

# CER1091A - PRELIMINARY

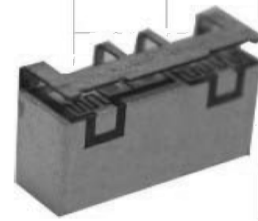
## 4380-4520 MHz Bandpass Filter

### Features

- Low Loss with High Rejection
- Low ripple
- Compatible with MTB family footprint

### Applications

- Wireless Infrastructure applications



Part Dimensions: 9.0 × 5.2 × 3.1 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 -40°C to +105°C
Nominal Impedance	-	50 ohms	-	-
Average Input Power	-	-	-	2.0 Watt max
Peak Input Power	-	-	-	20 Watt max

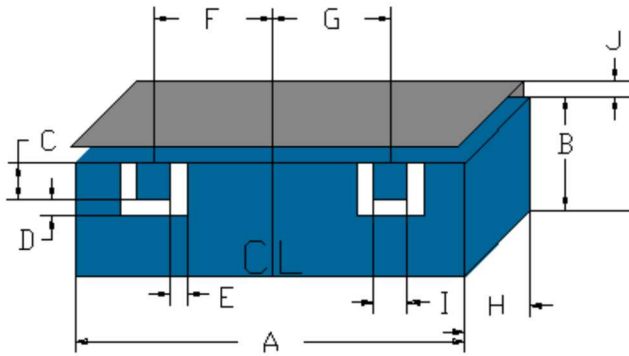
#### Input-Output Response

Passband Insertion Loss (single point)	4380 - 4520	1.5 dB	1.8 dB min	2.0 dB min
Passband Ripple	4380 - 4520	0.3 dB	0.4 dB min	0.5 dB min
Passband Return Loss	4380 - 4520	12 dB	10 dB min	10 dB min
Attenuation:	1 - 3780	44 dB	40 dB min	40 dB min
	4081	48 dB	45 dB min	45 dB min
	4968 - 5147	50 dB	45 dB min	45 dB min
	6000 - 7000	29 dB	25dB min	25 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

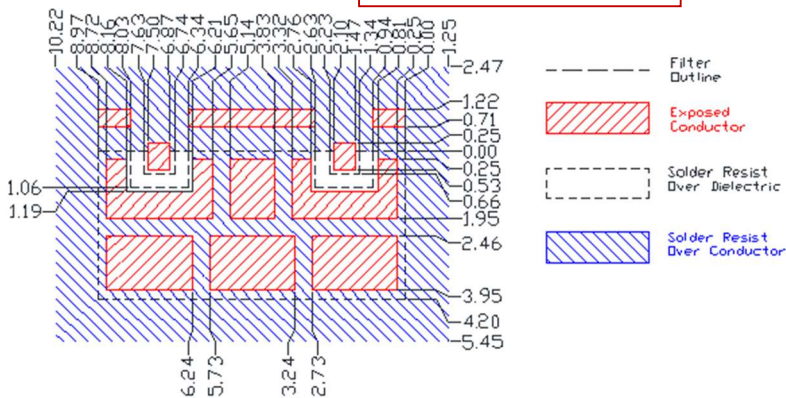
### Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	8.97	max
B	4.20	max
C	0.66	0.13
D	0.40	0.13
E	0.40	0.13
F	2.70	0.13
G	2.70	0.13
H	3.10	max
I	0.89	0.13
J	1.00	max

### PCB Layout

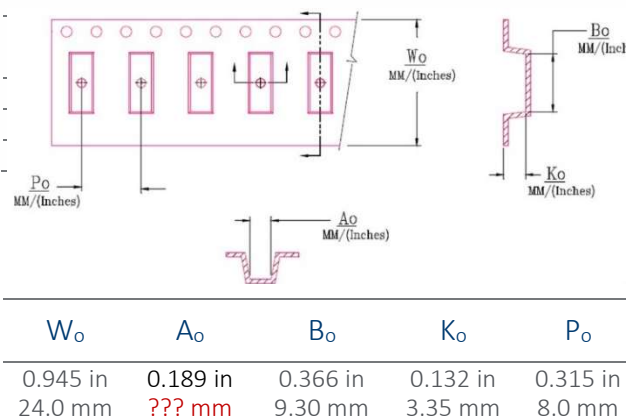
Not final PCB Layout



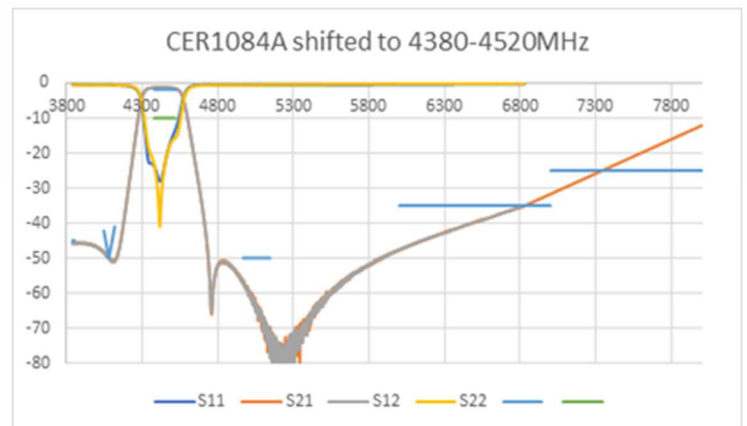
IMPORTANT: Please assure  $\geq 29.5$  mils (0.75mm) thickness of dielectric beneath the I/O Pads and the surrounding clearance zone down to the required ground plane.

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



### Electrical Response



### Product Marking

CTS  
1091  
YWW