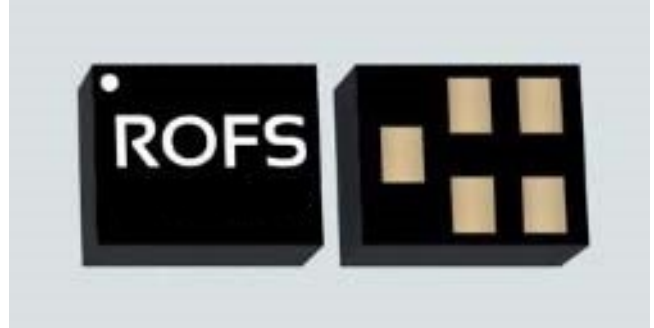


Description

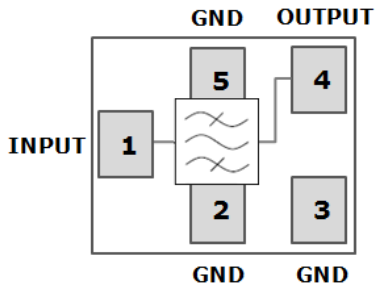
YTLP2413E is a high-performance, miniature filter designed for mobile equipment with Wi-Fi band. It is designed with Film Bulk Acoustic Resonator (FBAR) technology, which can provide low insertion loss and steep skirt. So that this product enables coexistence of Wi-Fi and LTE signals within the same device or in close proximity to one another.

For general performance, the YTLP2413E typical insertion loss in the pass band is less than 1.8dB. Typical rejection at the LTE Band 38 and LTE Band 7 and 41 is more than 44dB, at the LTE Band 40 is more than 48dB.

For the chip package, the YTLP2413E 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
- Fast Roll-off from Wi-Fi to near LTE Bands
- High Rejection at LTE bands.
- Low Temperature Coefficient of Frequency
- Storage temperature range: -40 to +150 °C
- Excellent ESD protection ability: Class 1C
- Moisture Sensitivity : MSL3

Applications

- Wi-Fi bandpass filter enables the coexistence of (LTE/TD-LTE) & Wi-Fi
- ISM band applications such as Smart Meters
- Portable Hotspots and Mobile Routers

Environmental

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



Electrical Specifications

Parameter(Operable Temperature:-20 to +90°C)	Min	Typ ⁽¹⁾	Max	Unit
Insertion Loss(2402.5 ~ 2421.5 MHz)	\	1.5	2.3	dB
Insertion Loss(2407.5 ~ 2476.5 MHz)	\	1.3	2.5	dB
Insertion Loss(2462.5 ~ 2481.5 MHz)	\	1.8	3.0	dB
Ripple(2402.5 ~ 2421.5 MHz)	\	0.5	1.0	dB
Ripple(2407.5 ~ 2476.5 MHz)	\	1.2	1.6	dB
Ripple(2462.5 ~ 2481.5 MHz)	\	1.4	1.8	dB
Return Loss(2402.5 ~ 2481.5 MHz)	12	20	\	dB
Absolute Attenuation			\	
800 ~ 2000 MHz	33	40	\	dB
2000 ~ 2170 MHz	27	37	\	dB
2300 ~ 2370 MHz	45	54	\	dB
2370 ~ 2375 MHz	45	53	\	dB
2375 ~ 2380 MHz	25	48	\	dB
2500 ~ 2505 MHz	28	50	\	dB
2505 ~ 2570 MHz	40	57	\	dB
2570 ~ 2620 MHz	40	47	\	dB
2620 ~ 2690 MHz	40	44	\	dB
4800 ~ 5805 MHz	37	43	\	dB
RF Input Power ⁽²⁾ (2402.5 ~ 2481.5 MHz)		25		dBm

(1) **Typ Data** is the integrated value of the linear S-parameter over indicated band.

(2) Input power applied for a minimum of 5,000 hrs at 55°C in the specified frequency band



Typical Performance at Tc=25 °C

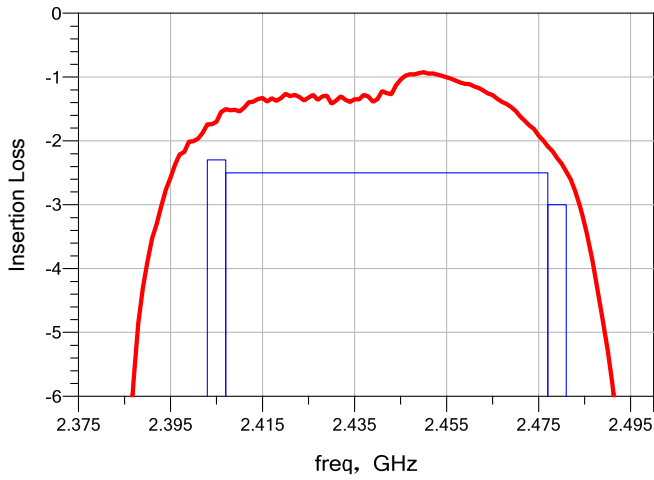


Figure.1 Passband Insertion Loss

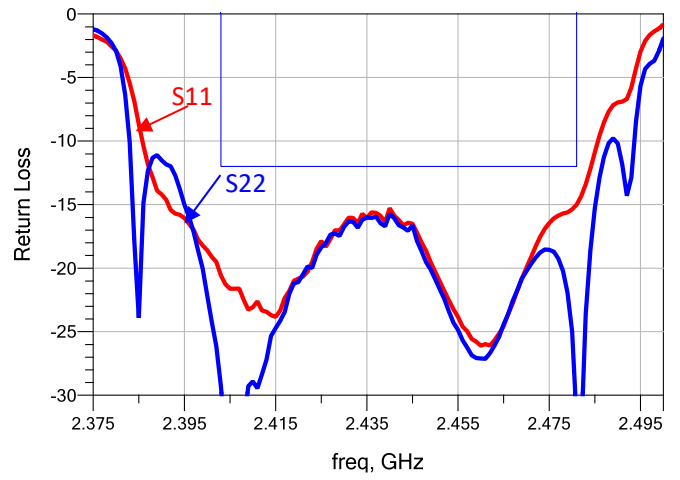


Figure.2 Passband Return Loss

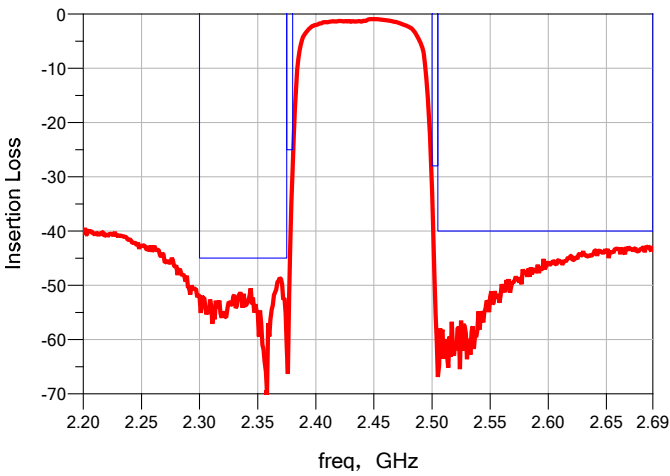


Figure.3 Narrowband Insertion Loss

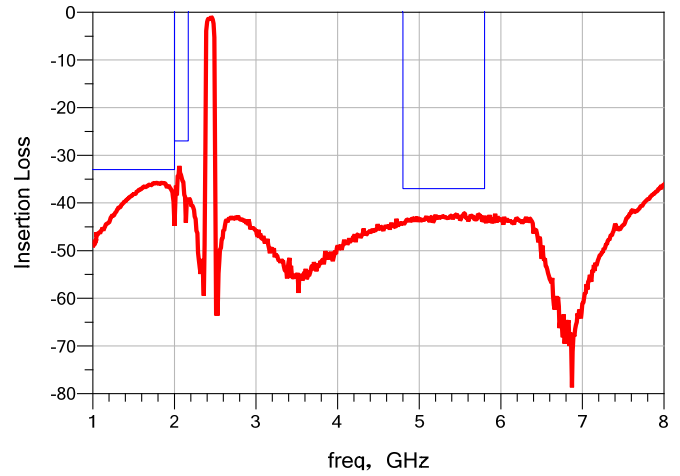
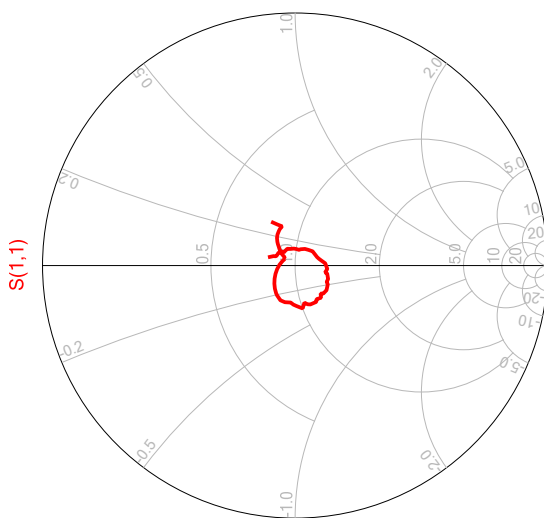
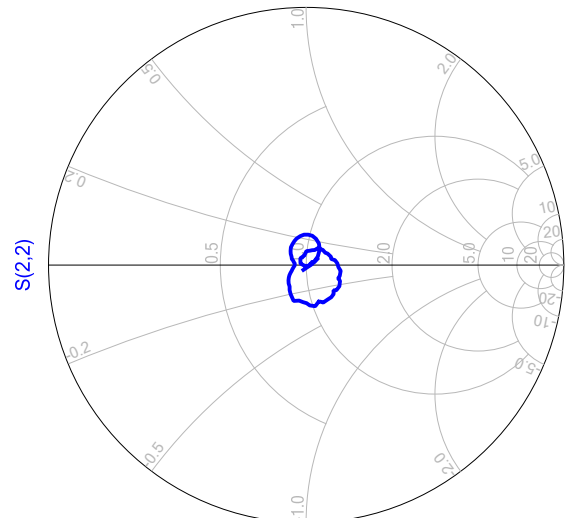


Figure.4 Wideband Insertion Loss



freq (2.402GHz to 2.482GHz)



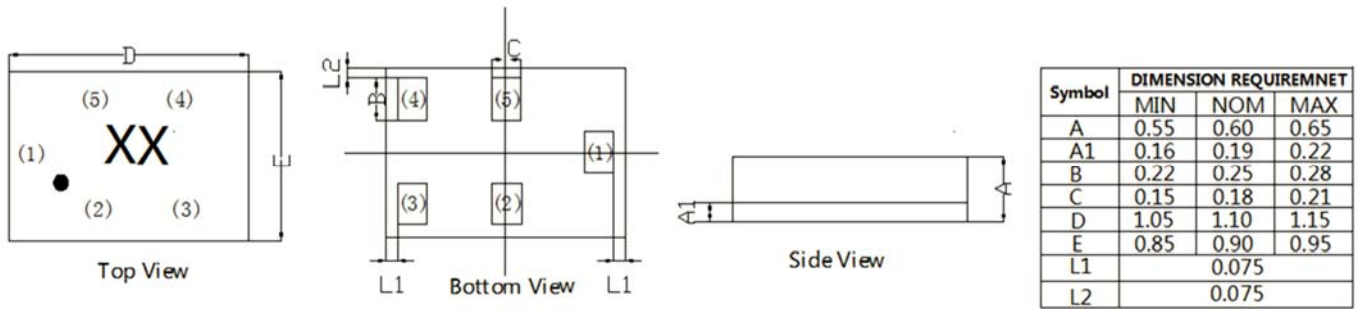
freq (2.402GHz to 2.482GHz)

Figure.5 Input Smith Chart S11

Figure.6 Output Smith Chart S22



Package Outline Drawing



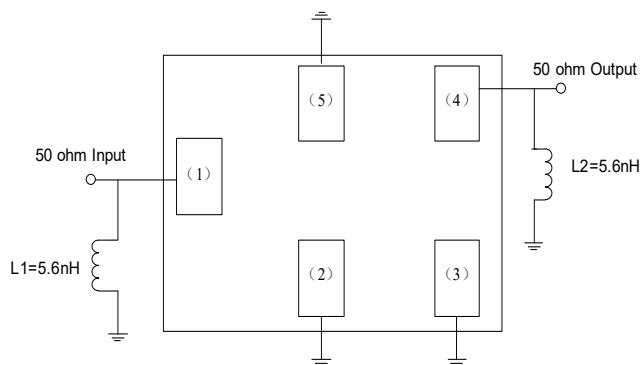
Notes:

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 |

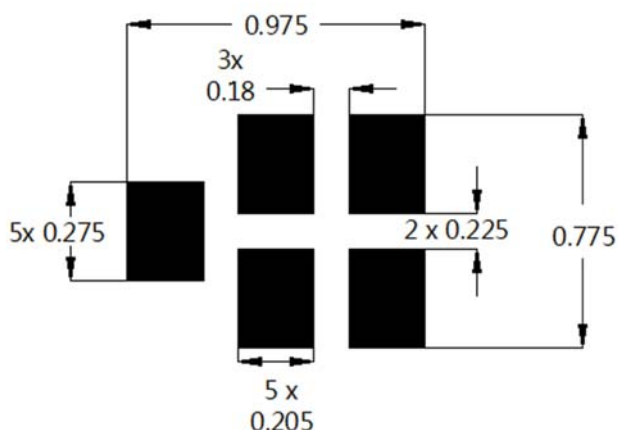
Test Circuit



Notes:

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

PCB Footprint



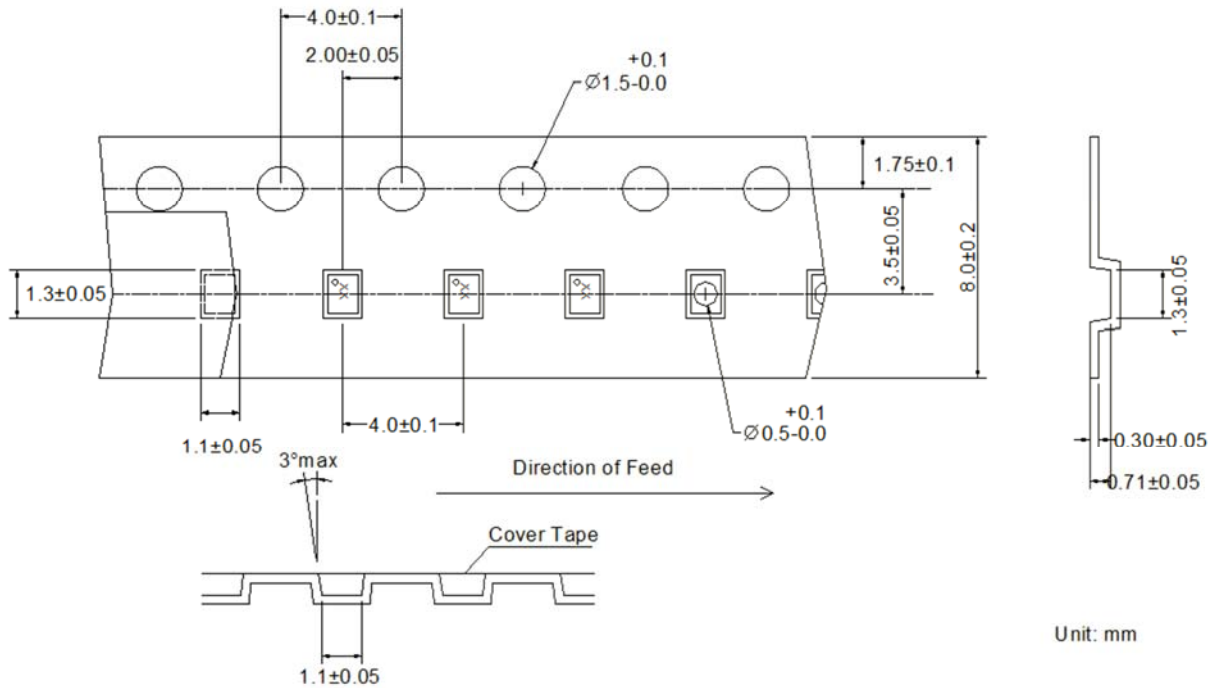
Notes:

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.

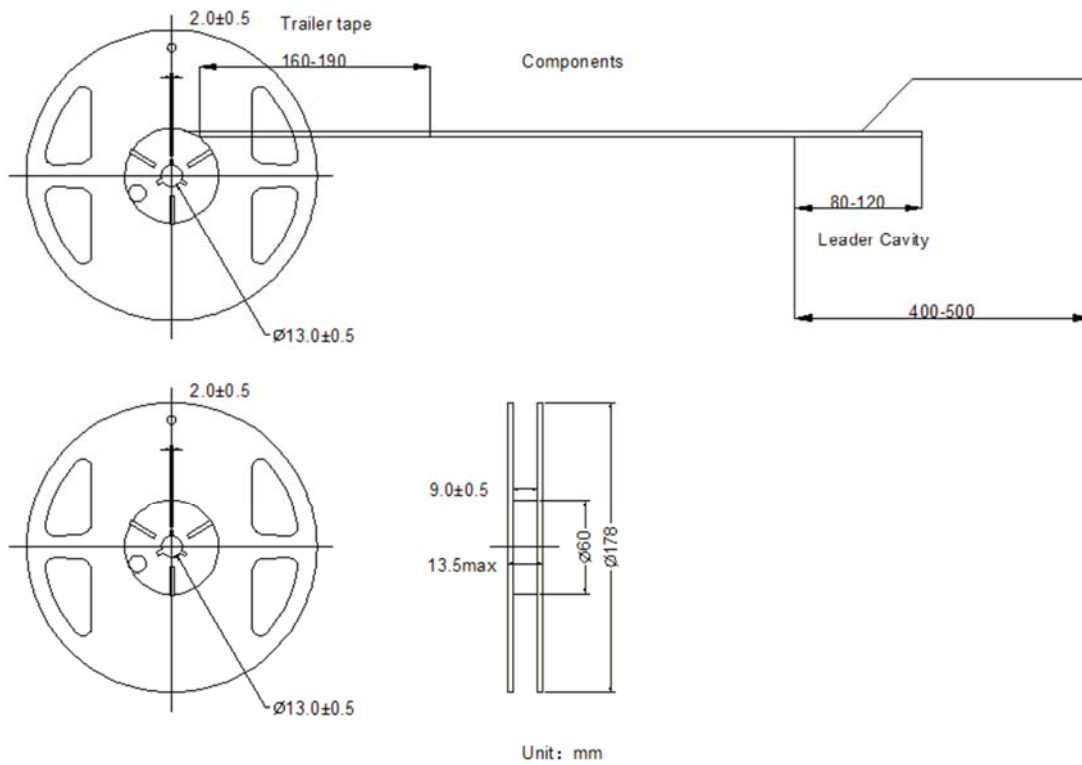


Packing

1. Tape Dimension



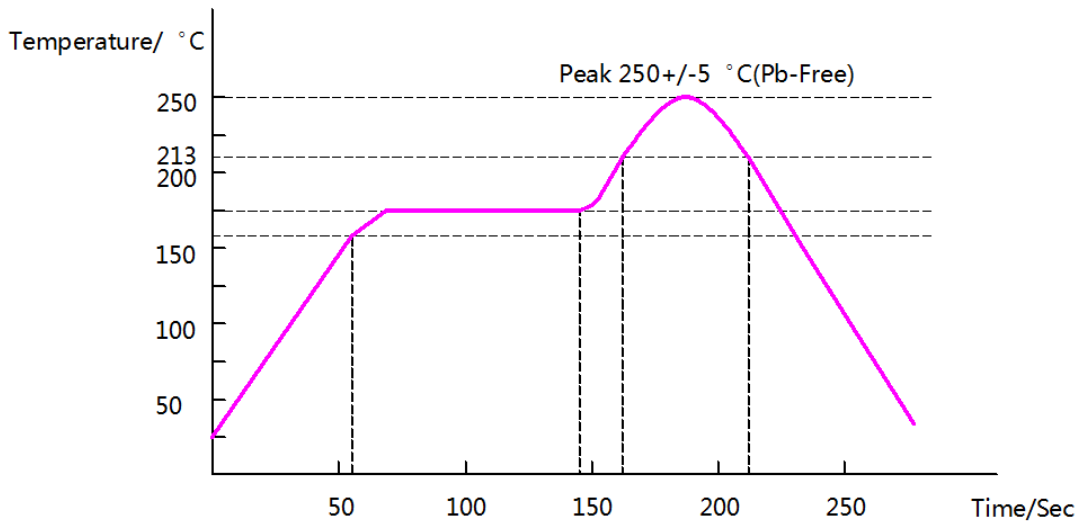
2. Reel Dimension



5000Pcs/Reel



Recommended IR Reflow Profile



Order Information

Part Number	Qty Per Reel	Container
YTLP2413E	5000	7 inch Reel

