CER1102A - PRELIMINARY

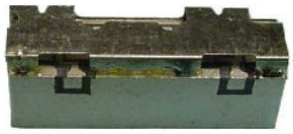
1166-1250 MHz Bandpass Filter

Features

- Low Loss and low Ripple with High Rejection

Applications

- Specialized L2 + L5 GPS filter



Part Dimensions: 21.6 × 9.8 × 4.0 mm • TBD 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.

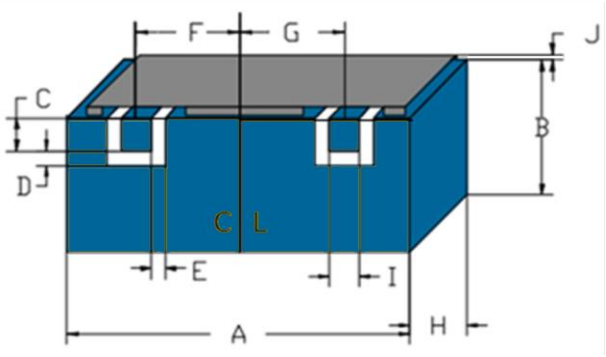
Electrical Specifications

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	1166-1250	3.2 dB	3.4 dB max	3.6 dB max
Passband Return Loss	1166-1250	15 dB	14 dB min	14 dB min
Group Delay over Passband	1166-1250	43 ns	45 ns max	47 ns max
Group Delay Ripple (Max-Min over passband)	1166-1250	24 ns	32 ns max	32 ns max
Attenuation:	790	60 dB	60 dB min	60 dB min
	1057	55 dB	40 dB min	40 dB min
	1154	35 dB	26 dB min	25 dB min
	1267	30 dB	26 dB min	25 dB min
	1429	50 dB	50 dB min	50 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.

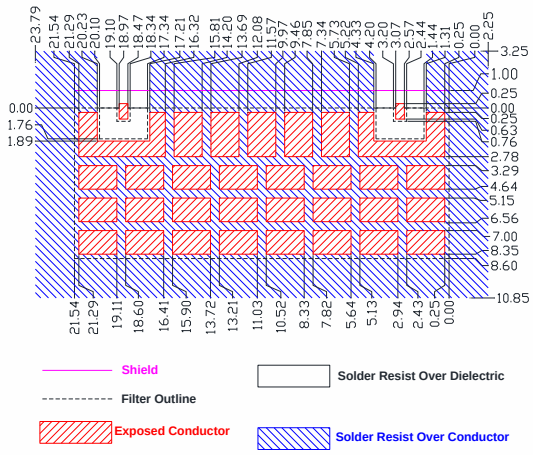
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	21.54	max
B	8.60	max
C	0.76	0.13
D	1.00	0.13
E	1.00	0.13
F	7.95	0.13
G	7.95	0.13
H	4.00	max
I	0.76	0.13
J	1.00	0.20

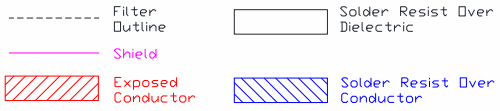
PCB Layout



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.



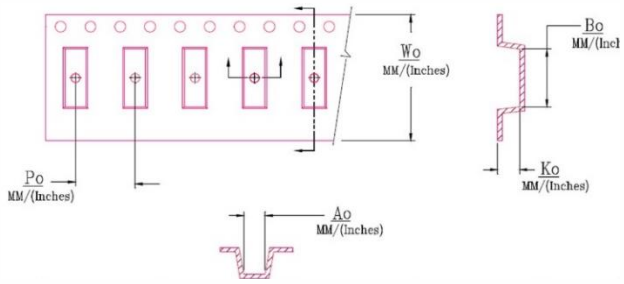
Packaging and Marking

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

Product Marking

CTS
1102
YWW

Customer Feed Direction → → →



W_o	A_o	B_o	K_o	P_o
1.732 in 44.0 mm	0.398 in 10.1 mm	0.865 in 21.97 mm	0.165 in 4.20 mm	0.630 in 16.0 mm

Electrical Response