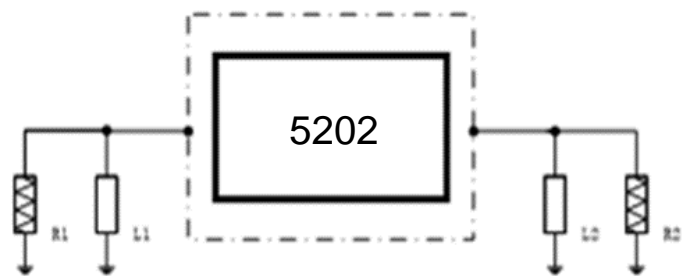


Description

RSJP5202C is a Wi-Fi 5.2G band filter, which is designed with Film Bulk Acoustic Resonator (FBAR) technology. The product can provide low insertion loss and steep skirt to enables coexistence of Wi-Fi 5.6G signals within the same device or in close proximity to one another. The typical insertion loss in the pass band is less than 1.6dB. Typical rejection at Wi-Fi 5.6G is more than 48dB. For the chip package, the RSJP5202C uses advanced module packing techniques to achieve the industry standard 1.8 x 1.4 x 0.59mm package, include bumping and flip chip.



Functional Block Diagram (Top View)



Features

- Miniature Size
1.8 mm x 1.4 mm x 0.59 mm
- Low insertion loss
Passband 5150-5330MHz: 1.6dB Typ.
- High Rejection in 5.6G Wi-Fi Band
5.6G Wi-Fi: 48 dB Typ.
- Tx Input Power
TBD
- ESD protection ability: TBD
- Moisture Sensitivity: MSL3
- Operation Temperature: -40 to +95°C
- Storage Temperature: -40 to +125°C

Reference Des.	Value	Description	Manuf.
R1	50ohm		
R2	50ohm		
L1	2.5nH	Inductor	
L2	2.0nH	Inductor	

Environmental

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



Pin Connection

No.	Function
1	Tx/Rx
2	Ant.
3	GND

Electrical Specification

Parameter	Min ⁽²⁾	Typ ⁽¹⁾	Max ⁽²⁾	Unit
Insertion Loss (5150 ~ 5330 MHz)	\	1.6	3.0	dB
Ripple (5150 ~ 5330 MHz)	\	0.8	1.5	dB
Return Loss (5150 ~ 5330 MHz,Input)	10	16	\	\
Return Loss (5150 ~ 5330 MHz,Output)	10	16	\	\
Absolute Attenuation				
1000 ~ 2380 MHz	30	48	\	dB
2400 ~ 2500 MHz	30	38	\	dB
3300 ~ 3700 MHz	30	35	\	dB
5490 ~ 5850 MHz	45	48	\	dB
6000 ~ 7000 MHz	35	40	\	dB
RF Input Power (5150 ~ 5330 MHz)	\	\	TBD	dBm

(1) Typ Data is the integrated value of the linear S-parameter over indicated band ,Typical value at 25°C

(2) Max/Min vale at -40 to +95°C

Typical Performance at Tc=25°C

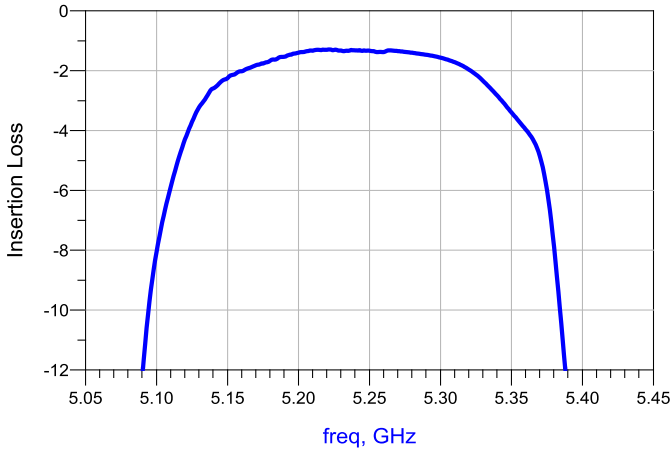


Figure.1 Passband Insertion Loss

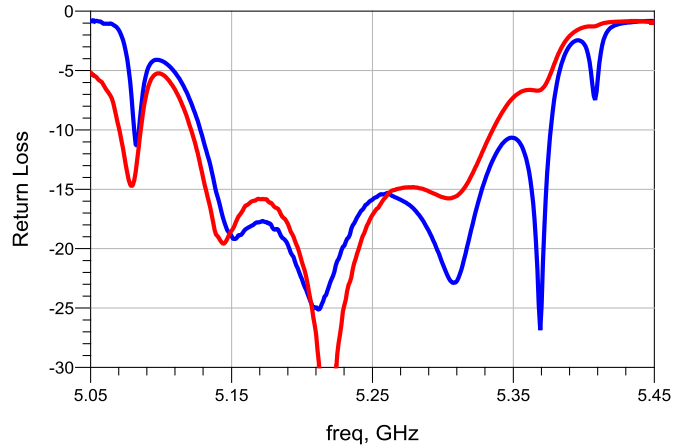


Figure.2 Return Loss(S11/S22)

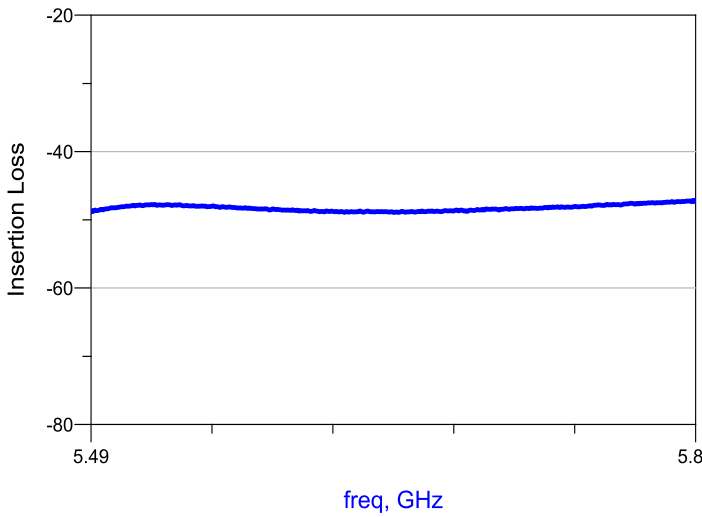


Figure.3 5490-5850MHz Nearband

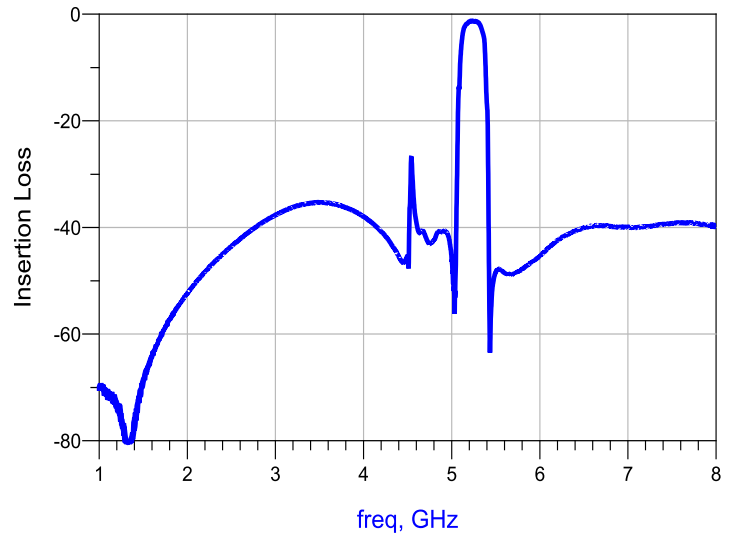


Figure.4 Wideband Attenuation

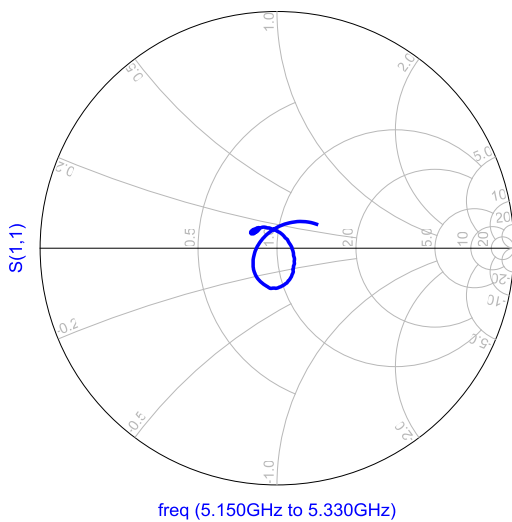


Figure.5 Input Smith Chart S11

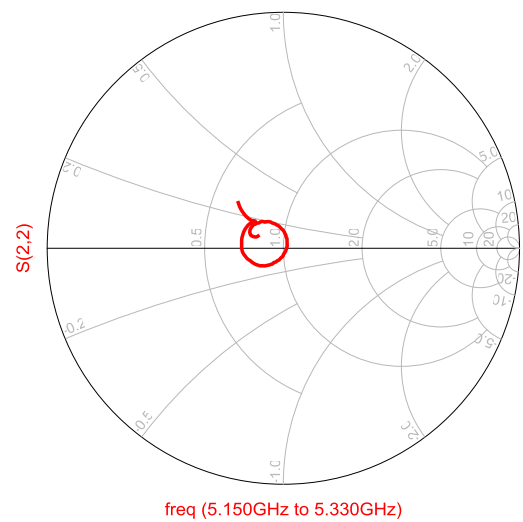
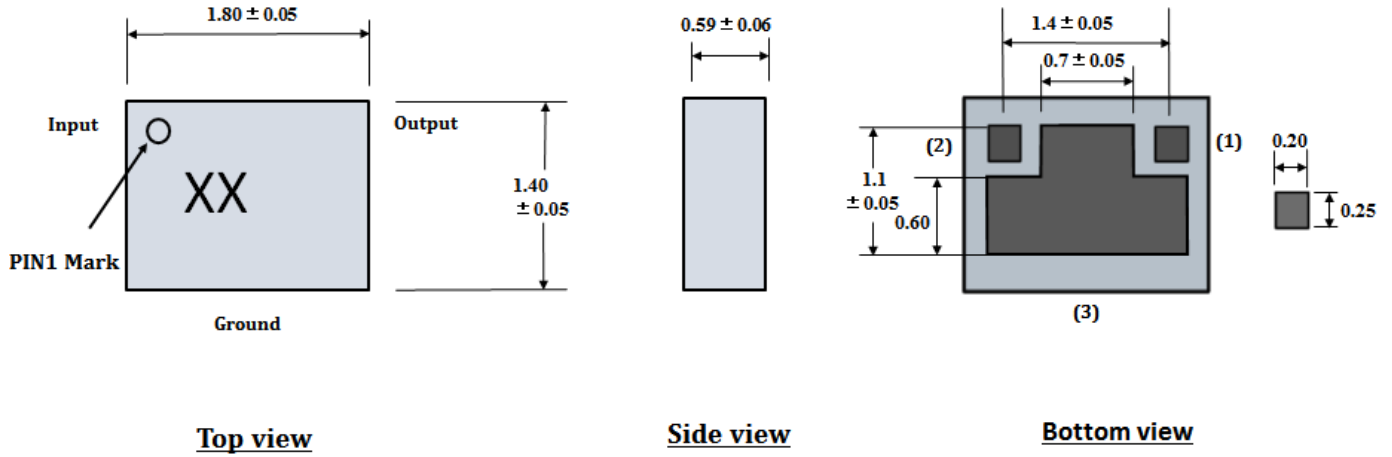


Figure.6 Output Smith Chart S22

Package Outline



Note:

1. Dimension: mm
2. Dimensions nominal unless otherwise noted
3. Contact area are gold plated
4. 5202 is product code

No.	Function
1	Tx/Rx
2	Ant.
3	GND

RSJP5202C Datasheet Modify History

Revision	Description	Date
Rev A	Preliminary revision	2021/11/13
Rev B	Preliminary revision	2022/6/1