

# USB040A - PRELIMINARY

## Band 40 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

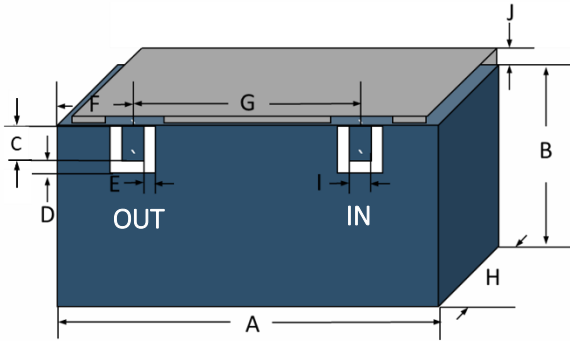
Passband Insertion Loss (5 MHz avg)	2300-2400	1.1 dB	1.3 dB max	1.4 dB max
Passband Return Loss	2300-2400	16 dB	14 dB min	14 dB min
Attenuation:	1-2170	57 dB	55 dB min	55 dB min
	2496-2690	57 dB	55 dB min	55 dB min

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

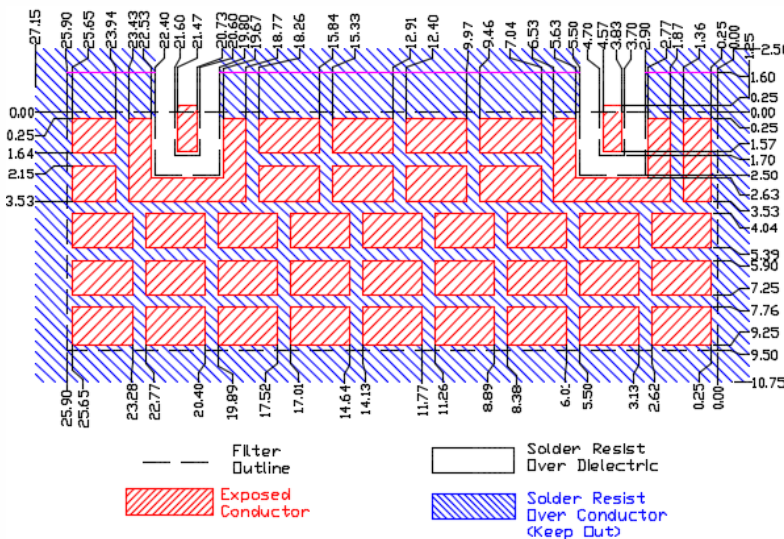
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

### 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

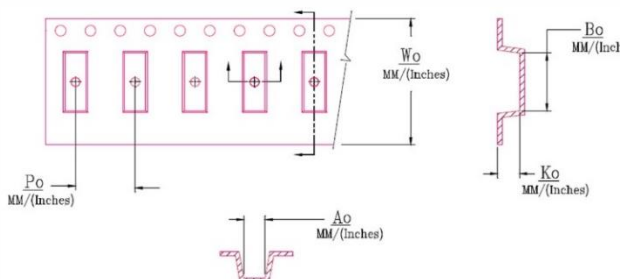


NOTE: The width of 9.50mm is necessary to support frequencies as low as 1885MHz for Band 39. If only higher frequency TDD bands are supported, then a smaller space can be allocated on the layout.

### Packaging and Marking

Dimension	Units	Spec.	Product Marking
Reel Diameter	mm	330	<div style="border: 1px solid black; padding: 2px; display: inline-block;">                     CTS 040 YWW                 </div>
Reel Weight	kg	5.5	
Reel Quantity	ea.	500	

Customer Feed Direction → → →



$W_0$	$A_0$	$B_0$	$K_0$	$P_0$
1.732 in	0.295 in	1.028 in	0.283 in	0.472 in
44.0 mm	7.50 mm	26.10 mm	7.20 mm	12.0 mm

### Electrical Response

