

USB043B - PRELIMINARY

Band 43 USB Series TDD Bandpass Filter

Features

- Low Loss with High Rejection and Low Ripple
- Support for 3GPP Receive Blocker specification
- 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: 25.9 × 5.57 × 6.7 mm • 2.8 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

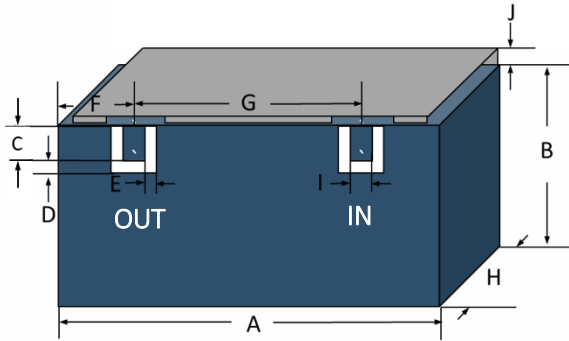
Input-Output Response

Passband Insertion Loss (20 MHz avg)	3600-3800	1.7 dB	1.8 dB max	2.0 dB max
Passband Insertion Loss (5 MHz avg)	3600-3800	1.9 dB	2.1 dB max	2.2 dB max
Passband Ripple (20MHz)	3600-3800	1.0 dB	1.2 dB max	1.4 dB max
Passband Return Loss	3600-3800	15 dB	13 dB min	13 dB min
Attenuation:	1-2700	50 dB	43 dB min	43 dB min
	2700-3400	43 dB	38 dB min	38 dB min
	3400-3560	18 dB	15 dB min	15 dB min
	3561-3580	8 dB	6 dB min	6 dB min
	3820-3839	8 dB	6 dB min	6 dB min
	3840-4000	18 dB	15 dB min	15 dB min
	4000-5950	40 dB	38 dB min	38 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.

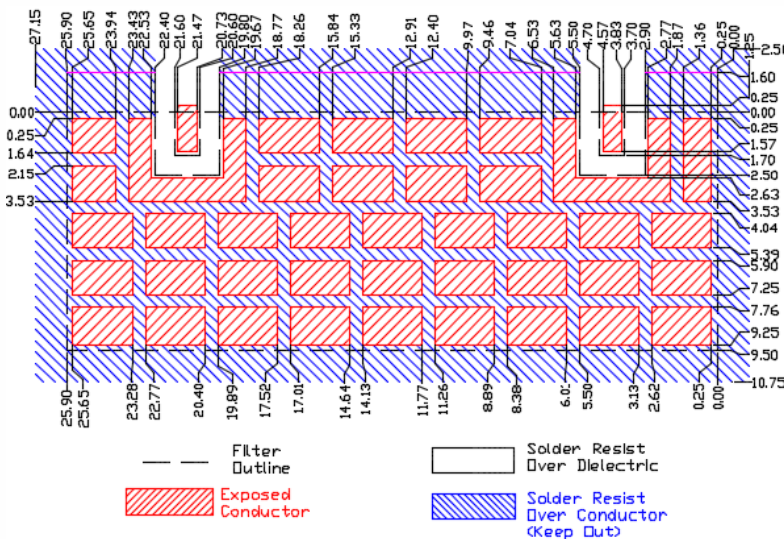
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	25.90	max
B	4.80?	max
C	1.70	0.13
D	0.80	0.13
E	0.80	0.13
F	4.20	0.13
G	16.90	0.13
H	6.70	max
I	1.00	0.13
J	0.70	max

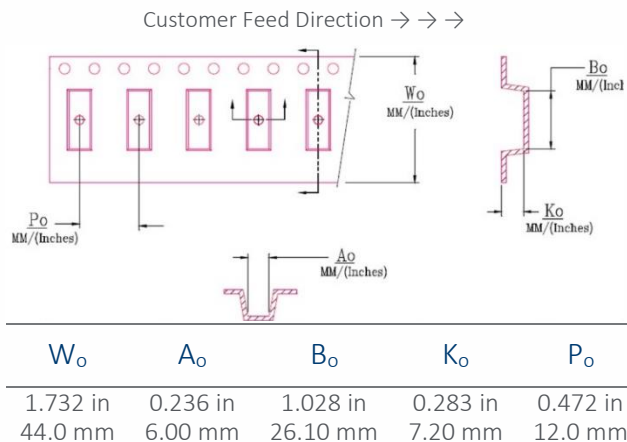
PCB Layout



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	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> CTS 43B YWW </div>
Reel Weight	kg	5.5	
Reel Quantity	ea.	500	



Electrical Response

