

USB038B - PRELIMINARY

Band 38 USB Series TDD Bandpass Filter

Features

- Low Loss with High Rejection and Low Ripple
- Support for 3GPP Receive Blocker specification
- 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 × 8.1 × 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

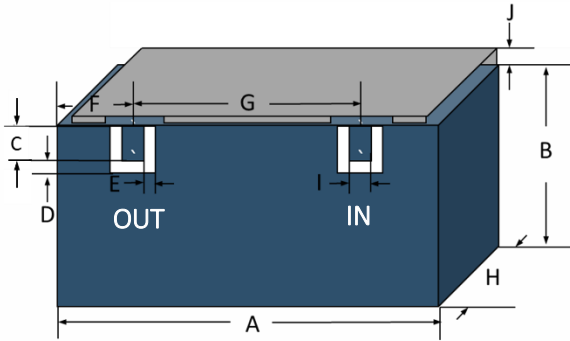
Input-Output Response

Passband Insertion Loss (5 MHz avg)	2570-2620	1.7 dB	1.8 dB max	2.0 dB max
Passband Ripple (20 MHz)	2570-2620	0.7 dB	0.9 dB max	1.0 dB max
Passband Return Loss	2570-2620	15 dB	12 dB min	12 dB min
Attenuation:	1-1980		45 dB min	45 dB min
	1981-2483		40 dB min	40 dB min
	2483-2550	16 dB	13 dB min	13 dB min
	2640-3400	16 dB	13 dB min	13 dB min
	3400-4600		40 dB min	40 dB min
	4600-5150		20 dB min	20 dB min
	5150-5350		15 dB min	15 dB min
	5350-5925		n/a	n/a

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.

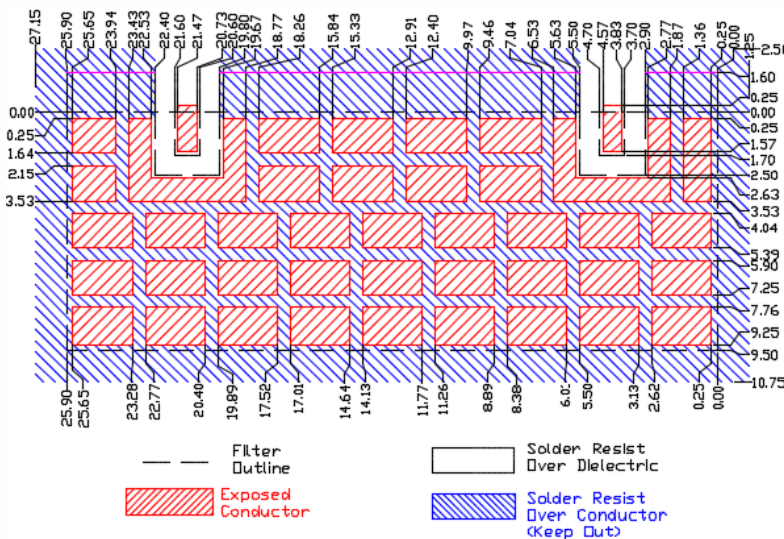
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	25.90	max
B	6.50	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

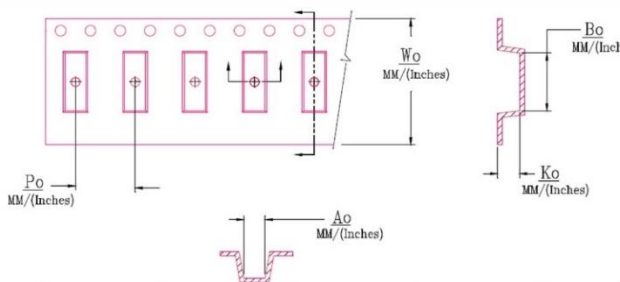


NOTE: The width of 9.50mm is necessary to support frequencies as low as 1885MHz for Band 39. If only higher frequency TDD bands are supported, then a smaller space can be allocated on the layout.

Packaging and Marking

Dimension	Units	Spec.	Product Marking
Reel Diameter	mm	330	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> CTS 38B 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

