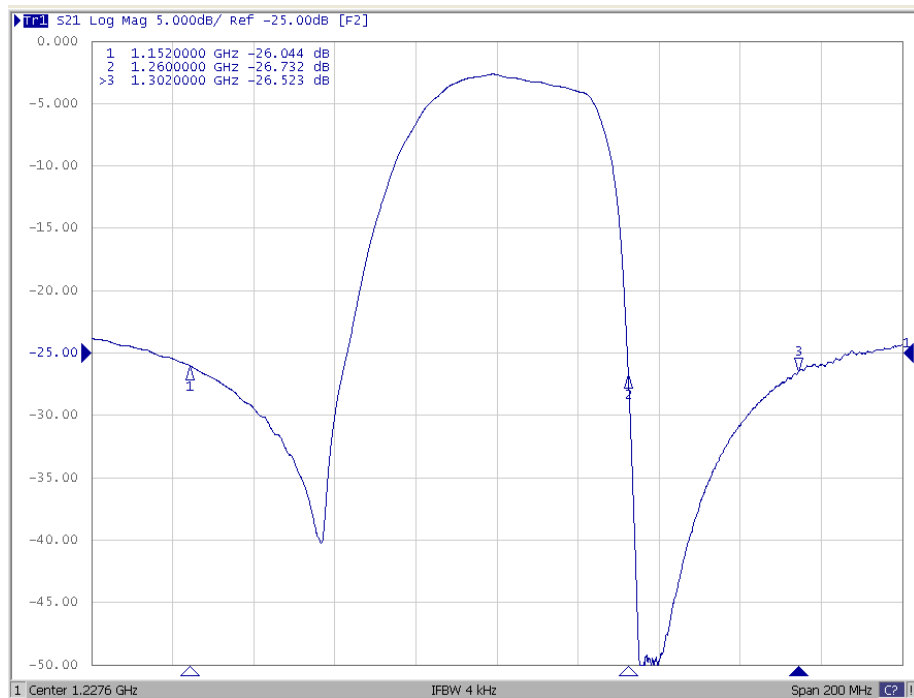
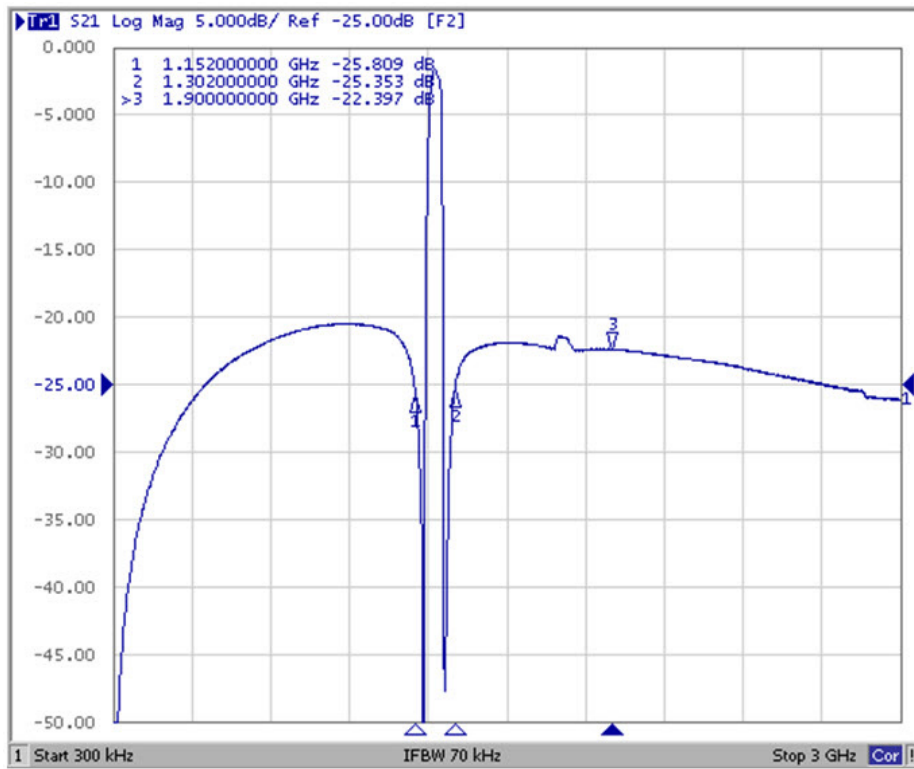
 **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**  
**NOTES:**

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.

# Frequency Characteristics



# Frequency Characteristics



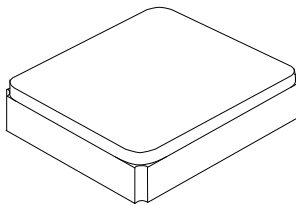
# SM2016-4 Case

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

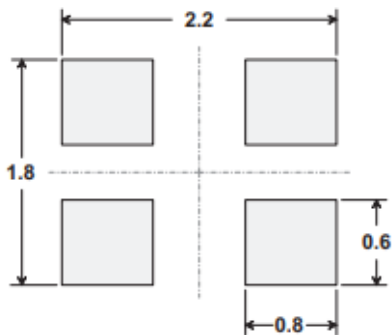
### Electrical Connections

Connection	Terminals
Input	2
Output	4
Ground	1,3

Dimensions	Millimeters			Inches		
	Min	Nom	Max	Min	Nom	Max
A		1.60			0.062	
B		2.0			0.078	
C		0.90			0.035	
D		0.10			0.003	
E		0.10			0.003	
F		0.70			0.027	
G		0.50			0.019	
H		0.10			0.003	

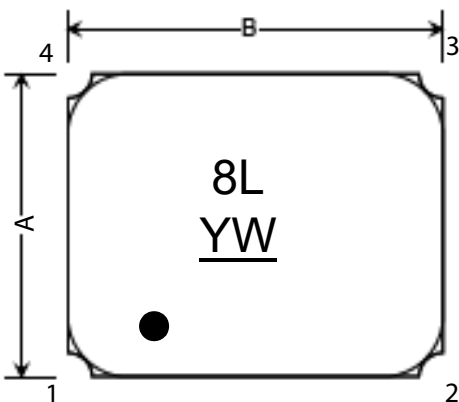


### PCB PAD LAYOUT



Dimensions in mm  
All pads have the same dimensions

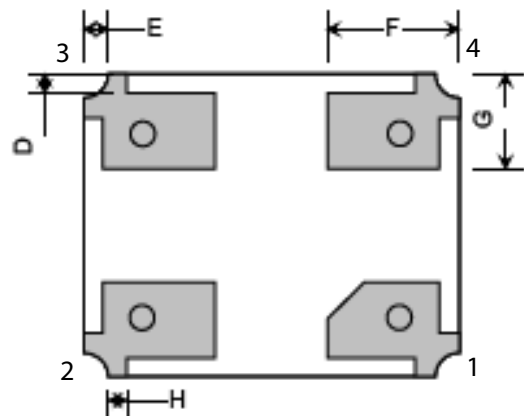
### TOP VIEW



### SIDE VIEW



### BOTTOM VIEW

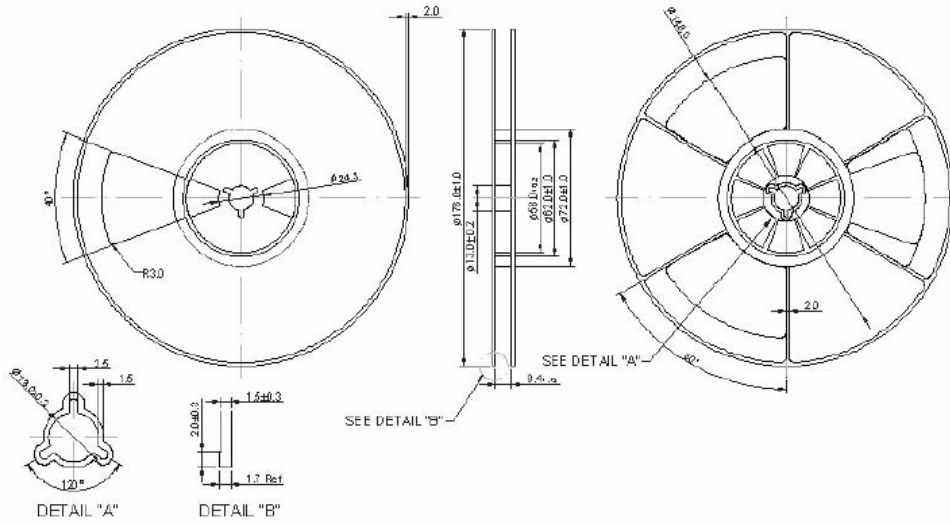


Tape and Reel Standard per ANSI/EIA-481

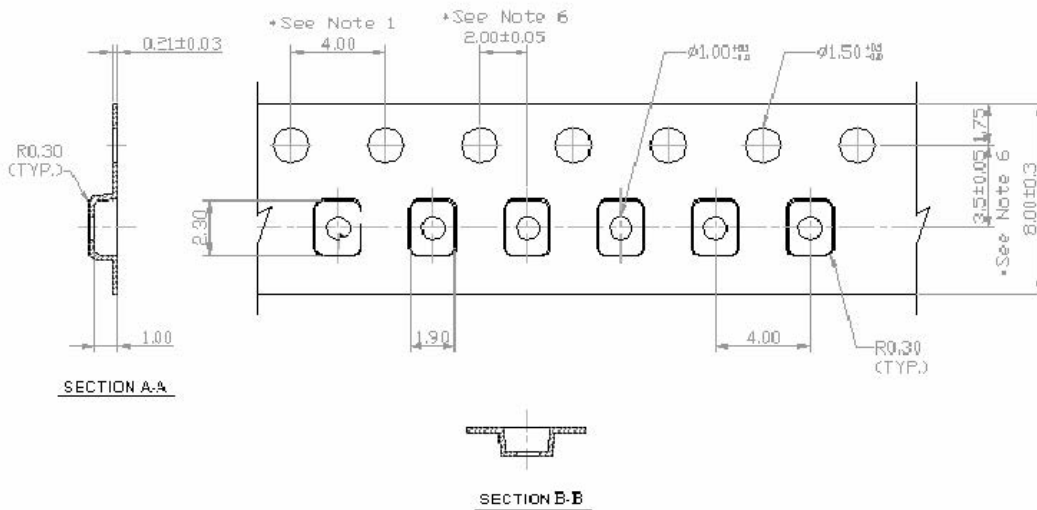
**F. PACKING:**

**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.

