

# JRC SAW FILTER

## NSVA352

Application

**1575.42MHz GPS**

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)                           | 1575.42MHz         |            |
| Insertion Loss                                          | 1574.42~1576.42MHz | 3.5dB max. |
| Response Variation                                      | 1574.42~1576.42MHz | 1.5dB max. |
| Input and Output VSWR                                   | 1574.42~1576.42MHz | 2.5 max.   |
| Out of Band Rejection<br>(Relative to<br>Through Level) | 1475.42MHz         | 40dB min.  |
|                                                         | 1535.42MHz         | 30dB min.  |
|                                                         | 1615.42MHz         | 20dB min.  |
|                                                         | 1675.42MHz         | 40dB min.  |

(Operating Temperature Range: -40~+85°C)

Maximum Rating: (Table 2)

Table 2. Maximum Ratings

| Item                        | Rating     |
|-----------------------------|------------|
| Maximum Input Power         | +20dBm     |
| Maximum DC Voltage          | 7.5V       |
| Operating Temperature Range | -40~+85°C  |
| Storage Temperature         | -50~+100°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)

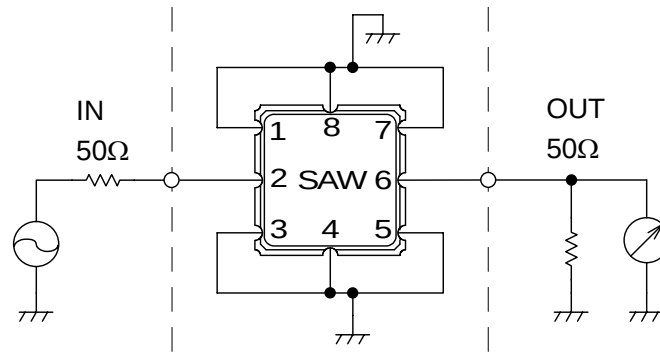


Fig.1 Measuring circuit

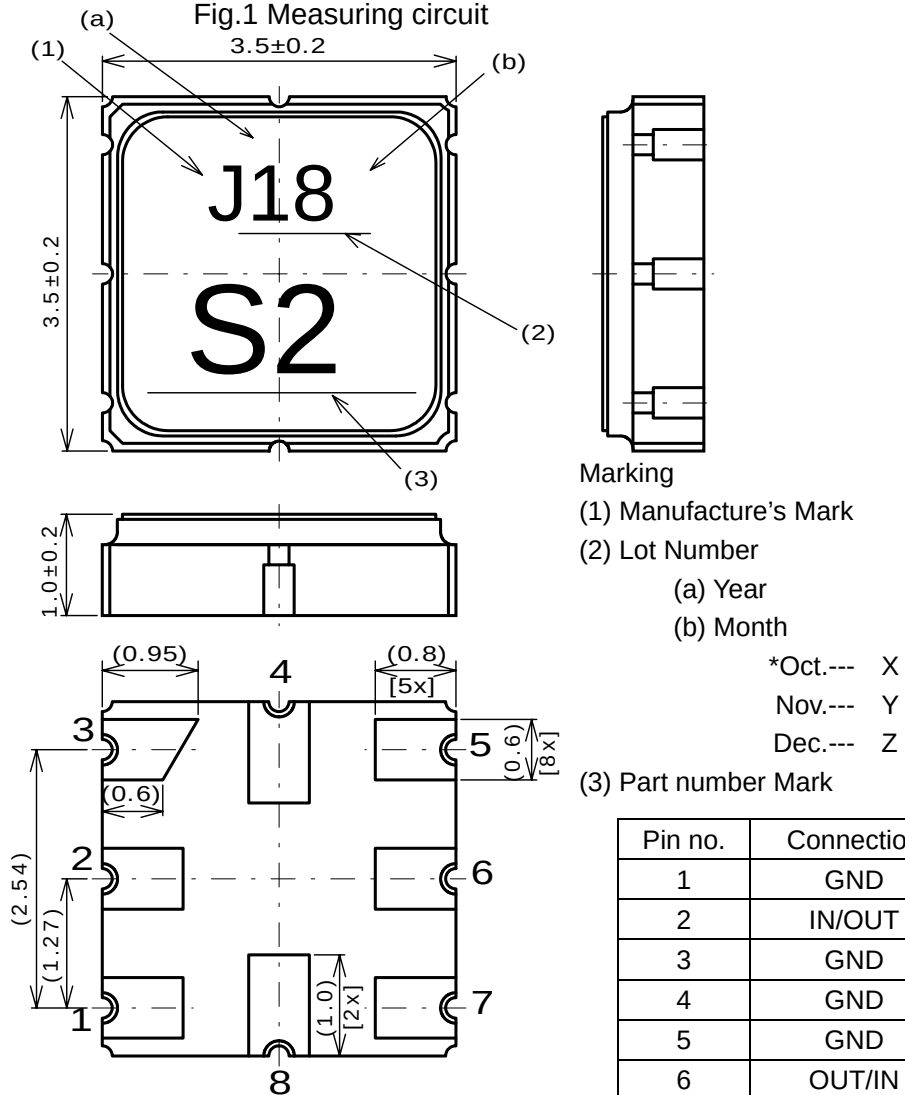


Fig.2 Package dimensions (in mm)

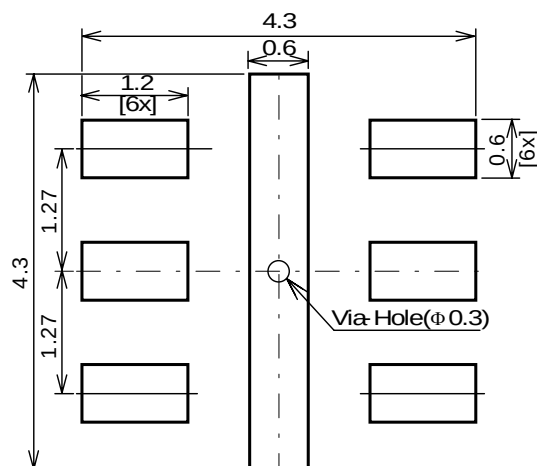


Fig.3 Desirable land area (in mm)

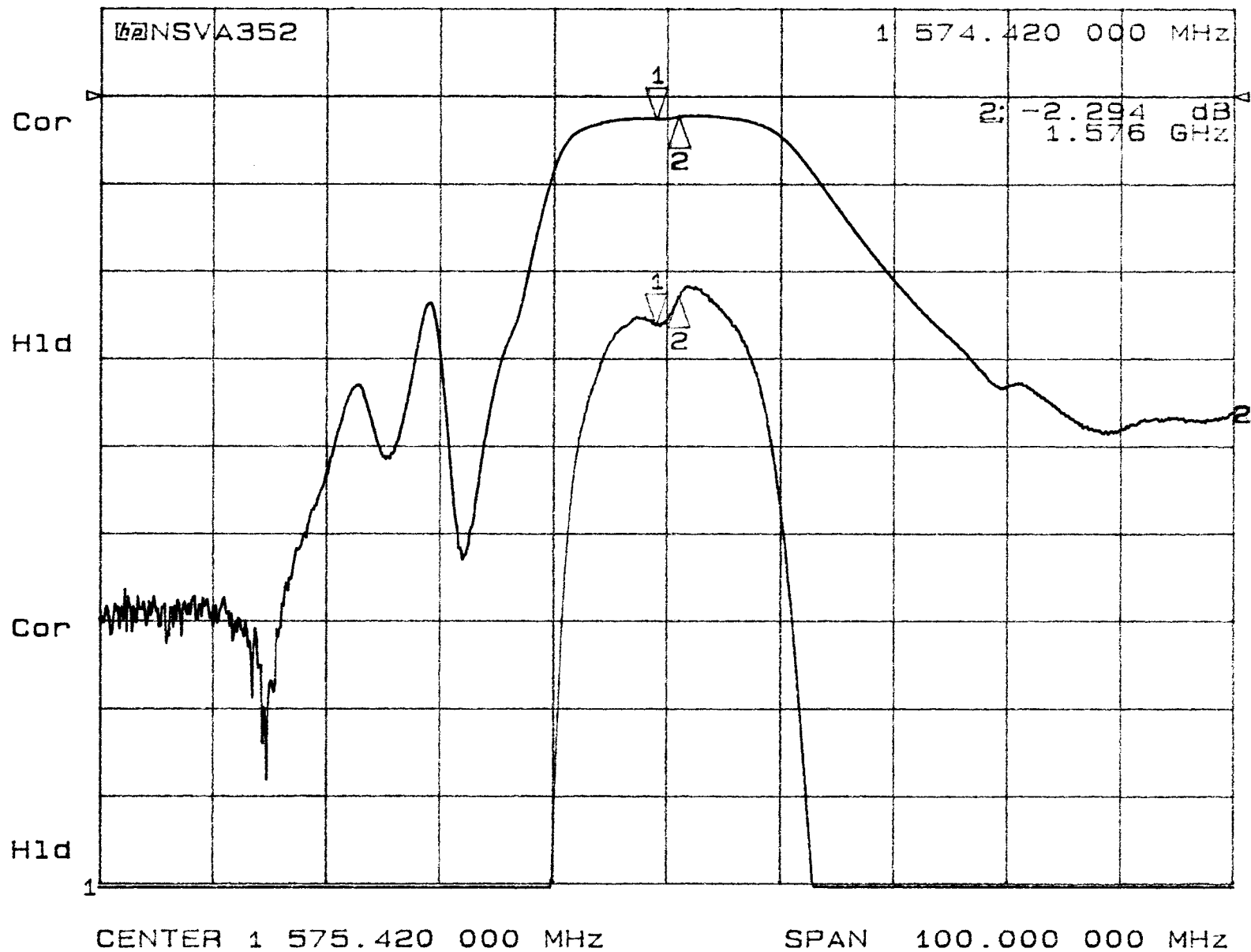
**Notice**

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 -40°C or more than +85°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°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.

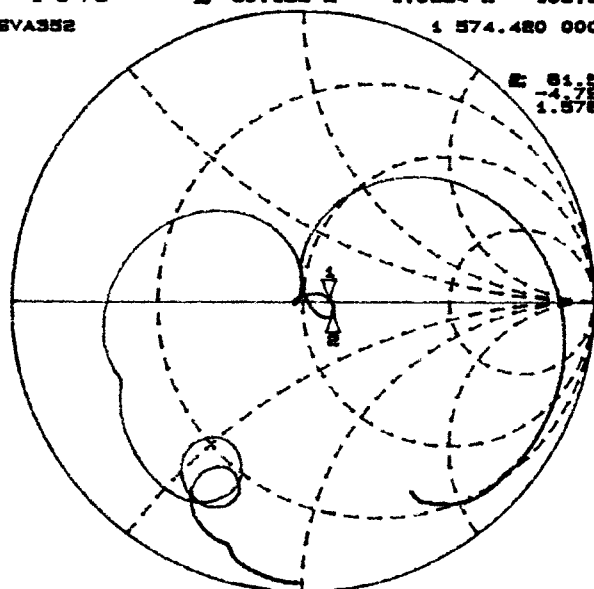
CH1 S<sub>21</sub> log MAG 1 dB/ REF 0 dB 1: -2.6179 dB  
CH2 S<sub>21</sub> log MAG 10 dB/ REF 0 dB 1: -2.6179 dB



CH1 S<sub>11</sub> 1 U FS 1: 60.152  $\Omega$  1.0254  $\Omega$  103.65 pF  
SENSVA352 1 574.420 000 MHz

Cor

H1d

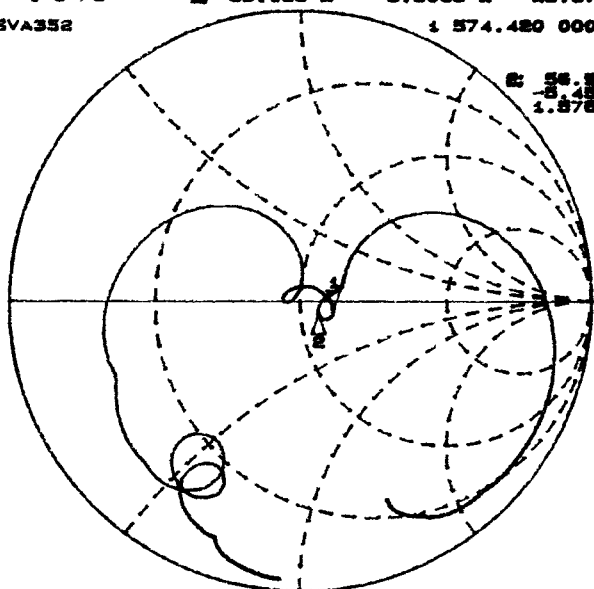


CENTER 1 575.420 000 MHz SPAN 100.000 000 MHz

CH1 S<sub>22</sub> 1 U FS 1: 63.166  $\Omega$  -3.9063  $\Omega$  25.679 pF  
SENSVA352 1 574.420 000 MHz

Cor

H1d

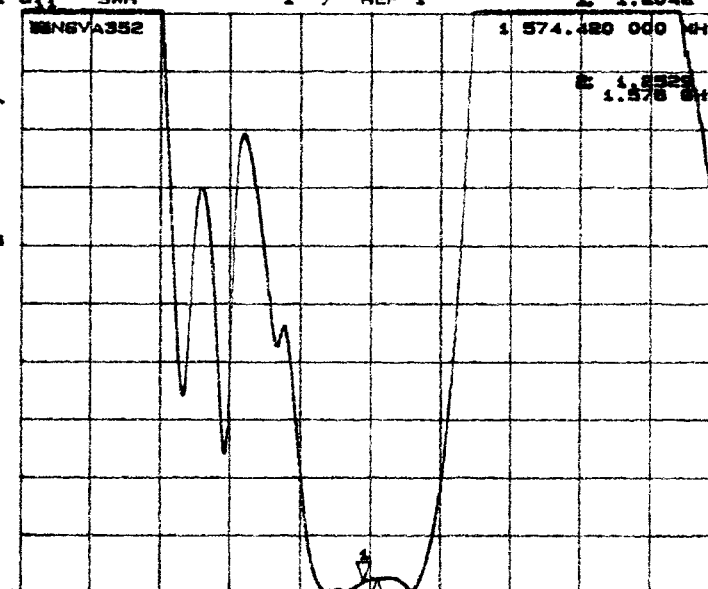


CENTER 1 575.420 000 MHz SPAN 100.000 000 MHz

CH1 S<sub>11</sub> SWR 1 / REF 1 1: 1.2042  
SENSVA352 1 574.420 000 MHz

Cor

H1d

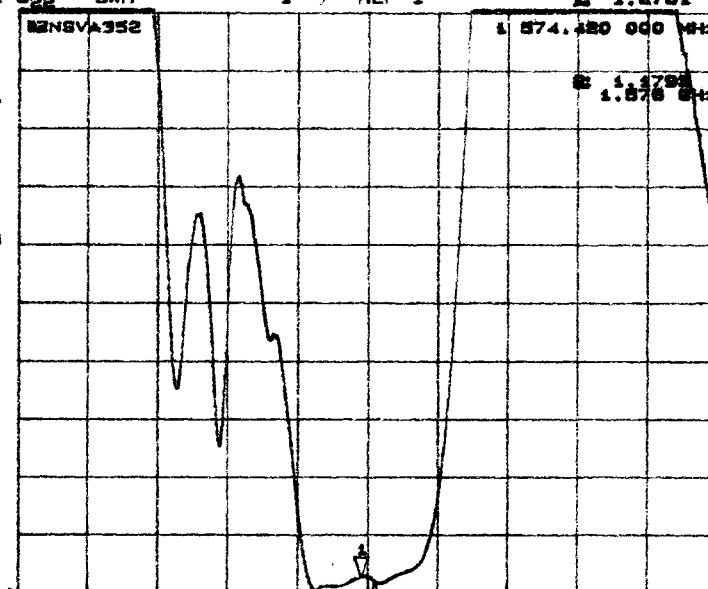


CENTER 1 575.420 000 MHz SPAN 100.000 000 MHz

CH1 S<sub>22</sub> SWR 1 / REF 1 1: 1.2781  
SENSVA352 1 574.420 000 MHz

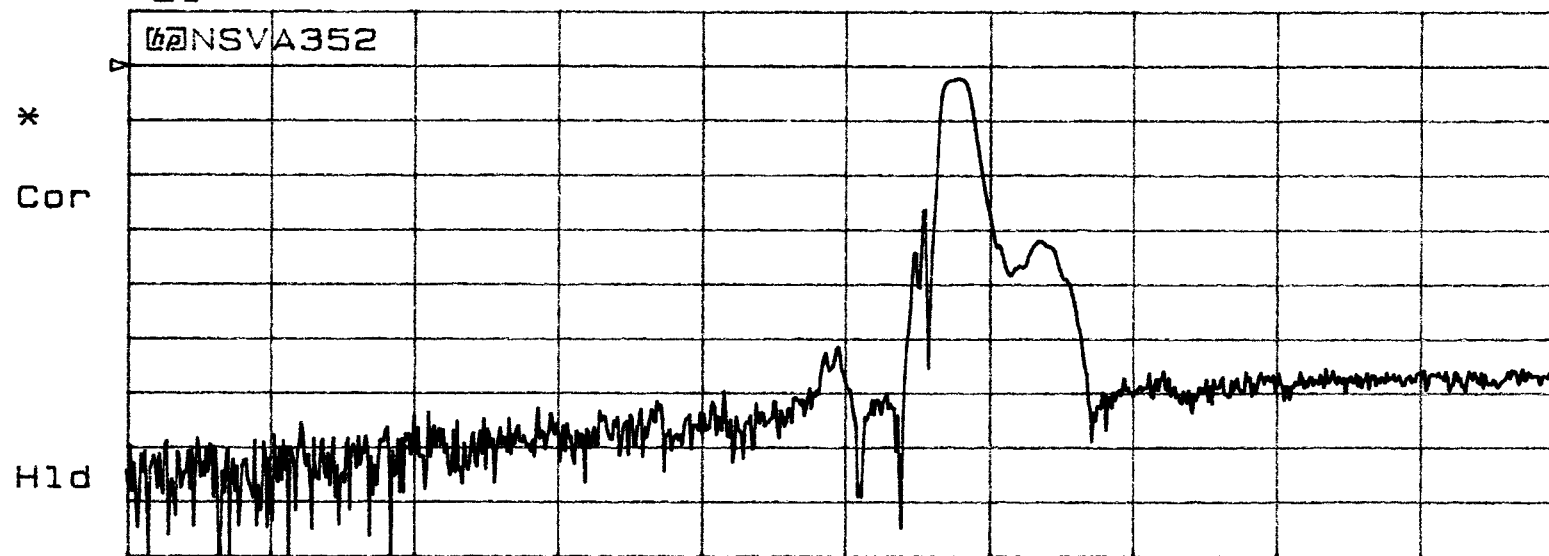
Cor

H1d



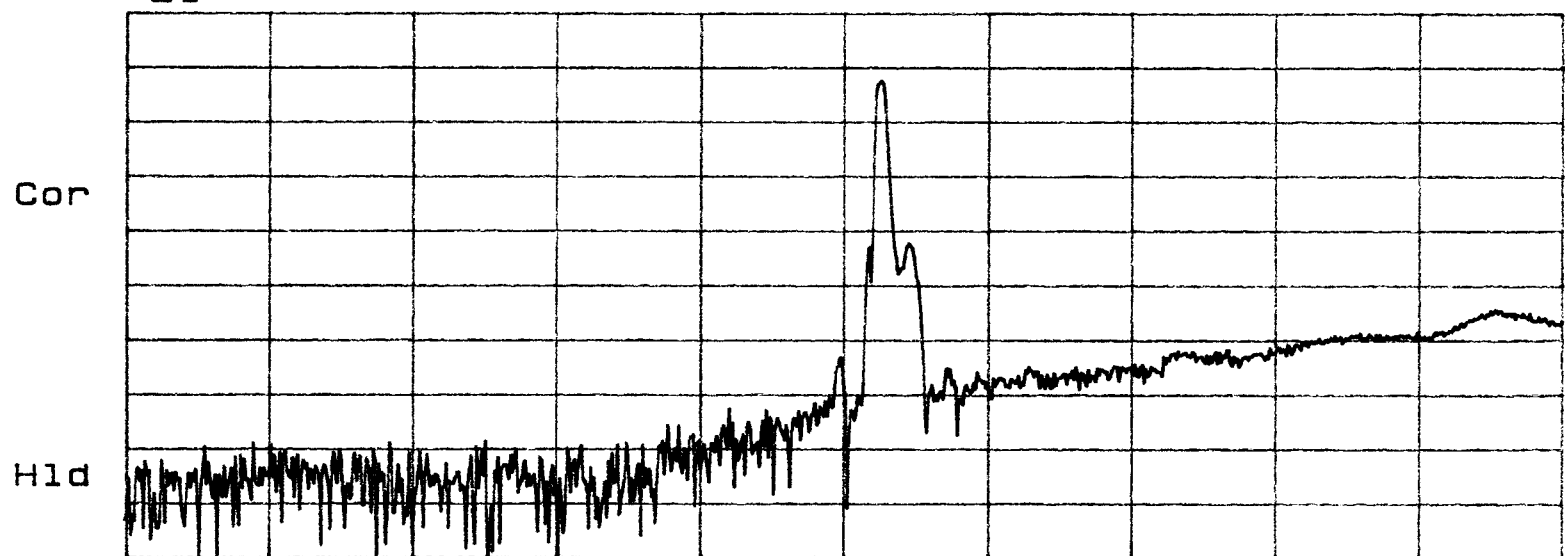
CENTER 1 575.420 000 MHz SPAN 100.000 000 MHz

CH1 S<sub>21</sub> log MAG 10 dB/ REF 0 dB



CH1 START 1 000.000 000 MHz STOP 2 000.000 000 MHz

CH2 S<sub>21</sub> log MAG 10 dB/ REF 0 dB



CH2 START .300 000 MHz STOP 3 000.000 000 MHz

CH1 S<sub>21</sub> delay 50 ns/ REF 0 s 1: 40.405 ns

