

MMB385B

3.7-4.0GHz 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 × 6.0 × 9.3 mm • 6.13 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 | - | - | - | 10.0 Watt max |
| Peak Input Power | - | - | - | 100 Watt max |

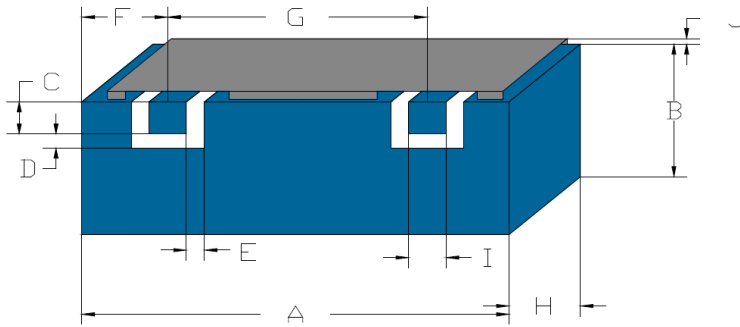
Input-Output Response

| | | | | |
|---------------------------------------|-------------|-----------------|-----------------|------------|
| Passband Insertion Loss (100 MHz avg) | 3700-4000 | 1.4 dB | 1.5 dB max | 1.6 dB max |
| Passband Insertion Loss (20 MHz avg) | 3700-4000 | 1.9 dB | 2.0 dB max | 2.1 dB max |
| Passband Insertion Loss (10 MHz avg) | 3700-4000 | 2.0 dB | 2.2 dB max | 2.3 dB max |
| Passband Return Loss | 3700-4000 | | 13 dB min | 12 dB min |
| Attenuation: | 1-2495 | | 67 dB min | 67 dB min |
| | 2496-2690 | | 64 dB min | 64 dB min |
| | 2691-3400 | | 40 dB min | 40 dB min |
| | 3401-3660 | | 25 dB min | 25 dB min |
| | 3661-3677.5 | | 9.5 dB min | 8.0 dB min |
| | 4022.5-4039 | | 9.5 dB min | 8.0 dB min |
| | 4040-4399 | | 25 dB min | 25 dB min |
| | 4400-5149 | | 47 dB min | 47 dB min |
| | 5150-5950 | | 40 dB min | 40 dB min |
| | 5951-7125 | | 30 dB min | 30 dB min |
| 7400-8000 | | No spec assured | 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.

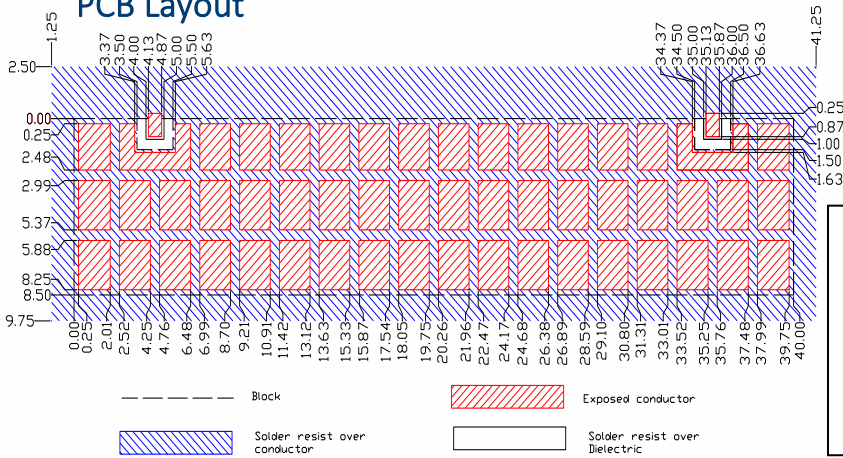
| Specification Allowance | |
|-------------------------|--------|
| Insertion Loss | 0.1 dB |
| Return Loss | 1.0 dB |
| Attenuation | 1.0 dB |

Mechanical Drawing



| Dim. | Nominal (mm) | Tolerance (±mm or Max) |
|------|--------------|------------------------|
| A | 40.0 | max |
| B | 4.4 | 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.

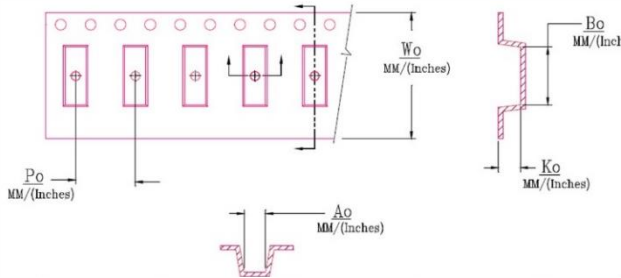
Recommended solder: 6 mils of SAC305 with reflow including 120s of soak at 217°C, and up to 30 sec peak at 241°C.

Packaging and Marking

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

Product Marking

CTS
385B
YWW



| W_o | A_o | B_o | K_o | P_o |
|---------------------|--------------------|---------------------|--------------------|---------------------|
| 2.205 in 56.0 mm | 0.256 in 6.1 mm | 1.587 in 40.3 mm | 0.378 in 9.6 mm | 0.630 in 16.0 mm |

Electrical Response

