

USD001B - PRELIMINARY

Band 1 USD Series Duplexer

Features

- Low Loss with High Rejection
- Superior power handling and reliability
- Universal footprint across all FDD frequency bands

Applications

- Wireless Infrastructure applications
- High-performance carrier-grade small-cells using linearized PA for 1.0-2.0W at the antenna port.
- Wide-band pico-cells or small-cells requiring multi-channel or carrier aggregation.



Part Dimensions: 63.0 × ???.? × 10.?.? mm • ???.? g
Materials: Ag plated ceramic block with tin plated brass shield

Description

Surface mount ceramic duplexer supports a universal footprint across all FDD frequency bands enabling the use of a common system PCB. Provides superior rejection, insertion loss, reliability, as well as both peak and average power handling compared to other duplexer 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	-	-	-	6.0 Watt max
Peak Input Power	-	-	-	60 Watt max

Antenna to UL Response

Passband Insertion Loss (5 MHz avg)	1920 - 1980	2.4 dB max
Passband Return Loss	1920 - 1980	11 dB min
Attenuation: (5MHz avg)	2110 - 2170	62 dB min
(5MHz avg)	2171 - 2200	62 dB min
<=1900 and >=2000		16 dB min
	1805 - 1880	38 dB min

DL to Antenna Response

Passband Insertion Loss (5 MHz avg)	2110 - 2170	2.5 dB max
Passband Return Loss	2110 - 2170	11 dB min
Attenuation:	1920 - 1980	70 dB min
	1710 - 1785	42 dB min
5MHz avg: 2095-2100 & 2180-2185		7 dB min
	2305 - 2315	42 dB min

DL to UL Response

Attenuation for UL band	1920 - 1980	72 dB min
Attenuation for DL band (5MHz avg)	2110 - 2170	64 dB min
(5MHz avg)	2171 - 2200	64 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

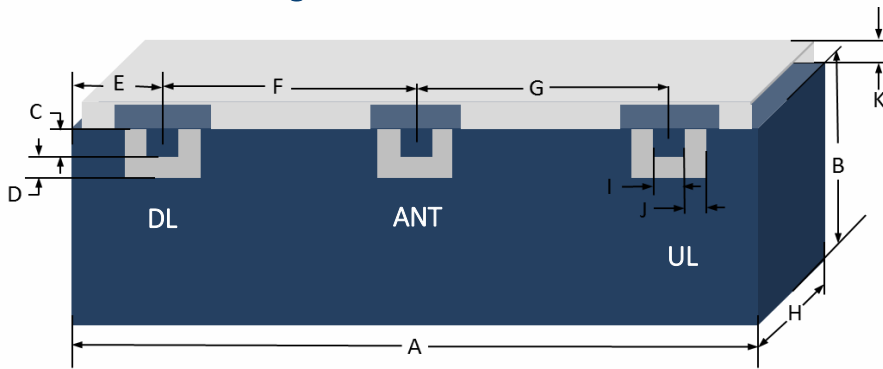
Insertion Loss	0.1 dB
Return loss	1.0 dB
Attenuation	1.0 dB

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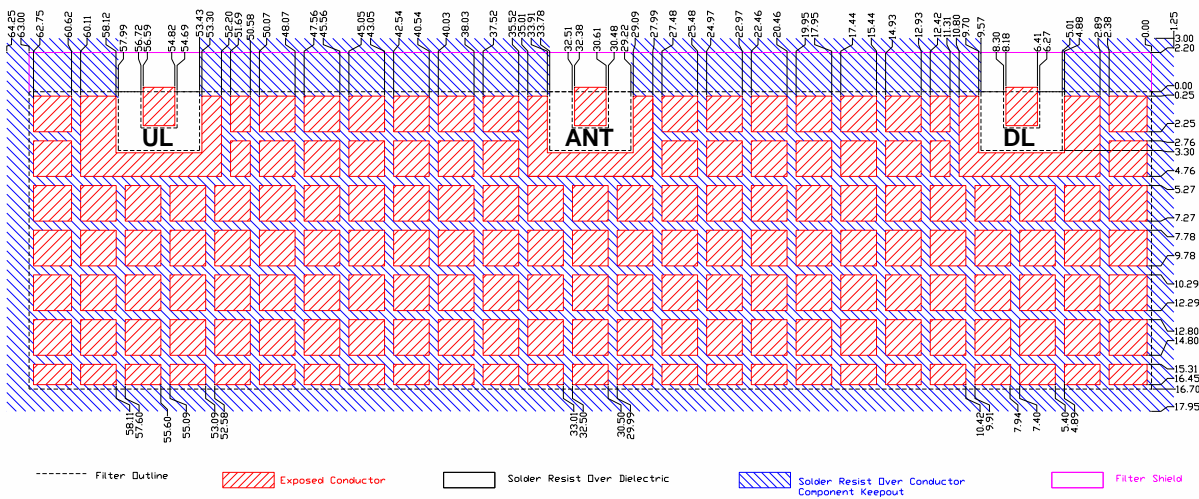
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Mechanical Drawing

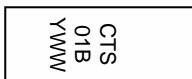


Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	63.00	Max
B	???	Max
C	2.03	0.13
D	1.27	0.13
E	???	0.13
F	24.21	0.13
G	24.21	0.13
H	10.90??	Max
I	2.03	0.13
J	1.27	0.13
K	2.00	Max

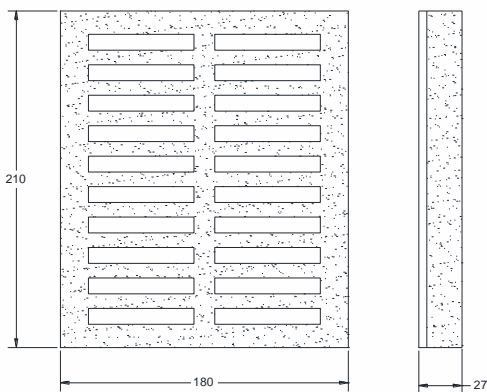
PCB Layout



Packaging and Marking



Product is shipped in Pre-formed foam trays



The trays have 20 slots each with 1 filter per slot. Boxes are packed with 12 Trays per box for a total of 240 filters per box.

Electrical Response

