



*Total Solution Provider in Saw Device*

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# SA939AP

Wireless, RF SAW Filter  
Revision 0: October 2003



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

### Maximum Ratings

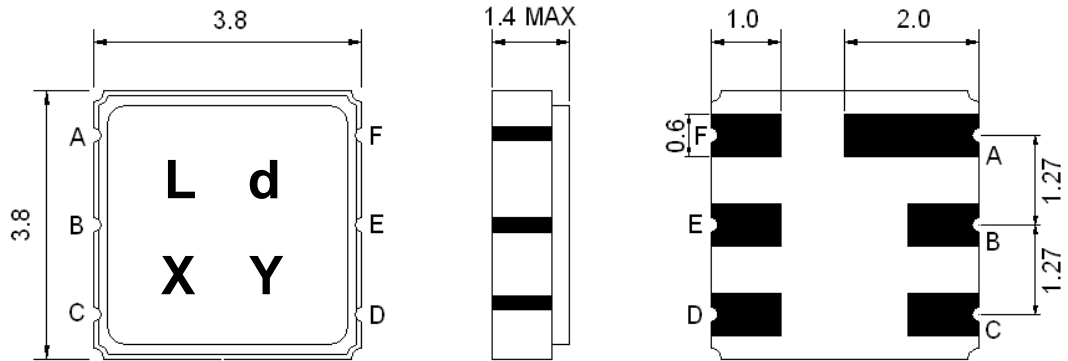
Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-30	-	+65
Storage Temperature Range	°C	-40	-	+85
Maximum DC Voltage	V	-	-	5
Maximum Input Power	dBm	-	-	15
Source Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Package type & size	P			
Length x Width	mm <sup>2</sup>	-	3.8 x 3.8	-
Height	mm	-	-	1.4

### Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	939.0	-
Insertion Loss within 936 ~ 942 MHz	dB	-	2.5	3.0
Amplitude Ripple within 936 ~ 942 MHz	dB <sub>p-p</sub>	-	0.3	1.0
<b>Attenuation:</b>				
D.C. ~ 840 MHz	dB	50	65	-
840 ~ 894 MHz	dB	45	55	-
984 ~ 1000 MHz	dB	40	43	-
1000 ~ 1500 MHz	dB	50	60	-
1500 ~ 2000 MHz	dB	40	45	-
VSWR within 936 ~ 942 MHz	-	-	1.5	2.0

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

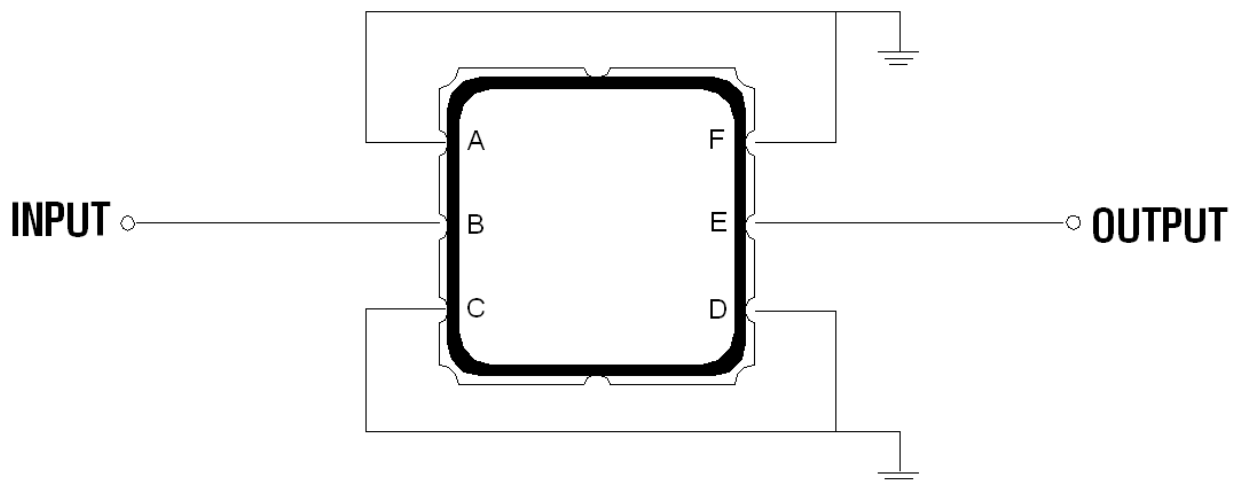
**Package Dimensions**



Marking Descriptions	
L	Wireless Application
d	Series Number
a	Date Code(Year)
b	Date Code(Month)

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

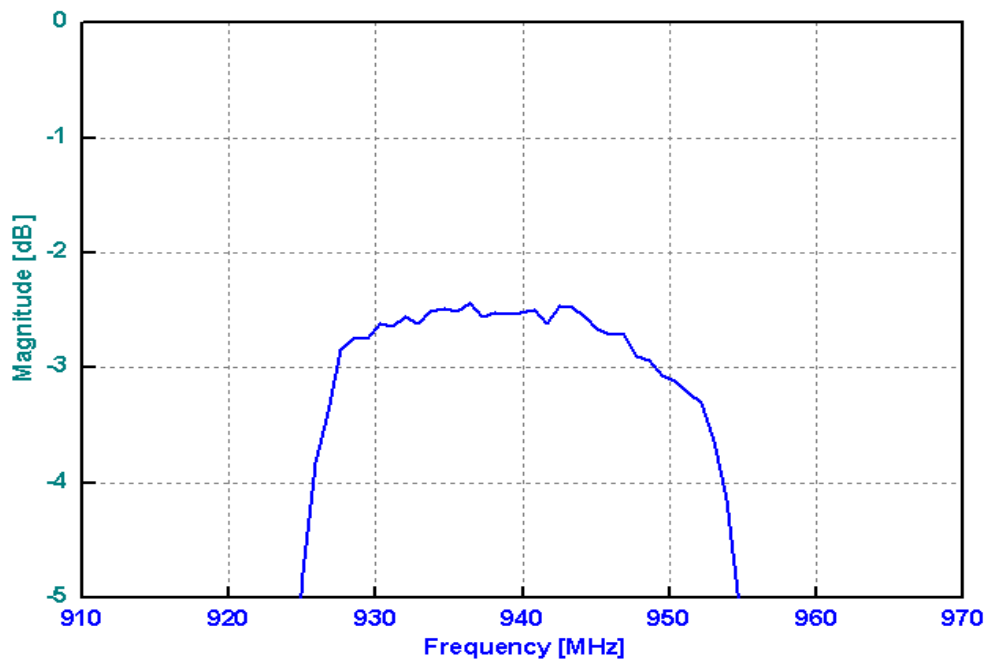
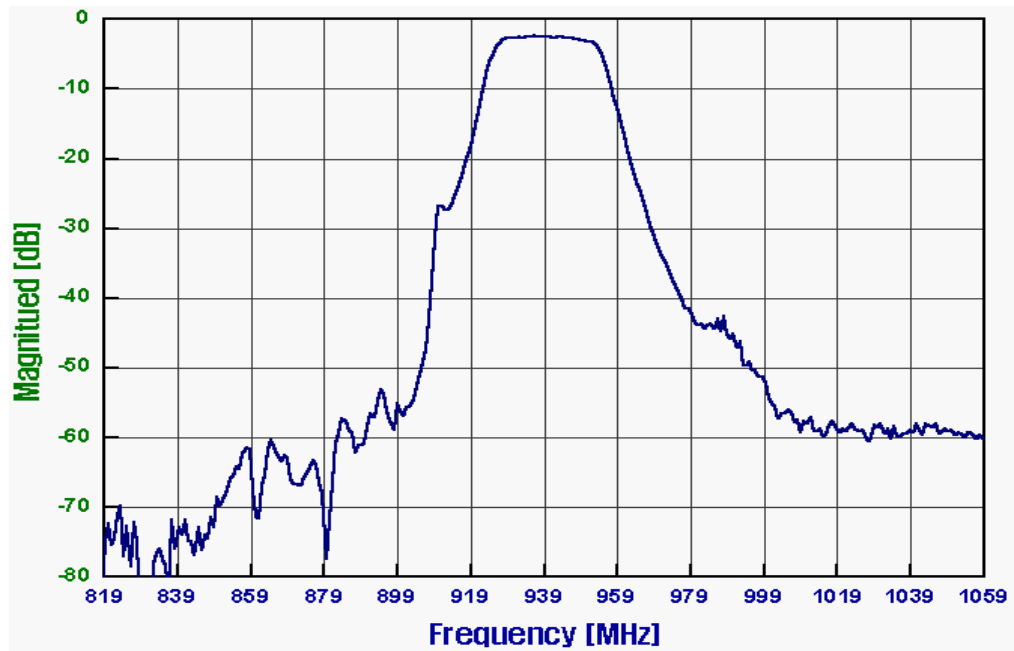
**Testing Environment**



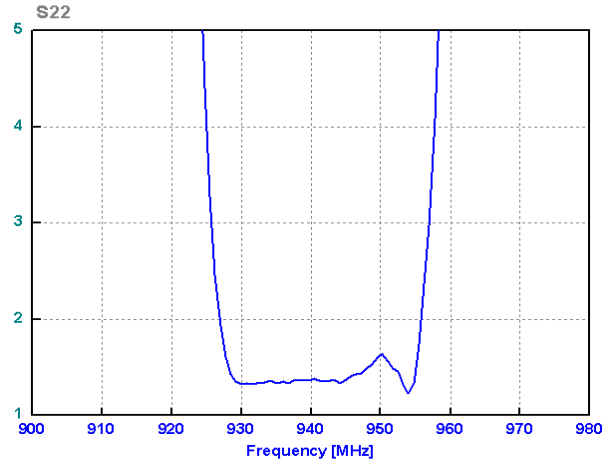
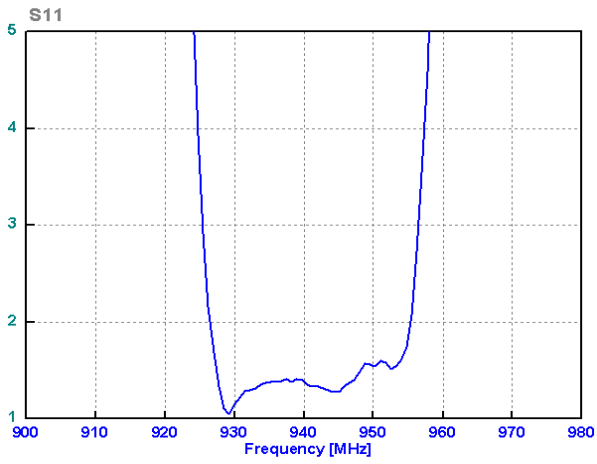
Source & Load Impedance: 50 Ω

### □ Frequency Characteristics

Frequency Response



### VSWR



### Smith Chart

