

### Description

RSJP5501P is a WiFi6E filter, which is designed with BAW technology. The product can provide low insertion loss and steep skirt to enables coexistence of 5945-7065MHz signals within the same device or in close proximity to one another. The typical insertion loss in the pass band is less than 2.3dB. Typical rejection at 5945-7065 MHz is more than 46dB.

For the chip package, the RSJP5501P uses advanced module packing techniques to achieve the industry standard 1.8 x 1.6 x 0.61mm package, include bumping and flip chip.

### Features

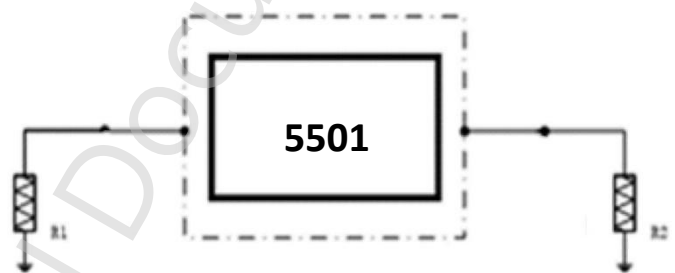
- Miniature Size  
1.8 mm x 1.6 mm x 0.61 mm
- Low insertion loss  
Passband 5170-5835MHz: 2.3dB Typ.
- High Rejection in 5945-7065MHz  
5945-7065MHz: 46dB Typ.
- Tx Input Power  
TBD
- ESD protection ability: TBD
- Moisture Sensitivity: MSL3
- Operation Temperature: -20 to +85°C
- Storage Temperature: -40 to +125°C

### Environmental

- Full implement with RoHS compliant
- Lead Free (Pb free)



Functional Block Diagram (Top View)



Reference Des.	Value	Description	Manuf.
R1	50ohm		
R2	50ohm		

### Pin Connection

No.	Function
1	Ant.
7	TRX
All other	GND

### Electrical Specification

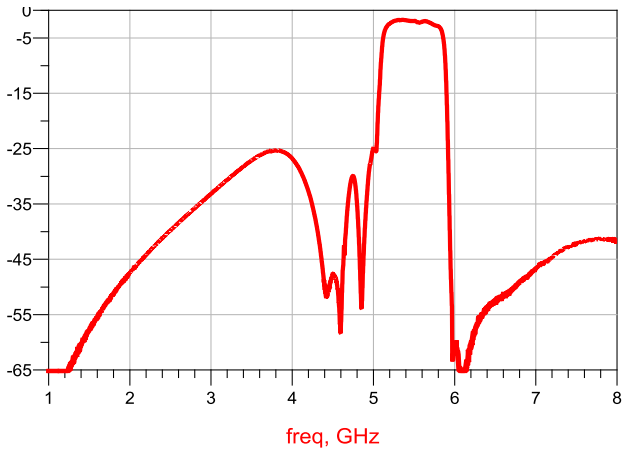
Parameter	Min <sup>(2)</sup>	Typ <sup>(1)</sup>	Max <sup>(2)</sup>	Unit
<b>Insertion Loss</b> (5170 ~ 5835 MHz) <sup>(3)</sup>	\	2.3	2.6	dB
<b>Ripple</b> (5170 ~ 5835 MHz)	\	0.8	1.5	dB
<b>Return Loss</b> (5170 ~ 5835 MHz, Input)	10	13	\	\
<b>Return Loss</b> (5170 ~ 5835 MHz, Output)	10	13	\	\
<b>Absolute Attenuation</b>				
30 ~ 1000 MHz	32	36	\	dB
1000 ~ 4200 MHz	30	20	\	dB
4200 ~ 5000 MHz	18	20	\	dB
5945 ~ 7065 MHz	36	46	\	dB
5945 ~ 7065 MHz(+25~+85℃)	41	46	\	dB
7200 ~ 8000 MHz	10	30	\	dB
RF Input Power (5170 ~ 5835 MHz)	\	\	TBD	dBm

(1) Typical value at 25℃

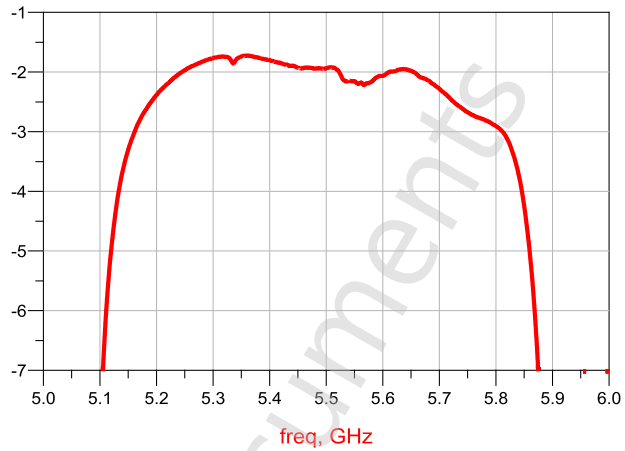
(2) Max/Min value at -20 to +85℃

(3) S-parameter averaged over specified pass band frequency at room temperature

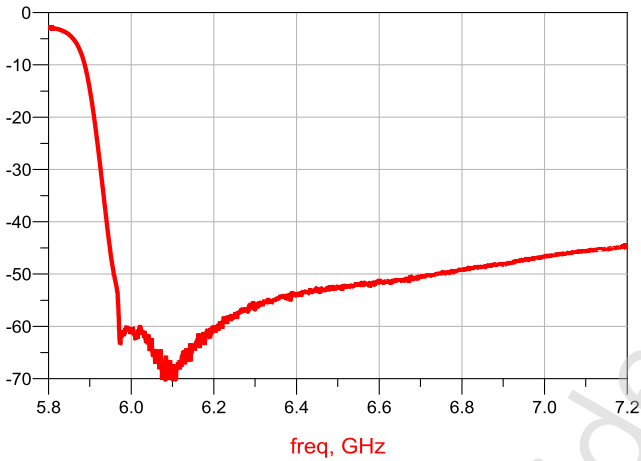
Typical Performance at Tc=25°C



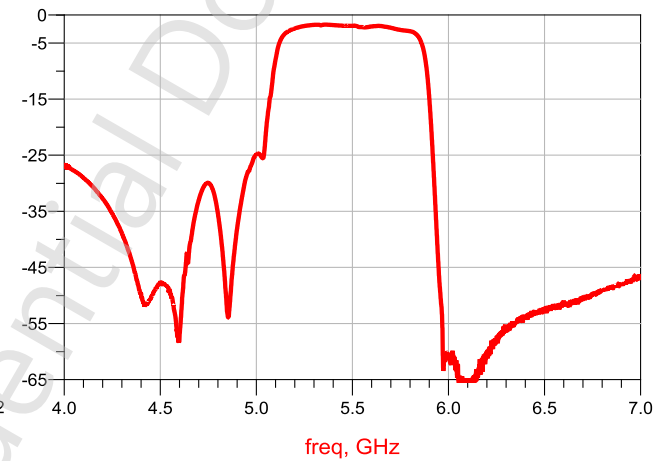
**Figure.1 Wideband Attenuation**



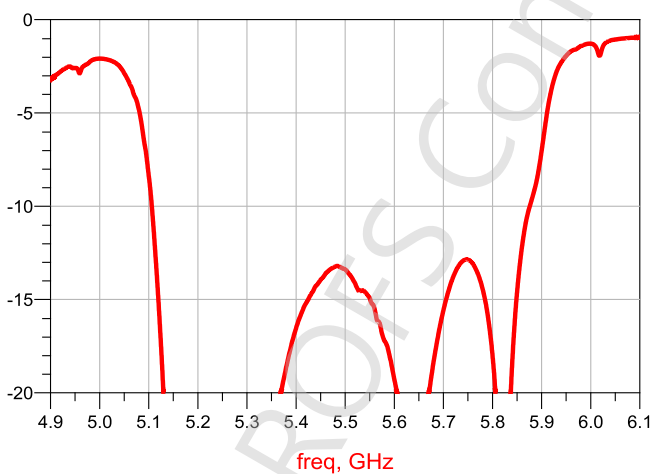
**Figure.2 Passband Insertion Loss**



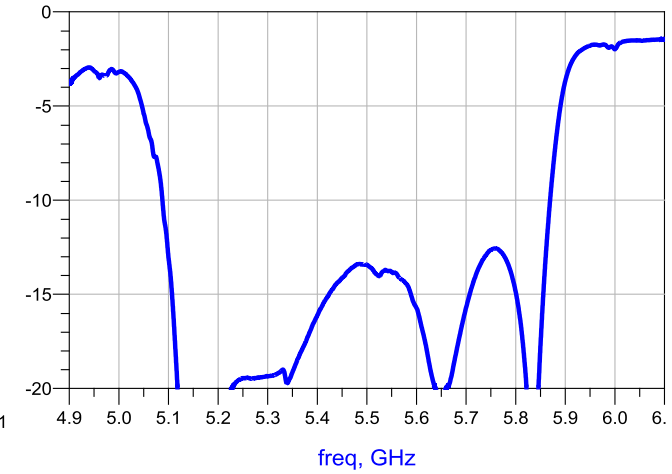
**Figure.3 5945-7065MHz Near band**



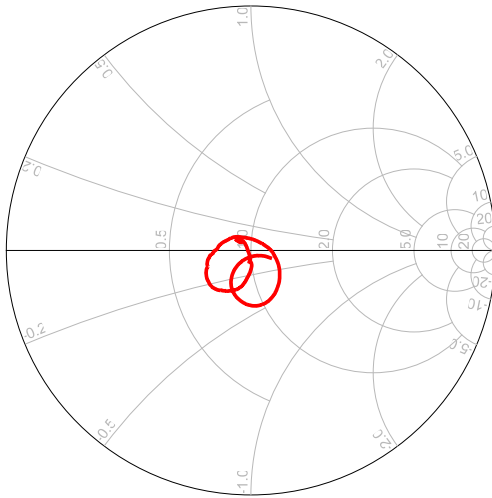
**Figure.4 Narrow band**



**Figure.5 Return Loss (s11)**

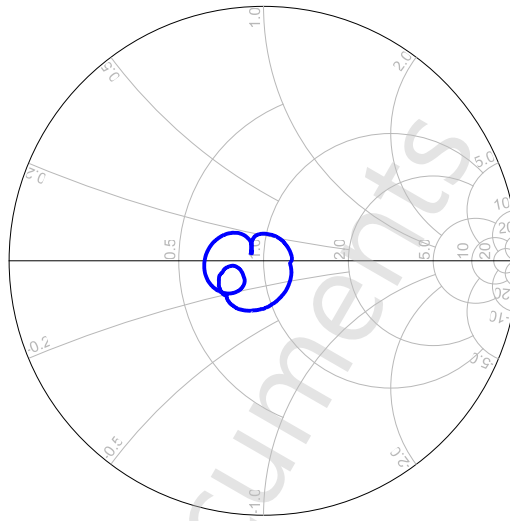


**Figure.6 Return Loss (s22)**



freq (5.170GHz to 5.835GHz)

**Figure.7 Input Smith chart S11**

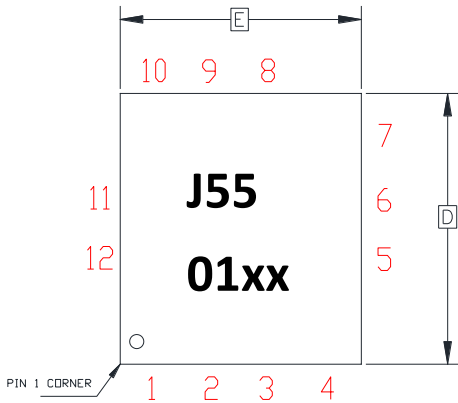


freq (5.170GHz to 5.835GHz)

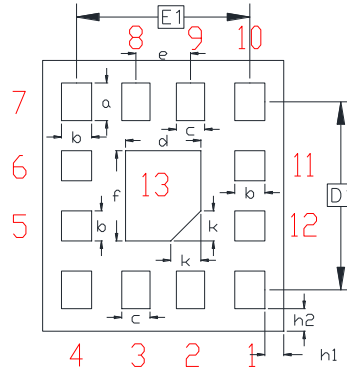
**Figure.8 Output Smith chart S22**

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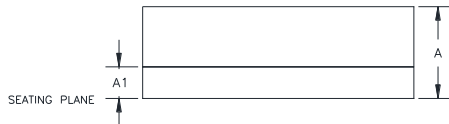
### Package Outline



TOP VIEW



BOTTOM VIEW



SIDE VIEW

SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.55	0.61	0.67
A1	0.18	0.21	0.24
D	1.75	1.80	1.85
D1	1.25 BASIC		
E	1.55	1.60	1.65
E1	1.150 BASIC		
e	0.3625 BASIC		
a	0.20	0.25	0.30
b	0.15	0.20	0.25
c	0.1375	0.1875	0.2375
d	0.45	0.50	0.55
f	0.55	0.60	0.65
k	0.200 REF		
h1	0.125 REF		
h2	0.150 REF		

Notes:

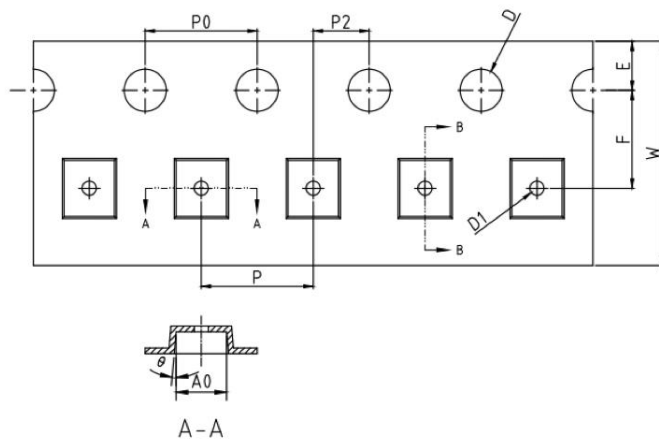
1. Dimension: mm
2. Dimensions nominal unless otherwise noted
3. Contact areas are gold plated
4. J5501 is product code

Pin connection:

- |           |        |
|-----------|--------|
| 1         | Ant    |
| 7         | TRX    |
| All other | Ground |

### Packing

#### 1. Tape Dimension



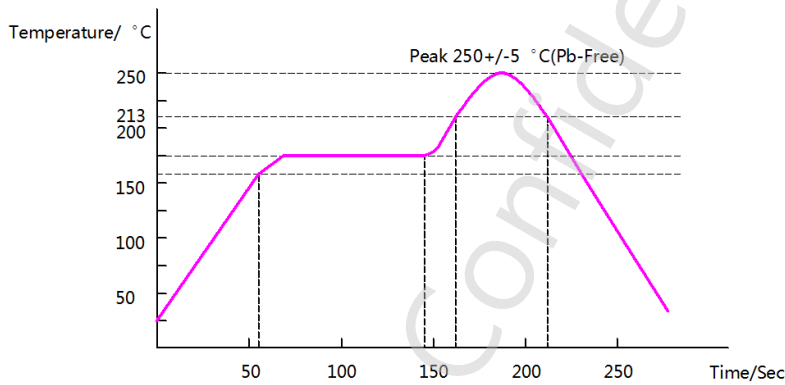
共同尺寸

外观	尺寸 (MM)
E	1.75±0.10
F	3.50±0.05
P <sub>2</sub>	2.00±0.05
D	1.55±0.05
D <sub>1</sub>	0.50±0.05
P <sub>0</sub>	4.00±0.10
10P <sub>0</sub>	40.0±0.20

变动尺寸

外观	尺寸 (MM)
W	8.00 <sup>+0.30</sup> <sub>-0.10</sub>
P	4.00±0.10
A <sub>0</sub>	1.80±0.05
B <sub>0</sub>	2.00±0.05
K <sub>0</sub>	0.78±0.05
t	0.20±0.02
θ	3° TYP

### Recommended Reflow Profile



For more information, please contact: [rofs\\_sales1@rofsmicro.com](mailto:rofs_sales1@rofsmicro.com)

#### Notes:

The specification may be changed or the product had been discontinued, please check with our sales or product Engineer before order