

MMB042C

Band 42 MMB Series TDD Bandpass Filter

Features

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

Applications

- Wireless Infrastructure applications
- Massive MIMO and Active Antenna Systems
- High-performance carrier-grade TDD systems



Part Dimensions: 40.0 x <8.0 x 9.3 mm • <10 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 +105°C
Nominal Impedance	-	50 ohms	-	-
Average Input Power	-	-	-	10.0 Watt max
Peak Input Power	-	-	-	100 Watt max

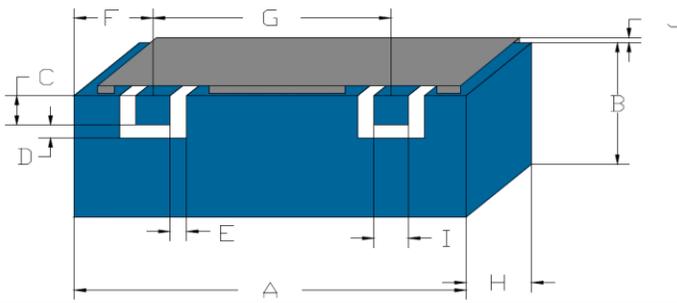
Input-Output Response

Passband Insertion Loss (100 MHz avg)	3400-3600	1.2 dB	1.4 dB max	1.4 dB max
Passband Insertion Loss (20 MHz avg)	3400-3600	1.9 dB	2.2 dB max	2.2 dB max
Passband Insertion Loss (single point)	3400-3600	2.3 dB	2.5 dB max	2.5 dB max
Passband Ripple (over 100MHz)	3400-3600		2.0 dB max	2.0 dB max
Passband Ripple (over 20MHz)	3400-3600		1.5 dB max	1.6 dB max
Passband Return Loss	3400-3600		15 dB min	15 dB min
Attenuation:	1-3100		55 dB min	55 dB min
	3101-3300		45 dB min	45 dB min
	3301-3375	25 dB	20 dB min	20 dB min
	3625-3700	25 dB	20 dB min	20 dB min
	3700-3899		40 dB min	40 dB min
	3900-5000		45 dB min	45 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.

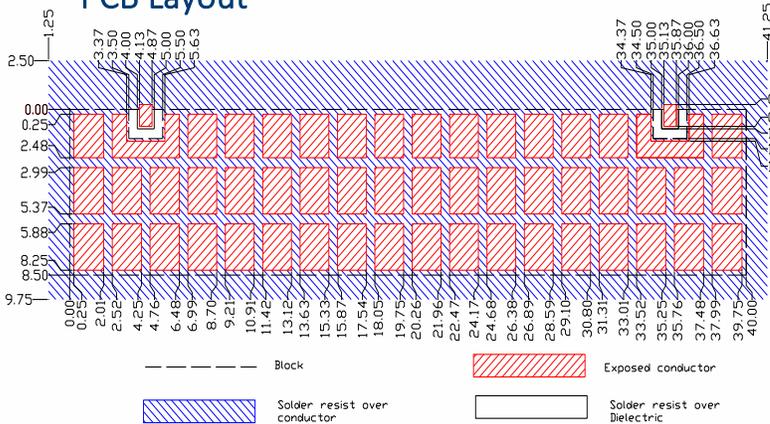
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	40.0	max
B	5.1 TBC	max
C	1.0	0.13
D	0.5	0.13
E	0.5	0.13
F	4.5	0.25
G	31.0	0.13
H	9.3	max
I	1.0	0.13
J	1.4	0.2

PCB Layout



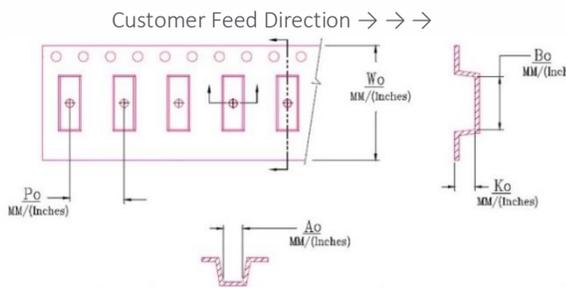
IMPORTANT: Please assure ≥ 30 mils (0.75mm) thickness of dielectric beneath the I/O Pads and the surrounding clearance zone down to the ground plane.

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	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> CTS 42C YWW </div>
Reel Weight	kg		
Reel Quantity	ea.	250	



W_0	A_0	B_0	K_0	P_0
2.205 in	0.256 in	1.587 in	0.378 in	0.630 in
56.0 mm	6.5 mm	40.3 mm	9.6 mm	16.0 mm

Electrical Response

