

New JRC SAW FILTER

NSTS9116

Application

1589.5MHz GNSS 1st Filter

Electrical Specification: (Table 1)

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

Item		Spec.	Typ.
Input and Output Impedance		-	50Ω
Nominal Center Frequency (f0)		-	1589.5MHz
Insertion Loss	1589.5±16MHz	2.0dB max.	1.35dB
Response Variation		1.0dB max.	0.3dB
Input and Output VSWR		2.0 max.	1.7
Out of Band Rejection (Relative to Through Level)	800~1000MHz	17dB min.	21dB
	1700~2100MHz	20dB min.	23dB

Operating Temperature : -40~+105°C

Maximum Rating: (Table 2)

Table 2. Maximum Ratings

Item	Rating
Maximum Input Power (In Band)	+10dBm
Maximum DC Voltage	7.5V
Operating Temperature	-40~+105°C
Storage Temperature Limit	-40~+110°C

Mechanical Specifications: (Fig.2)

Package is designed as small as 2.0x1.6x0.65[mm³] for SMD (Surface Mount Device) type.

Notice:

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

New Japan Radio Co., Ltd.

<http://www.njr.co.jp/products/device/index.html>

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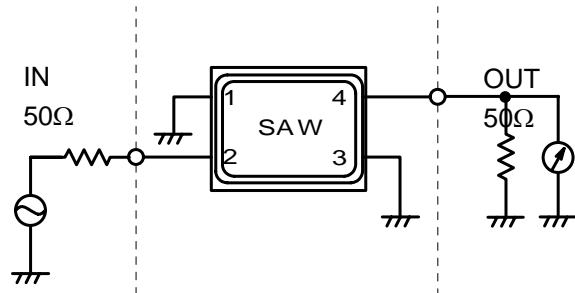


Fig.1 Measuring circuit

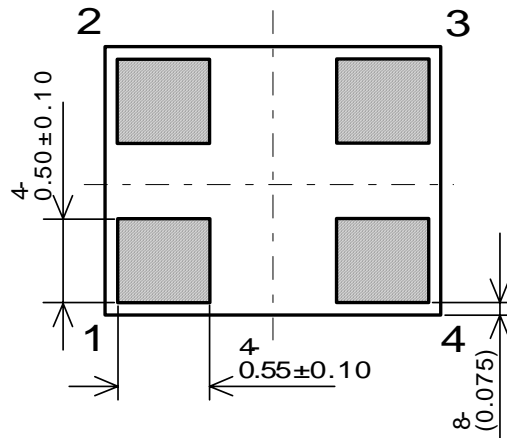
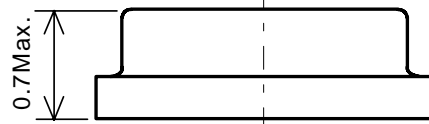
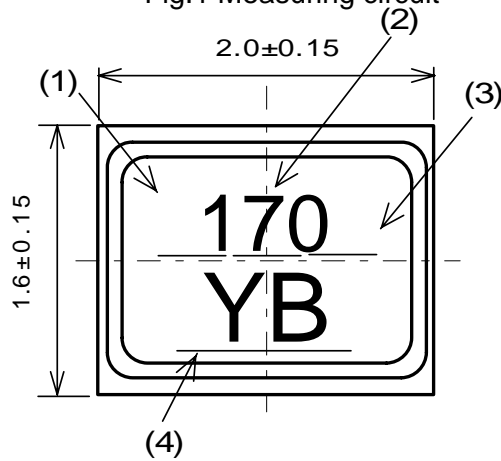


Fig.2 Package dimensions (in mm)

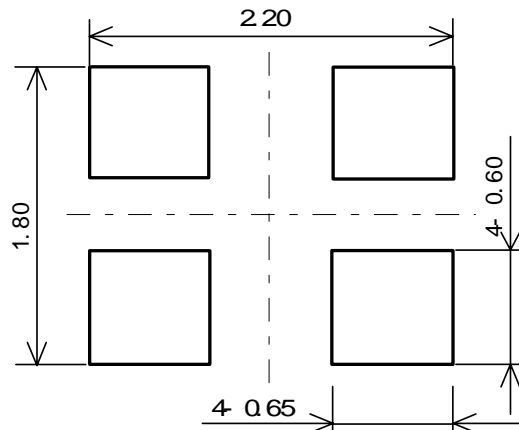
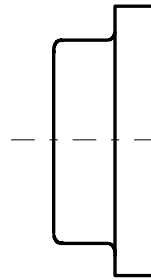


Fig.3 Desirable land area (in mm)



Marking

Lot Number

(1) Year

(2) Month

*Oct.--- X

Nov.--- Y

Dec.--- Z

(3) Date

*1-9--- 0

10-19--- 1

20-31--- 2

(4) Part Number Mark

Pin no.	Connection
1	GND
2	IN
3	GND
4	OUT

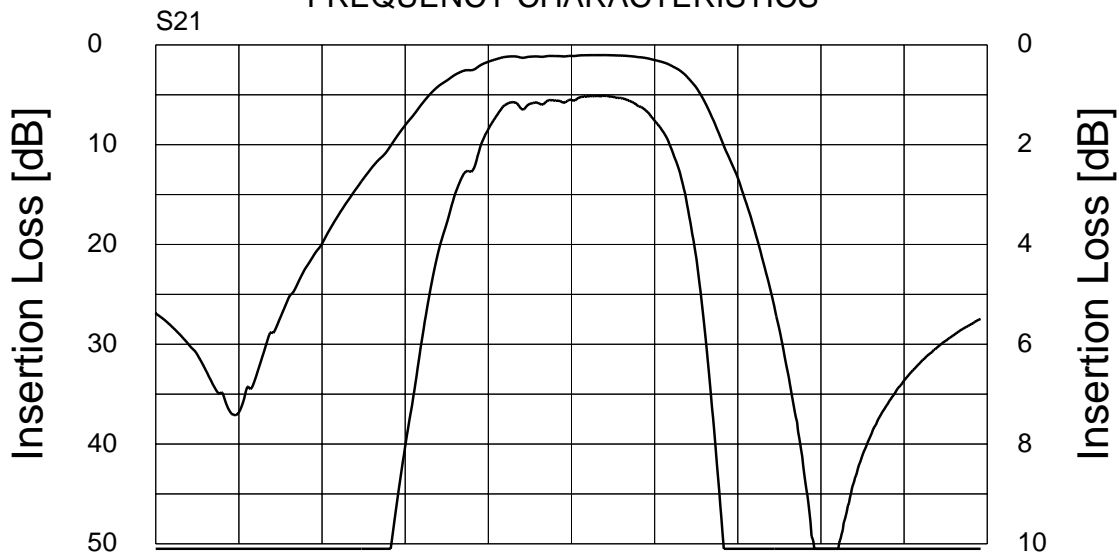
Notice

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 $+105^{\circ}\text{C}$, 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: 5 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

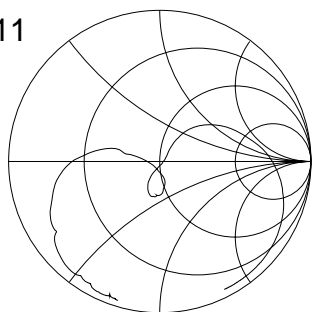
1. This specification specifies the quality of this component as a single unit. Make sure that this component is evaluated and confirmed against this specification when it is mounted to your products.
2. The information contained herein may be changed without prior notice. It is therefore advisable to contact New Japan Radio Company before proceeding with the design of equipment incorporating this product.
3. The products are designed to be used with ordinary electronic equipment (data and communications equipment, office equipment, audio-video equipment, measuring instruments, etc). New Japan Radio Company does not assume any liability for the case using the products with the application required high reliability or safety extremely (such as space equipment, sea-bottom equipment, medical equipment etc). When intending to use any our product please contact our sales representatives in advance.

FREQUENCY CHARACTERISTICS

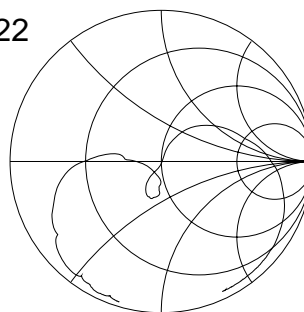


CH1 : center 1589.5 span 200
 CH2 : center 1589.5 span 200

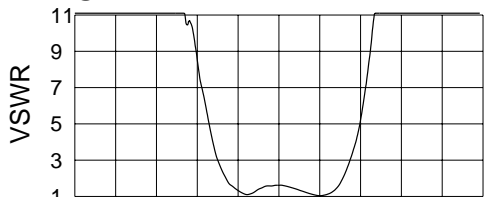
S11



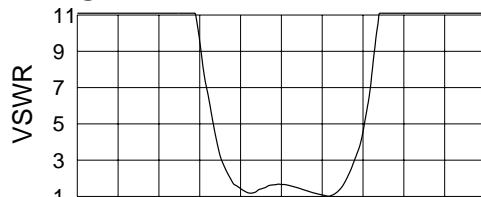
S22



S11



S22



1489.5

1689.5

1489.5

1689.5

Frequency [MHz]

Frequency [MHz]

