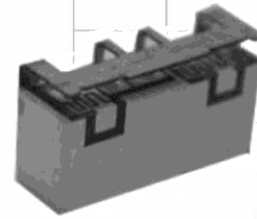Connect

CER1047A - PRELIMINARY
7.25-7.75 GHz Bandpass Filter

Features
- Low Loss with High Rejection
- Low ripple

Applications
- Wireless Infrastructure applications

Part Dimensions: ESTIMATE 9.0 × 3.0 × 3.1 mm • <0.4 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 +85°C
Nominal Impedance	-	50 ohms	-	-
Average Input Power	-	-	-	2.0 Watt max
Peak Input Power	-	-	-	20 Watt max

Input-Output Response

Parameter	Frequency (MHz)		Spec. at 25°C	Spec. over -40°C to +85°C
Passband Insertion Loss (100 MHz avg)	7250 - 7650		<= 1.3 dB min EST	<= 1.4 dB min EST
Passband Insertion Loss (100 MHz avg)	7650 - 7750		<= 1.5 dB min EST	<= 1.6 dB min EST
Passband Insertion Loss (single point)	7250 - 7750		<= 2.0 dB min	<= 2.0 dB min
Passband Return Loss	7250 - 7750		>= 11.0 dB min	>= 11.0 dB min
Attenuation:	7900 - 8400		>= 20 dB min	>= 20 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.
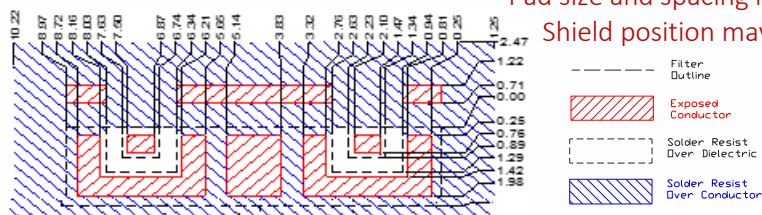
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing
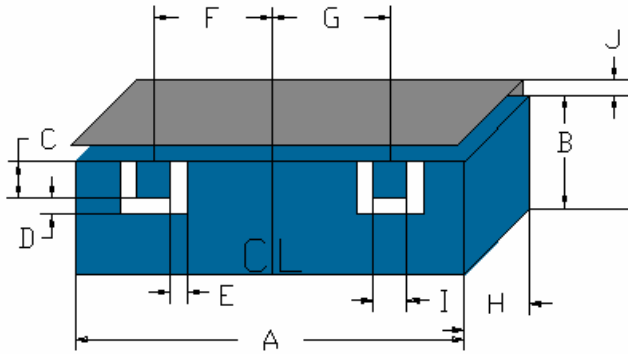
Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	8.97	max
B	2.00 est	max
C	0.89	0.13
D	0.40	0.13
E	0.40	0.13
F	2.70	0.13
G	2.70	0.13
H	3.10	max
I	0.89	0.13
J	1.00	max

PCB Layout

PRELIMINARY LAYOUT. NOT FINAL.
Pad size and spacing may change.
Shield position may change.

Filter Outline

Exposed Conductor

Solder Resist Over Dielectric

Solder Resist Over Conductor

IMPORTANT: Please assure >=26.6mils (0.67mm) thickness of dielectric beneath the I/O Pads and surrounding clearance zone to the required ground plane.

Packaging and Marking
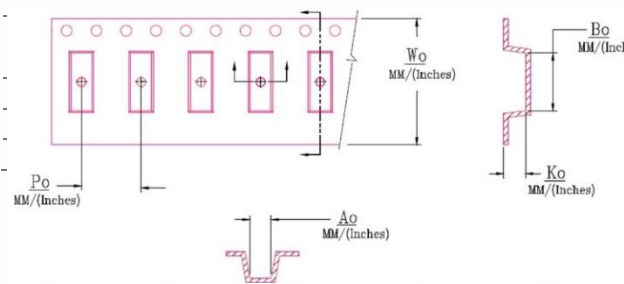
W$_o$	A$_o$	B$_o$	K$_o$	P$_o$
0.945 in	0.xxx in	0.366 in	0.132 in	0.315 in
24.0 mm	x.xx mm	9.30 mm	3.35 mm	8.0 mm

Product Marking

CTS
1047
YWW

Electrical Response

Marker Freq[MHz]	1 7250	2 7500	3 7750	4 7900	5 8150	6 8400
S11[dB](1)	-18.7	-18.1	-20.2	-0.758	-0.247	-0.134
S21[dB](1)	-0.587	-0.621	-1.28	-26.9	-38	-66.2