

# UPB477A - PRELIMINARY

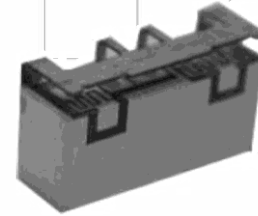
## 4720-4820MHz UPB Series TDD Bandpass Filter

### 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 0.25-0.5W at the antenna port.



Part Dimensions: 9.2 × 4.6 × 3.1 mm • 0.36 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 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	-	-	-	2.0 Watt max
Peak Input Power	-	-	-	20 Watt max

#### Input-Output Response

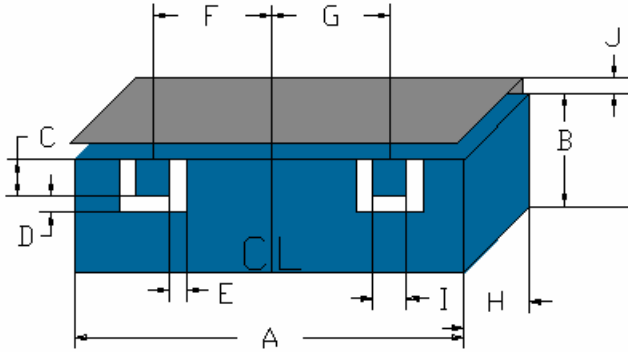
Passband Insertion Loss (5 MHz avg)	4720-4820	2.7 dB	2.8 dB max	3.0 dB max
Passband Ripple	4720-4820	2.0 dB	2.2 dB max	2.3 dB max
Passband Return Loss	4720-4820	13 dB	12 dB min	12 dB min
Attenuation:	1-4700	6.5 dB	6 dB min	5 dB min
	4840-TBD	6.5 dB	6 dB min	5 dB min

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

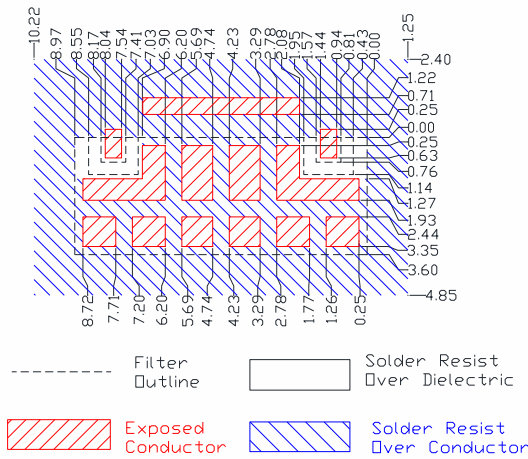
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

### Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	8.97	0.20
B	3.60	max
C	0.76	0.13
D	0.38	0.13
E	0.38	0.13
F	3.30	0.13
G	3.30	0.13
H	3.10	max
I	0.76	0.13
J	1.00	max

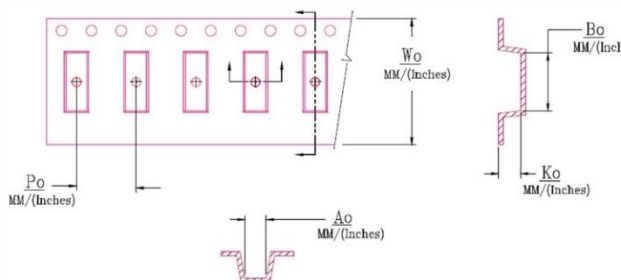
### PCB Layout



### Packaging and Marking

Dimension	Units	Spec.	Product Marking
Reel Diameter	mm	330	<div style="border: 1px solid black; padding: 2px; display: inline-block;">           CTS 477 YWW         </div>
Reel Weight	kg	5.5	
Reel Quantity	ea.	500	

Customer Feed Direction → →



W <sub>0</sub>	A <sub>0</sub>	B <sub>0</sub>	K <sub>0</sub>	P <sub>0</sub>
0.945 in	0.189 in	0.366 in	0.126 in	0.315 in
24.0 mm	4.8 mm	9.3 mm	3.2 mm	8.0 mm

### Electrical Response

