

MCB1858A - Preliminary

17.70-19.45GHz mmWave ClearPlex Bandpass Filter

Features

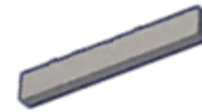
- High-Q Low-Loss with High Rejection

Applications

- mmWave carrier-grade Infrastructure applications

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.



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

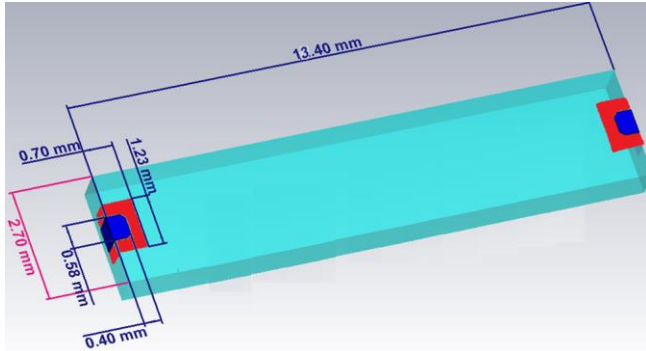
Electrical Specifications

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 (500 MHz avg)	17.70 - 19.45			3.0 dB Max
Passband Ripple (over 250MHz)	17.70 - 19.45			0.6 dB Max
Passband Ripple (over passband)	17.70 - 19.45			1.2 dB Max
Passband Return Loss	17.70 - 19.45			14 dB Goal 12 dB Min
Attenuation:	< 16.55			40 dB Min
	21.75 - 23.50			35-40 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.

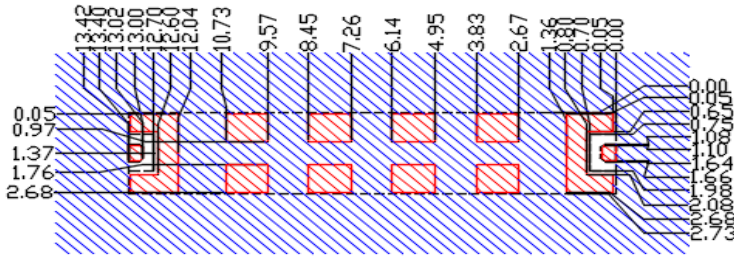
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing

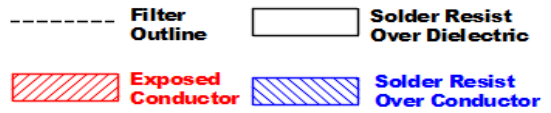


Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	13.40	0.20
B	2.90	0.30
C		
D		
E		
F		
G		
H	1.10	0.20
I		
J		

PCB Layout

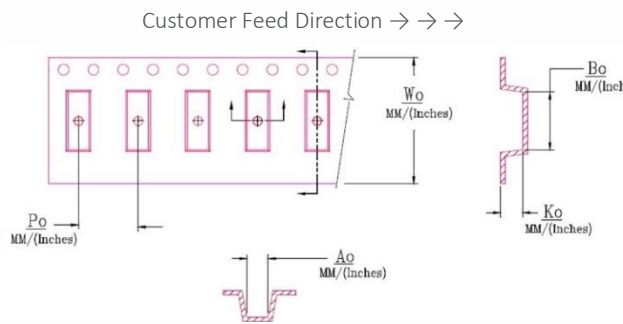


Layout and length is different from the MCB for 28-30.5GHz.



Packaging and Marking

Dimension	Units	Spec.	Product Marking (TBD on the filters)
Reel Diameter	mm	330	
Reel Weight	kg	x.x	
Reel Quantity	ea.	Xxx	



W ₀	A ₀	B ₀	K ₀	P ₀
1.732 in	x.xxx in	x.xxx in	x.xxx in	x.xxx in
44.0 mm	x.xx mm	x.xx mm	x.xx mm	x.xx mm

Electrical Response

