

JRC SAW FILTER

NSVA397

Application

422.2MHz Specified Low Power Radio Station

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) | 422.2MHz | |
| Insertion Loss | 421.7~422.7MHz | 3.0dB max. |
| Response Variation | 421.7~422.7MHz | 1.5dB max. |
| Input and Output VSWR | 421.7~422.7MHz | 2.5 max. |
| Out of Band Rejection (Relative to Through Level) | 400.8MHz | 50dB min. |
| | 443.6MHz | 50dB min. |

(Operating Temperature Range: -10~+60°C)

Maximum Rating: (Table 2)

Table 2. Maximum Ratings

| Item | Rating |
|-----------------------------|-----------|
| Maximum Input Power | +20dBm |
| Maximum DC Voltage | 7.5V |
| Operating Temperature Range | -10~+60°C |
| Storage Temperature | -20~+70°C |

Mechanical Specifications: (Fig.2)

Package is designed as small as 5.2x4.5x1.5[mm³] 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 (Japanese)

http://www.jrc.co.jp/product/comm/device/saw/saw_top_e.html (English)

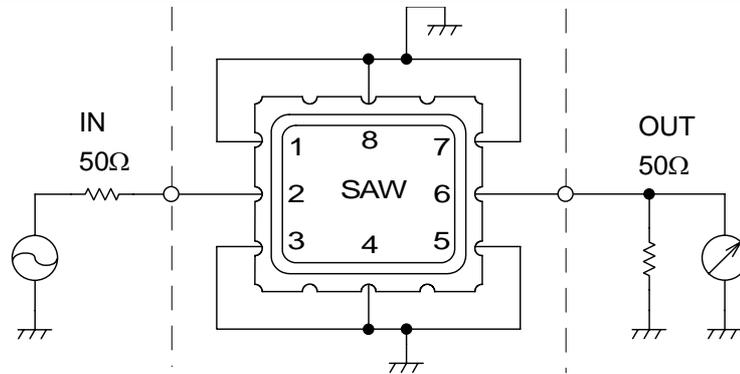
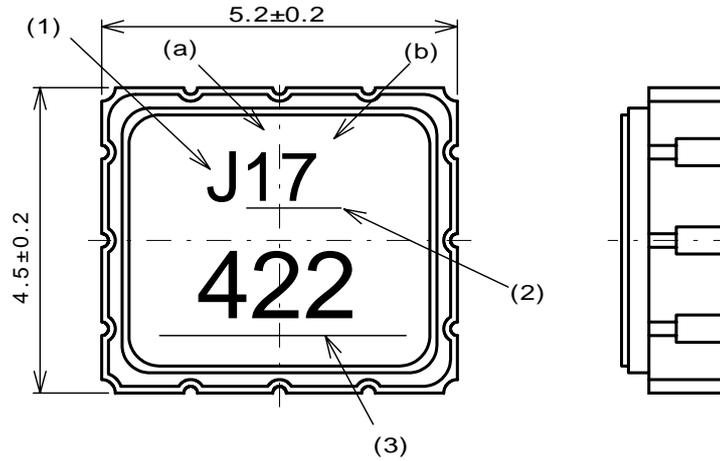


Fig.1 Measuring circuit



Marking

- (1) Manufacturer's Mark
- (2) Lot Number
- (a) Year
- (b) Month

*Oct.--- X
 Nov.--- Y
 Dec.--- Z

- (3) Part number Mark

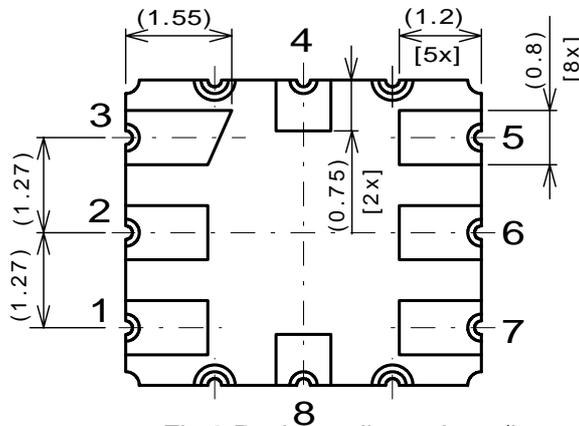


Fig.2 Package dimensions (in mm)

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

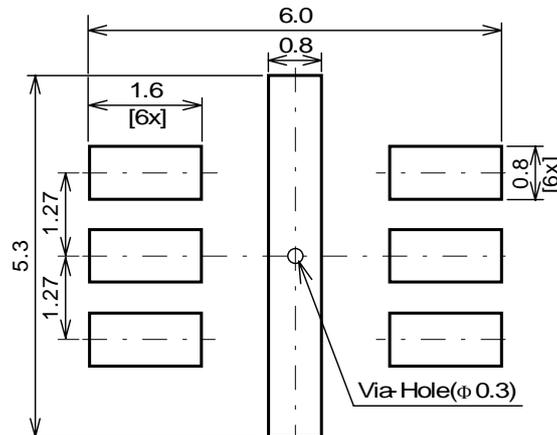


Fig.3 Desirable land area (in mm)

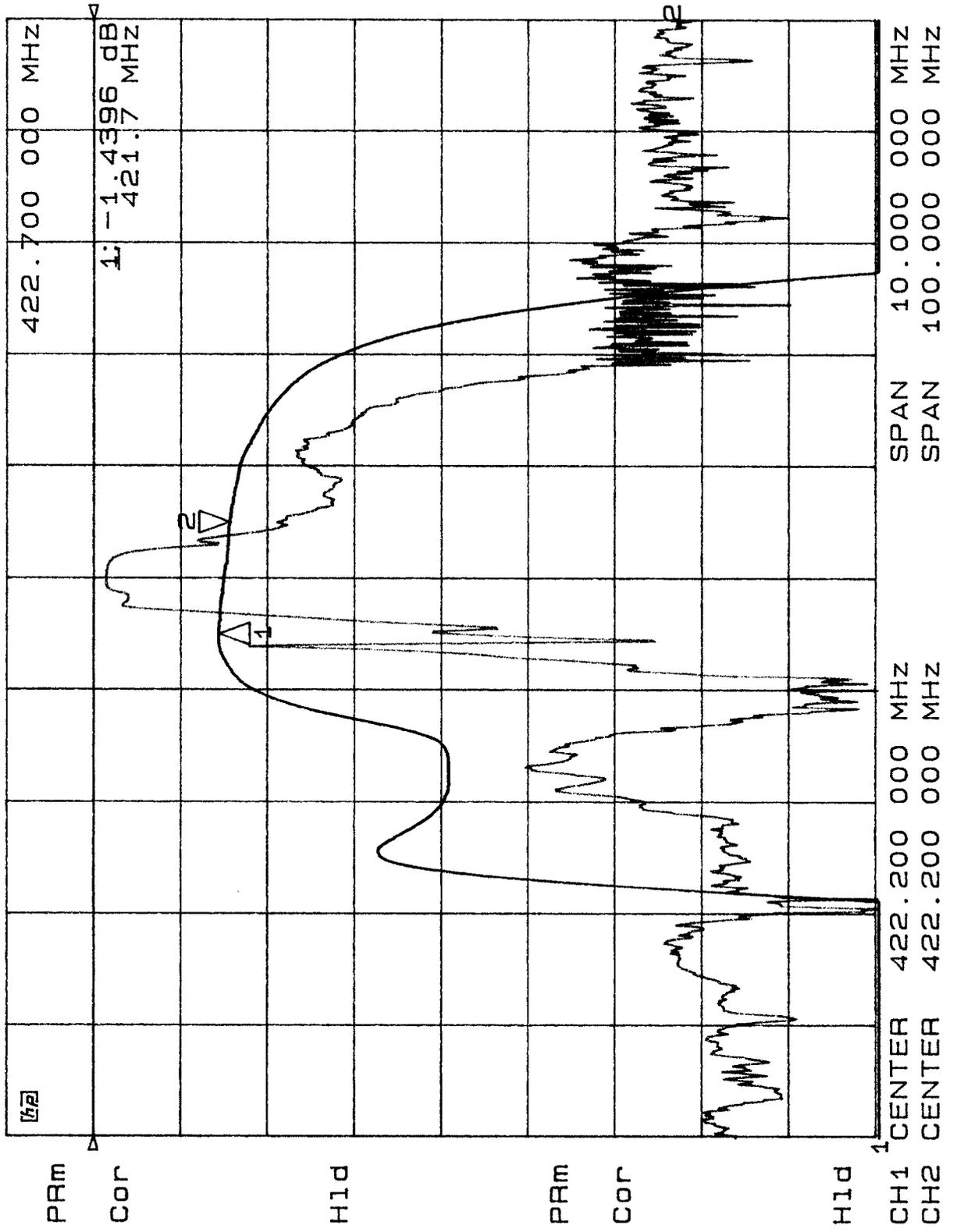
Notice

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 -10°C or more than $+60^{\circ}\text{C}$, 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°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.

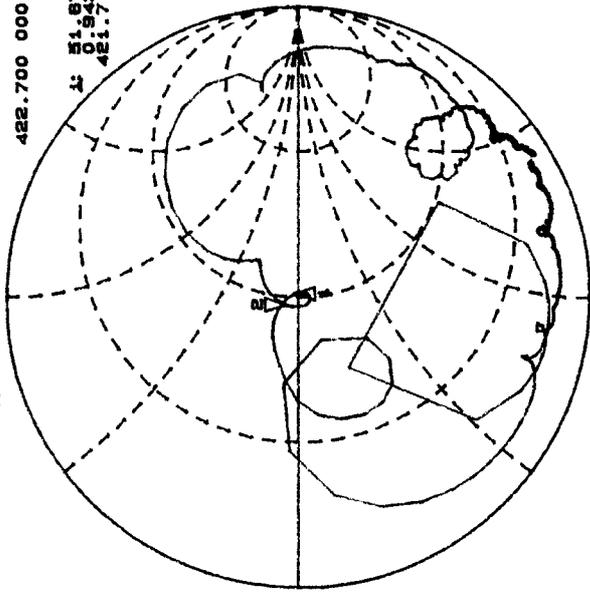
Note

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 S21 109 MAG 1 dB/ REF 0 dB 15 Mar 1997 14: 45: 43
 CH2 S21 109 MAG 10 dB/ REF 0 dB 2: -1.5753 dB

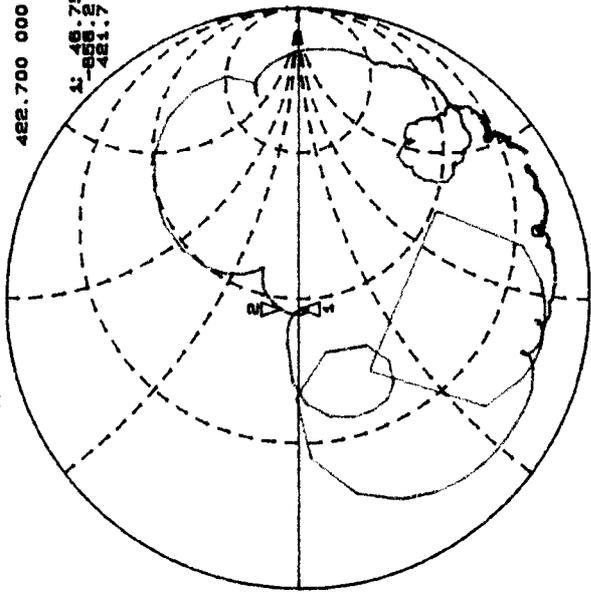


CH1 S11 1 U FS 15 Mar 1987 14:55:07
 47.888 GHz 4.4256 dB 1.8884 nH
 422.700 000 MHz
 51.87 GHz
 51.87 GHz
 421.7 MHz



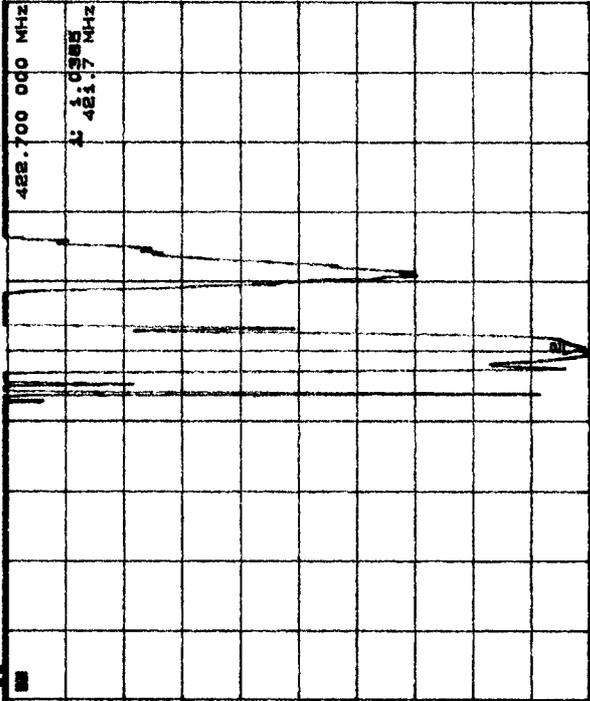
H1d

CH1 CENTER 422.500 000 MHz SPAN 100.000 000 MHz
 CH2 S22 1 U FS 15 Mar 1987 15:00:29
 46.377 GHz 5.502 dB 2.0716 nH
 422.700 000 MHz
 46.756 GHz
 -858.2 MHz
 421.7 MHz



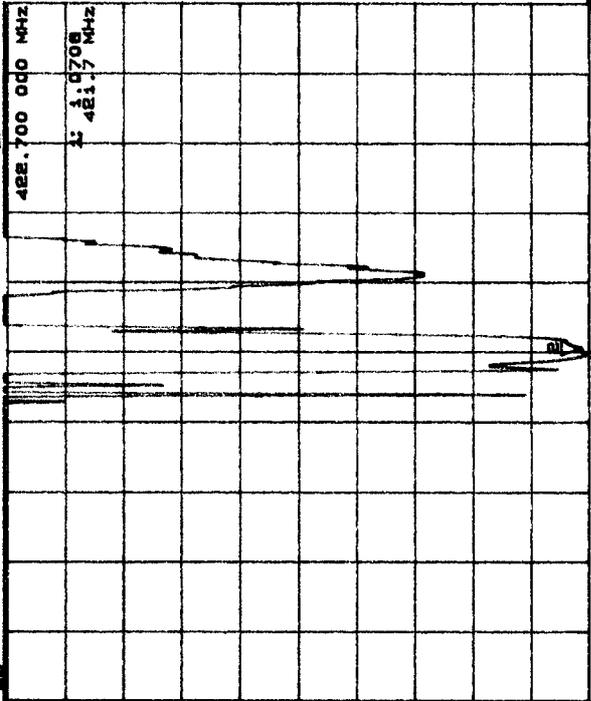
H1d

CH1 S11 SMR 15 Mar 1987 14:58:08
 422.700 000 MHz
 1.075 GHz
 421.7 MHz



H1d

CH2 S22 SMR 15 Mar 1987 15:03:20
 422.700 000 MHz
 1.485 GHz
 421.7 MHz



H1d

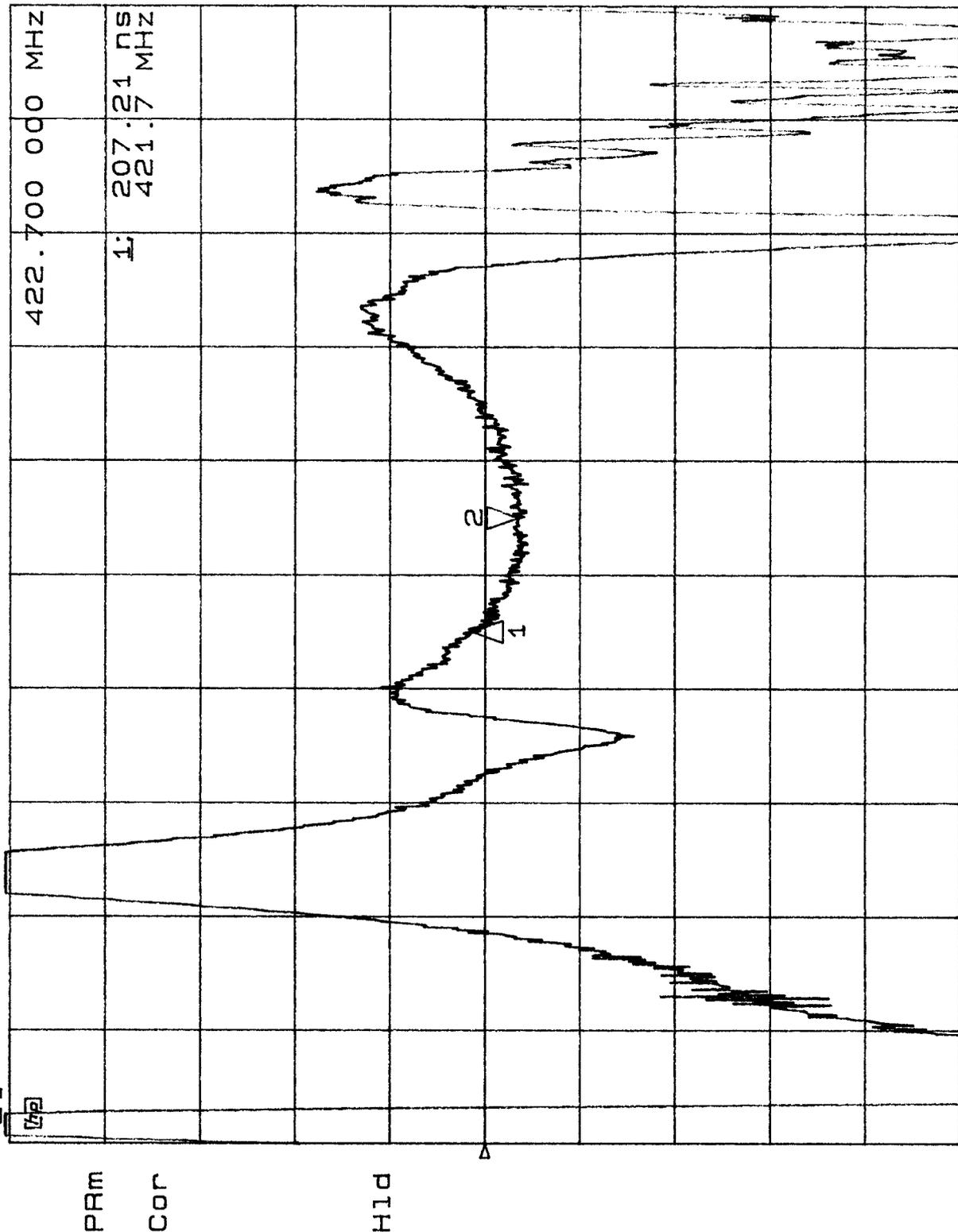
15 Mar 1997 14:51:09

50 ns/ REF 200 ns 2: 182.5 ns

422.700 000 MHz

CH1 S21 delay

CH1 CENTER 422.200 000 MHz



PRM

Cor

H1d

CH1 CENTER 422.200 000 MHz SPAN 10.000 000 MHz