

Description

YTLP2602D is a LTE Band 41 (2496-2690MHz) Tx/Rx bandpass filter designer for use in High Power User Equipment applications with a package size of only 1.4x1.1mm.

YTLP2602D 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, high power handling and stringent linearity.

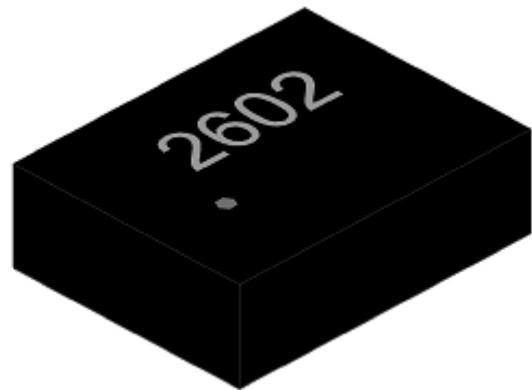
YTLP2602D uses chip scale packaging (CSP) technology to assembly the filters into a molded chip-on-board module.

Features

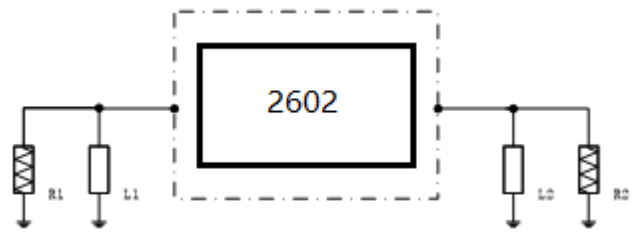
- Miniature Size
1.4mm x 1.1 mm x 0.65 mm
- Low insertion loss
Tx/Rx bandpass, 2496-2690MHz: 1.6dB Typ.
- High Rejection in 2.4G Wi-Fi and 5G New Band
2.4G Wi-Fi: 40dB Typ.
- Tx Input Power
+32 dBm CW for 5000h @ +50°C
- ESD protection ability: Class1C
- Moisture Sensitivity: MSL3
- Operation Temperature: -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	Manuf.
R1	50ohm		
R2	50ohm		
L1	3.1nH	Inductor	
L2	3.1nH	Inductor	

Pin Connection

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



Electrical Specification

Transmit Port to Antenna Port				
Parameter(Operable Temperature: TBD)	Min	Typ*	Max	Unit
Insertion Loss				
(2496~2500MHz)	\	2.4	3.0	dB
(2500~2690MHz)	\	1.5	2.5	dB
Ripple				
(2496~2500MHz)	\	1.2	2	dB
(2500~2690MHz)	\	0.5	1.5	dB
VSWR				
Tx/Rx Port (2496~2690MHz)	\	1.2	1.6	dB
Ant Port (2496~2690MHz)	\	1.2	1.5	dB
Absolute Attenuation				
(10~699MHz)	40	50	\	dB
(699~916MHz)	40	50	\	dB
(916~1565MHz)	30	40	\	dB
(1565~1615MHz)	30	35	\	dB
(1615~1710MHz)	30	35	\	dB
(1710~1785MHz)	35	40	\	dB
(1805~1880MHz)	30	40	\	dB
(1880~1920MHz)	30	40	\	dB
(1920~1980MHz)	25	33	\	dB
(2110~2170MHz)	15	20	\	dB
(2300~2400MHz)	10	20	\	dB
(2401~2468MHz)	35	43	\	dB
(2451~2473MHz)	40	45	\	dB
(2456~2478MHz)	30	43	\	dB
(2461~2483MHz)	10	38	\	dB
(2760~2850MHz)	30	50	\	dB
(2850~3300MHz)	10	18	\	dB
(3300~4200MHz)	20	28	\	dB
(4400~4992MHz)	30	45	\	dB
(4992~5380MHz)	35	50	\	dB
(5380~7487MHz)	20	35	\	dB
(7487~8070MHz)	25	30	\	dB



Typical Performance at Tc=25°C

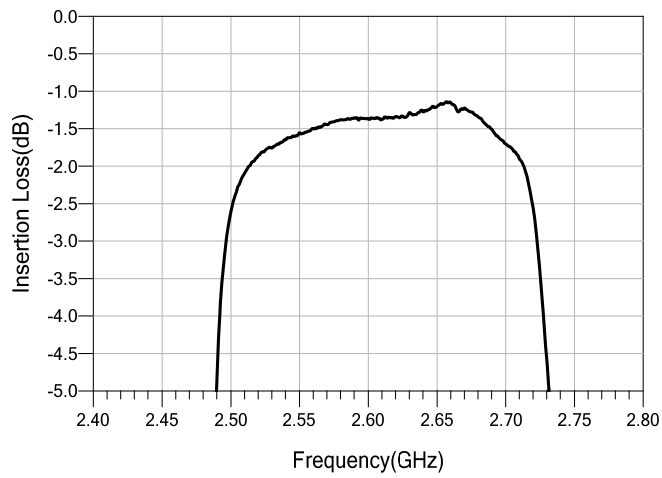


Figure1. Pass Band

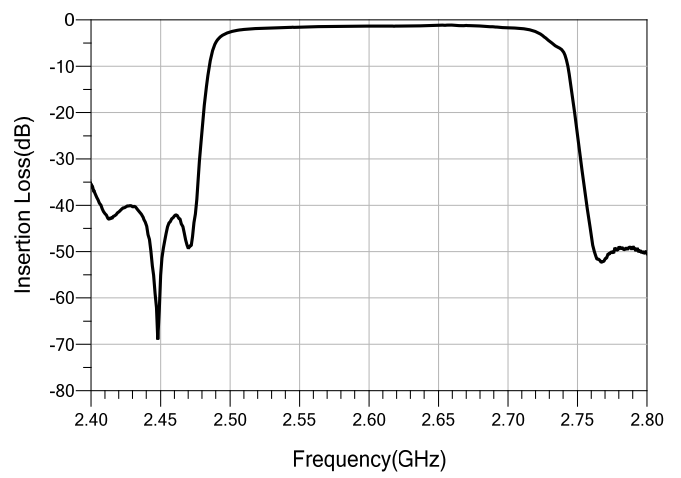


Figure2. Narrow Band

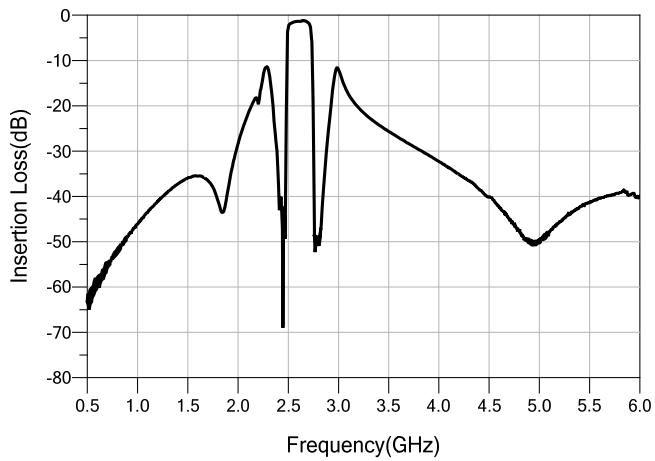


Figure3. Wide Band

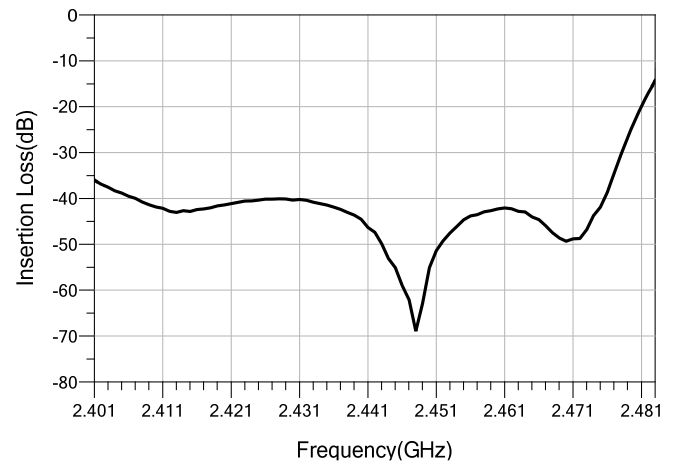


Figure4. Rejection in Wi-Fi Band

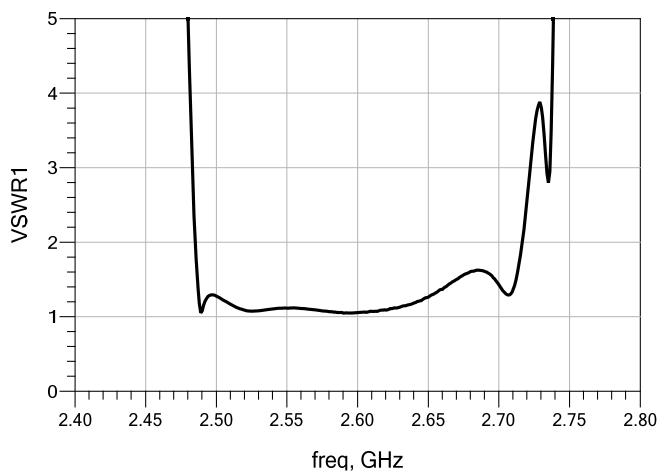


Figure5. VSWR1

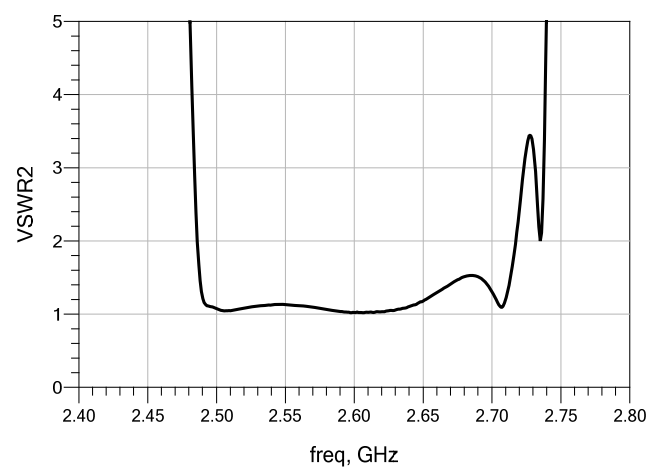
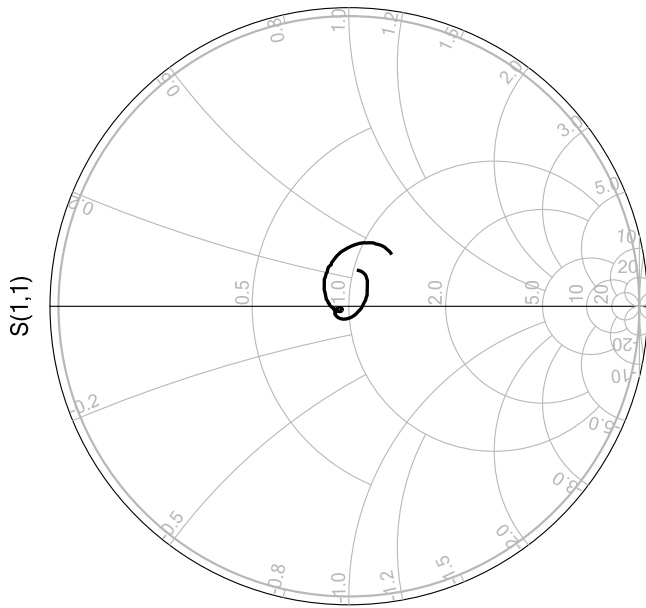


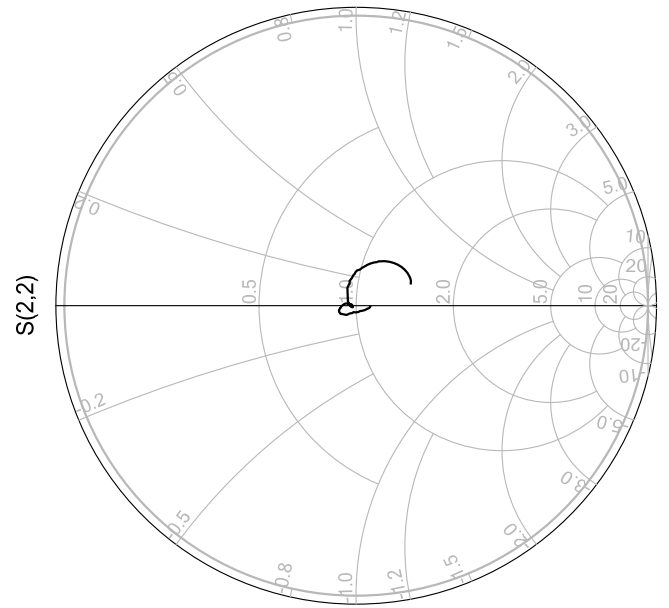
Figure6. VSWR2





freq (2.496GHz to 2.690GHz)

Figure7. S11

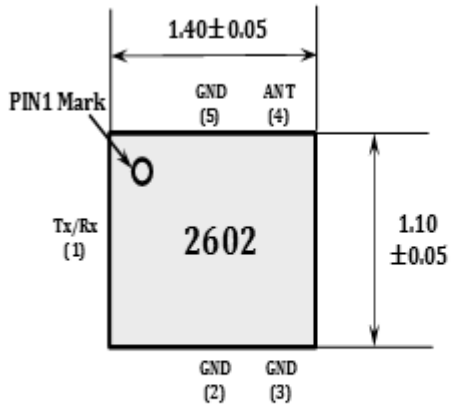


freq (2.496GHz to 2.690GHz)

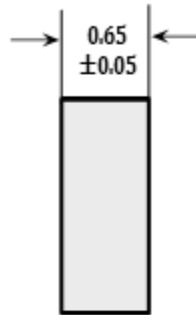
Figure8. S22



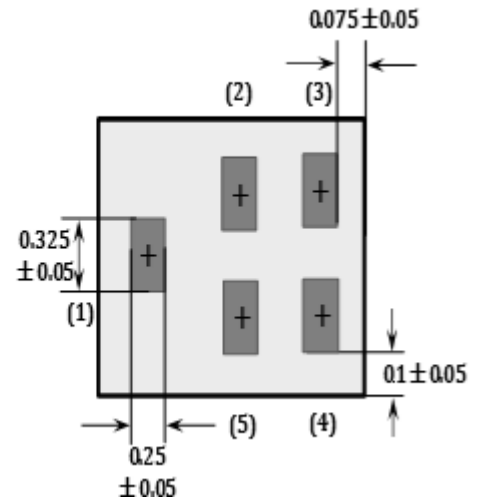
Package Outline



Top view



Side view



Bottom view

Note:

1. Dimension: mm
2. Dimensions nominal unless otherwise noted
3. Contact area are gold plated
4. 2602 is product code

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

