

USD025B - PRELIMINARY

Band 25 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: **64x10x14**

63 × 11.3 × 12.0 mm • 20.8 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)	1850 - 1915	2.7 dB	2.8 dB max	3.0 dB max
Passband Insertion Loss (single point)	1850 - 1915	3.3 dB	3.5 dB max	3.8 dB max
Passband Return Loss	1850 - 1915	15 dB	14 dB min	14 dB min
Attenuation:	1930 - 1995	66 dB	64 dB min	64 dB min

DL to Antenna Response

Passband Insertion Loss (5 MHz avg)	1930 - 1995	2.5 dB	2.6 dB max	2.8 dB max
Passband Insertion Loss (single point)	1930 - 1995	3.0 dB	3.2 dB max	3.5 dB max
Passband Return Loss	1930 - 1995	15 dB	14 dB min	14 dB min
Attenuation:	1850 - 1915	69 dB	67 dB min	67 dB min
	2010			10 dB min

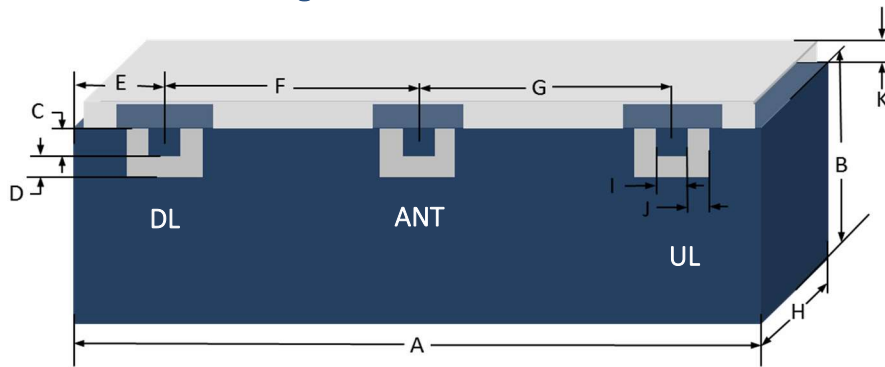
DL to UL Response

Attenuation for UL band (single point)	1850 - 1915	69 dB	67 dB min	67 dB min
Attenuation for DL band (single point)	1930 - 1995	66 dB	66 dB min	66 dB min
Attenuation for UL band (5 MHz avg)	1850 - 1915	73 dB	71 dB min	71 dB min
Attenuation for DL band (5 MHz avg)	1930 - 1995	70 dB	67 dB min	67 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.

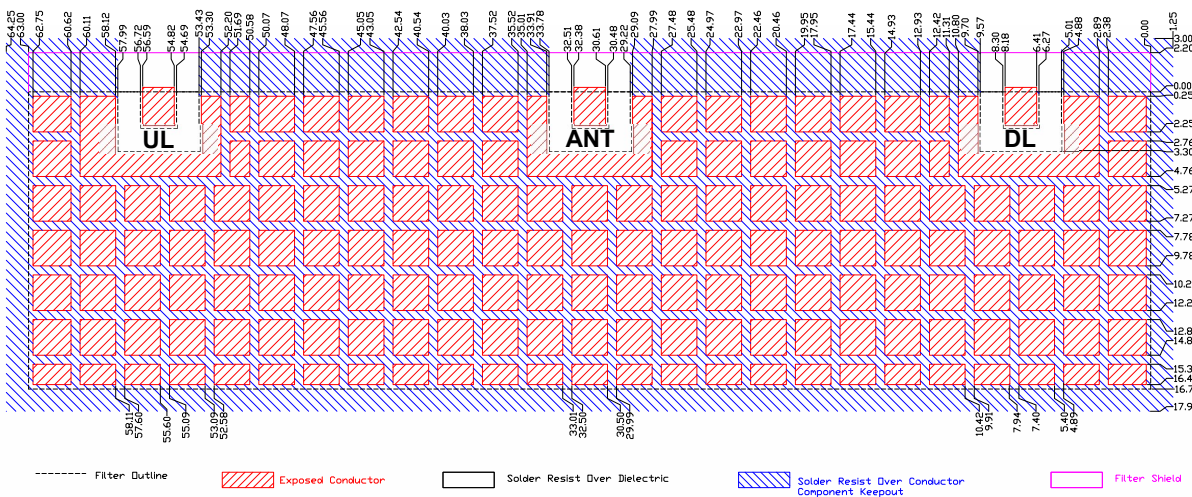
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



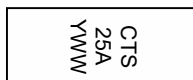
Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	63.00	Max
B	9.30	Max
C	2.03	0.13
D	1.27	0.13
E	6.49	0.13
F	24.21	0.13
G	24.21	0.13
H	12.00	Max
I	2.03	0.13
J	1.27	0.13
K	2.00	Max

PCB Layout

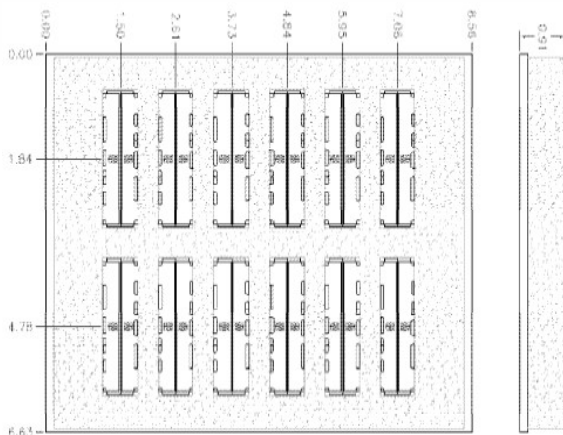


 Filter Outline
 Exposed Conductor
 Solder Resist Over Dielectric
 Solder Resist Over Conductor Component Keepout
 Filter Shield

Packaging and Marking



Product is shipped in Pre-formed foam trays



The trays have 12 slots each with 2 filters per slot. Boxes are packed with 5 Trays per box for a total of 120 filters per box.

Electrical Response

