



HANGZHOU SAPPLAND MICROELECTRONICS TECHNOLOGY CO., LTD

SAW Device Data Sheet

Band 2 RX Filter / Unbalanced / 1109

PN: **SPSR002U01C**

Rev: 1.2

Feature:

- Unbalanced
- RoHS compatible

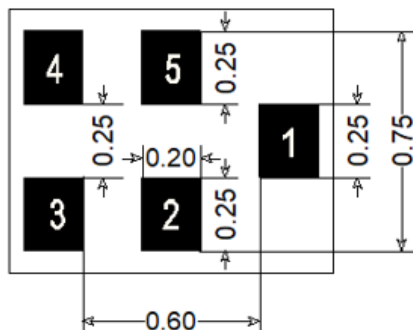
1.Revision History

Revision	Date	Comments
1.0	Mar-10-2021	Initial release
1.1	Apr-30-2021	Revised address
1.2	Dec-08-2023	Update DS format

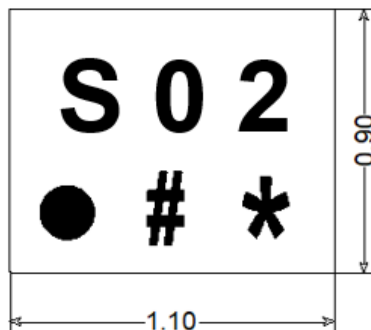
2.Package and Pin map

Package Dimensions(Unit: mm)

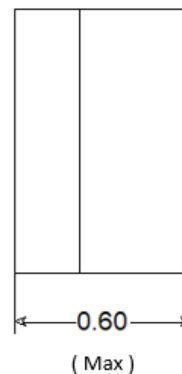
Bottom View



Top View



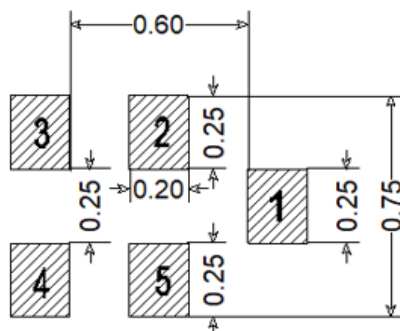
Front View



Pin No.	Pin definition
1	Input
4	Output
2,3,5	GND

Mark	Mark definition
S 0 2	Model number
# *	Date code

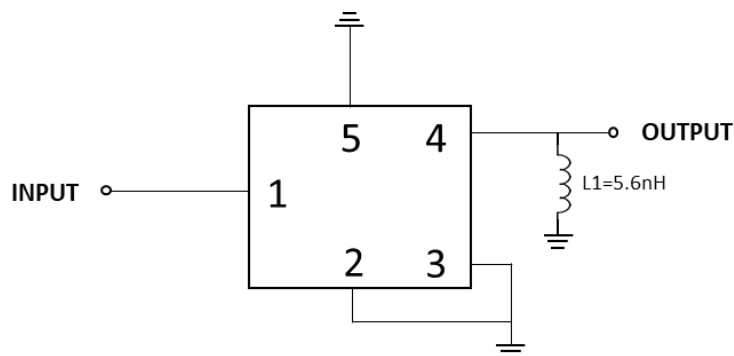
Recommended Land Pattern(Unit: mm)



Notes:

- 1, All dimensions are in millimeters
- 2, This drawing specifies the mounting pattern modification may be necessary to suit end user used on the Sappland evaluation board for this assembly material and process.

Application circuit (with idea components)



3. Performance

3.1 Absolute maximum ratings

Item	Rating	Note
Storage Temperature	-40 ~ 85 °C	
Operating Temperature	-20 ~ 85 °C	
Input Power Max	15 dBm	
D.C Voltage between the terminals	3 V	25±2deg.C

3.2 Electrical specification

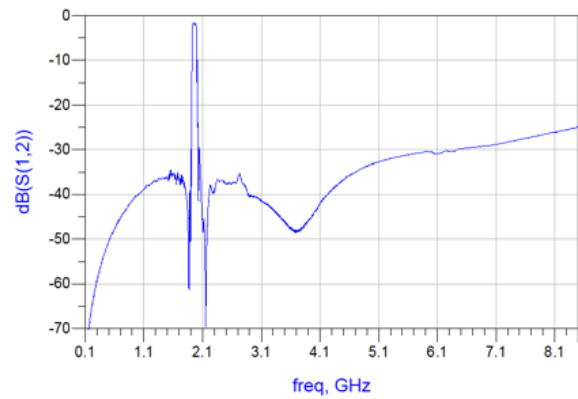
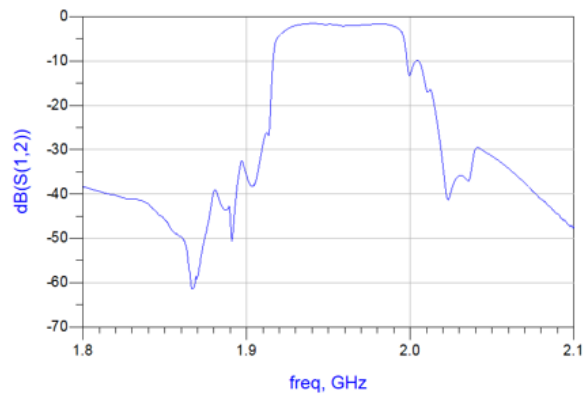
Electrical specification (-20 to +85 °C)

TX to ANT		Characteristics			Unit	Note
		min	Typ. ¹	max		
Center Frequency		-	1960.0	-	MHz	
Insertion Loss	1930.00 ~ 1990.00 MHz		2.2	4.0	dB	
Amplitude ripple	1930.00 ~ 1990.00 MHz		0.8	2.8	dB	
VSWR	1930.00 ~ 1990.00 MHz		1.7	2.3	-	Input
	1930.00 ~ 1990.00 MHz		1.7	2.3	-	Output
Absolute attenuation	100.00 ~ 894.00 MHz	35	41		dB	
	849.00 ~ 1850.00 MHz	26	33		dB	
	1850.00 ~ 1907.60 MHz	25	33		dB	
	2065.00 ~ 2150.00 MHz	25	34		dB	
	2150.00 ~ 6000.00 MHz	25	31		dB	
	2400.00 ~ 2500.00 MHz	33	36		dB	

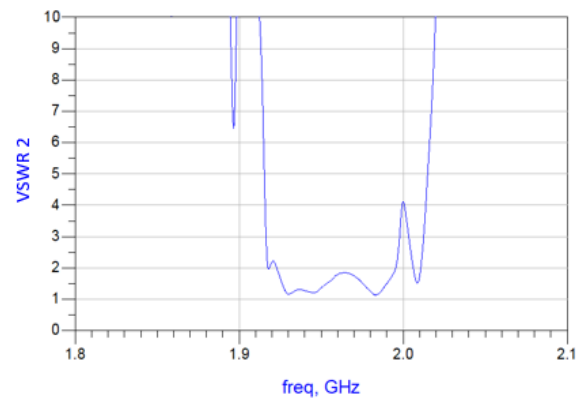
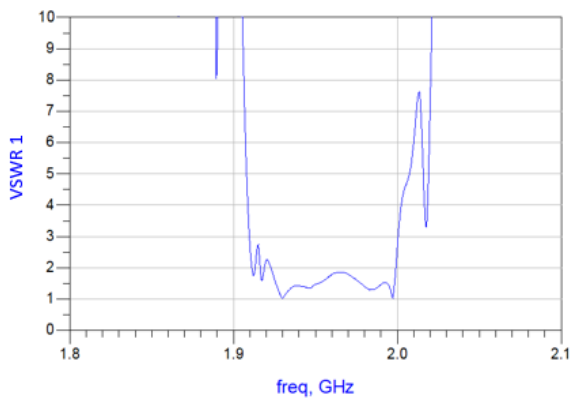
1) Typical value at 25±2deg.C

3.3 Plots

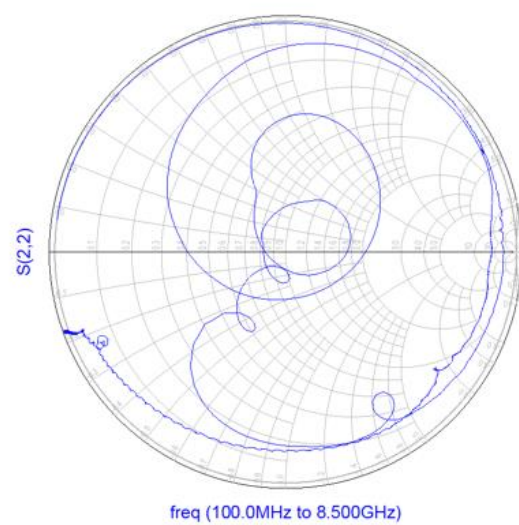
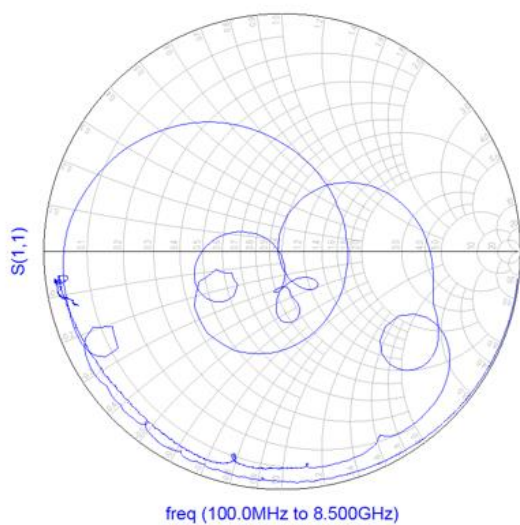
Frequency response



VSWR



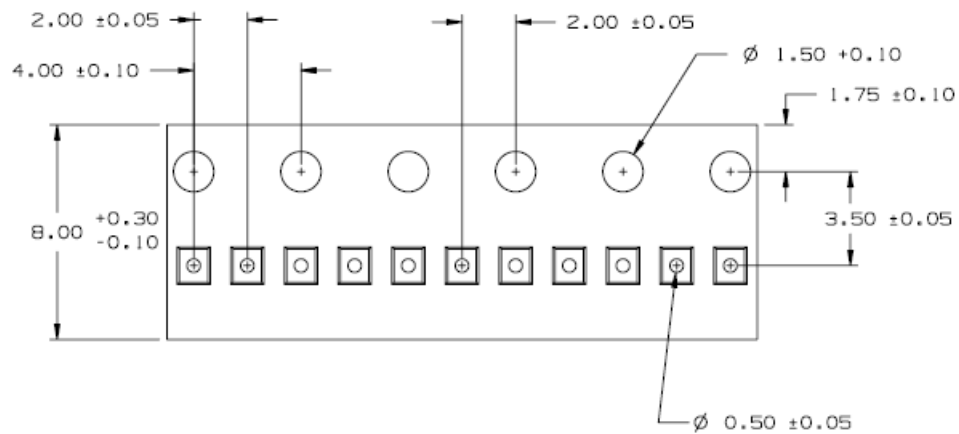
Smith chart



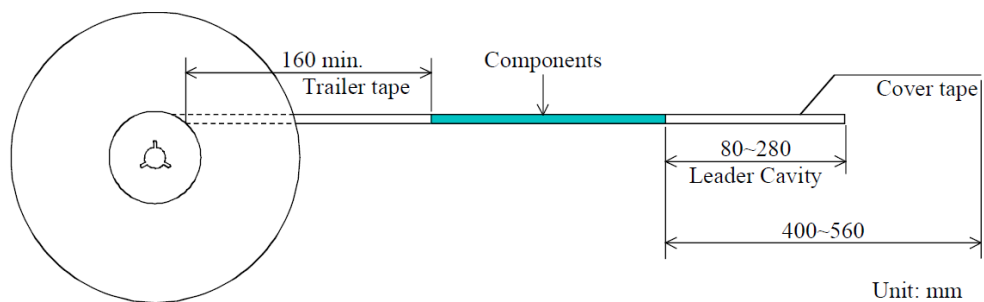
4.Packing Information

Reeling Qty: 5000 pcs/reel

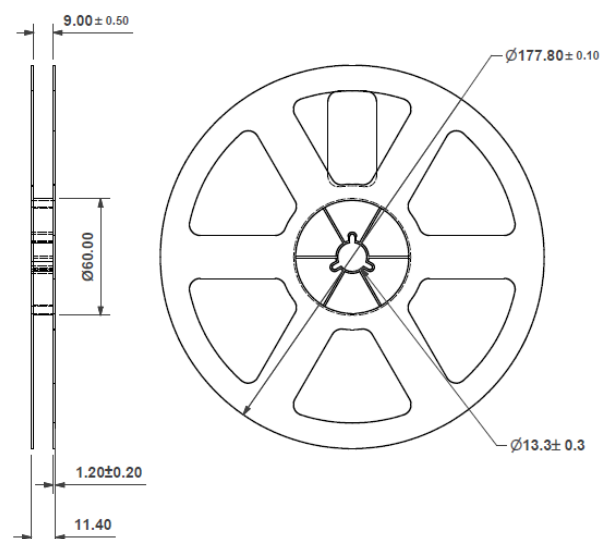
Carrier Tape :



Tape :



Reel :



Important Notice

PLEASE READ THIS NOTICE BEFORE USING OUR PRODUCTS.

1. All specifications are based on the test circuit
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
4. This is the optimum impedance in order to achieve the performance shown