

MMB345B - PRELIMINARY

3.3-3.6GHz 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: ESTIMATE 40 x <8 x 9.3 mm • <10 g
Materials: Ag plated ceramic block with fused 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 Customer to test
Peak Input Power	-	-	-	100 Watt max Customer to test

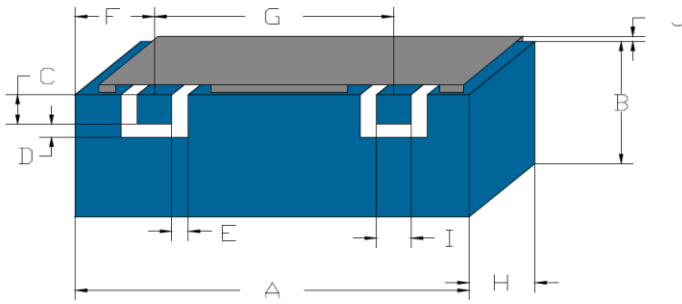
Input-Output Response

Passband Insertion Loss (100 MHz avg)	3300-3600	1.1 dB	1.3 dB max	1.3 dB max
Passband Insertion Loss (20 MHz avg)	3300-3600	1.5 dB	1.7 dB max	1.7 dB max
Passband Insertion Loss (single point)	3300-3600	1.8 dB	2.0 dB max	2.0 dB max
Passband Ripple	3300-3600	1.0 dB	1.3 dB max	1.4 dB max
Passband Return Loss	3300-3600	14 dB	12 dB min	12 dB min
Attenuation:	1-3100			50 dB min
	3101-3260			20dB min
	3261-3280			5 dB min
	3620-3639			5 dB min
	3640-3799			20 dB min
	3800-5149			50 dB min
	5150-5950			45 dB min
	5951-7200			No spec assured

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.

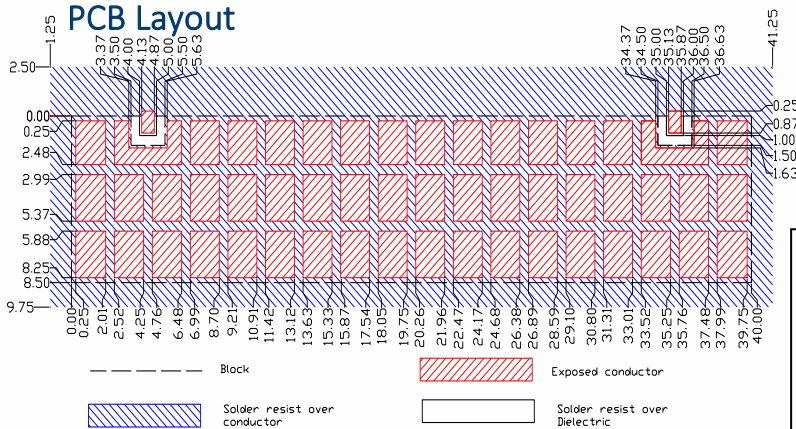
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

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.

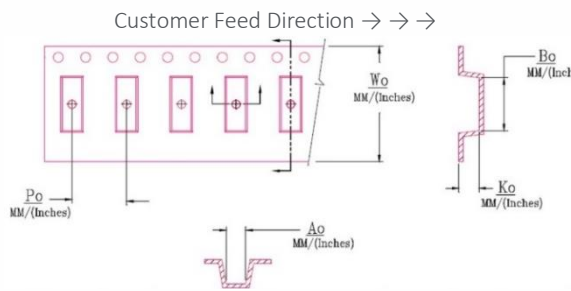
IMPORTANT: Please assure ≥ 30 mils (0.75mm) thickness of dielectric beneath the I/O Pads and the surrounding clearance zone down to the ground plane.

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.	Product Marking
Reel Diameter	mm	330	CTS 345B YWW
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

