

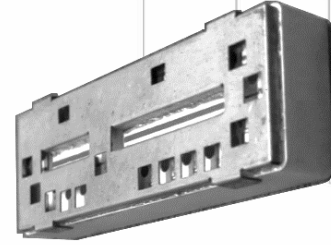
UED008A Band 8 UED Series Duplexer

Features

- Low Loss with High Rejection
- Superior power handling and reliability
- Universal footprint across all UED Series frequency bands
- Surface-mount using embedded strip-line RF signal traces

Applications

- Wireless Infrastructure applications
- High-performance carrier-grade small-cells or DAS <=2W at the antenna port requiring multi-channel or carrier aggregation.



Part Dimensions: 59 × 21 × 12.4 mm • <57.4 g
Materials: Ag plated ceramic block with tin plated brass shield

Description

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	-	-	-	8.0 Watt max
Peak Input Power	-	-	-	80 Watt max

Antenna to UL Response

Passband Insertion Loss (5 MHz avg)	880 - 915	3.0 dB	3.2 dB max	3.3 dB max
Passband Return Loss	880 - 915	14 dB	13 dB min	13 dB min
Attenuation:	925 - 960	58 dB	55 dB min	55 dB min
	703 - 821	44 dB	40 dB min	40 dB min

DL to Antenna Response

Passband Insertion Loss (5 MHz avg)	925 - 960	3.0 dB	3.2 dB max	3.3 dB max
Passband Return Loss	925 - 960	14 dB	13 dB min	13 dB min
Attenuation:	880 - 915	72 dB	70 dB min	68 dB min

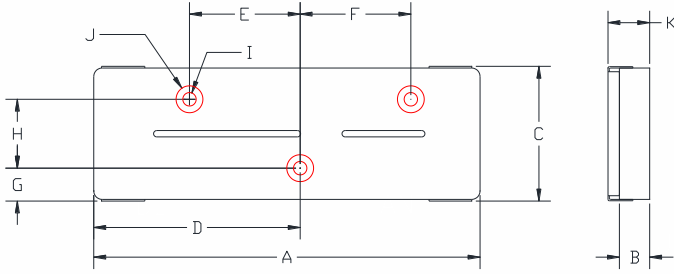
DL to UL Response

Attenuation for UL band	880 - 915	73 dB	70 dB min	70 dB min
Attenuation for DL band	925 - 960	59 dB	55 dB min	55 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.

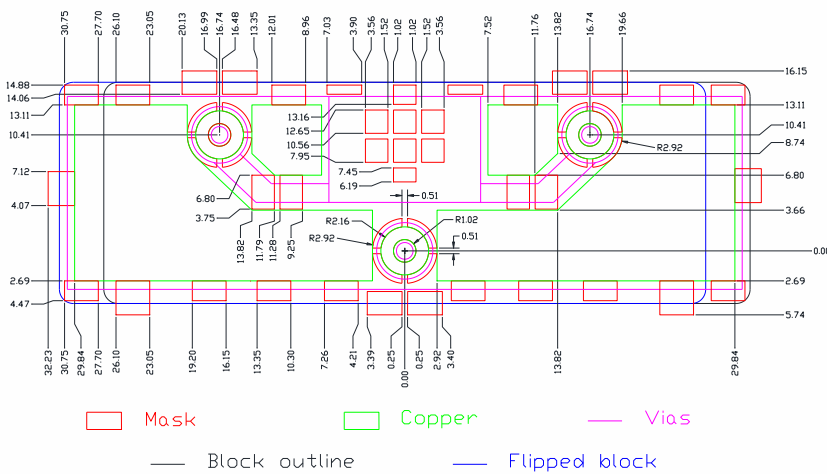
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	59.00	Max
B	10.40	Max
C	21.00	Max
D	31.22	0.20
E	16.74	0.13
F	16.74	0.13
G	4.97	0.20
H	10.41	0.13
I (radius)	1.02	0.13
J (radius)	2.03	0.13
K	12.40	Max

PCB Layout (Top-Down View)



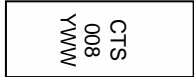
IMPORTANT: Please assure ≥ 20 mils (0.5mm) thickness of dielectric beneath the top-metal.

Please assure sufficient ground vias between the top metal ground planes and the primary ground plane.

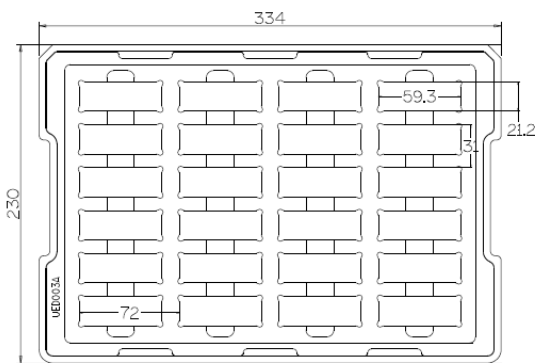
Recommended solder: 6 mils of SAC305 with reflow including 120s of soak at 217°C, and up to 30 sec peak at 241°C.

NOTE: While each unit is only 59mm length, the Universal footprint allocates 62.5mm for support of freq bands with low-band as DL. Signal vias directly under the I/Os should be blind-vias to embedded strip-lines.

Packaging and Marking



Product is shipped in Pre-formed foam trays



The trays have 24 slots each with one filter per slot. Boxes are packed with 5 Trays per box for a total of 120 filters per box.

Electrical Response

