MCB1870A - Preliminary

18.20-19.20GHz mmWave ClearPlex Bandpass Filter

Features

- High-Q Low-Loss with High Rejection

Applications

- mmWave carrier-grade Infrastructure applications

Part Dimensions: 13.6 × 3.2 × 1.3 mm • <1.0 g

Description

Surface mount bandpass filter with I/Os that can interface to micro-strip transmission lines on the top-layer of customer PCBs. Superior rejection, insertion loss, reliability, temperature stability as well as both peak and average power handling compared to other mmWave bandpass filter technologies.

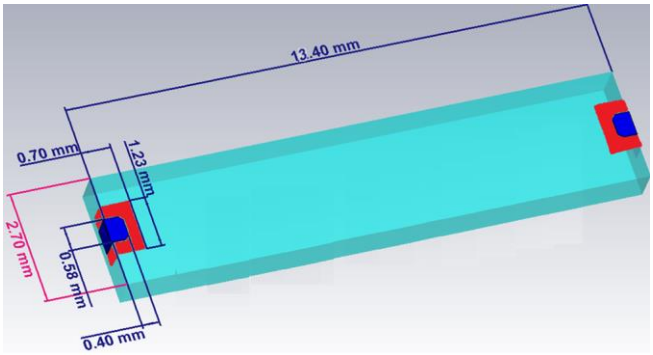
Electrical Specifications

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	-	-	-	5.0 Watt max
Peak Input Power	-	-	-	50 Watt max
Input-Output Response				
Passband Insertion Loss	18.20 - 19.20			3.0 dB Max
Passband Ripple	18.20 - 19.20			1.2 dB Max
Passband Return Loss	18.20 - 19.20			14 dB Goal 12 dB Min
Attenuation:	17.2			40 dB Min
	20.20			40 dB Goal

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.

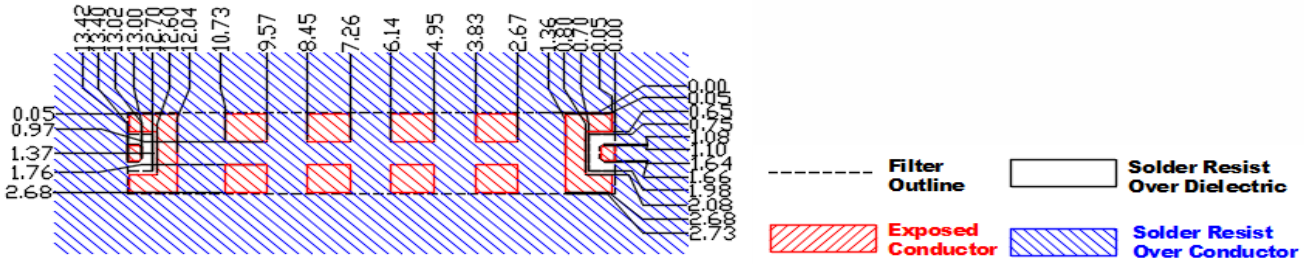
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	13.40	0.20
B	2.90	0.30
C		
D		
E		
F		
G		
H	1.10	0.20
I		
J		

PCB Layout

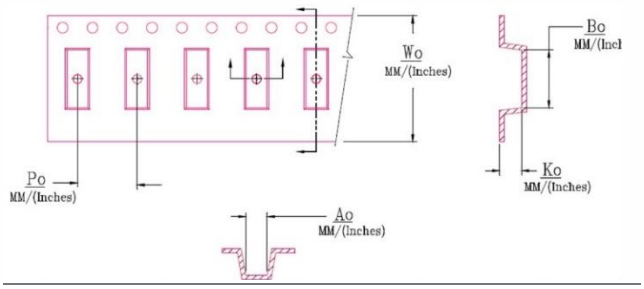


Packaging and Marking

Dimension	Units	Spec.
Reel Diameter	mm	330
Reel Weight	kg	x.x
Reel Quantity	ea.	Xxx

Product Marking
No marking on the filters

Customer Feed Direction → → →



W_o	A_o	B_o	K_o	P_o
1.732 in 44.0 mm	x.xxx in x.xx mm	x.xxx in x.xx mm	x.xxx in x.xx mm	x.xxx in x.xx mm

Electrical Response