

# USB041A - PRELIMINARY

## Band 41 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: 25.9 × 7.6 × 6.7 mm • 3.7 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. Provides 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

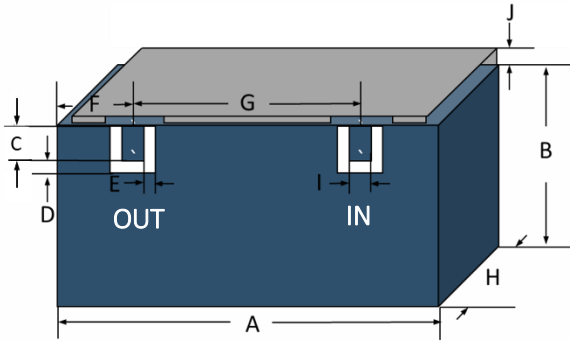
### Input-Output Response

Passband Insertion Loss (5 MHz avg)	2496-2700	1.0 dB	1.1 dB max	1.2 dB max
Passband Ripple	2496-2700	0.3 dB	0.5 dB max	0.5 dB max
Passband Return Loss	2496-2700	17 dB	14 dB min	14 dB min
Attenuation:	1-2200	75 dB	60 dB min	60 dB min
	2200-2315	45 dB	43 dB min	43 dB min
	2315-2360	22 dB	20 dB min	20 dB min
	3300-3800	62 dB	60 dB min	60 dB min
	3800-5850	45 dB	43 dB min	43 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.

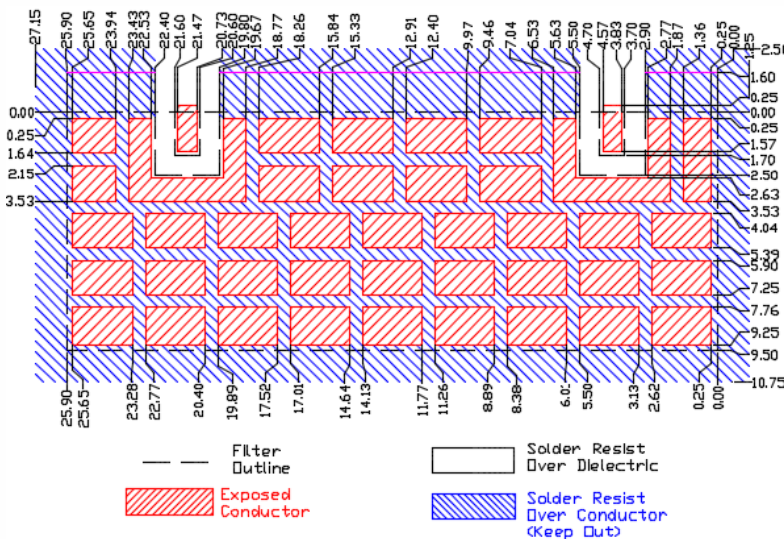
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

### Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	25.90	max
B	6.00	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	1.60	max

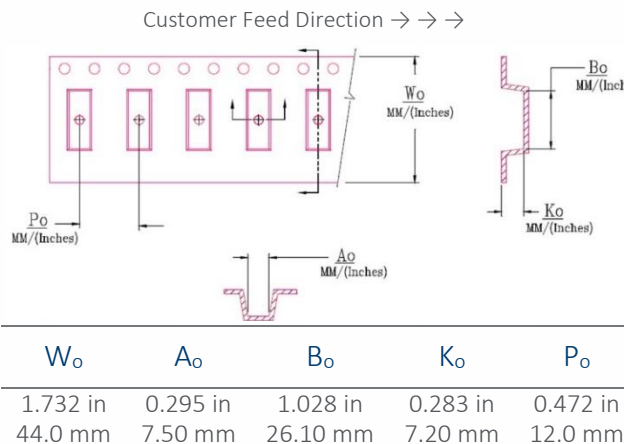
### PCB Layout



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	CTS 041 YWW
Reel Weight	kg	5.5	
Reel Quantity	ea.	500	



### Electrical Response

