



# CER0813P

## 4200-4400MHz 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	-	-	-	5.0 Watt max
Peak Input Power	-	-	-	50 Watt max

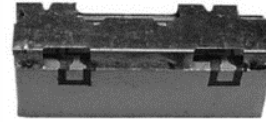
#### Input-Output Response

Passband Insertion Loss	4250-4350	1.2 dB	1.4 dB max	1.6 dB max
	4225-4375	1.4 dB	1.6 dB max	1.8 dB max
	4200-4400	1.7 dB	2.0 dB max	2.2 dB max
Passband Return Loss	4200-4400	13 dB	12 dB min	12 dB min
Group Delay Variation	4250-4350	0.6 ns	1.0 ns max	1.0 ns max
	4225-4375	1.6 ns	2.0 ns max	2.0 ns max
	4225-4375	5.1 ns	4.8 ns min	4.8 ns min
Group Delay Minimum	4225-4375	6.8 ns	7.3 ns max	7.3 ns max
Attenuation:	1 - 4000	58 dB	57 dB min	57 dB min
	4050	47 dB	40 dB min	40 dB min
	4100	34 dB	30 dB min	30 dB min
	4600-5000	56 dB	55 dB min	55 dB min
	5150-5950	53 dB	47 dB min	47 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

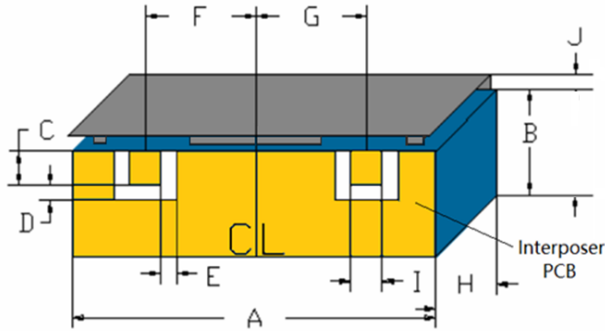
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB



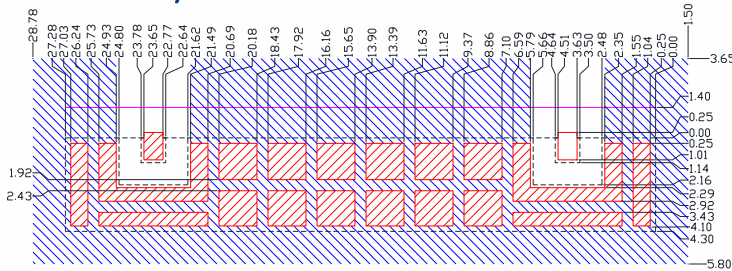
Part Dimensions: 27.3 × 5.7 × 7.0 mm • 4.0 g

Materials: Ag plated ceramic block with fused tin plated brass shield

# Mechanical Drawing



## PCB Layout



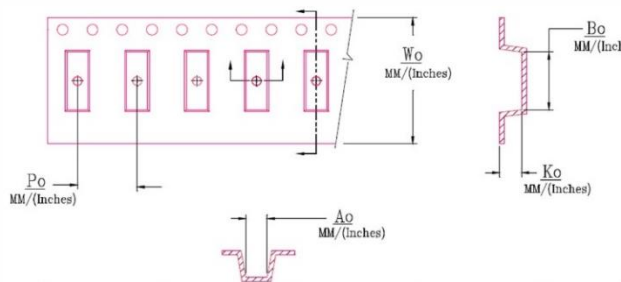
----- Shield  
----- Filter Outline  
Exposed Conductor

Solder Resist Over Dielectric  
Solder Resist Over Conductor

## Packaging and Marking

Dimension	Units	Spec.	Product Marking
Reel Diameter	mm	330	CTS 13P YWW
Reel Weight	kg	2.6	
Reel Quantity	ea.	500	

Customer Feed Direction → → →



W <sub>o</sub>	A <sub>o</sub>	B <sub>o</sub>	K <sub>o</sub>	P <sub>o</sub>
1.732 in 44.0 mm	0.24 in 6.10 mm	1.087 in 27.60 mm	0.256 in 6.50 mm	0.472 in 12.0 mm

## Electrical Response

