

# JRC SAW FILTER

## NSVS802

Application  
**TELCONTROL**

Electrical Specification: (Table 1)

The device characteristics are measured in the circuit shown in Fig.1.

Table 1. Electrical Specifications

Item	Spec.	
Input and Output Impedance	50Ω	
Nominal Center Frequency (f0)	869MHz	
Insertion Loss	868~870MHz	3.5dB max.
Response Variation	868~870MHz	1.5dB max.
Input and Output VSWR	868~870MHz	2.5 max.
Out of Band Rejection (Relative to Through Level)	DC~<789MHz	50dB min.
	789~839MHz	30dB min.
	919~949MHz	30dB min.
	<949~1500MHz	50dB min.

(Operating Temperature Range: -20~+70°C)

Maximum Rating: (Table 2)

Table 2. Maximum Ratings

Item	Rating
Maximum Input Power	+20dBm
Maximum DC Voltage	7.5V
Operating Temperature Range	-20~+70°C
Storage Temperature	-30~+80°C

Mechanical Specifications: (Fig.2)

Package is designed as small as 3.5x3.5x1.0[mm<sup>3</sup>] for SMD (Surface Mount Device) type.

**Notice:**

This part is electrostatic discharge sensitive and may be damaged by improper handling.

Communications Equipment Division  
Communications Equipment Marketing Department

***Japan Radio Co., Ltd.***

17-22 Akasaka 2-chome minato-ku,

Tokyo. 107-0052 Japan

Tel. +81 3-3584-8811

Fax. +81 3-3584-8876

[http://www.jrc.co.jp/product/comm/deveice/saw/saw\\_top.html](http://www.jrc.co.jp/product/comm/deveice/saw/saw_top.html) (Japanese)

[http://www.jrc.co.jp/product/comm/device/saw/saw\\_top\\_e.html](http://www.jrc.co.jp/product/comm/device/saw/saw_top_e.html) (English)

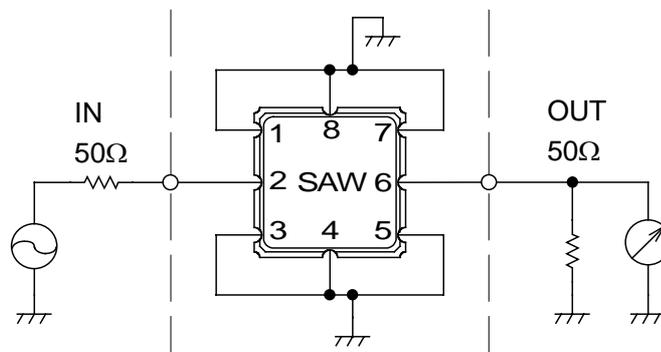
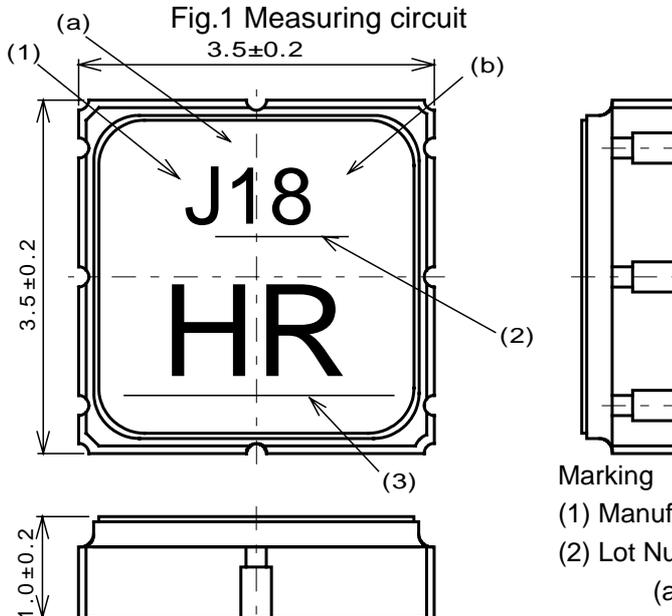


Fig.1 Measuring circuit



Marking

(1) Manufacturer's Mark

(2) Lot Number

(a) Year

(b) Month

\*Oct.--- X

Nov.--- Y

Dec.--- Z

(3) Part number Mark

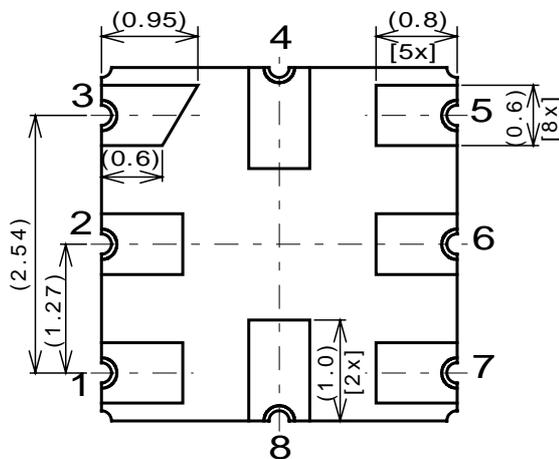


Fig.2 Package dimensions (in mm)

Pin no.	Connection
1	GND
2	IN/OUT
3	GND
4	GND
5	GND
6	OUT/IN
7	GND
8	GND

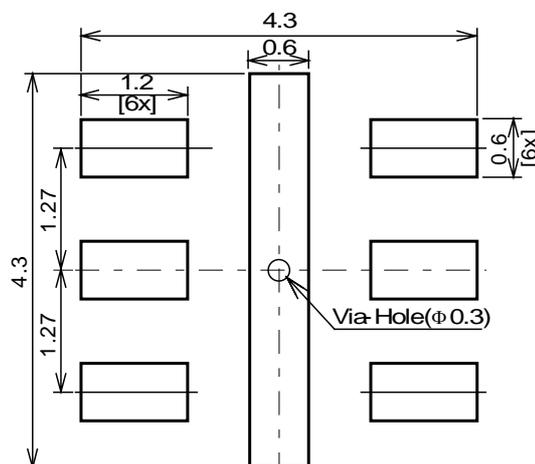


Fig.3 Desirable land area (in mm)

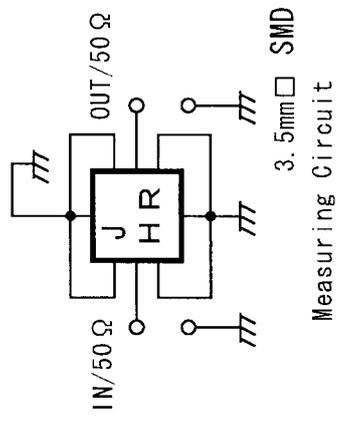
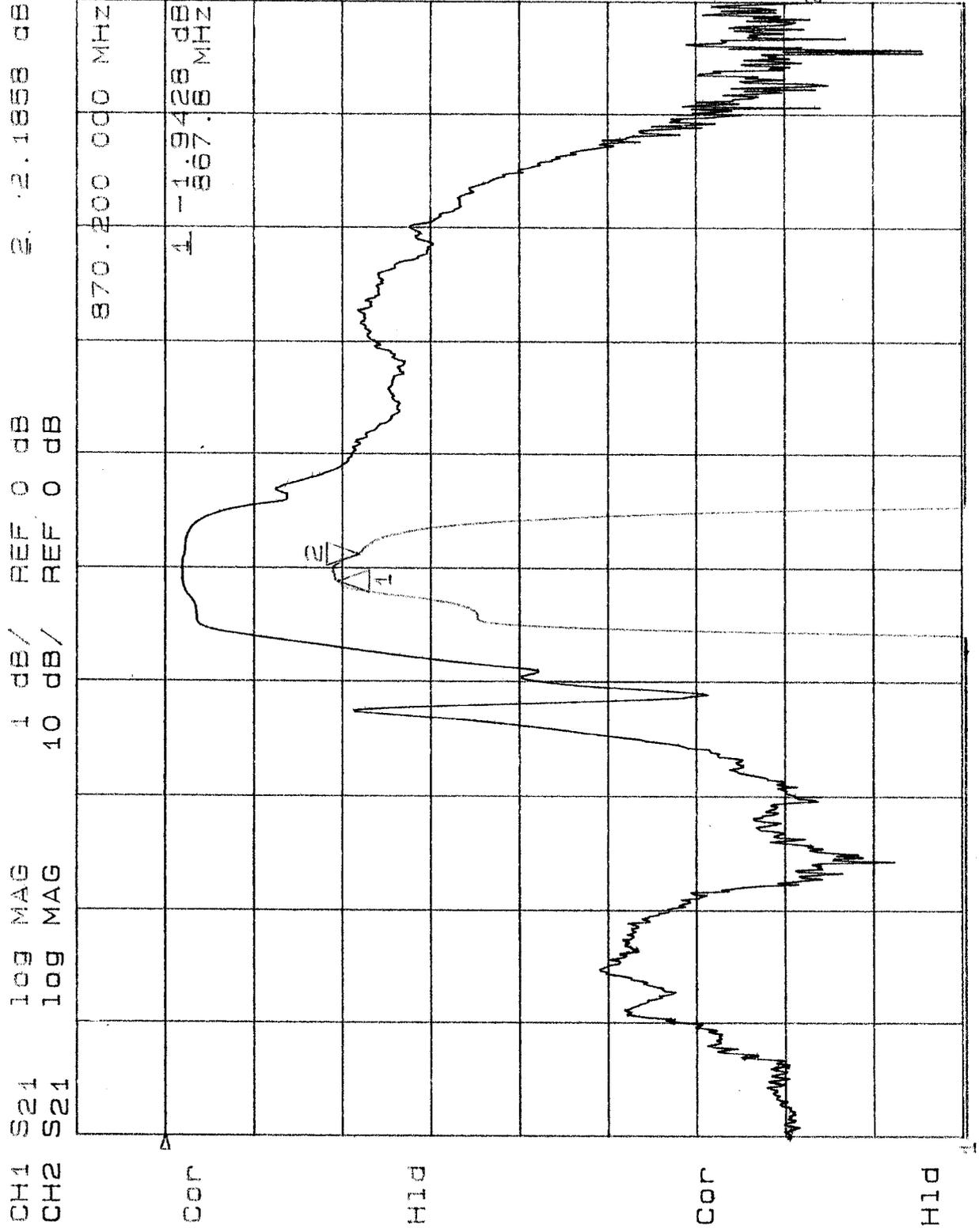
**Notice**

1. Use this component within operating temperature range. It might not be satisfied with electrical specification without operating temperature range. When it is used less than  $-20^{\circ}\text{C}$  or more than  $+70^{\circ}\text{C}$ , it might be a cause of degradation or destruction of the component. Even if it endures during a short time, it causes degradation of qualification.
2. When soldering iron is used, solder with the temperature at the tip of soldering iron:  $350^{\circ}\text{C}$  max., the time of soldering: 10 seconds max., the power of soldering iron: 30W max..
3. Notice that the allowed time of soldering with soldering iron is accumulated time, when soldering is repeated.
4. As rapid temperature change for cleaning after reflow soldering might be a cause of destruction clean this component after confirming that temperature of this component goes down to room temperature.
5. Confirm that there are not any influence for qualification to this component in mounting on PCB when this component is cleaned.
6. As it might be a cause of degradation or destruction to apply static electricity to this component, do not apply static electricity or excessive voltage while assembling and measuring. And do not transport this component with bare hand.
7. As it might be a cause of degradation or destruction to apply D.C. voltage between each terminal, apply D.C. voltage 7.5V max. in actual circuit.

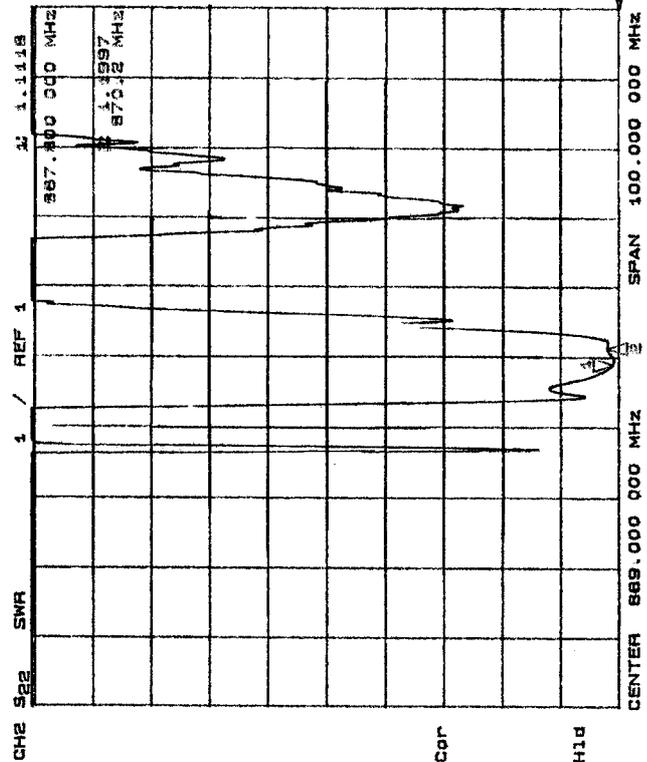
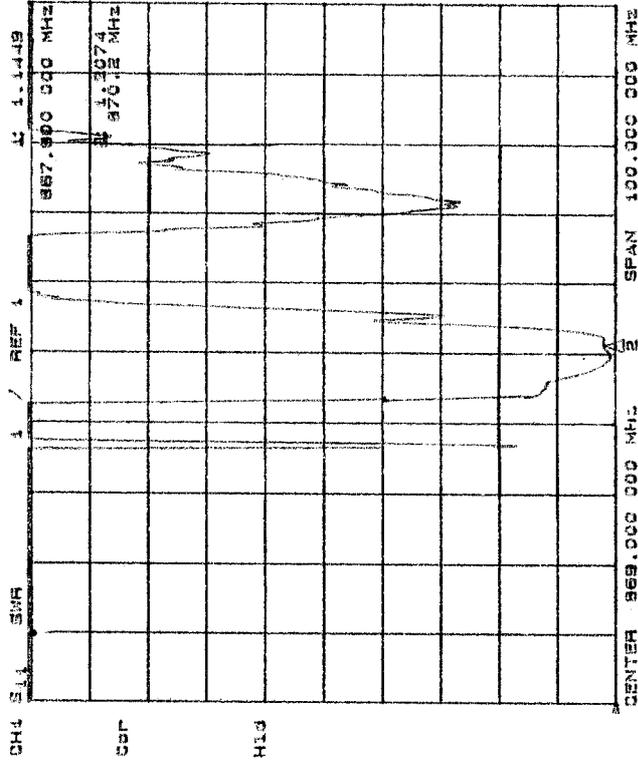
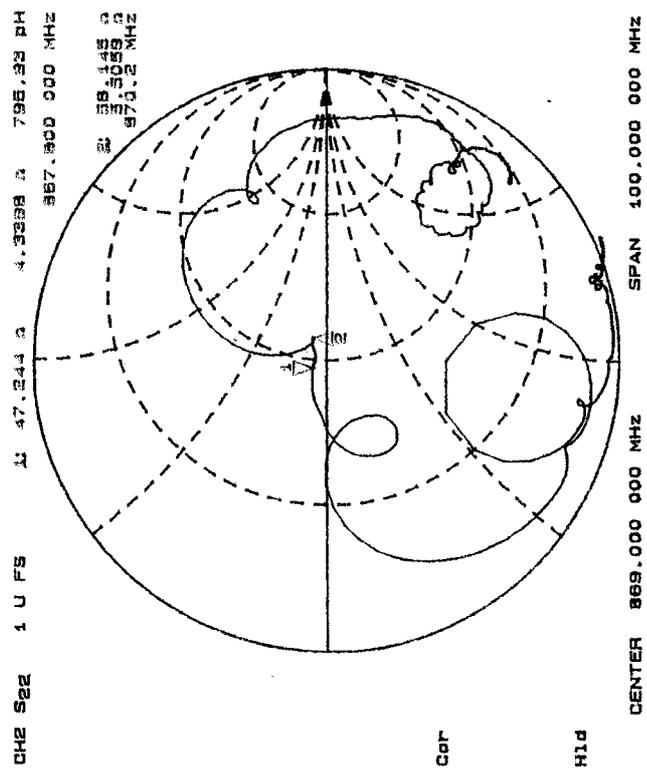
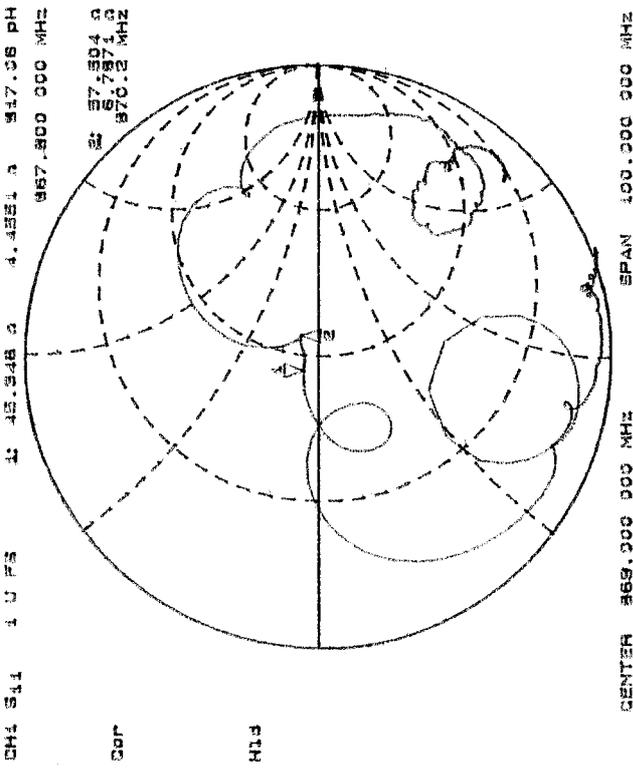
**Note**

1. This specification specifies the quality of this component as a single unit. Make sure that this component is evaluated and confirmed against this specification when it is mounted to your products.

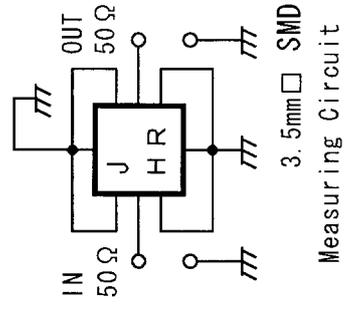
869 MHz  
SAW filter  
Frequency Characteristics



Japan Radio Co., Ltd.



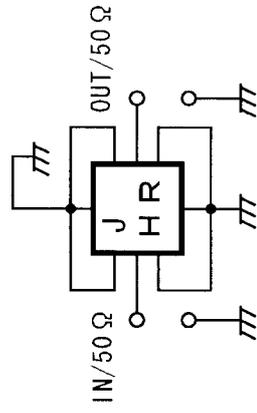
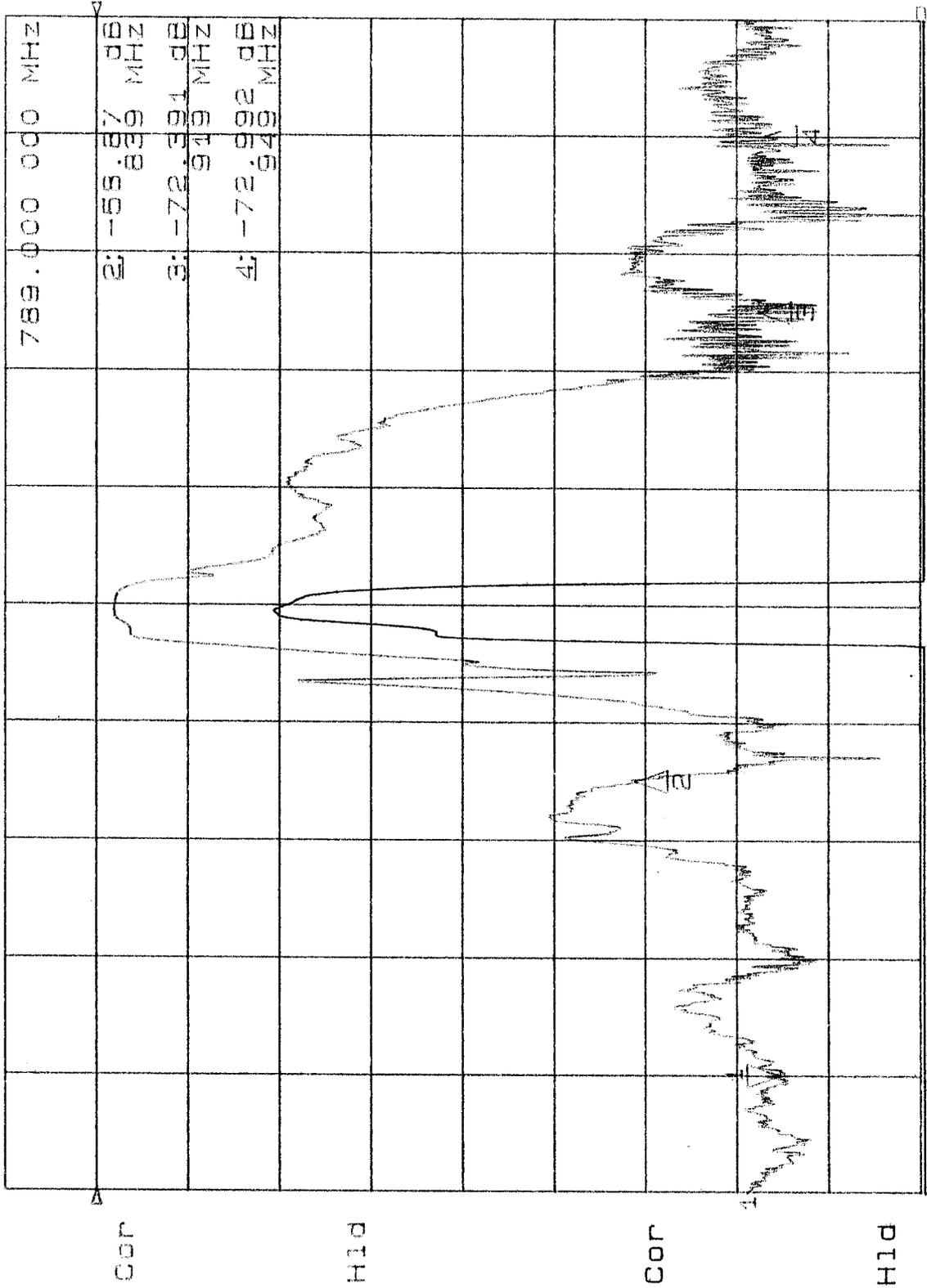
8 6 9 MHz z  
 SAW filter  
 Frequency  
 Characteristics



869 MHz  
SAW filter

Frequency Characteristics

CH1 S21 109 MAG 10 dB/ REF 0 dB  
CH2 S21 109 MAG 1 dB/ REF 0 dB  
L: -74.707 dB



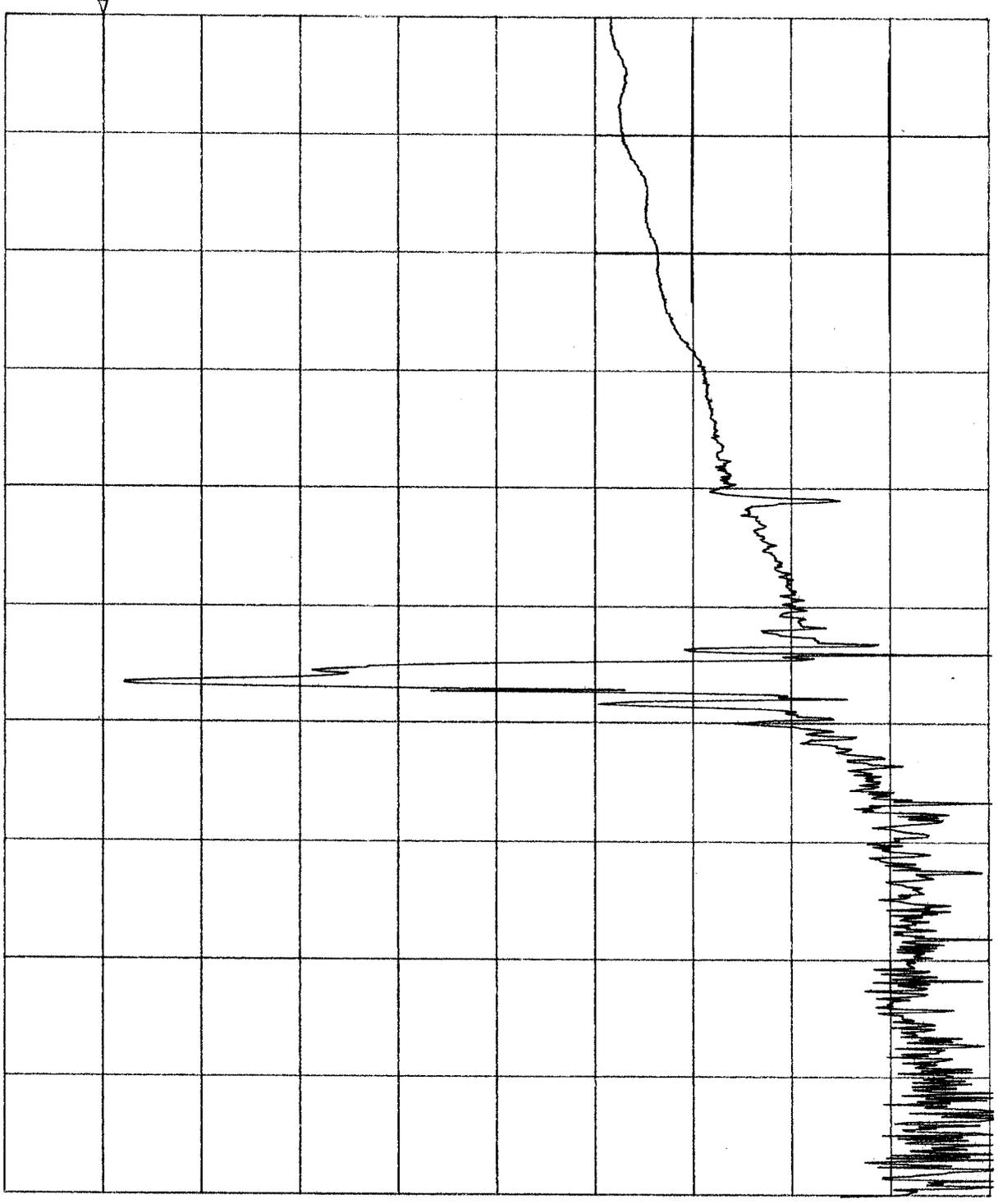
3.5mm SMD  
Measuring Circuit

Japan Radio Co., Ltd.

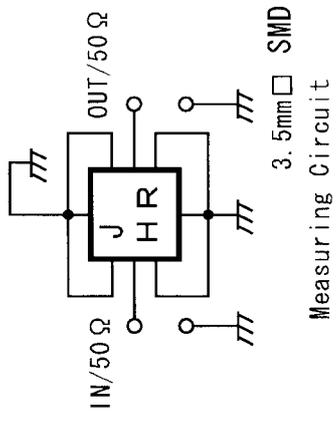
CENTER 869.000 000 MHZ SPAN 200.000 000 MHZ

8 6 9 MHz  
 SAW filter  
 Frequency Characteristics

CH2 S21 10 dB/ REF 0 dB



START .300 000 MHZ STOP 2 000 000 MHZ



Japan Radio Co., Ltd.