



*Total Solution Provider in Saw Device*

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# SA1970JM

Wireless, RF SAW Filter  
Revision 0: July 2009



- Electrical Characteristics
  - Package Dimensions
  - Testing Environment
  - Frequency Characteristics
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## □ Electrical Characteristics

### Maximum Ratings

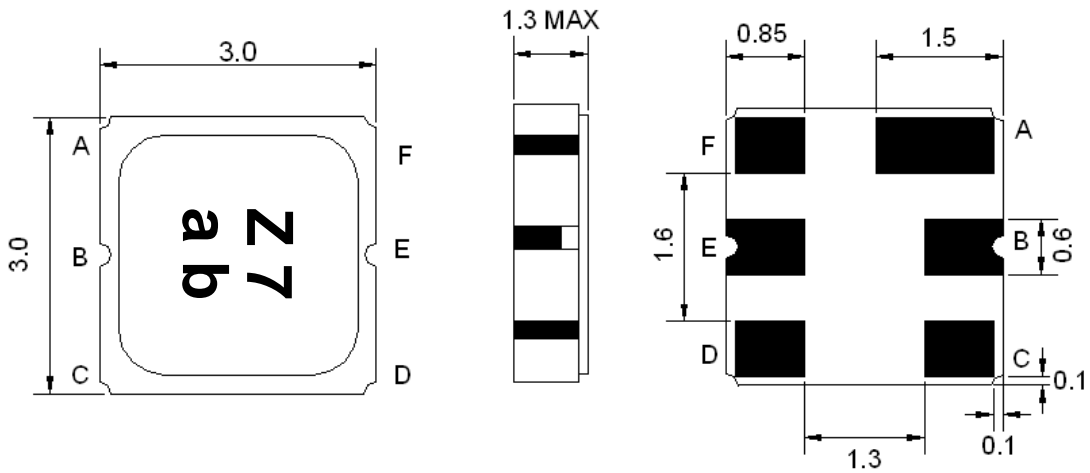
Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-30	-	+80
Storage Temperature Range	°C	-40	-	+85
Maximum DC Voltage	V	-	-	3
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Package type & size	M			
Length x Width	mm <sup>2</sup>	-	3.0 x 3.0	-
Height	mm	-	-	1.3

### Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	1970.0	-
Insertion Loss within 1960.0~1980.0MHz	dB	-	1.7	3.5
Amplitude Ripple within 1960.0 ~ 1980.0 MHz	dB <sub>p-p</sub>	-	0.4	2.0
<b>Attenuation:</b>				
D.C. ~ 500.0 MHz	dB	25	38	-
500.0 ~ 1900.0 MHz	dB	28	35	-
2050.0 ~2110.0 MHz	dB	30	45	-
2110.0 ~ 4000.0 MHz	dB	22	30	-
VSWR within 1960.0 ~ 1980.0 MHz	-	-	1.3	2.3

**Notes :** (1 ) No Matching Network (Ref. Testing Environment Circuit as shown below).

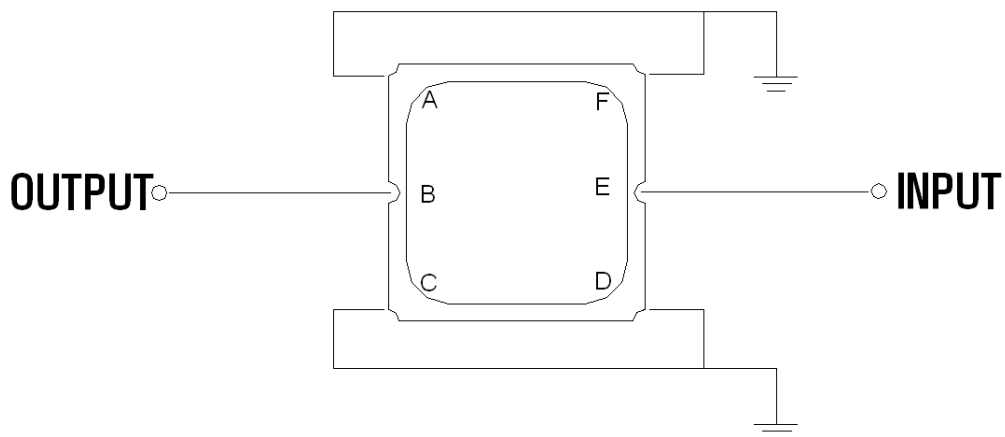
**Package Dimensions**



Marking Descriptions	
Z	Wireless Application
7	Series Number
a	Date Code(Year)
b	Date Code(Month)

Pin Description	
A, C, D, F	Ground
E	In or Out
B	Out or In

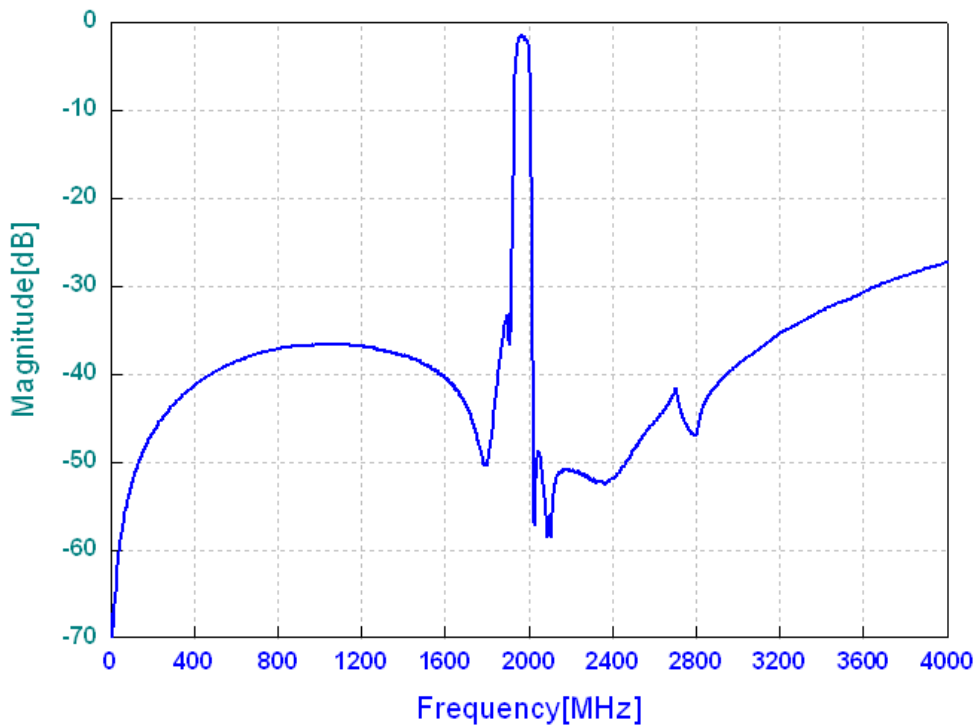
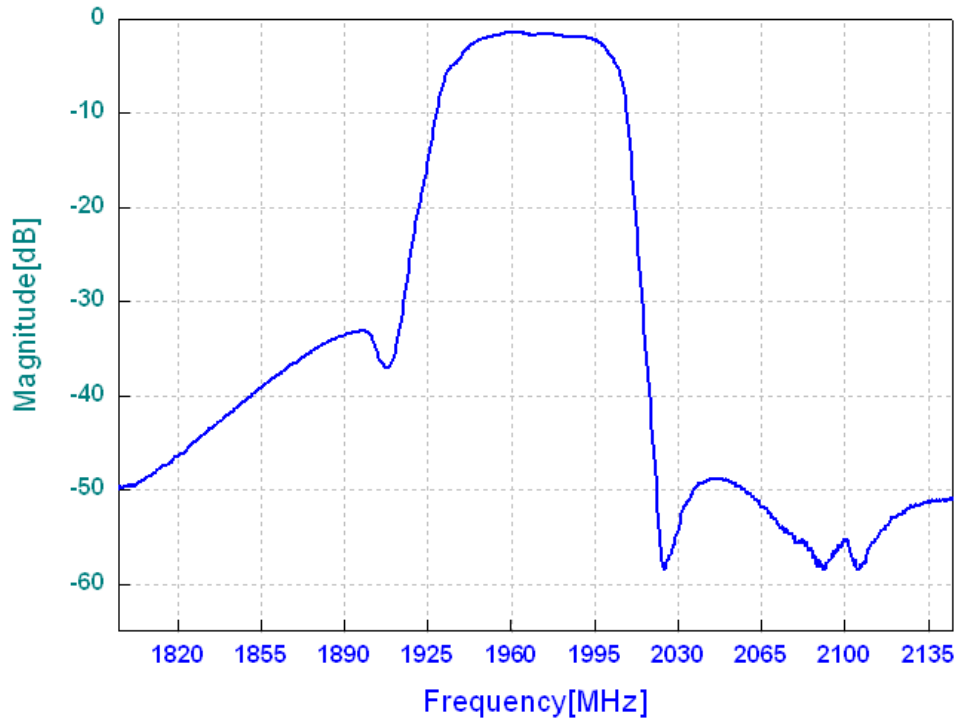
**Testing Environment**



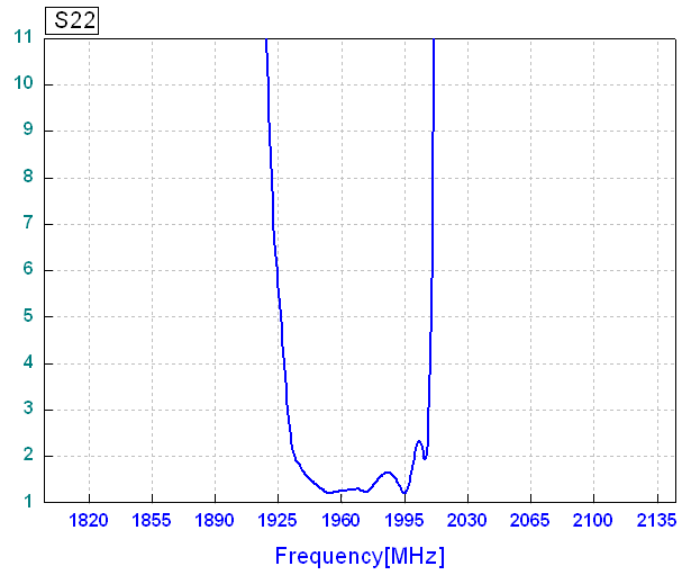
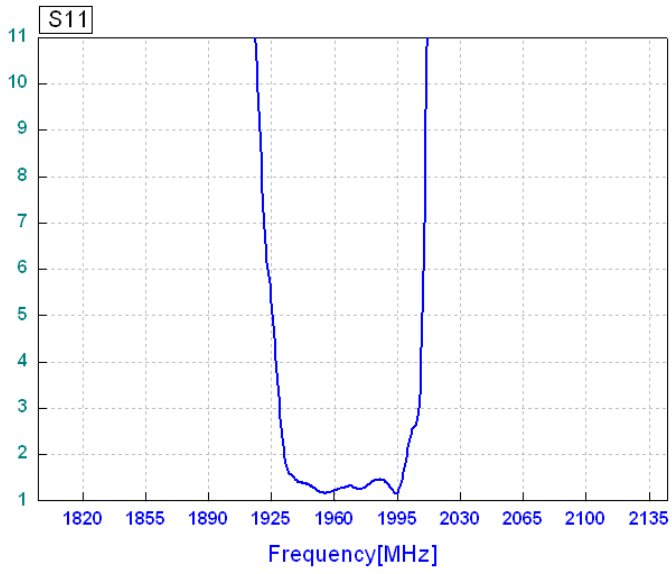
Source & Load Impedance: 50 Ω

**□ Frequency Characteristics**

Frequency Response



**VSWR**



**Smith Chart**

