



*Total Solution Provider in Saw Device*

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# SA1970FM

Wireless, RF SAW Filter  
Revision 0: December 2008



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

### Maximum Ratings

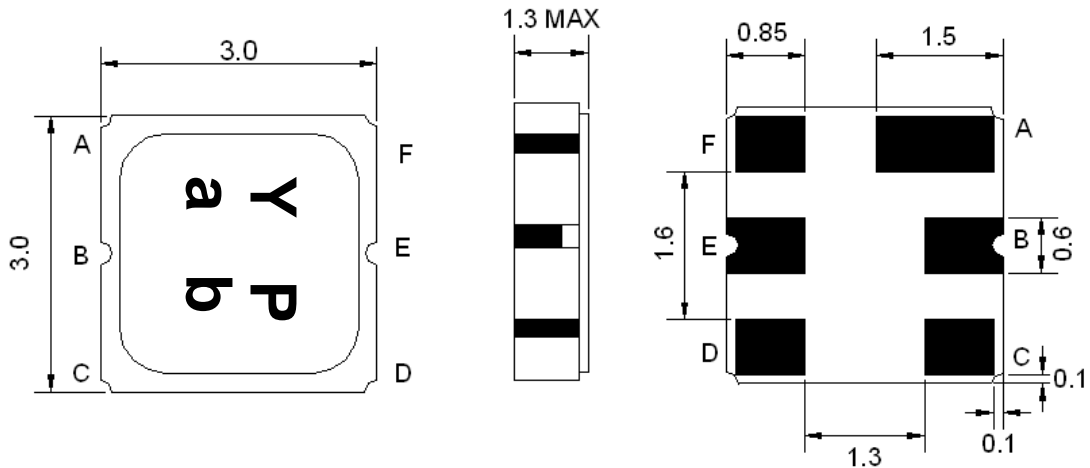
Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-30	-	+80
Storage Temperature Range	°C	-40	-	+85
Maximum DC Voltage	V	-	-	7.5
Maximum Input Power	dBm	-	-	15
Source Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
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 1950.0 ~ 1990.0 MHz	dB	-	2.5	3.0
Amplitude Ripple within 1950.0 ~ 1990.0MHz	dB <sub>p-p</sub>	-	1.3	1.8
Group Delay Ripple within 1950 ~ 1990.0MHz	nS <sub>p-p</sub>	-	5	15
<b>Attenuation:</b>				
D.C. ~ 1895.0 MHz	dB	35	37	-
1895.0 ~ 1910.0 MHz	dB	35	38	-
2110.0 ~ 2170.0 MHz	dB	40	45	-
2170.0 ~ 3910.0 MHz	dB	30	35	-
3910.0 ~ 3970.0 MHz	dB	25	35	-
VSWR within 1950.0 ~ 1990.0 MHz	-	-	2.0	2.3

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

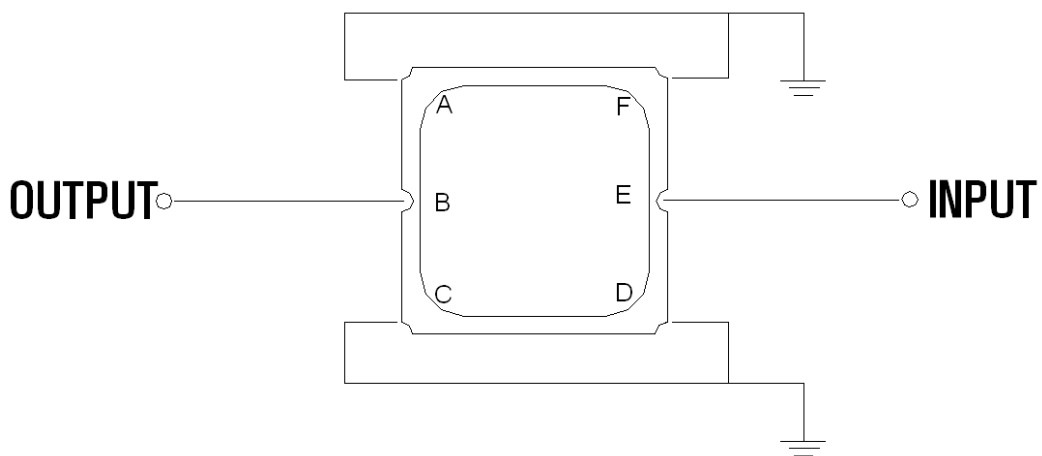
**Package Dimensions**



Marking Descriptions	
Y	Wireless Application
P	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

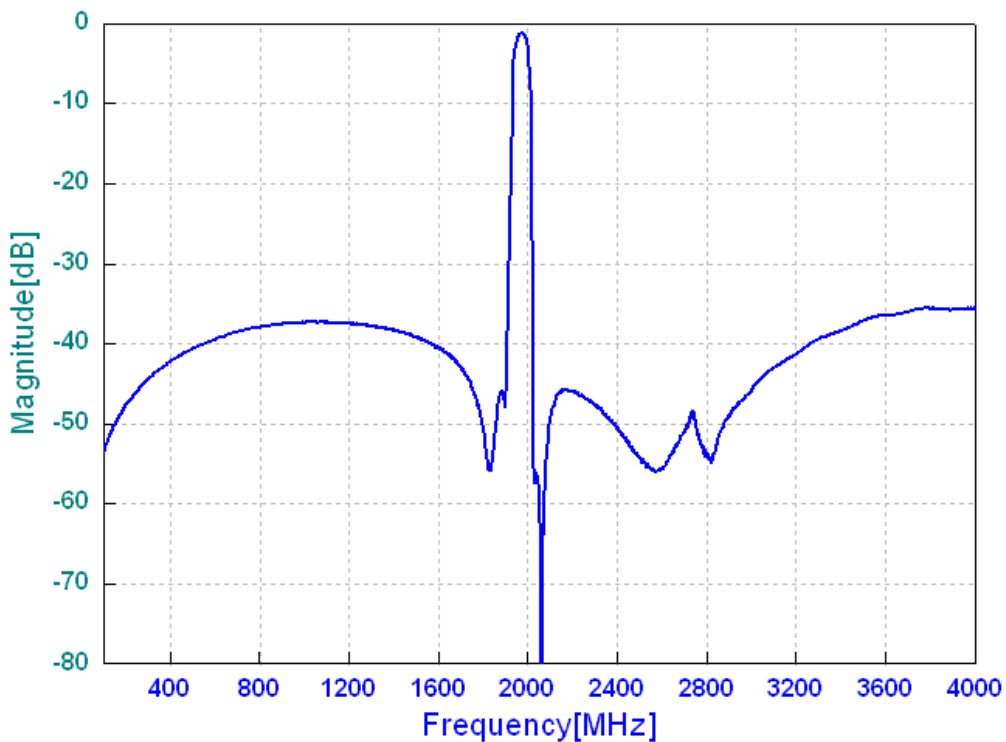
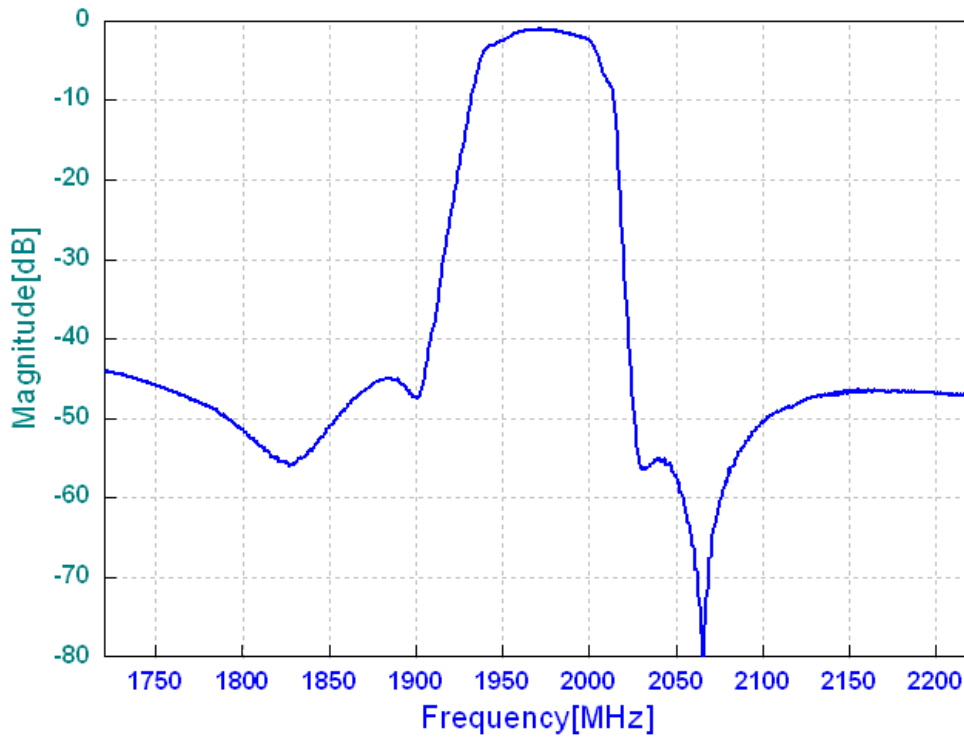
**Testing Environment**



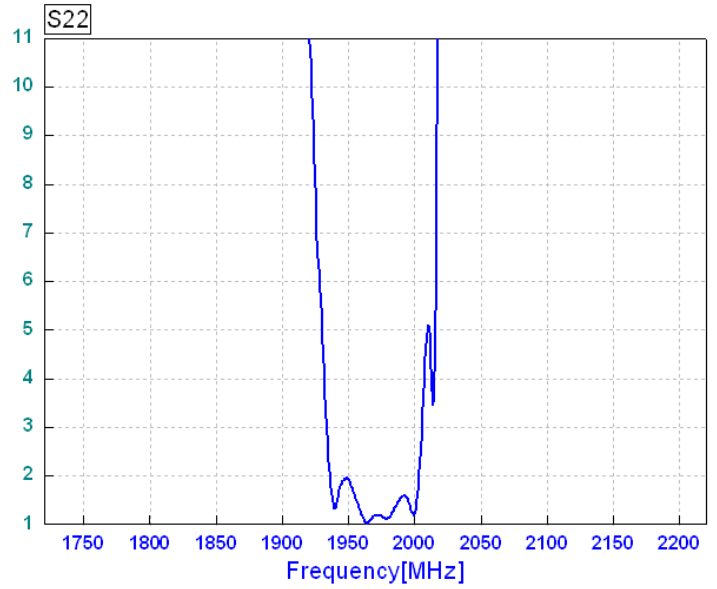
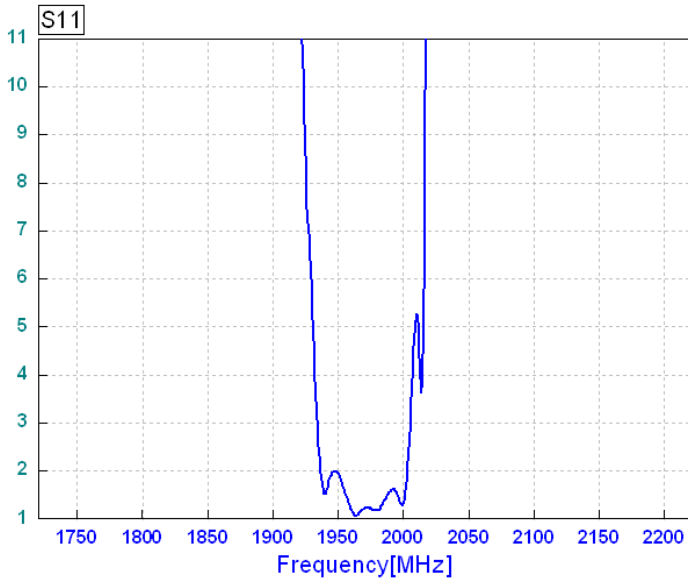
Source & Load Impedance: 50 Ω

**□ Frequency Characteristics**

Frequency Response



### VSWR



### Smith Chart

