

MMB400A - Preliminary

3.8-4.2GHz 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 × 5.6 × 9.3 mm • 5.5 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	-	-	-	8.0 Watt max
Peak Input Power	-	-	-	80 Watt max

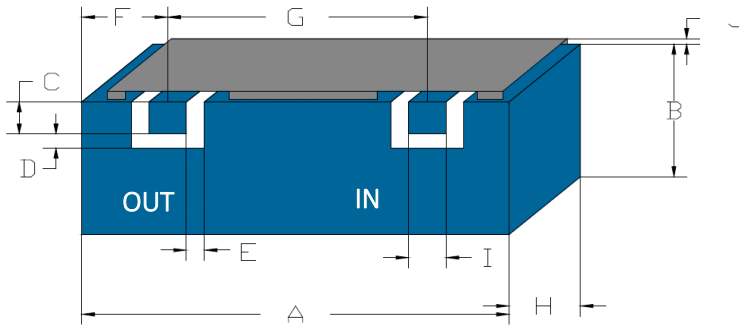
Input-Output Response

Passband Insertion Loss (200 MHz avg)	3800-4200	1.0 dB	1.2 dB max	1.3 dB max
(10 MHz avg)	3800-4200	1.9 dB	2.0 dB max	2.0 dB max
Passband Ripple (over 200 MHz)	3800-4200	1.6 dB	1.8 dB max	2.0 dB max
Passband Return Loss	3800-4200	14 dB	13 dB min	12 dB min
Attenuation:	1-3600			53 dB min
	3601-3740			21 dB min
	3741-3780			6 dB min
	4220-4259		10 dB min	8 dB min
	4260-4269			18 dB min
	4270-4399			28 dB min
	4400-5000			53 dB min
	5001-7119			Not met without LPF
	7120-8220			Not met without LPF

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.

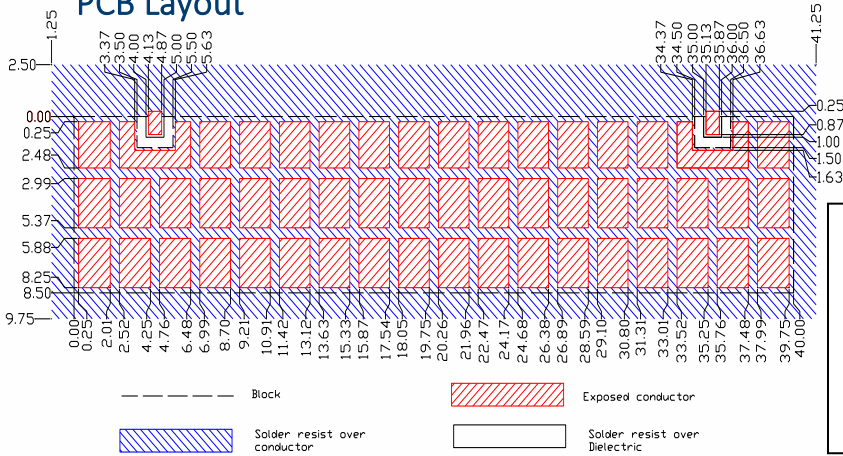
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	39.7	0.30
B	3.70	0.30
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.

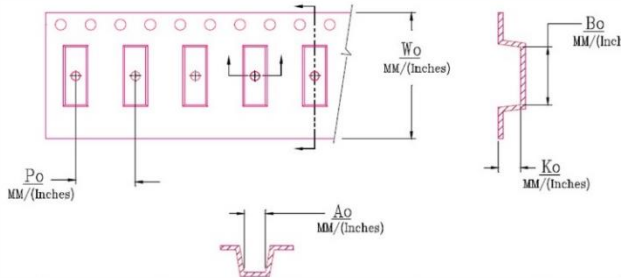
IMPORTANT: Please assure ≥ 30 mils (0.75mm) thickness of dielectric beneath the I/O Pads and the surrounding clearance zone down to the ground plane.
 Please assure sufficient ground vias between the top metal ground plane and the primary ground plane.
 Recommended solder: 6 mils of SAC305 with reflow 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
400
YWW



W _o	A _o	B _o	K _o	P _o
2.205 in	0.240 in	1.587 in	0.378 in	0.630 in
56.0 mm	6.1 mm	40.3 mm	9.6 mm	16.0 mm

Electrical Response

