



CER1106C

1530-1610 MHz Bandpass Filter

Features

- Low Loss and low Ripple with High Rejection

Applications

- Specialized L1 GPS filter with close-in rejection



Part Dimensions: 16.5 × 8.1 × 4.9 mm • 2.5 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 (MHz)	Typical at 25°C	Spec. at 25°C	Spec. over -55°C to +85°C
Nominal Impedance	-	50 ohms	-	-
Average Input Power	-	-	-	2.0 Watt max
Peak Input Power	-	-	-	20 Watt max

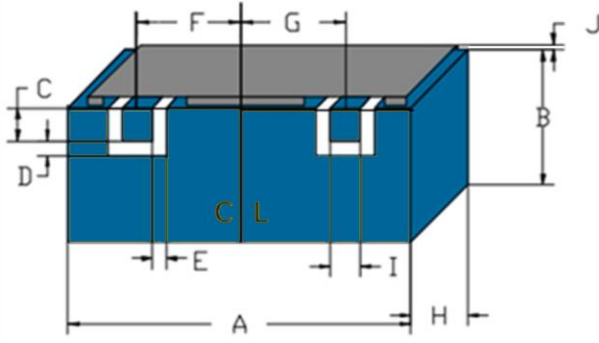
Input-Output Response

Passband Insertion Loss	1530-1610	3.0 dB	3.5 dB max	3.8 dB max
Passband Return Loss	1530-1610	15 dB	14 dB min	13 dB min
Group Delay over Passband	1530-1610	42 ns	44 ns max	45 ns max
Group Delay Ripple (Max-Min over passband)	1530-1610	24 ns	32 ns max	32 ns max
Attenuation:	1350	50 dB	47 dB min	47 dB min
	1450	47 dB	44 dB min	44 dB min
	1504	35 dB	25 dB min	25 dB min
	1522	12 dB	10 dB min	10 dB min
	1626	20 dB	16 dB min	16 dB min
	1680	45 dB	42 dB min	42 dB min
	1900	49 dB	45 dB min	45 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.

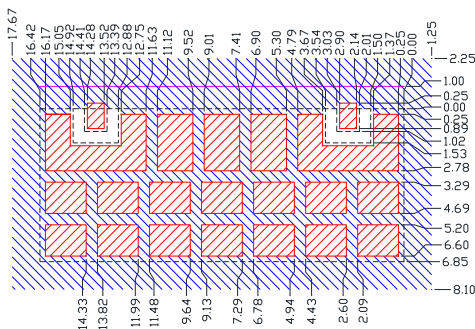
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	16.42	max
B	6.85	max
C	1.02	0.13
D	0.51	0.13
E	0.51	0.13
F	5.69	0.13
G	5.69	0.13
H	4.85	max
I	1.02	0.13
J	1.00	0.20

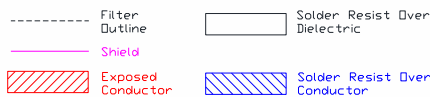
PCB Layout



IMPORTANT: Please assure $\geq 20\text{mils}$ (0.5mm) thickness of dielectric beneath the I/O Pads and the surrounding clearance zone down to the required ground plane.

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

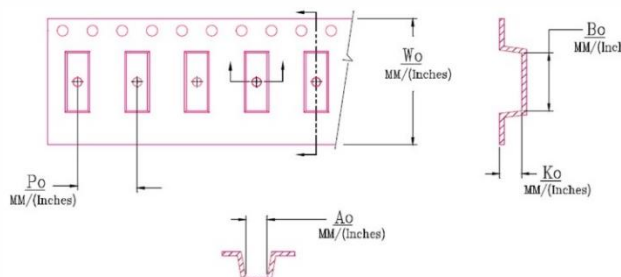
Recommended solder: 4-6 mils of SAC305 with reflow including 120s of soak at 217°C, and up to 30 sec peak at 241°C.



Packaging and Marking

Dimension	Units	Spec.	Product Marking
Reel Diameter	mm	330	CTS
Reel Weight	kg	???	106C
Reel Quantity	ea.	500	YWW

Customer Feed Direction → → →



W _o	A _o	B _o	K _o	P _o
1.260 in 32.0 mm	0.323 in 8.2 mm	0.657 in 16.7 mm	0.201 in 5.1 mm	0.630 in 16.0 mm

Electrical Response

