

CER1042A

698-775 / 788-861 MHz Diplexer

Features

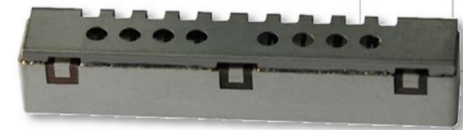
- Low Loss with High Rejection
- Superior power handling and reliability
- Shares same footprint as USD family

Applications

- Specialty wireless Infrastructure applications

Description

Surface mount ceramic diplexer for use in specialty application while remaining compatible with USD footprint.



Part Dimensions: 60.9 × 14.0 × 10.9 mm • 38.6 g
Materials: Ag plated ceramic block with tin plated brass shield

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	-	-	-	6.0 Watt max
Peak Input Power	-	-	-	60 Watt max
Passive Intermodulation (2x 3W)	-	-	-	-97dBm max target

Low-band to Antenna Response

Passband Insertion Loss (single point)	698 - 775	2.7 dB	3.0 dB max	3.3 dB max
Passband Ripple	698 - 775	2.4 dB	2.7 dB max	3.0 dB max
Passband Return Loss	698 - 775	12 dB	11 dB min	10 dB min
Attenuation: (excl 788MHz)	789* - 861	63 dB	60 dB min	59 dB min
	1396 - 1550	49 dB	25 dB min	25 dB min

High-band to Antenna Response

Passband Insertion Loss (single point)	788 - 861	2.7 dB	3.0 dB max	3.3 dB max
Passband Ripple	788 - 861	2.4 dB	2.7 dB max	3.0 dB max
Passband Return Loss	788 - 861	12 dB	11 dB min	10 dB min
Attenuation: (excl 775MHz)	698 - 774*	58 dB	57 dB min	56 dB min
	1576 - 1722	45 dB	25 dB min	25 dB min

High-band to Low-band Response

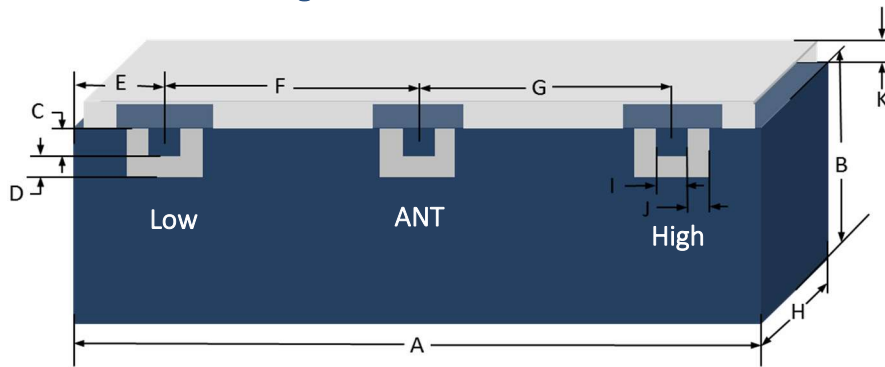
Attenuation for Low-band (excl 775MHz)	698 - 774*	60 dB	59 dB min	58 dB min
Attenuation for High-band (excl 788MHz)	789* - 861	64 dB	61 dB min	60 dB min

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

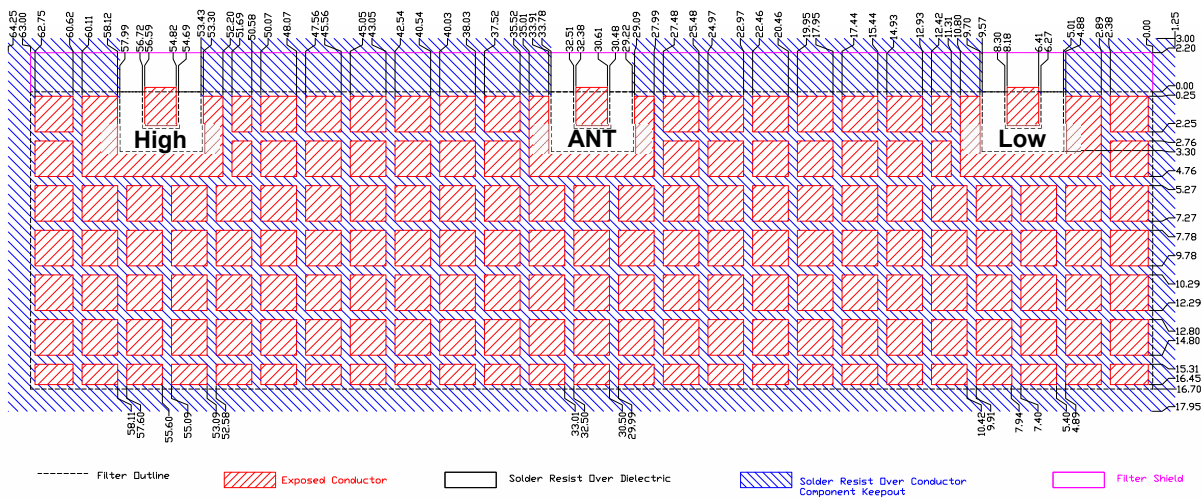
*** Will judge based on excluding the last 1 MHz nearest the transition band.**

Mechanical Drawing

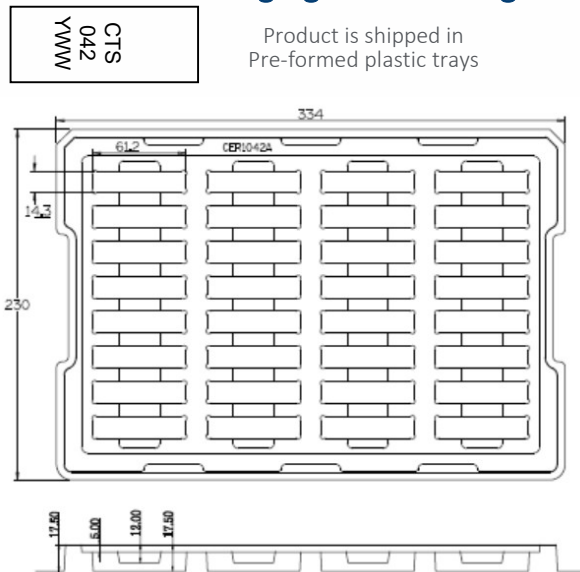


Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	60.4	0.5
B	11.9	0.5
C	2.03	0.13
D	1.27	0.13
E	5.99	0.13
F	24.21	0.13
G	24.21	0.13
H	10.90	Max
I	2.03	0.13
J	1.27	0.13
K	1.40	0.20

PCB Layout



Packaging and Marking



The trays have 32 slots each with 1 filter per slot. Boxes are packed with 4 Trays per box for a total of 128 filters per box.

Electrical Response

