

MMB384A - Preliminary

3.7-3.98GHz MMB Series TDD BPF

Features

- 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: 40.0 × <6.4 × 9.3 mm • <6.3 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	-	-	-	10.0 Watt max
Peak Input Power	-	-	-	100 Watt max

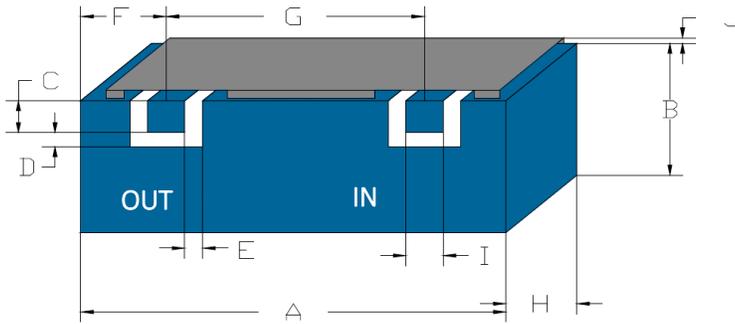
Input-Output Response

Passband Insertion Loss (100 MHz avg)	3700-3980	1.0 dB	1.1 dB max	1.2 dB max
Passband Insertion Loss (20 MHz avg)	3700-3980	1.5 dB	1.6 dB max	1.7 dB max
Passband Insertion Loss (10 MHz avg)	3700-3980	1.6 dB	1.8 dB max	1.9 dB max
Passband Return Loss	3700-3980		14 dB min	14 dB min
Attenuation:	1-2690		67 dB min flex	67 dB min flex
	2691-3400		40 dB min	40 dB min
	3401-3660		25 dB min	25 dB min
	3661-3677.5		9.5 dB min	8.0 dB min
	4002.5-4019		9.5 dB min	8.0 dB min
	4020-4399		25 dB min	25 dB min
	4400-4864		42 dB min	42 dB min
	4865-5000		52 dB min flex	52 dB min flex
NOT ASSURED BUT CUSTOMER WANTS	5001-5950		38 dB min flex	38 dB min flex
NOT ASSURED BUT CUSTOMER WANTS	5951-7950		10 dB min flex	10 dB min flex

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.

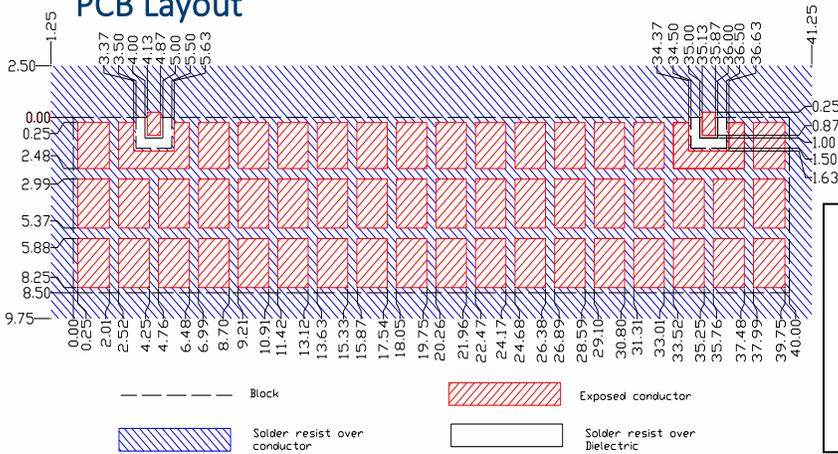
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	40.0	max
B	<4.8	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



Combined 40mm & 50mm universal footprint PCB layout is also available.

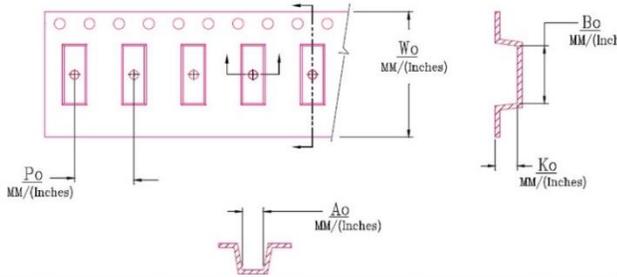
IMPORTANT: Please assure ≥ 30 mils (0.75mm) thickness of dielectric beneath the I/O Pads and the surrounding clearance zone down to the ground plane.
 Please assure sufficient ground vias between the top metal ground plane and the primary ground plane.
 Recommended solder: 6 mils of SAC305 with reflow including 120s of soak at 217°C, and up to 30 sec peak at 241°C.

Packaging and Marking

Dimension	Units	Spec.
Reel Diameter	mm	330
Reel Weight	kg	
Reel Quantity	ea.	250

Product Marking

CTS
384
YWW



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

