

MMB369A - Preliminary

3570-3800MHz MMB Series TDD BPF

Features

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

Applications

- Wireless Infrastructure applications



Part Dimensions: 40.0 x 5.8 x 9.3 mm • 6.0g EST
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	-	-	-	5.0 Watt max
Peak Input Power	-	-	-	50 Watt max

Input-Output Response

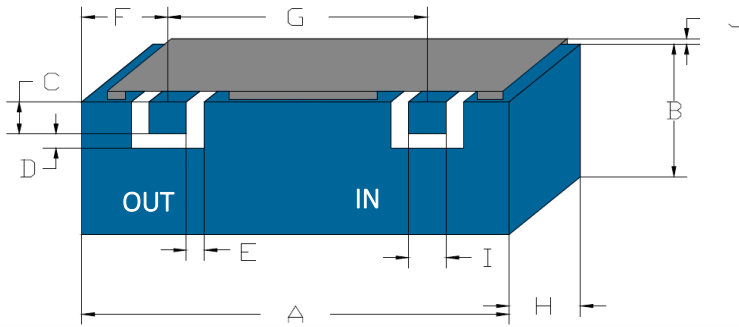
Passband Insertion Loss (single point)	3570-3800	1.8 dB	2.0 dB max	2.2 dB max
Passband Insertion Loss (10 MHz avg)	3570-3800	1.6 dB	1.8 dB max	2.0 dB max
Passband Ripple	3570-3800	1.2 dB	1.4 dB max	1.6 dB max
Passband Return Loss	3570-3800	14 dB	13 dB min	13 dB min
Attenuation:	1-2700	50 dB	43 dB min	43 dB min
	2701-3400	49 dB	45 dB min	45 dB min
	3401-3410	40 dB	35 dB min	35 dB min
	3411-3475	31 dB	25 dB min	25 dB min
	3476-3530	22 dB	15 dB min	15 dB min
	3531-3550	8 dB	6 dB min	6 dB min
	3820-3839	8 dB	6 dB min	6 dB min
	3840-3900	24 dB	15 dB min	15 dB min
	3901-5950	43 dB	38 dB min	38 dB min
	5951-7600	13 dB	10 dB min	10 dB min

IMPORTANT: Product will be rate for operation to +105°C in terms of reliability and operating life, but electrical specification limits are assured for up to +85°C, so there may be minor degradation from +86°C to +105°C.

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.

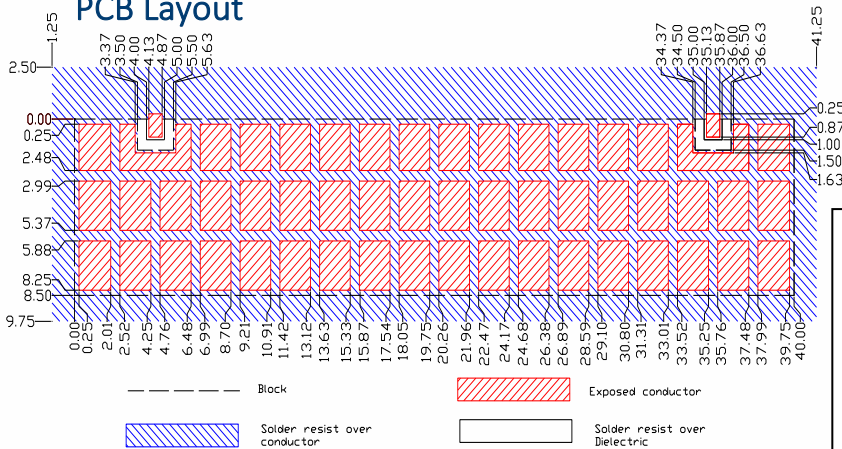
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	40.00	max
B	4.20	max
C	1.00	0.13
D	0.50	0.13
E	0.50	0.13
F	4.50	0.25
G	31.00	0.13
H	9.30	max
I	1.00	0.13
J	1.40	0.20

PCB Layout



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

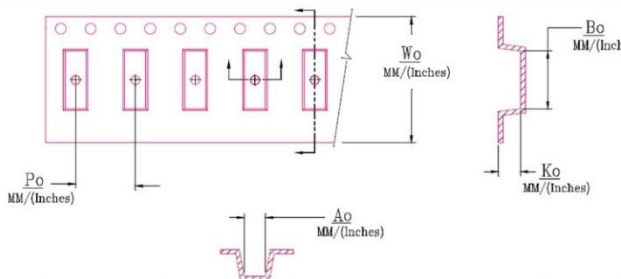
IMPORTANT: Please assure ≥ 30 mils (0.75mm) thickness of dielectric beneath the I/O Pads and the surrounding clearance zone down to the ground plane.
 Please assure sufficient ground vias between the top metal ground plane and the primary ground plane.
 Recommended solder: 6 mils of SAC305 with reflow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

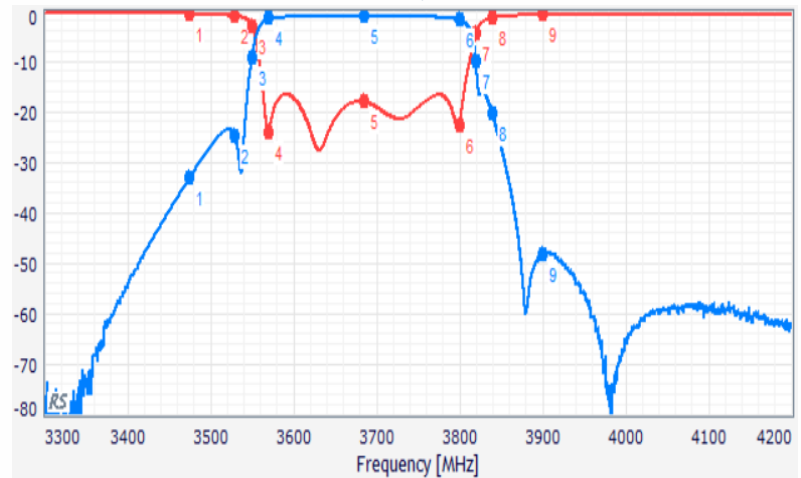
Product Marking

CTS
369
YWW



W_0	A_0	B_0	K_0	P_0
2.205 in 56.0 mm	0.256 in 6.5 mm	1.587 in 40.3 mm	0.378 in 9.6 mm	0.630 in 16.0 mm

Electrical Response



Marker	1	2	3	4	5	6	7	8	9
Freq[MHz]	3475	3530	3550	3570	3685	3800	3820	3840	3900
S11[dB](1)	-0.355	-0.812	-2.76	-23.9	-17.8	-22.5	-4.33	-1.09	-0.599
S21[dB](1)	-32.8	-24.8	-9.17	-1.34	-0.751	-1.58	-9.78	-20.3	-48