New JRC SAW FILTER
NSNJ2007

Application

Low Power Transceiver f0=446.05MHz BW=0.1MHz

Electrical Specification: (Table 1)

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

Table 1. Electrical Specifications

Item		Spec.	Typ.
Input and Output Impedance		-	50Ω
Nominal Center Frequency (f0)		-	446.05MHz
Insertion Loss	446.0~446.1MHz	3.0dB max.	2.3dB
Response Variation	446.0~446.1MHz	1.0dB max.	0.1dB
VSWR	446.0~446.1MHz	2.0 max.	1.2
Out of Band Rejection (Relative to Through Level)	402.60625~402.69375MHz	50dB min.	69dB
	424.30625~424.39375MHz	40dB min.	65dB
	435.15625~435.24375MHz	40dB min.	61dB
	435.45~435.55MHz	20dB min.	61dB
	456.55~456.65MHz	20dB min.	28dB
	424.9~425.0MHz	40dB min.	59dB
	467.1~467.2MHz	40dB min.	56dB

(Operating Temperature Range: -20~+60ºC)

Maximum Rating: (Table 2)

Table2. Maximum Ratings

Item	Rating
Maximum Input Power	+20dBm
Maximum DC Voltage	7.5V
Operating Temperature Range	-20~+60ºC
Storage Temperature	-30~+85ºC

Mechanical Specifications: (Fig.2)

Package is designed as small as 3.0x3.0x1.15[mm^3] 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 （Japanese）
http://www.njr.com/products/device/index.html （English）

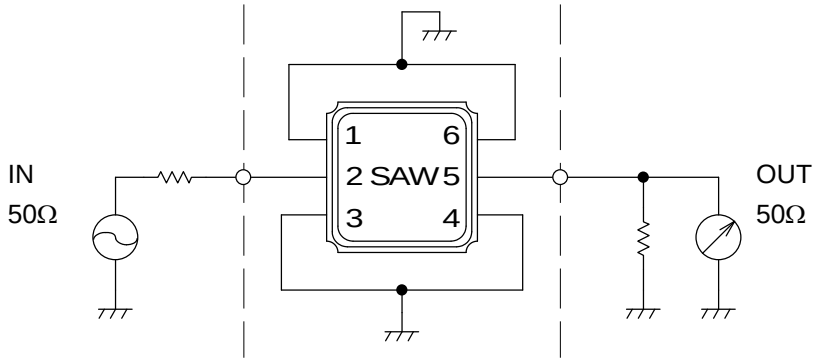


Fig.1 Measuring circuit

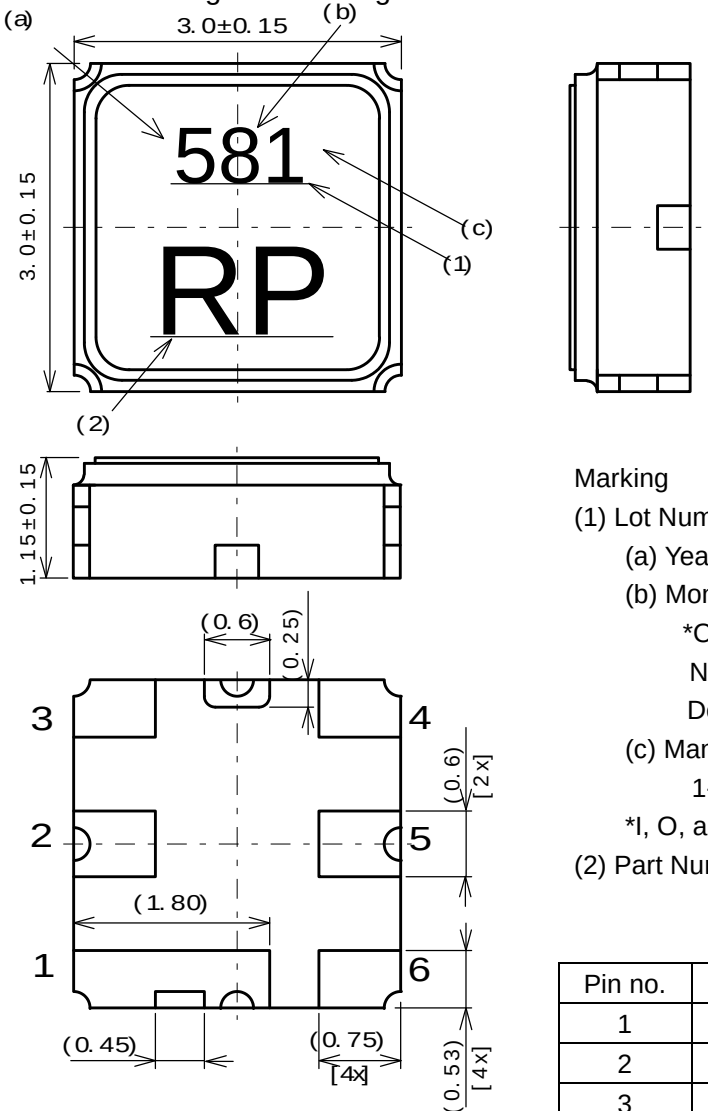


Fig.2 Package dimensions (in mm)

Marking

(1) Lot Number

(a) Year

(b) Month

*Oct.--- X

Nov.--- Y

Dec.--- Z

(c) Manufacture lot

1-9, A-Z, a-z

*I, O, and Q are excluded.

(2) Part Number Mark

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

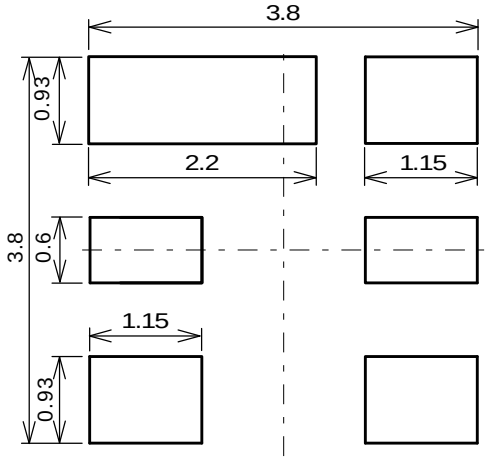


Fig.3 Desirable land area (in mm)

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 -20ºC or more than +60ºC, 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: 350ºC 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.

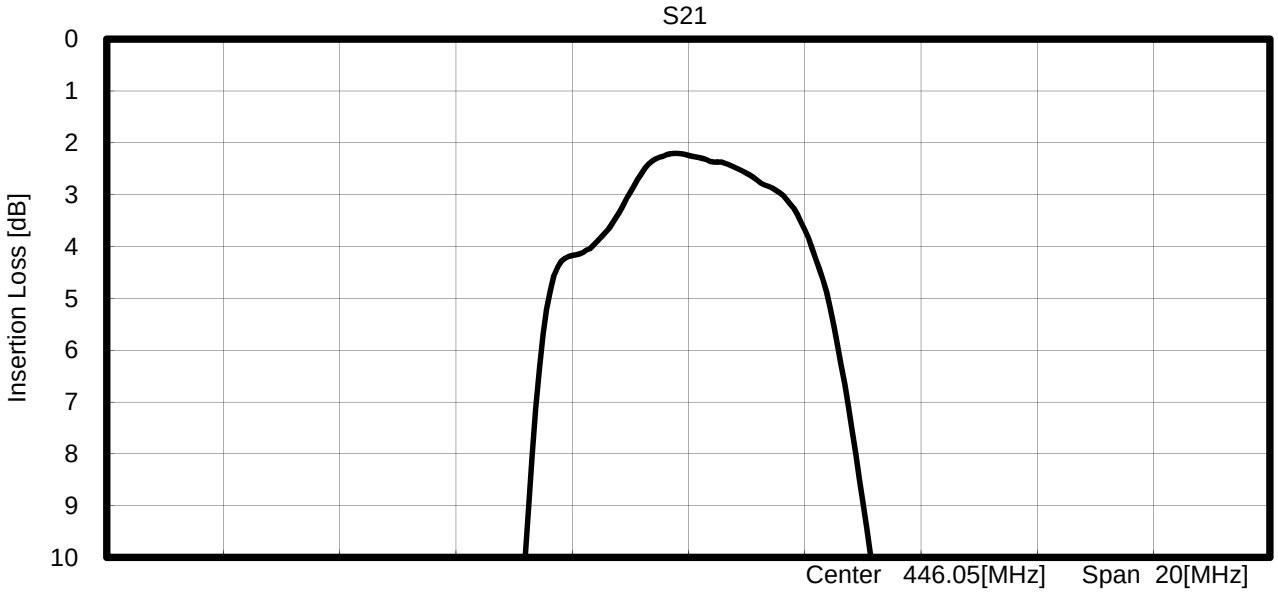
5. Confirm that there are not any influence for qualification to this component in mounting on PCB when this component is cleaned.

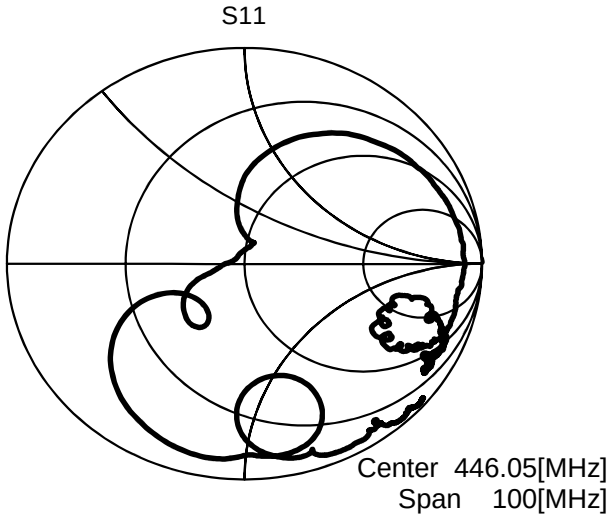
6. As it might be a cause of degradation of destruction to apply static electricity to this component, do not apply static electricity or excessive voltage while assembling and measuring. And do not transport this component with bare hand.

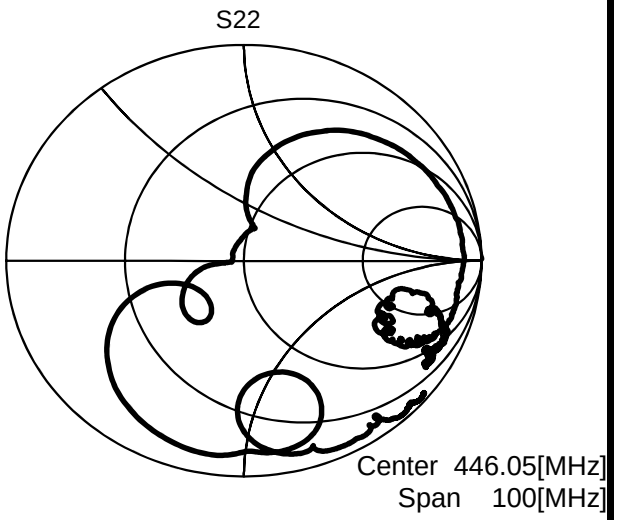
7. As it might be a cause of degradation or destruction to apply D.C. voltage between each terminal, apply D.C. voltage 7.5V max. in actual circuit.

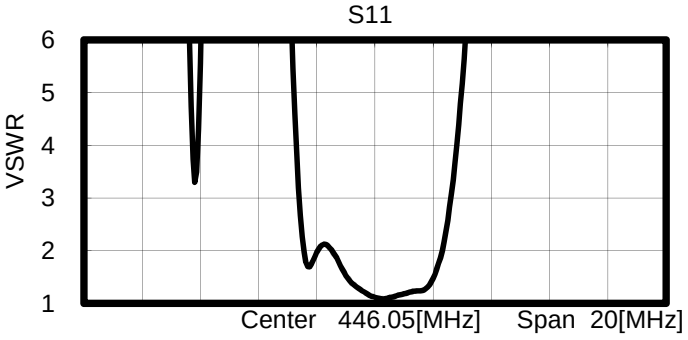
Note

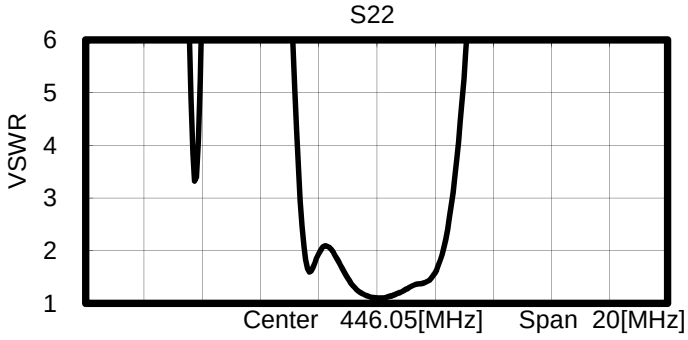
1. This specification specifies the quality of this component as a single unit. Make sure that this component is evaluated and confirmed against this specification when it is mounted to your products.

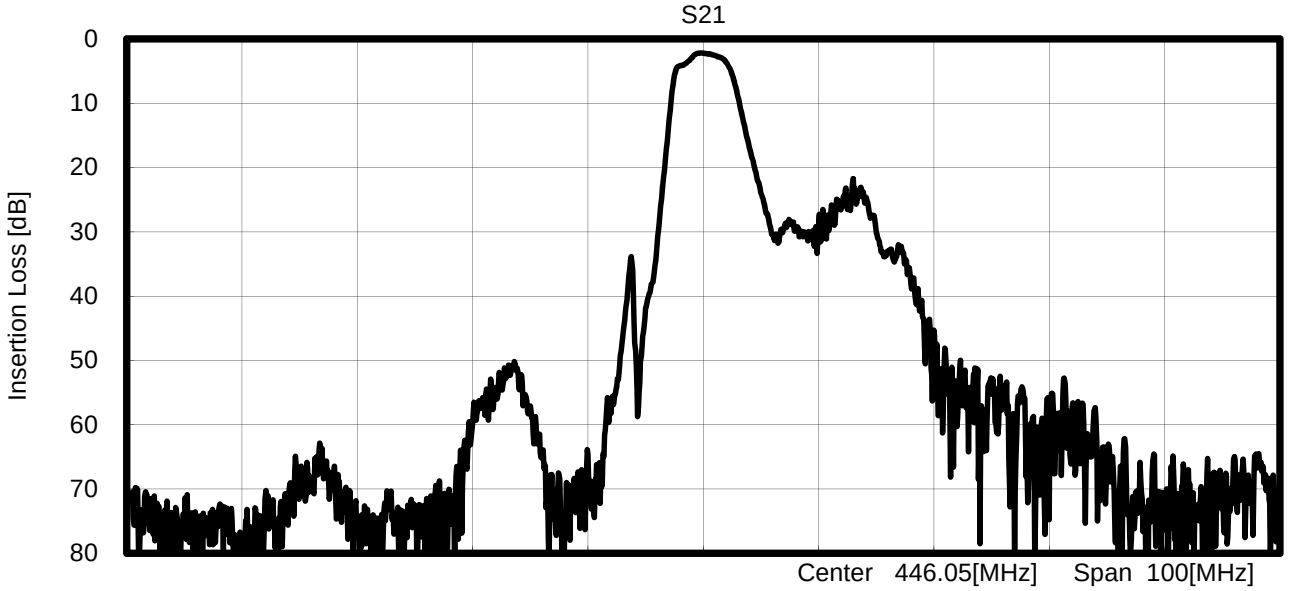

S21
Insertion Loss [dB]
0
1
2
3
4
5
6
7
8
9
10
Center 446.05[MHz] Span 20[MHz]


S11
Center 446.05[MHz]
Span 100[MHz]


S22
Center 446.05[MHz]
Span 100[MHz]


S11
VSWR
6
5
4
3
2
1
Center 446.05[MHz] Span 20[MHz]


S22
VSWR
6
5
4
3
2
1
Center 446.05[MHz] Span 20[MHz]


S21
Insertion Loss [dB]
0
10
20
30
40
50
60
70
80
Center 446.05[MHz] Span 100[MHz]