

# UPB319A - PRELIMINARY

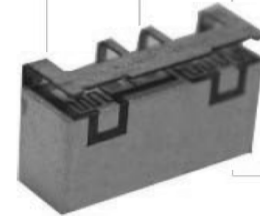
## 2.995-3.395 GHz UPB Series Bandpass Filter

### Features

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

### Applications

- Wireless Infrastructure applications



Part Dimensions: 10.2 × <4.9 × 3.1 mm • 1.0est 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

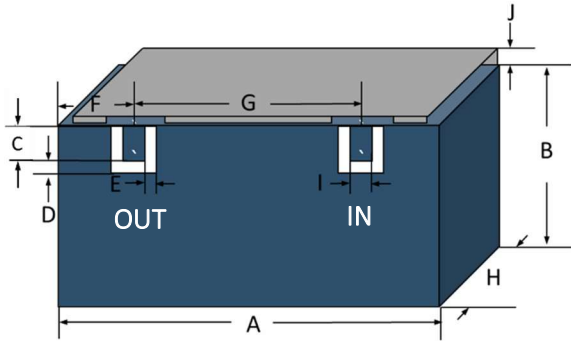
#### Input-Output Response

Passband Insertion Loss (20 MHz avg)	3000-3400		1.4dB max	1.6dB max
Passband Insertion Loss (single point)	3000-3400		1.5dB max	2.0dB max
Passband Ripple	3000-3400	0.7 dB		0.9 dB max
Passband Return Loss	3000-3400	14 dB		11 dB min
Attenuation:	1-2650			45 dB min
	3930-3999			30 dB min
	4000-4350			40 dB min
	4351-5950			40 dB min
	5950-6450			no spec commit.

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.

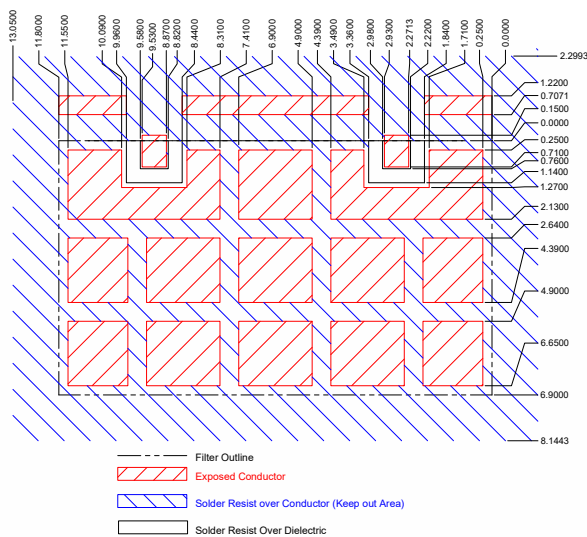
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

### Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	10.20	0.13
B	<4.90	max
C	0.76	0.13
D	0.38	0.13
E	0.38	0.13
F	1.80	0.13
G	6.60	0.13
H	4.10	max
I	0.76	0.13
J	1.10	max

### PCB Layout



IMPORTANT: Please assure  $\geq 30$  mils (0.75mm) thickness of dielectric beneath the I/O Pads and the surrounding clearance zone down to the required ground plane.

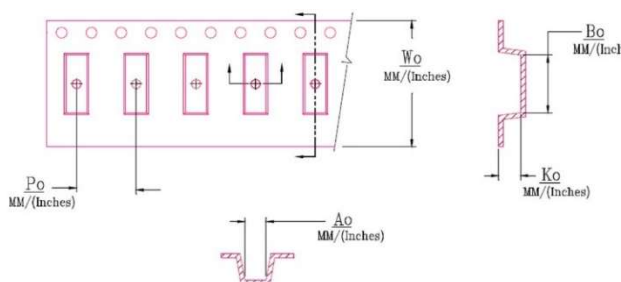
Please assure sufficient ground vias between the top metal ground plane and the primary ground plane.

Recommended solder: 6 mils of SAC305 with reflow including 120s of soak at 217°C, and up to 30 sec peak at 241°C.

### Packaging and Marking

Dimension	Units	Spec.	Product Marking
Reel Diameter	mm	330	CTS
Reel Weight	kg	5.5	319
Reel Quantity	ea.	500	YWW

Customer Feed Direction  $\rightarrow \rightarrow$



W <sub>0</sub>	A <sub>0</sub>	B <sub>0</sub>	K <sub>0</sub>	P <sub>0</sub>
0.945 in 24.0 mm	0.177 in 4.50 mm	0.366 in 9.30 mm	0.132 in 3.35 mm	0.315 in 8.0 mm

### Electrical Response

