CER1125A - PRELIMINARY

3.76-3.80GHz BPF

Features

- Low Loss with High Rejection
- Similar to UMB family, but not footprint-compatible

Part Dimensions: 57.0 × 6.2 × 15.0 mm • <35 g est
Materials: Ag plated ceramic block with tin plated brass shield

Applications

- High-performance carrier-grade wireless infrastructure applications

Description

Surface mount ceramic bandpass filter with superior rejection, insertion loss, reliability, as well as both peak and average power handling compared to other bandpass filter technologies.

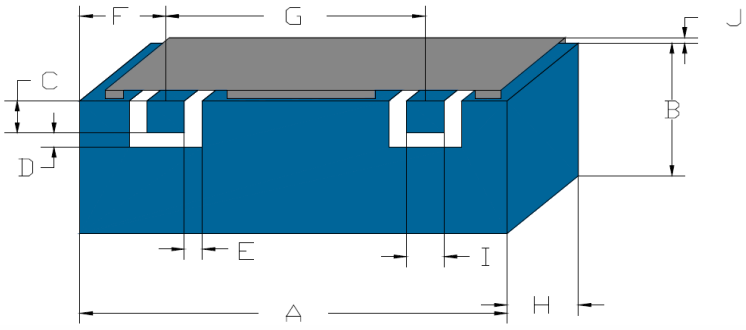
Electrical Specifications (These specs are NOT guaranteed. Will be revised following prototype run.)

Parameter	Frequency (MHz)	Typical at 25°C	Spec. at 25°C	Spec. over -40°C to +105°C
Nominal Impedance	-	50 ohms	-	-
Average Input Power	-	-	-	10.0 Watt max
Peak Input Power	-	-	-	100 Watt max
Input-Output Response				
Passband Insertion Loss (single point)	3760-3800	2.1 dB	2.2-2.4 dB max	2.2-2.4 dB max
Passband Insertion Loss (20MHz avg)	3760-3800	1.5 dB	1.7-1.8 dB max	1.7-1.8 dB max
Passband Ripple	3760-3800	1.0 dB	1.1-1.3 dB max	1.1-1.3 dB max
Passband Return Loss	3760-3800	15 dB	13 dB min	13 dB min
Attenuation:	1-2700	50 dB	40 dB min	40 dB min
	2701-3660	40 dB	30 dB min	30 dB min
	3661-3740	24 dB	20 dB min	20 dB min
	3820-3899	24 dB	20 dB min	20 dB min
	3900-4900	40 dB	30 dB min	30 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.

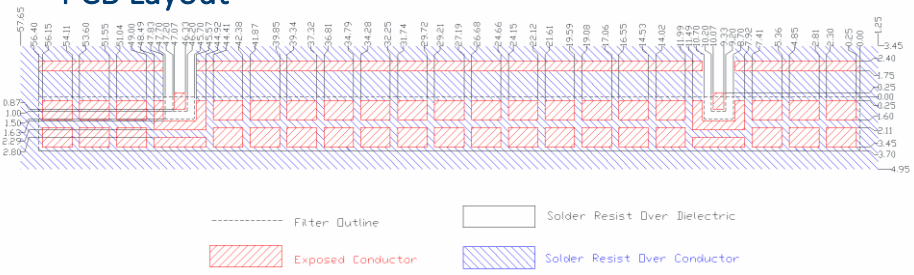
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	57.00	max
B	3.70	max
C	1.00	0.13
D	0.50	0.13
E	0.50	0.13
F	n/a	0.25
G	37.0	0.13
H	15.00	max
I	1.00	0.13
J	2.50	max

PCB Layout



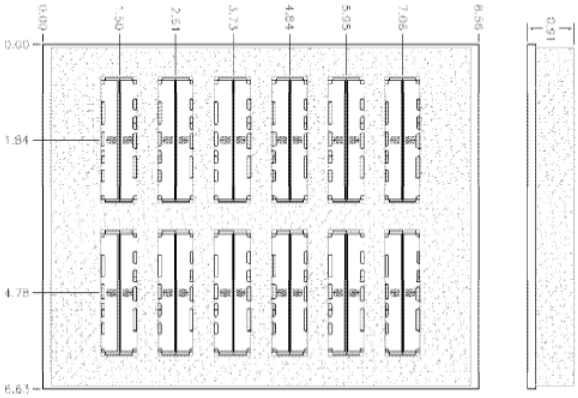
IMPORTANT: Please assure >=30mils (0.75mm) thickness of dielectric beneath the I/O Pads and the surrounding clearance zone down to the required ground plane.

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

Recommended solder: 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

Product is shipped in Pre-formed foam trays



The trays have 12 slots each with 1 filters per slot. Boxes are packed with 5 Trays per box for a total of 60 filters per box.

Electrical Response