

Description

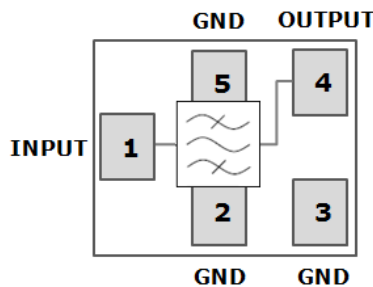
RSFP2313E is a high-performance, miniature filter designed for mobile equipment with LTE B40 band. It is designed with Film Bulk Acoustic Resonator (FBAR) technology, which can provide low insertion loss and steep skirt. So that this product enables coexistence of Wi-Fi signals within the same device or in close proximity to one another.

For general performance, the RSFP2313E typical insertion loss in the pass band is less than 1.0dB, and max insertion loss is within 2.0dB over -20~+85°C, while the typical rejection at the Wi-Fi and LTE41 band are more than 35dB.

For the chip package, the RSFP2313E uses advanced module packing techniques to achieve the industry standard 1.1x0.9x0.6mm footprint, include bumping and flip chip.



Functional Block Diagram



Pin Connection

No.	Function
1	Input
4	Output
2,3,5	Ground

Features

- For Wi-Fi - LTE coexistence application
- Plastic Chip Scale Package(CSP)
- Miniature Size: 1.1mm x 0.9 mm x 0.6 mm
- High Rejection at Wi-Fi and LTE B41 bands.
- Low Temperature Coefficient of Frequency
- Storage temperature range: -40 to +150 °C
- Excellent ESD protection ability: Class 1C
- Moisture Sensitivity : MSL3

Environmental

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



Electrical Specifications

Parameter(Operable Temperature:-20 to +85°C)	Min	Typ ⁽¹⁾	Max ⁽²⁾	Unit
Insertion Loss (2300 ~ 2400 MHz)	\	0.9	2.0	dB
Ripple (2300 ~ 2400 MHz)	\	0.4	1.0	dB
VSWR Input (2300 ~ 2400 MHz)	\	1.2	1.5	
VSWR Output (2300 ~ 2400 MHz)	\	1.2	1.5	
Absolute Attenuation				
10 ~ 1574 MHz	-23	-35	\	dB
1574 ~ 1577 MHz	-23	-25	\	dB
1577 ~ 1680 MHz	-22	-25	\	dB
1845 ~ 1880 MHz	-22	-24	\	dB
2110 ~ 2170 MHz	-26	-30	\	dB
2421 ~ 2443 MHz (ch05,18MHz-BW)	-25	-55	\	dB
2421 ~ 2443 MHz (ch05,18MHz-BW,+25~+85°C)	-40	-60	\	dB
2426 ~ 2448 MHz (ch06,18MHz-BW)	-55	-60	\	dB
2431 ~ 2483 MHz (ch07-13,18MHz-BW)	-40	-50	\	dB
4600 ~ 4800 MHz	-45	-48	\	dB
6900 ~ 7200 MHz	-31	-32	\	dB
RF Input Power ⁽³⁾ (2300 ~ 2400 MHz)		30		dBm

- (1) **Typ Data** is the integrated value of the linear S-parameter over indicated band at +25°C.
 (2) **Min/Max Data** is being specified over -20 to +85°C.
 (3) **Input power** applied for a minimum of 5,000 hrs at 55°C in the specified frequency band.

Typical Performance at Tc=25 °C

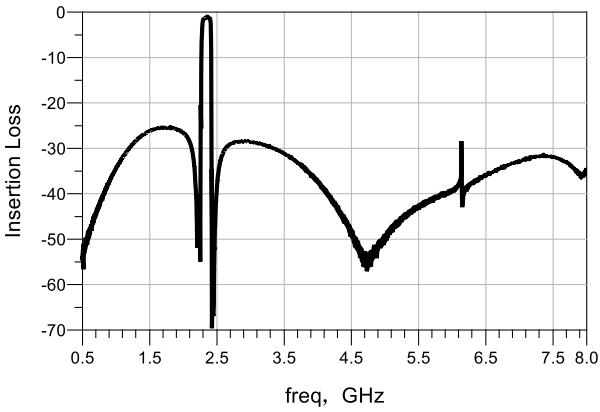


Figure.1 Wideband Insertion Loss

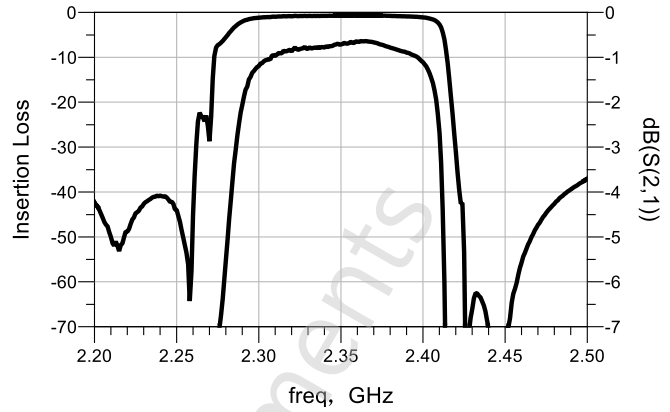


Figure.2 Narrowband Insertion Loss

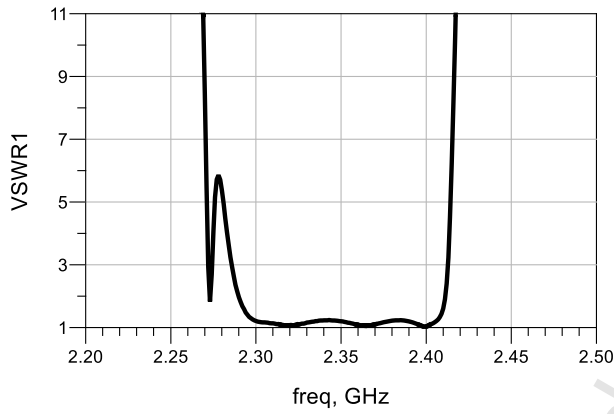


Figure.3 Input VSWR S11

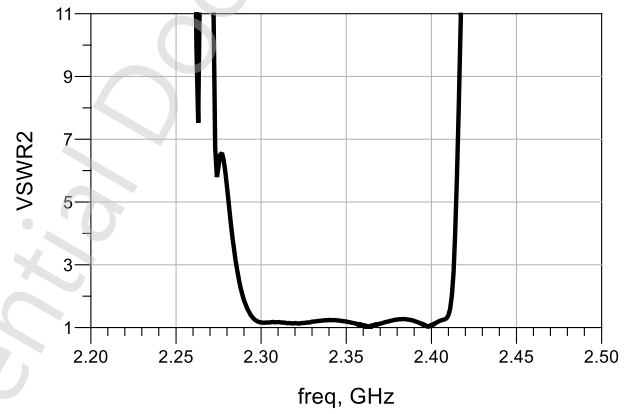
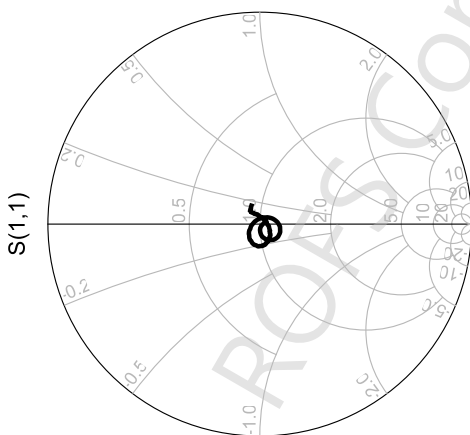
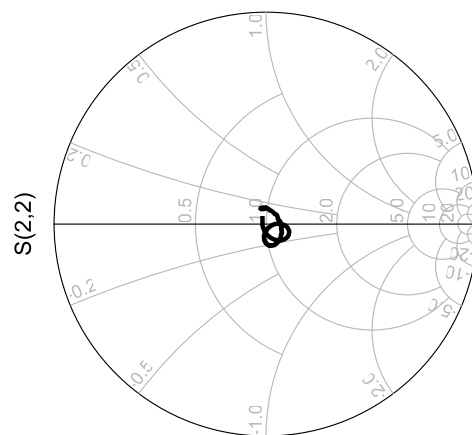


Figure.4 Output VSWR S22



freq (2.300GHz to 2.400GHz)

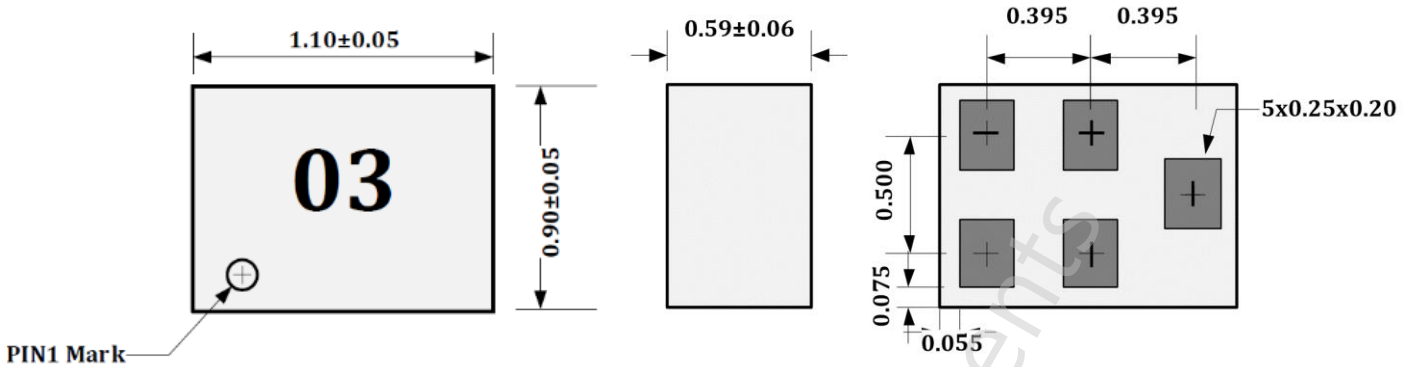
Figure.5 Input Smith Chart S11



freq (2.300GHz to 2.400GHz)

Figure.6 Output Smith Chart S22

Package Outline Drawing



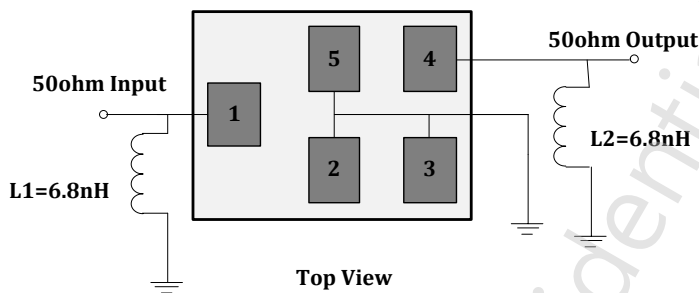
Notes:

1. Dimension: mm
2. Dimensions nominal unless otherwise noted
3. Contact area are gold plated
4. Pad(1) to (5) are same size
5. XX is ROFS inside code

Pin Connection:

- 1 Input
- 4 Output
- 2,3,5 Ground

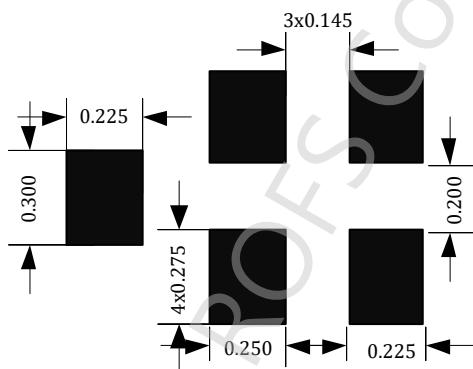
Test Circuit



Notes:

1. Matching component values shown are ROFS evaluation board results, please adjust component values by the actual use environment.

PCB Footprint

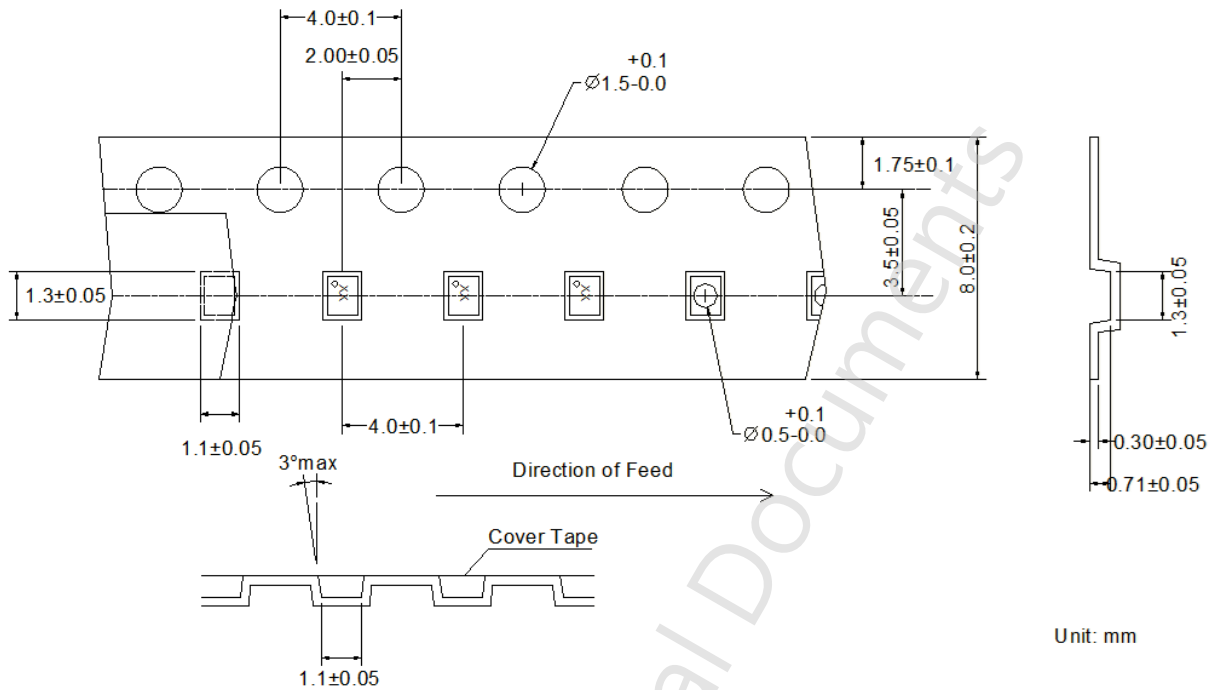


Notes:

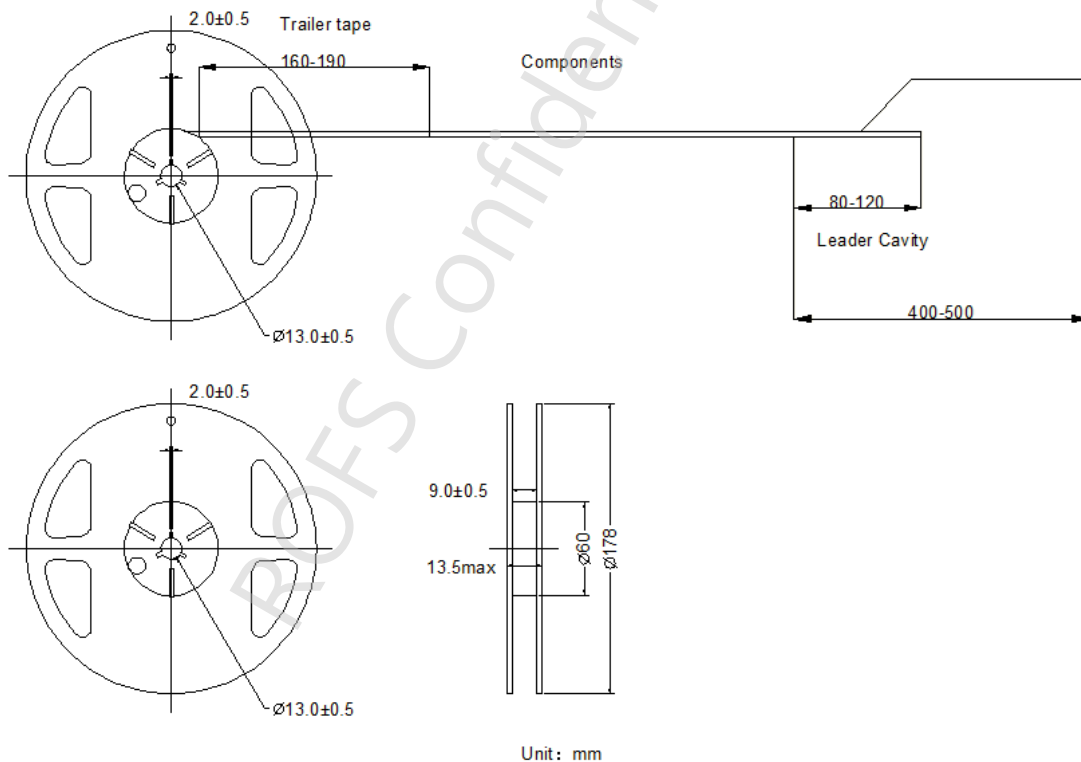
1. Black indicates metalized area.
2. This footprint represents a recommendation only, some modification may be necessary to suit end user assembly materials and processes.
3. For solder pad recommendation see mechanical information.
4. Dimensions shown are nominal in millimeters.

Packing

1. Tape Dimension

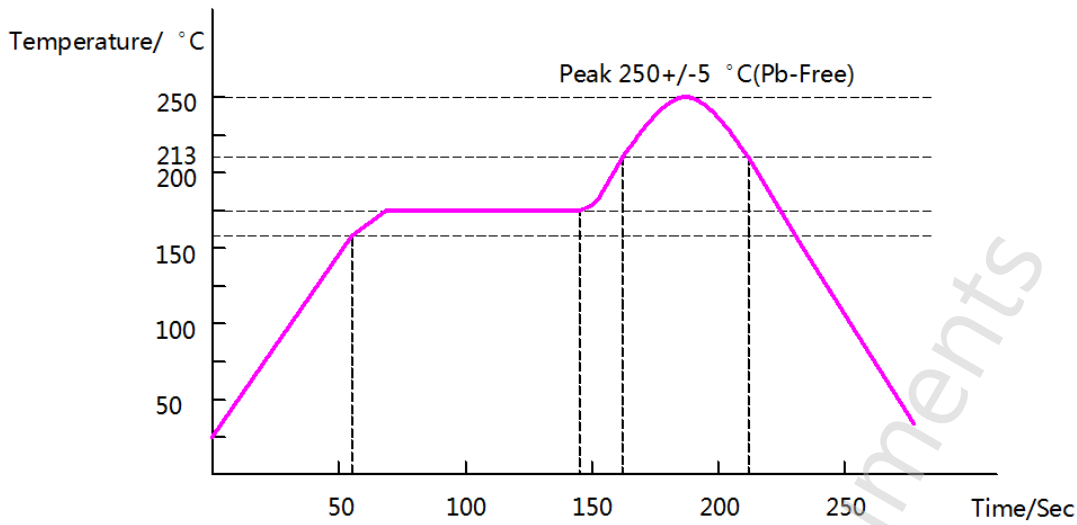


2. Reel Dimension



5000Pcs/Reel

Recommended IR Reflow Profile



Order Information

Part Number	Qty Per Reel	Container
RSFP2313E	5000	7 inch Reel

For more information, please contact: sales@rofsmicro.com

Notes:

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