

MCB2875B - Preliminary

27.5-30.0GHz mmWave ClearPlex® Bandpass Filter

Features

- High-Q Low-Loss with High Rejection
- Support for wider passbands and stronger rejection

Applications

- mmWave carrier-grade Infrastructure applications



Part Dimensions: EST 15.5 × ??? × 1.3 mm • <1.0? g

Description

Surface mount ceramic waveguide 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 (500 MHz avg)	27.50 - 30.00			2.2 dB Goal 3.0 dB Max
Passband Ripple	27.50 - 30.00			0.8 dB Goal 1.2 dB Max
Passband Return Loss	27.50 - 30.00			12-14 dB Goal 10 dB Min
Attenuation:	< 26.25			55 dB min
	31.25 - 35.00			40 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.

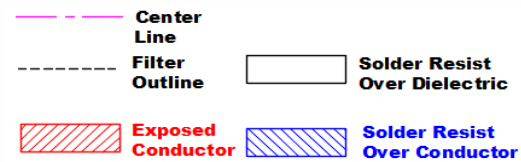
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB



Mechanical Drawing

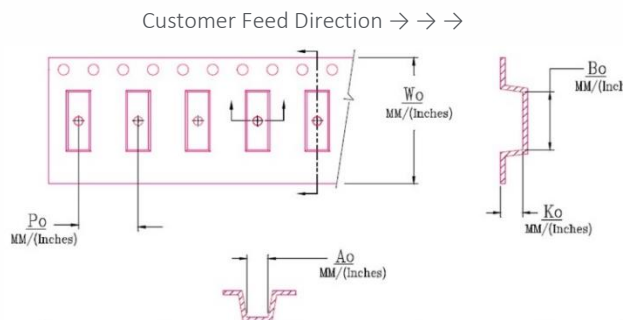
Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	15.40	0.10
B	???	0.20
C		
D		
E		
F		
G		
H	1.10	0.20
I		
J		

PCB Layout



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 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

