

UPB053A - PRELIMINARY

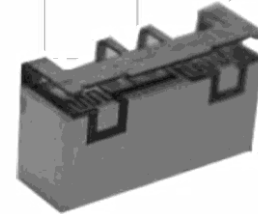
Band 53 UPB Series TDD Bandpass Filter

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 × 7.8 × 3.1 mm • < TBD 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

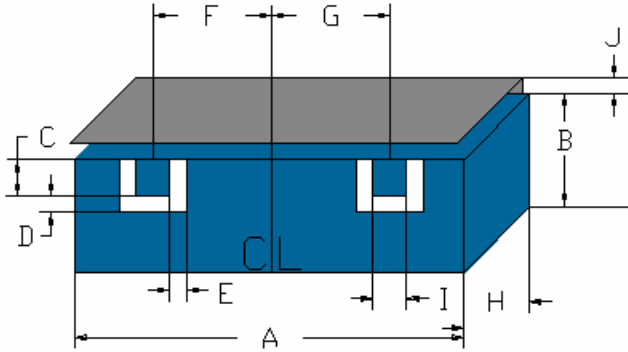
Input-Output Response

Passband Insertion Loss (5 MHz avg)	2483.5-2495	2.5 dB	2.9 dB max	3.1 dB max
Passband Return Loss	2483.5-2495	15 dB	14 dB min	14 dB min
Attenuation:	1-2463.5	12 dB	10 dB min	10 dB min
	2515-TBD	7 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.

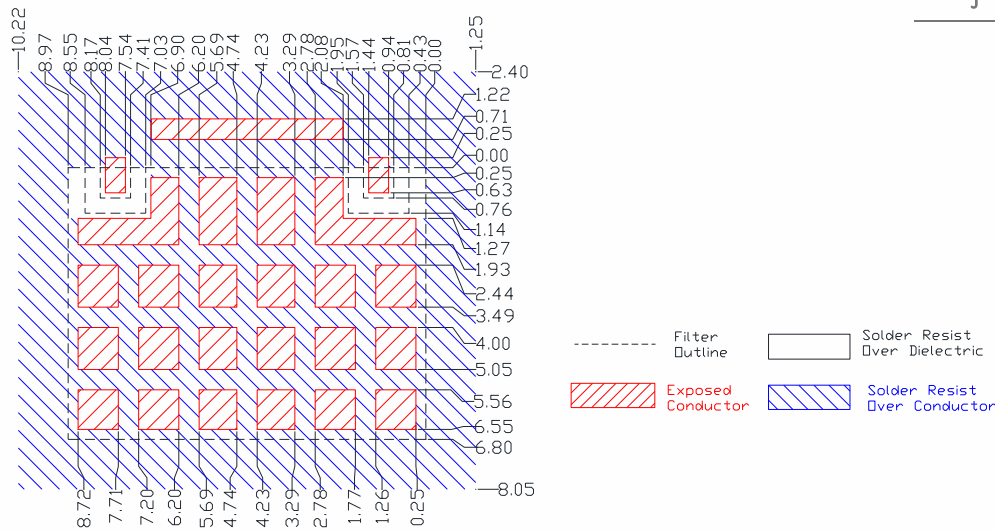
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	8.97	0.20
B	6.80	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

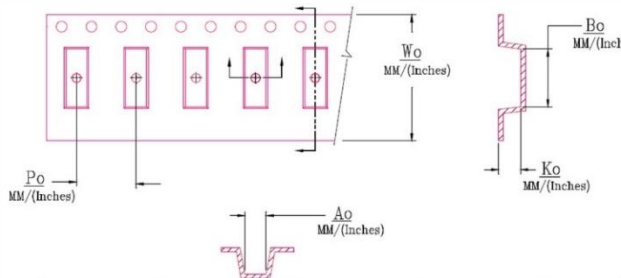
PCB Layout



Packaging and Marking

Dimension	Units	Spec.	Product Marking
Reel Diameter	mm	330	CTS
Reel Weight	kg	5.5	053
Reel Quantity	ea.	500	YWW

Customer Feed Direction → → →



W_0	A_0	B_0	K_0	P_0
0.945 in 24.0 mm	0.319 in 8.1 mm	0.366 in 9.3 mm	0.132 in 3.35 mm	0.472 in 12.0 mm

Electrical Response

