

# S CER1225A - Preliminary

## 3500-4350MHz Bandpass Filter

### Features

- Low Loss with High Rejection
- Low Group Delay Variation

### Applications

- Primarily for Radio Altimeter applications

### 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.

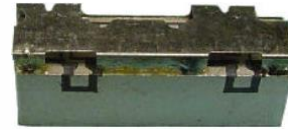
### Electrical Specifications

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	3500-4350	1.5 dB	2.3 dB max	2.5 dB max
Passband Ripple	3500-4350	0.6 dB	0.9 dB max	1.0 dB max
Passband Return Loss	3500-4350	12 dB	10 dB min	10 dB min
GDV over any 120MHz in Passband	3500-4350	1.2 ns	1.5 ns max	1.5 ns max
Attenuation:	1 - 2400	65 dB	55 dB min	55 dB min
	2400 - 3150	60 dB	40 dB min	40 dB min
	4700	45 dB	40 dB min	40 dB min
	8000	65 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.

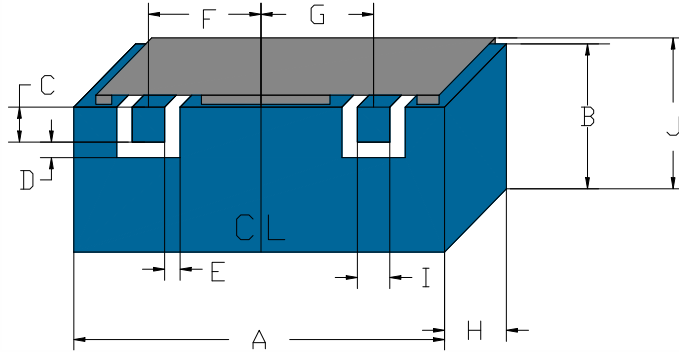
#### Specification Allowance

Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB



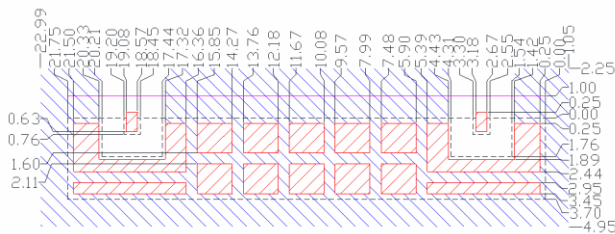
Part Dimensions: 21.8 × 4.9 × 4.2 mm • 1.2 g  
Materials: Ag plated ceramic block with brass shield

### Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	21.75	max
B	3.70	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	4.20	max
I	0.76	0.13
J	4.90	max

### PCB Layout



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

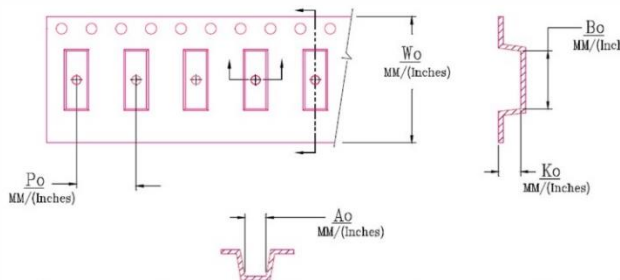
Please assure sufficient ground vias between the top metal ground plane and the primary ground plane.

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

Dimension	Units	Spec.	Product Marking
Reel Diameter	mm	330	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <b>CTS</b>  <b>1225</b>  YYWW </div>
Reel Weight	kg	2.6	
Reel Quantity	ea.	500	

Customer Feed Direction → → →



$W_0$	$A_0$	$B_0$	$K_0$	$P_0$
1.732 in 44.0 mm	0.201 in 5.1 mm	0.865 in 21.97 mm	0.169 in 4.30 mm	0.472 in 12.0 mm

### Electrical Response

