

## Description

YTLP2651E is a LTE Band 41F (2496-2690MHz) Rx bandpass filter designer for use in High Power User Equipment applications with a package size of only 1.1x0.9mm.

YTLP2651E is designed with Film Bulk Acoustic Resonator (FBAR) technology, which provides high-Q filters and meet requirements of low insertion loss, high out-of-band attenuation and stringent linearity.

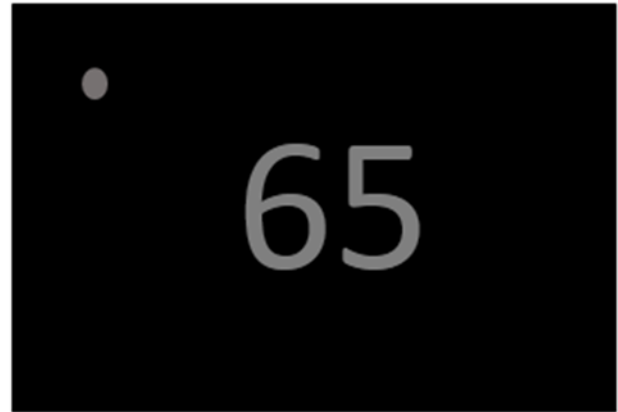
YTLP2651E uses chip scale packaging (CSP) technology to assembly the filters into a molded chip-on-board module.

## Features

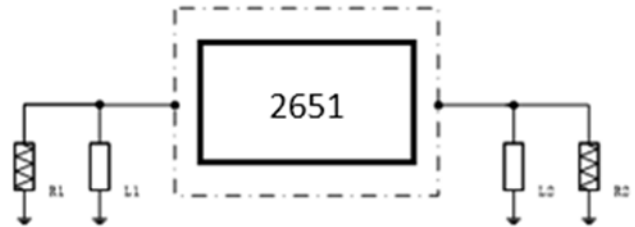
- Miniature Size  
1.1mm x 0.9 mm x 0.59 mm
- Low insertion loss
  - Rx bandpass, 2496-2690MHz: 1.8dB Typ.
- High Rejection in 2.4G Wi-Fi and 5G New Band
  - 2.4G Wi-Fi: 40dB Typ.
- Operation Temperature: -20 to +85°C
- Storage Temperature: -40 to +85°C

## Environmental

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



## Functional Block Diagram (Top View)



Reference Des.	Value	Description	
R1	50ohm		
R2	50ohm		
L1	5.1nH	Inductor	Pin1_Input
L2	4.7nH	Inductor	Pin4_Output

## Pin Connection

No.	Function
1	Rx
2	GND
3	GND
4	Ant
5	GND

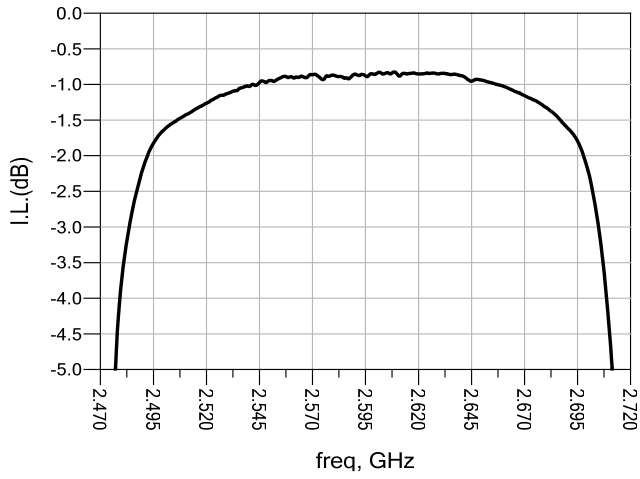


### Electrical Specification

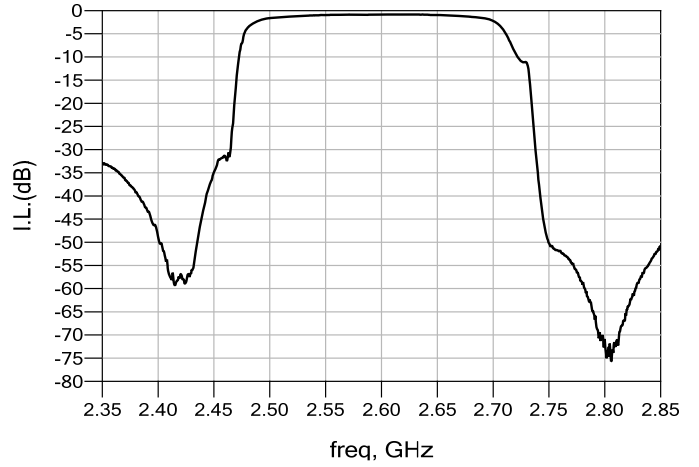
Transmit Port to Antenna Port				
Parameter(Operable Temperature: -20 to +85°C)	Min	Typ*	Max	Unit
<b>Insertion Loss</b>				
(2496~2690MHz)	\	1.8	2.5	dB
(2500~2570MHz)	\	1.6	2.3	dB
(2570~2620MHz)	\	0.9	1.4	dB
(2535~2655MHz)	\	1.1	1.5	dB
<b>Ripple</b>				
(2496~2690MHz)	\	0.4	0.9	dB
<b>VSWR</b>				
Rx Port (2535~2655MHz)	\	1.4	1.67	dB
Ant Port (2535~2655MHz)	\	1.4	1.67	dB
<b>Absolute Attenuation</b>				
(10~703MHz)	40	48	\	dB
(703~748MHz)	40	48	\	dB
(814~849MHz)	40	45	\	dB
(849~880MHz)	38	44	\	dB
(880~915MHz)	38	43	\	dB
(915~1248MHz)	30	36	\	dB
(1248~1710MHz)	25	30	\	dB
(1710~1785MHz)	25	30	\	dB
(1850~1915MHz)	22	28	\	dB
(1920~1980MHz)	22	28	\	dB
(2300~2400MHz)	26	32	\	dB
(2403~2461MHz)	28	35	\	dB
(2448~2466MHz)	22	26	\	dB
(2453~2471MHz)	10	15	\	dB
(2750~2775MHz)	40	50	\	dB
(2775~2850MHz)	40	50	\	dB
(2850~3300MHz)	28	33	\	dB
(3300~4200MHz)	35	40	\	dB
(4400~4992MHz)	30	35	\	dB
(4992~5380MHz)	30	37	\	dB
(5380~7487MHz)	15	20	\	dB
(7487~8000MHz)	8	12	\	dB



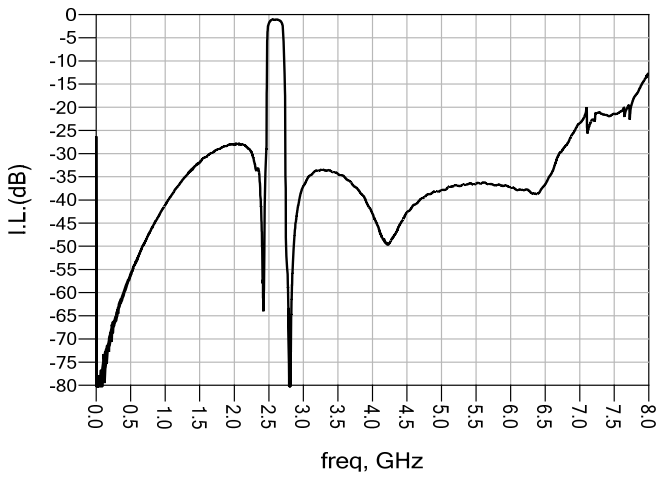
## Typical Performance at Tc=25°C



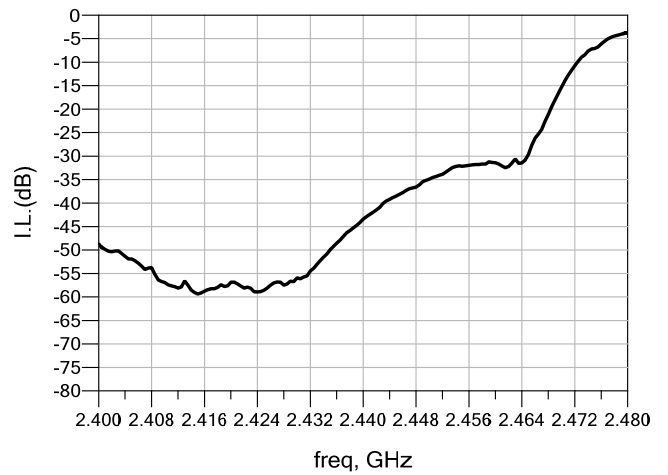
**Figure1. Pass Band**



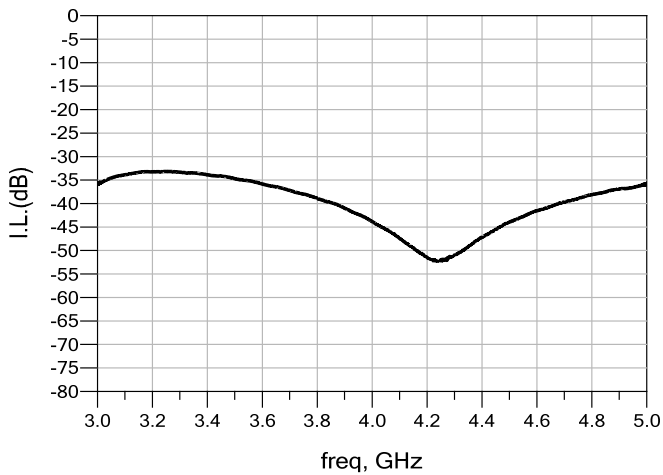
**Figure2. Narrow Band**



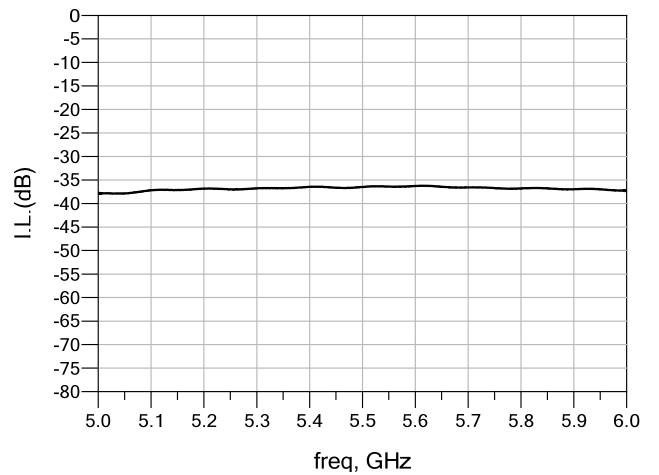
**Figure3. Wide Band**



**Figure4. Rejection in 2.4G Wi-Fi**

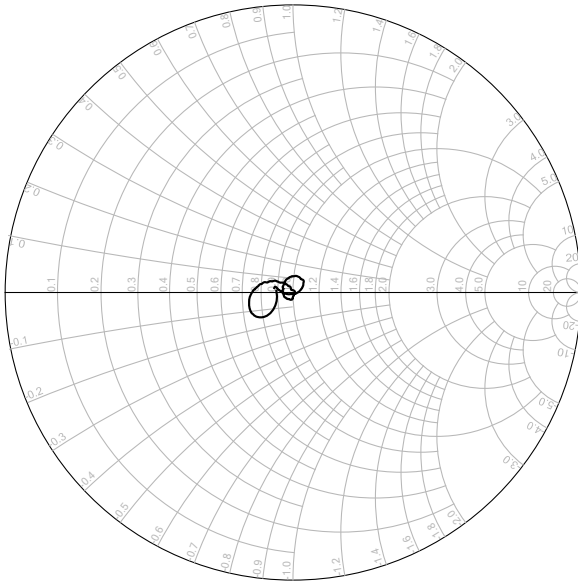


**Figure5. Rejection in LTE5G**



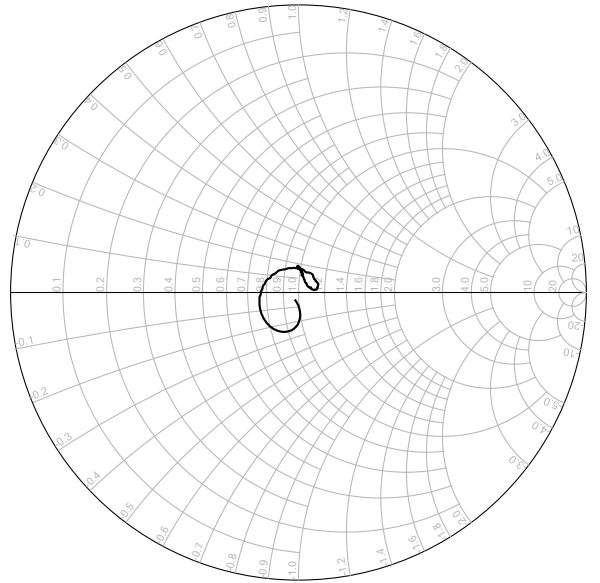
**Figure6. Rejection in 5G Wi-Fi**





freq (2.496GHz to 2.690GHz)

**Figure7. S11**

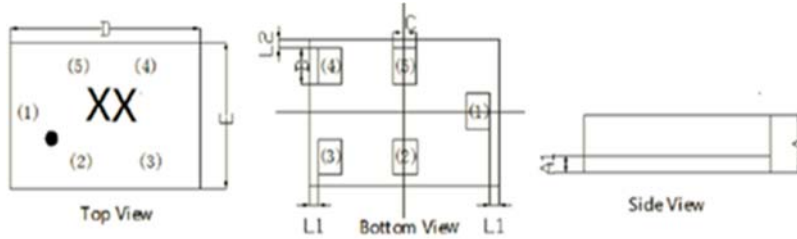


freq (2.496GHz to 2.690GHz)

**Figure8. S22**



## Package Outline



Symbol	Dimension Requirement		
	Min	Norm	Max
A	0.54	0.59	0.64
A1	0.16	0.19	0.22
B	0.22	0.25	0.28
C	0.17	0.20	0.23
D	1.05	1.10	1.15
E	0.85	0.90	0.95
L1	0.055		
L2	0.075		

### Note:

1. Dimension: mm
2. Dimensions nominal unless otherwise noted
3. Contact area are gold plated

No.	Function
1	Rx
2	GND
3	GND
4	Ant
5	GND

