

### Description

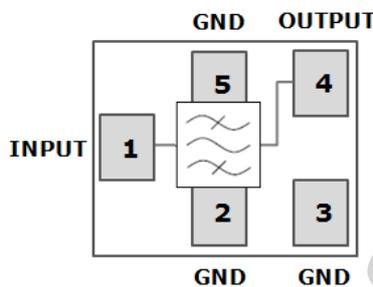
RSFP2313E is a high-performance, miniature filter designed for mobile equipment with LTE B40 band. It is designed with Film Bulk Acoustic Resonator (FBAR) technology, which can provide low insertion loss and steep skirt. So that this product enables coexistence of Wi-Fi signals within the same device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

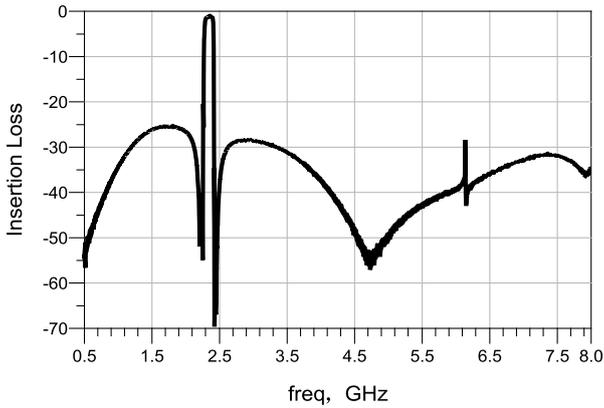


### Electrical Specifications

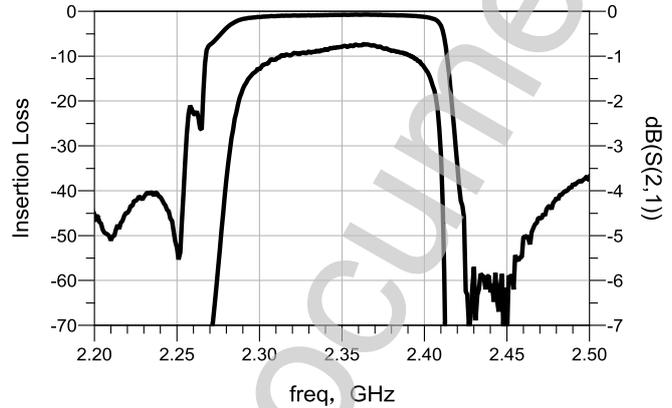
Parameter(Operable Temperature:-20 to +85°C)	Min	Typ <sup>(1)</sup>	Max <sup>(2)</sup>	Unit
<b>Insertion Loss</b> (2300 ~ 2400 MHz)	\	1.0	2.0	dB
<b>Ripple</b> (2300 ~ 2400 MHz)	\	0.4	1.0	dB
<b>VSWR Input</b> (2300 ~ 2400 MHz)	\	1.2	1.5	
<b>VSWR Output</b> (2300 ~ 2400 MHz)	\	1.2	1.5	
<b>Absolute Attenuation</b>				
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 <sup>(3)</sup> (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.

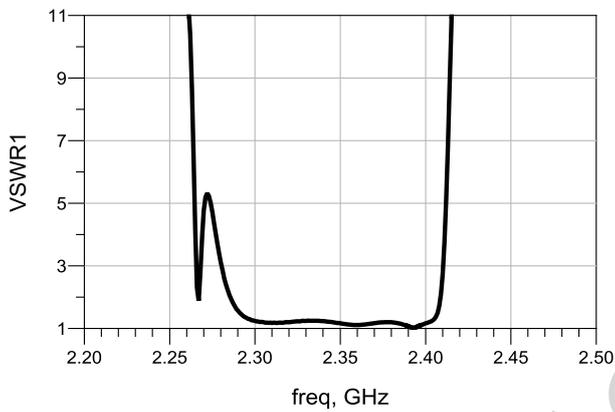
### Typical Performance at Tc=25 °C



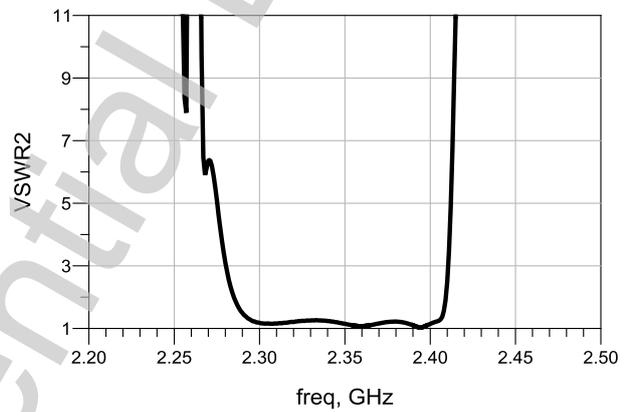
**Figure.1 Wideband Insertion Loss**



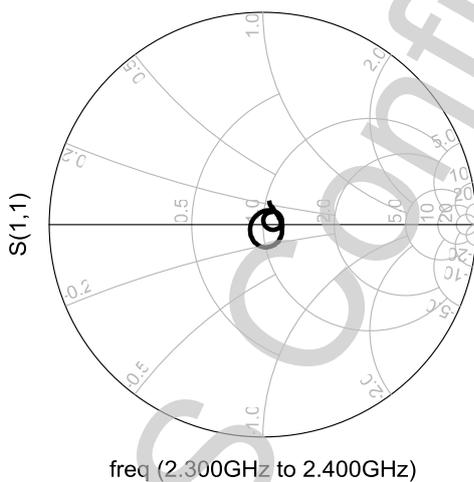
**Figure.2 Narrowband Insertion Loss**



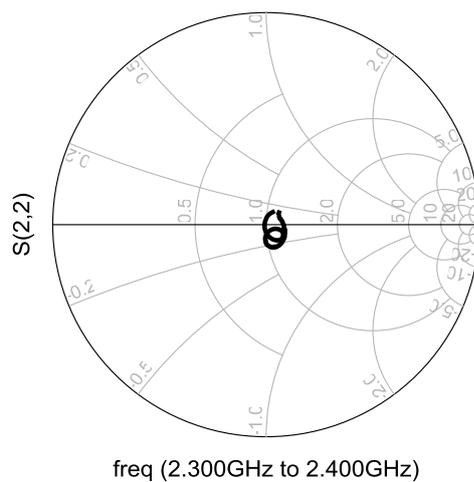
**Figure.3 Input VSWR S11**



**Figure.4 Output VSWR S22**

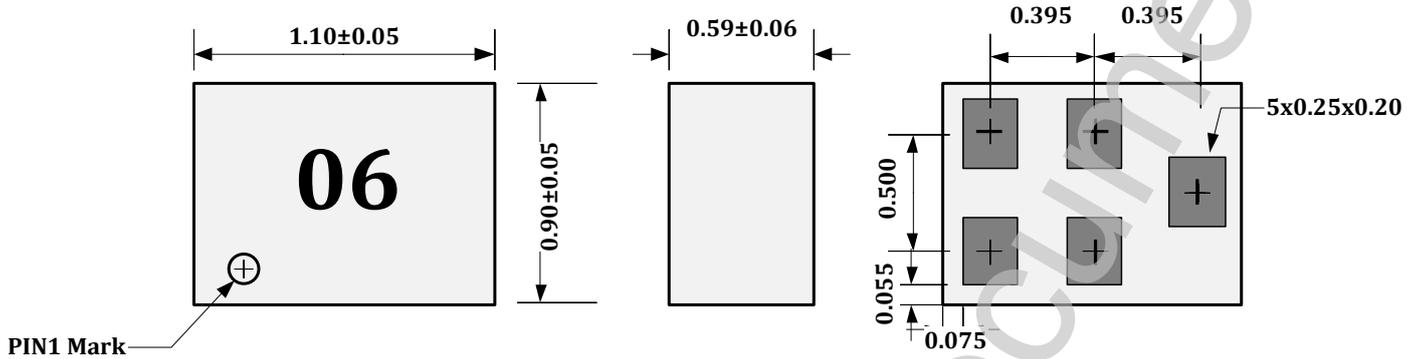


**Figure.5 Input Smith Chart S11**



**Figure.6 Output Smith Chart S22**

### Package Outline Drawing



PIN1 Mark

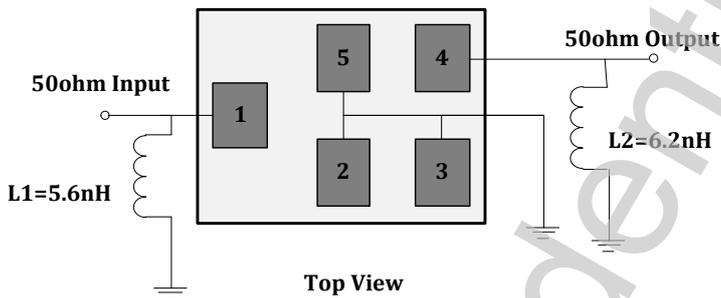
#### Notes:

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

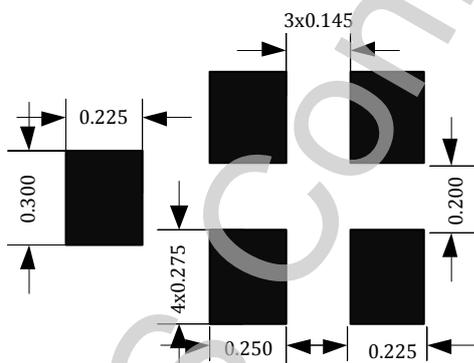
### Test Circuit



#### Notes:

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

### PCB Footprint

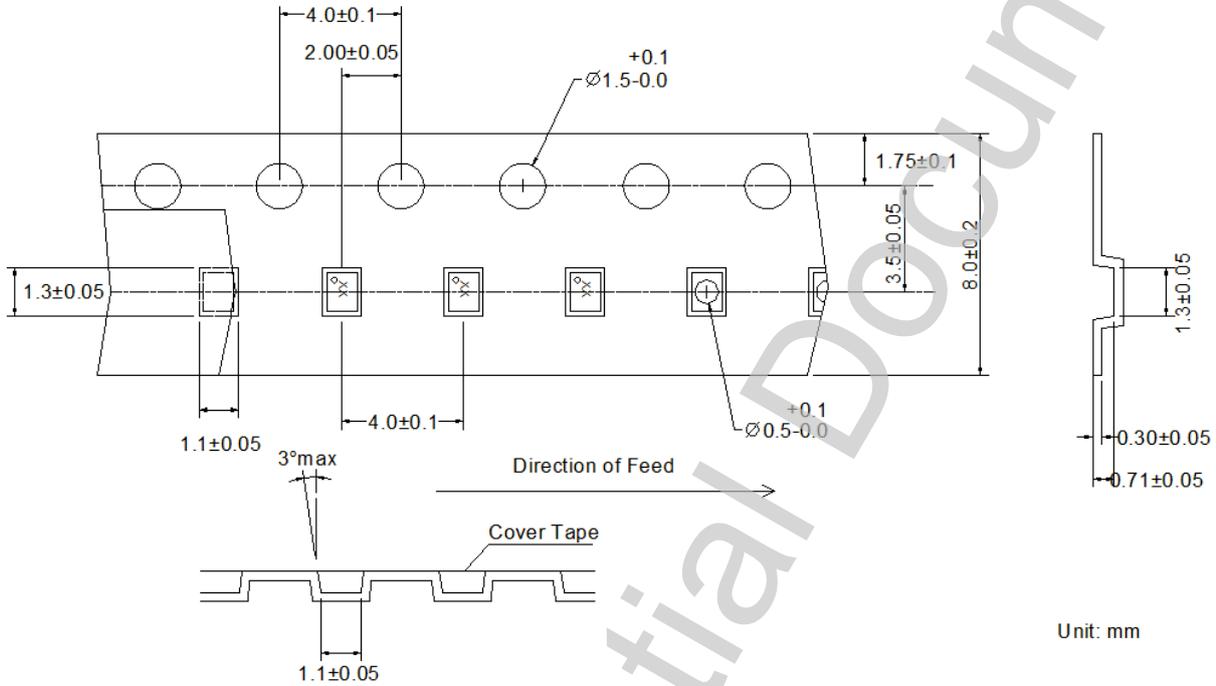


#### Notes:

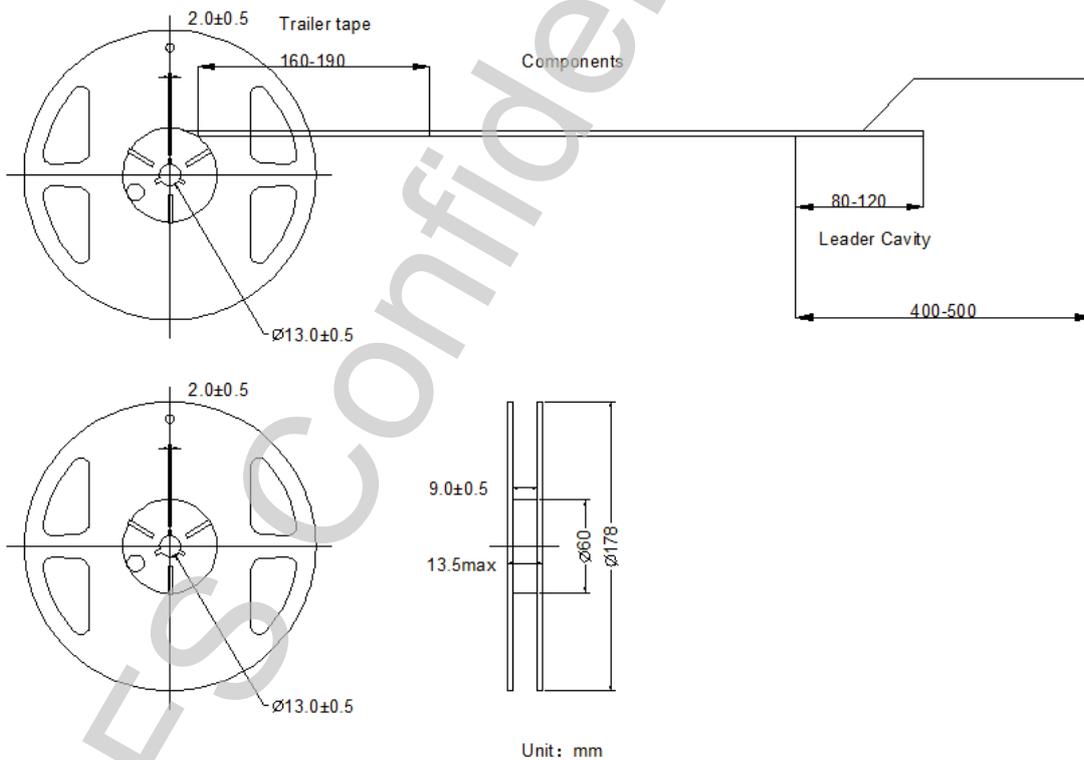
1. Black indicates metalized area.
2. This footprint represents a recommendation only, some modification may be necessary to suit end user assembly materials and processes.
3. For solder pad recommendation see mechanical information.
4. Dimensions shown are nominal in millimeters.

### Packing

#### 1. Tape Dimension

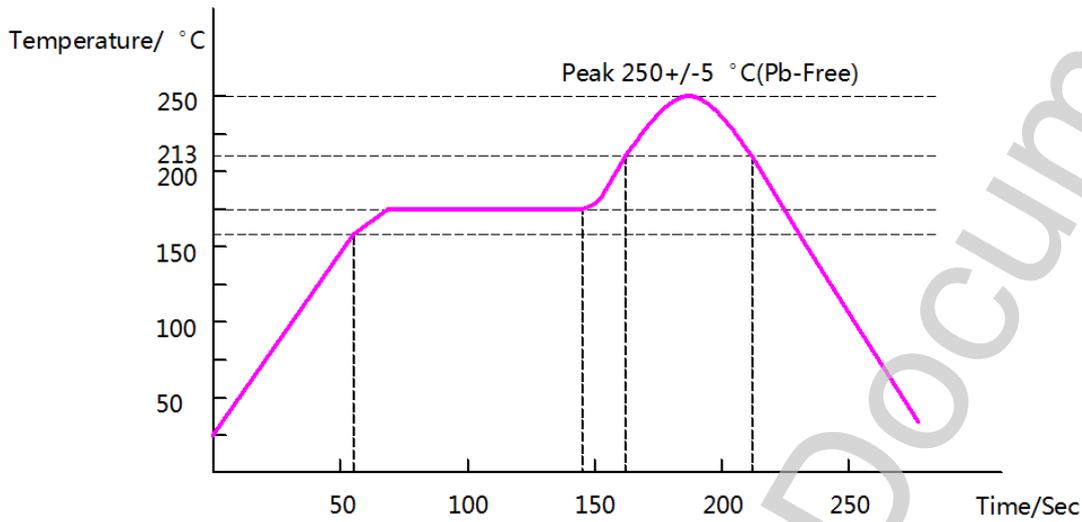


#### 2. Reel Dimension



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](mailto: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.