

USB566A - PRELIMINARY

5.475-5.85GHz USB Series TDD Bandpass Filter

Features

- Low Loss with High Rejection
- Low ripple
- Universal footprint across family for all TDD bands

Applications

- Wireless Infrastructure applications
- High-performance carrier-grade single-band TDD Pico-cell basestations for up to 5.0W at the antenna port.



Part Dimensions: 25.4 × 3.6 × 6.7 mm • 1.59 g
Materials: Ag plated ceramic block with tin plated brass shield

Description

Surface mount ceramic bandpass filter supports a universal footprint across all TDD frequency bands enabling the use of a common system PCB. Superior rejection, insertion loss, reliability, as well as both peak and average power handling compared to other bandpass filter technologies.

Electrical Specifications

Parameter	Frequency (MHz)	Typical at 25°C	Spec. at 25°C	Spec. over -40°C to +85°C
Nominal Impedance	-	50 ohms	-	-
Average Input Power	-	-	-	8.0 Watt max
Peak Input Power	-	-	-	80 Watt max

Input-Output Response

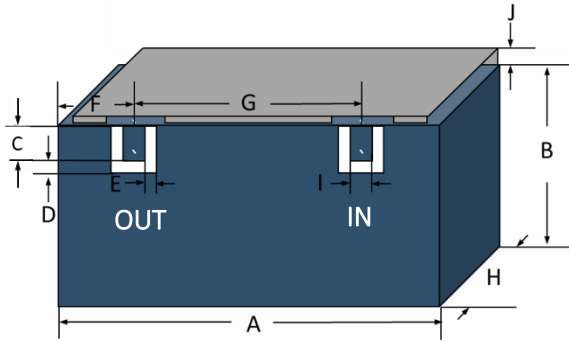
Passband Insertion Loss (5 MHz avg)	5475-5850	0.9 dB	1.0 dB	1.1 dB max
Passband Ripple	5475-5850	0.3 dB	0.4 dB	0.5 dB max
Passband Return Loss	5475-5850	14 dB	13 dB	13 dB min
Attenuation:	1-5012	54 dB	50 dB	50 dB min
	6337-7000	65 dB	50 dB	50 dB min

Note: CTS tests each unit to the critical specifications above. Subsequent audits may deviate due to repeatability among different test systems which shall not exceed these allowances.

Specification Allowance

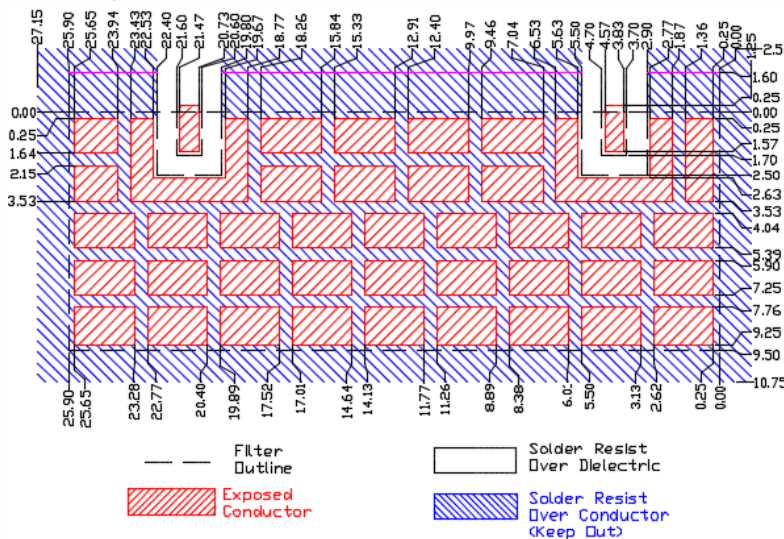
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	25.40	0.30
B	2.40	0.30
C	1.70	0.13
D	0.40	0.13
E	0.80	0.13
F	4.25	0.13
G	16.90	0.13
H	6.40	0.20
I	1.00	0.13
J	1.20	0.20

PCB Layout

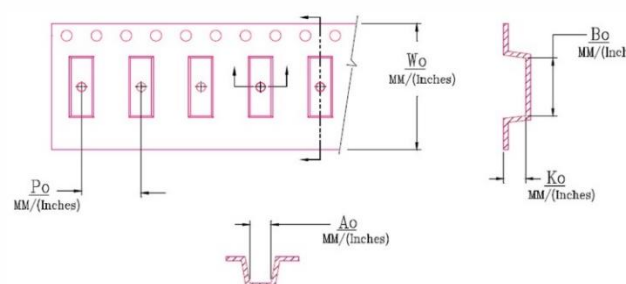


NOTE: The width of 9.50mm is necessary to support frequencies as low as 1885MHz for Band 39. If only higher frequency TDD bands are supported, then a smaller space can be allocated on the layout.

Packaging and Marking

Dimension	Units	Spec.	Product Marking
Reel Diameter	mm	330	CTS
Reel Weight	kg	5.5	566
Reel Quantity	ea.	500	YWW

Customer Feed Direction → → →



W ₀	A ₀	B ₀	K ₀	P ₀
1.732 in 44.0 mm	0.165 in 4.20 mm	1.028 in 26.10 mm	0.283 in 7.20 mm	0.472 in 12.0 mm

Electrical Response

