



# MTB1060B

## 10.2-11.0 GHz Bandpass Filter

### Features

- Low Loss with High Rejection
- Low ripple

### Applications

- X-Band Radar
- X-Band Satcom
- Specialty wireless applications

### Description

Surface mount ceramic bandpass filter. Superior rejection, insertion loss, reliability, as well as both peak and average power handling compared other bandpass filter technologies.

### Electrical Specifications

Parameter	Frequency (GHz)	Typical at 25°C	Spec. at 25°C	Spec. over -40°C to +85°C
Nominal Impedance	-	50 ohms	-	-
Average Input Power	-	-	-	2.0 Watt max
Peak Input Power	-	-	-	20 Watt max

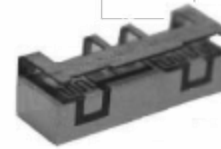
#### Input-Output Response

Passband Insertion Loss (single point)	10.20 - 11.00	1.7 dB	2.2 dB min	2.5 dB min
Passband Ripple (any 10MHz)	10.20 - 11.00	0.3 dB	0.5 dB min	0.5 dB min
Passband Return Loss	10.20 - 11.00	13 dB	10 dB min	10 dB min
Attenuation:	1 - 4000		50 dB min	50 dB min
	6000		45 dB min	45 dB min
	8000		35 dB min	35 dB min
	9000		25 dB min	25 dB min
	9350		25 dB min	25 dB min
	9600		10 dB min	10 dB min
	11850		12 dB min	12 dB min
	12100		20 dB min	20 dB min
	12500		30 dB min	30 dB min
	13000		40 dB min	40 dB min
	17000		15 dB min	15 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.

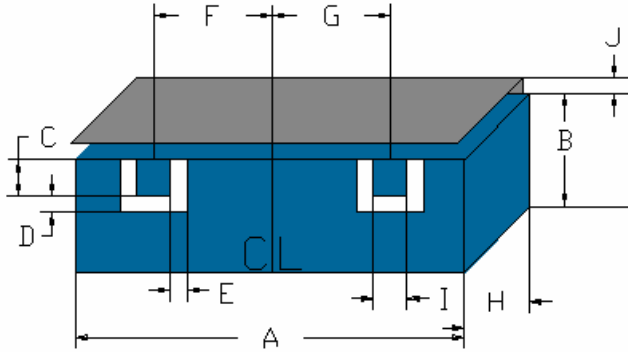
#### Specification Allowance

Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB



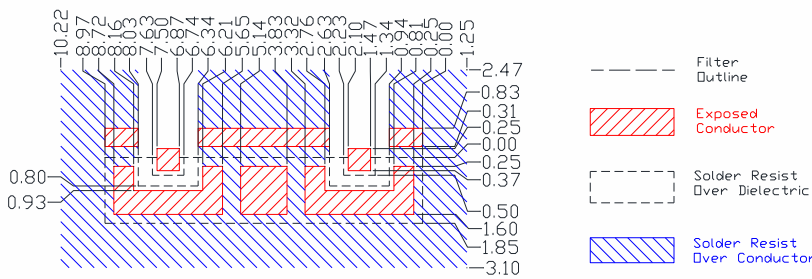
Part Dimensions: 9.0 × 2.5 × 3.1 mm • 0.15 g  
Materials: Ag plated ceramic block with tin plated brass shield

### Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	8.97	max
B	1.50	max
C	0.50	0.13
D	0.30	0.13
E	0.40	0.13
F	2.70	0.13
G	2.70	0.13
H	3.10	max
I	0.89	0.13
J	0.63	0.20

### PCB Layout

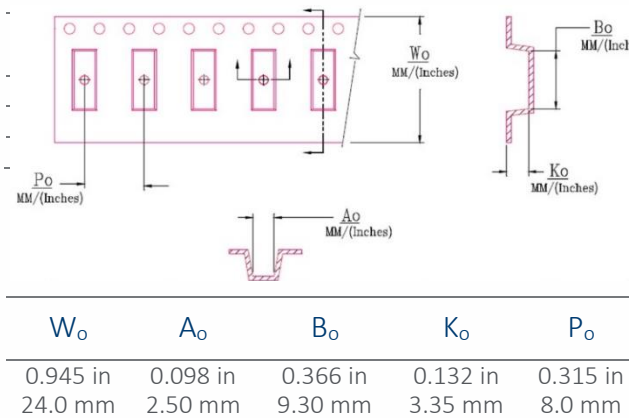


**IMPORTANT:** Please assure  $\geq 30$  mils (0.75mm) thickness of dielectric beneath the I/O Pads and the surrounding clearance zone down to the ground plane.

Please assure sufficient ground vias between the top metal ground plane and the primary ground plane.

Recommended solder: 4 mils of SAC305 with reflow including 120s of soak at 217°C, and up to 30 sec peak at 241°C.

### Packaging and Marking



### Electrical Response

