

USB038A - PRELIMINARY

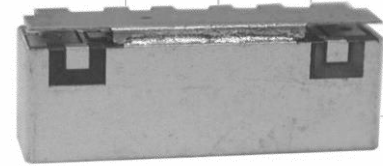
Band 38 USB Series TDD Bandpass Filter

Features

- Low Loss with High Rejection and 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 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

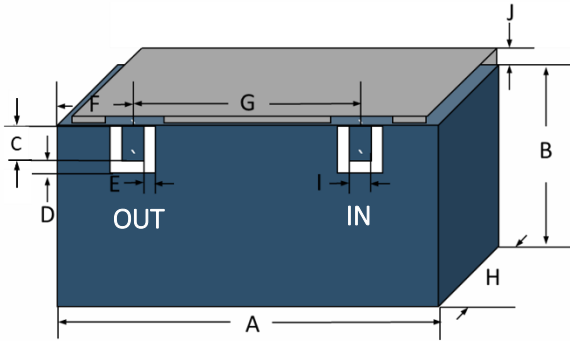
Input-Output Response

Passband Insertion Loss (5 MHz avg)	2570-2620	1.1 dB	1.2 dB max	1.3 dB max
Passband Ripple	2570-2620	0.2 dB	0.2 dB max	0.3 dB max
Passband Return Loss	2570-2620	17 dB	14 dB min	14 dB min
Attenuation:	1-2400			55 dB min
	2400-2483			40 dB min
	2800-3800			55 dB min
	3800-5100			40 dB min
	5100-5350			30 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.

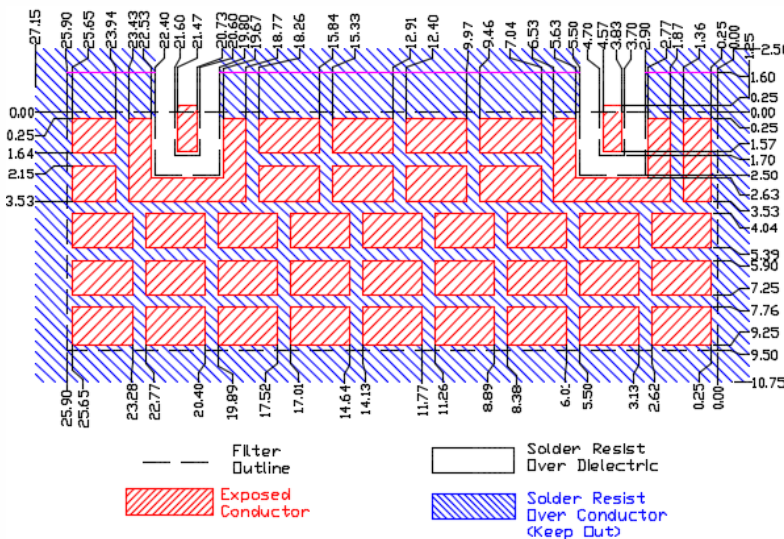
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	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

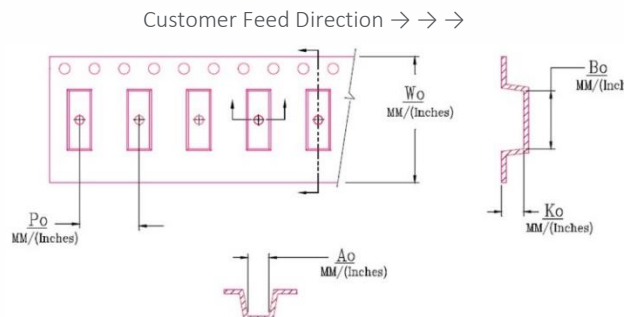
PCB Layout



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 38A YWW </div>
Reel Weight	kg	5.5	
Reel Quantity	ea.	500	



W_0	A_0	B_0	K_0	P_0
1.732 in 44.0 mm	0.295 in 7.50 mm	1.028 in 26.10 mm	0.283 in 7.20 mm	0.472 in 12.0 mm

Electrical Response

