MMB358B - PRELIMINARY

3.45-3.70GHz MMB Series TDD Bandpass Filter

Features

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

Part Dimension: 40.0 x 5.8 x 9.3 mm • <10 g
Materials: Ag plated ceramic block with fused-tin plated brass shield

Applications

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

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	-	-	-	6.0 W max
Peak Input Power	-	-	-	60 W max
Input-Output Response				
Passband Insertion Loss (10 MHz avg)	3450-3700	1.5 dB	1.6-1.7 dB max	1.7-1.8 dB max
Passband Insertion Loss (single point)	3450-3700	1.8 dB	1.9-2.0 dB max	2.0-2.1 dB max
Passband Ripple	3450-3700	1.2 dB	1.4-1.5 dB max	1.5-1.6 dB max
Passband Return Loss	3450-3700	14 dB	12 dB min	12 dB min
Attenuation:	1-2700	>45 dB	34 dB min	32 dB min
	2701-3380	27 dB	23 dB min	22 dB min
	3381-3430	12 dB	11 dB min	9 dB min
	3720-3769	12 dB	11 dB min	9 dB min
	3770-4999	24 dB	23 dB min	22 dB min
Uncertain if can assure 22dB at 6900MHz without help from LPF	5000-6900?	24 dB	23 dB min	22 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

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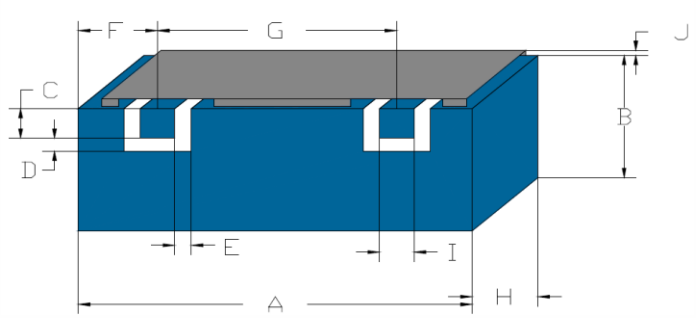
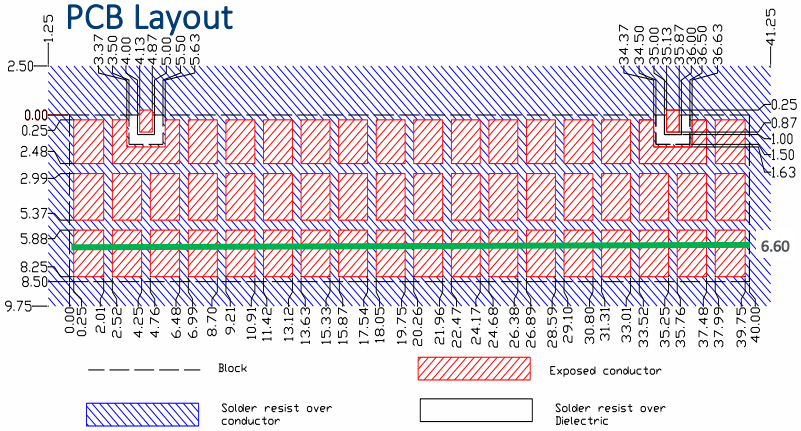
Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	40.0	max
B	4.20	max
C	1.00	0.13
D	0.50	0.13
E	0.50	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 >=30mils (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.

NOTE: 8.50mm layout is required for band 40 (2.3-2.4GHz), but only needs 6.60mm for band 41 (2.496-2.690GHz).

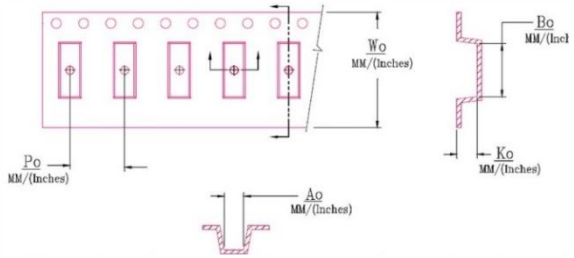
Packaging and Marking

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

Product Marking

CTS
358B
YWW

Customer Feed Direction → → →



W_o	A_o	B_o	K_o	P_o
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