CER1106A

1544-1610 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	1544-1610	3.7 dB	3.8 dB max	4.1 dB max
Passband Return Loss	1544-1610	15 dB	14 dB min	13 dB min
Group Delay over Passband	1544-1610	42 ns	44 ns max	45 ns max
Group Delay Ripple (Max-Min over passband)	1544-1610	24 ns	32 ns max	32 ns max
Attenuation:	1350	45 dB	40 dB min	40 dB min
	1429	42 dB	40 dB min	40 dB min
	1518	31 dB	25 dB min	25 dB min
	1536	18.5 dB	18 dB min	17 dB min
	1626	32 dB	25 dB min	25 dB min
	1680	41 dB	38 dB min	38 dB min
	1900	49 dB	40 dB min	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

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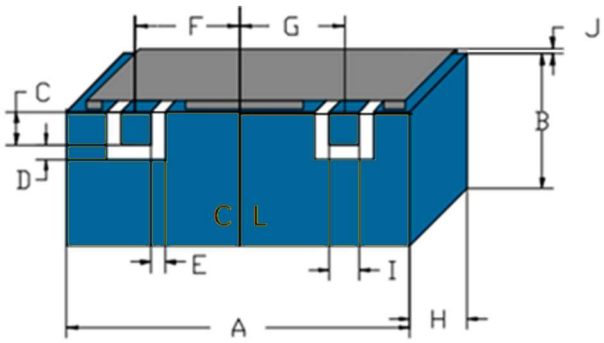
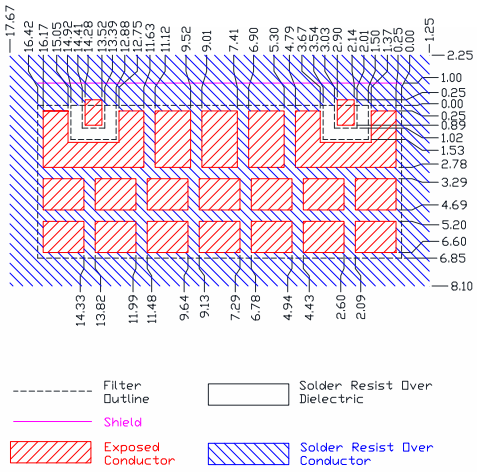
Mechanical Drawing



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 >=20mils (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.

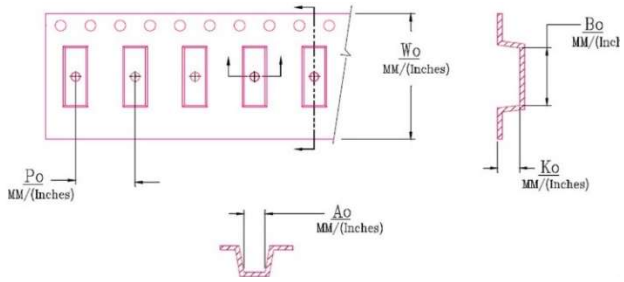
Packaging and Marking

Dimension	Units	Spec.
Reel Diameter	mm	330
Reel Weight	kg	???
Reel Quantity	ea.	500

Product Marking

CTS
1106
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