

UPB048A

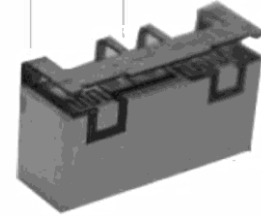
Band 48 (3.55-3.70GHz) UPB Series TDD BPF

Features

- Meets FCC CBRS emission requirements for 0.25W@Ant systems
- Low Loss with High Rejection
- Universal footprint across family for all TDD bands

Applications

- Wireless Infrastructure applications
- High-performance carrier-grade TDD Pico-cells.



Part Dimensions: 9.0 × 5.9 × 3.1 mm • 1.0 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	-	-	-	2.0 Watt max
Peak Input Power	-	-	-	20 Watt max

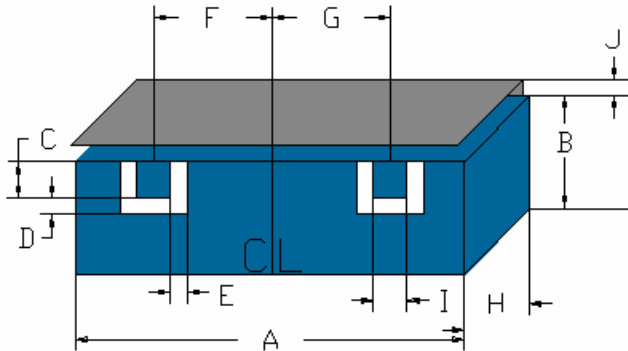
Input-Output Response

Passband Insertion Loss (20 MHz avg)	3550-3700	1.6 dB	1.8 dB max	1.8 dB max
Passband Insertion Loss (10 MHz avg)	3550-3700	1.8 dB	2.0 dB max	2.2 dB max
Passband Ripple (20 MHz avg)	3550-3700	1.0 dB	1.3 dB max	1.6 dB max
Passband Return Loss	3550-3700	12 dB	10 dB min	10 dB min
Attenuation:	1-2690	30 dB	27 dB min	27 dB min
	2690-3300	11 dB	9 dB min	9 dB min
	3300-3530	7 dB	7 dB min	6 dB min
	3720-3800	7 dB	7 dB min	6 dB min
	3800-4200	11 dB	9 dB min	9 dB min
	4200-4400	25 dB	20 dB min	20 dB min
	4400-5925	35 dB	27 dB min	27 dB min
	7100-7400	20 dB	15 dB min	15 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.

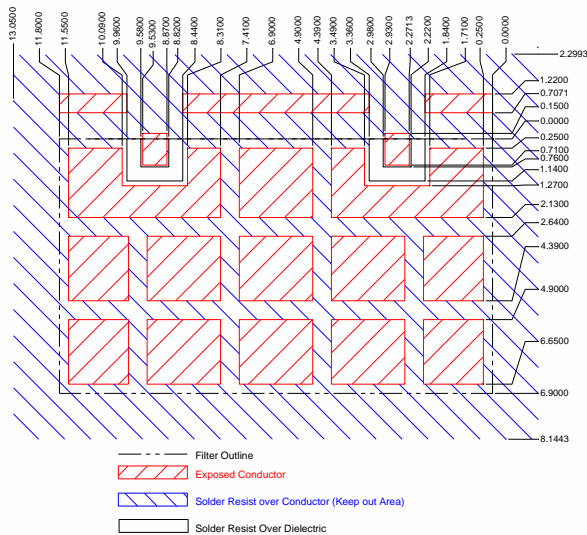
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	8.97	max
B	4.90 est	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



IMPORTANT: Please assure ≥ 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.

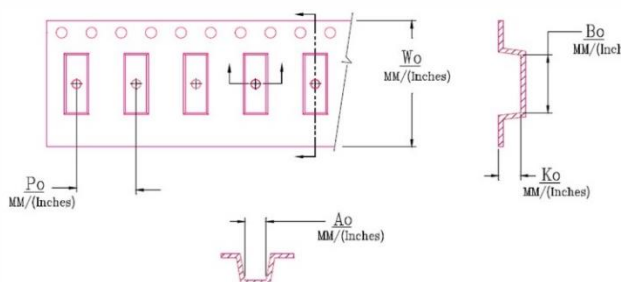
Recommended solder: 6 mils of SAC305 with reflow including 120s of soak at 217°C, and up to 30 sec peak at 241°C.

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
Reel Weight	kg	???	048
Reel Quantity	ea.	500	YWW

Customer Feed Direction → → →



W_0	A_0	B_0	K_0	P_0
0.945 in	0.236 in	0.366 in	0.132 in	0.315 in
24.0 mm	6.00 mm	9.30 mm	3.35 mm	8.0 mm

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www.ctscorp.com

Electrical Response

