

MXB0750A - Preliminary

6.5-8.5 GHz Bandpass Filter

Features

- Low Loss with High Rejection
- Low ripple

Applications

- Receive band for Ku-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 – *specs are estimates based on simulation & subject to prototype verification*

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	-	-	-	8.0 Watt max TBC
Peak Input Power	-	-	-	8.0 Watt max TBC

Input-Output Response

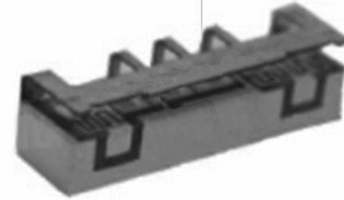
Passband Insertion Loss (single point)	6.50 – 8.50	0.7-0.9 dB	1.0 dB min est	1.2 dB min est
Passband Return Loss	6.50 – 8.50	11-12 dB	9.5-10 dB min est	9.5-10 dB min est
Attenuation:	1 – 6.00	> 30 dB	20 dB min	20 dB min
	9.50 - 10.50		20 dB min	20 dB min

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

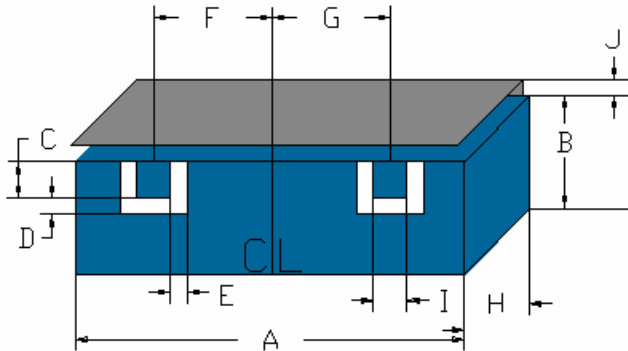
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

TBC = "to be confirmed" by the customer testing of prototypes.



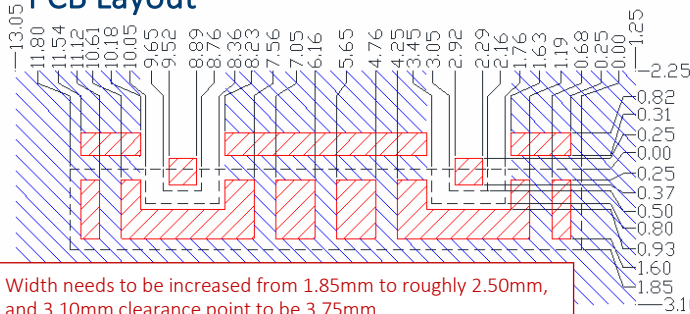
Part Dimensions: **11.7 × 3.57 × 3.7 mm • 0.407 g**
Materials: Ag plated ceramic block with fused-tin plated brass shield

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	11.70	max
B	2.50?	max
C	0.50	0.13
D	0.30	0.13
E	0.40	0.13
F	3.30	0.13
G	3.30	0.13
H	3.70	max
I	0.89	0.13
J	0.63	0.20

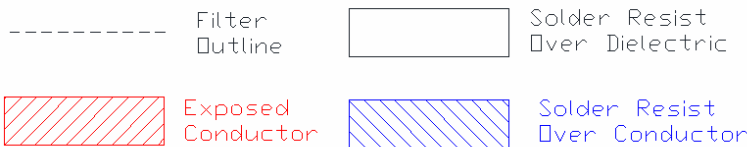
PCB Layout



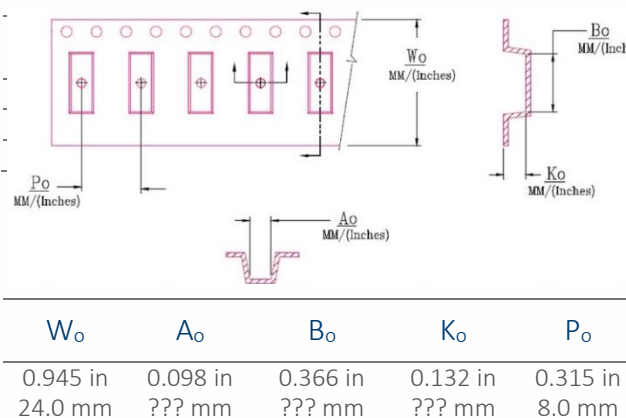
IMPORTANT: Please assure ≥ 30 mils (0.75mm) thickness of dielectric beneath the I/O Pads and the surrounding clearance zone down to the ground plane.

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

Recommended solder: 4-6 mils of SAC305 with reflow incl. 120s of soak at 217°C, and up to 30 sec peak at 241°C.



Packaging and Marking



Electrical Response

