MTB0720A - PRELIMINARY

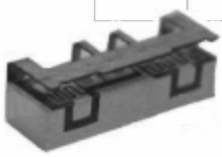
6.5-7.9 GHz Bandpass Filter

Features

- Low Loss with High Rejection
- Low ripple

Applications

- Wireless Infrastructure applications



Part Dimensions: 9.0 × 3.5? × 3.1 mm • 0.15 g
Materials: Ag plated ceramic block with tin plated brass shield

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.

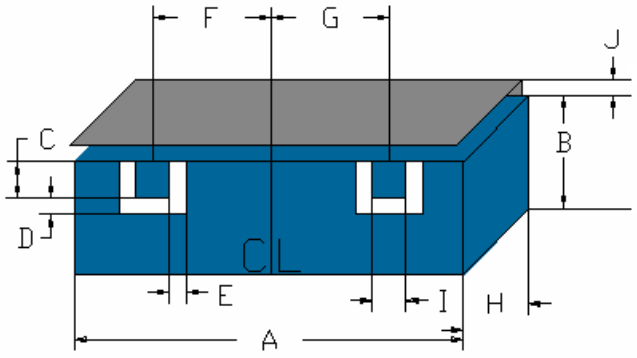
Electrical Specifications

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)	6.50 – 7.90	1.0 dB	1.2 dB min	1.3 dB min
Passband Ripple	6.50 – 7.90	0.5 dB	0.7 dB min	0.8 dB min
Passband Return Loss	6.50 – 7.90	14.0 dB	11.0 dB min	11.0 dB min
Attenuation:	1 – 5.14	34 dB	30 dB min	30 dB min
	5.15 – 5.40	31 dB	27 dB min	27 dB min
	9.10-11.00	32 dB	27 dB min	27 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.

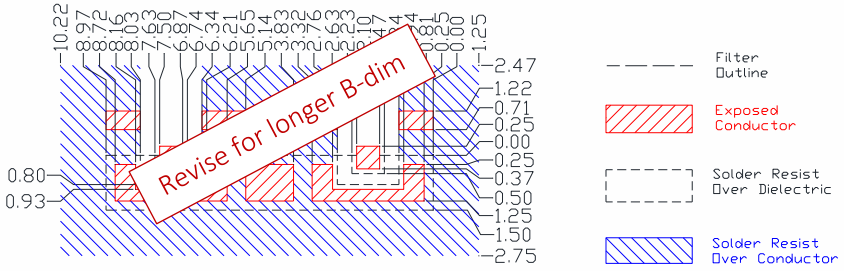
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



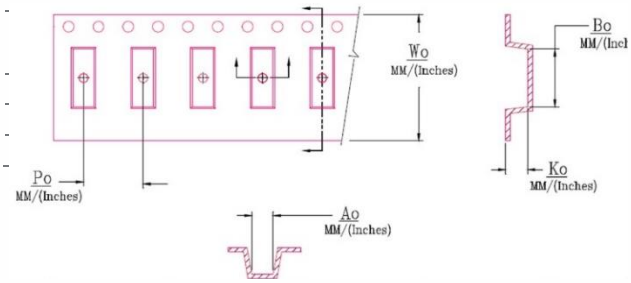
Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	8.97	max
B	2.50?	max
C	0.50	0.13
D	0.30	0.13
E	0.40	0.13
F	2.70	0.13
G	2.70	0.13
H	3.10	max
I	0.89	0.13
J	1.00	max

PCB Layout



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

Packaging and Marking

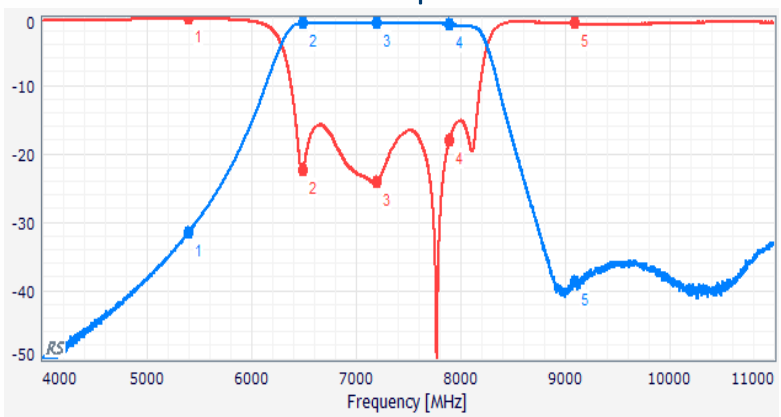


W_o	A_o	B_o	K_o	P_o
0.945 in 24.0 mm	0.098 in ?2.50? mm	0.366 in 9.30 mm	0.132 in 3.35 mm	0.315 in 8.0 mm

Product Marking

CTS
072
YWW

Electrical Response



Marker	1	2	3	4	5
Freq[MHz]	5400	6500	7200	7900	9100
S11[dB](1)	-0.113	-22.3	-24	-17.8	-0.823
S21[dB](1)	-31.4	-0.736	-0.688	-0.936	-38.5