

MMB043B - PRELIMINARY

Band 43 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 6.0 x 9.3 mm • 6.2 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	-	-	-	8.0 Watt max
Peak Input Power	-	-	-	80 Watt max

Input-Output Response

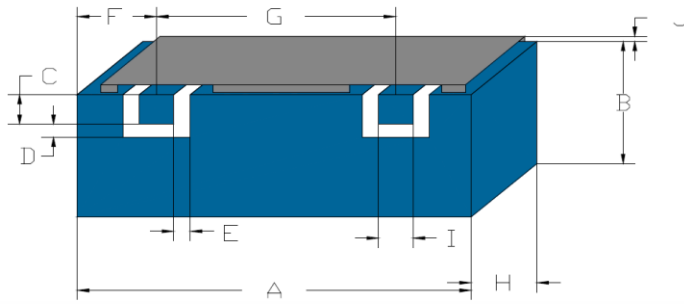
Passband Insertion Loss (100 MHz avg)	3600-3800	1.1 dB max TBD	1.2 dB max TBD
Passband Insertion Loss (20 MHz avg)	3600-3800	1.5 dB max TBD	1.6 dB max TBD
Passband Insertion Loss (single point)	3600-3800	1.6 dB max TBD	1.7 dB max TBD
Passband Ripple	3600-3800	1.0 dB max TBD	1.1 dB max TBD
Passband Return Loss	3600-3800	13 dB min TBD	13 dB min TBD
Attenuation:	1-2690		62 dB min
	2691-3100		45 dB min
	3101-3500		30 dB min
	3501-3520		25 dB min
	3521-3560		20 dB min
	3840-3879		18 dB min
	3880-3899		25 dB min
	3900-3929		42 dB min
	3930-4399		45 dB min
	4400-5000		50 dB min
	5150-5950		40 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

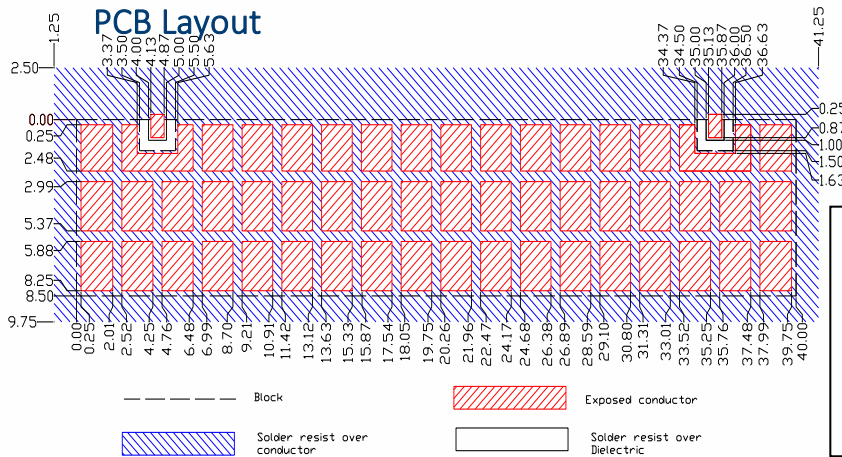
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	39.7	0.30
B	4.1	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



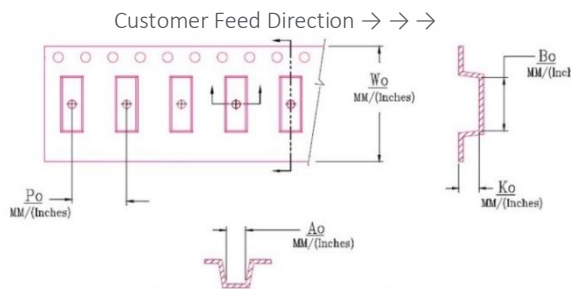
IMPORTANT: Please assure ≥ 30 mils (0.75mm) thickness of dielectric beneath the I/O Pads and the surrounding clearance zone down to the ground plane.

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	CTS
Reel Weight	kg		43B
Reel Quantity	ea.	250	YWW



W ₀	A ₀	B ₀	K ₀	P ₀
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

