

UPD008A

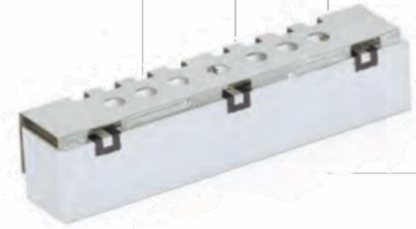
Band 8 UPD Series Duplexer

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 Pico-cells using linearized PA for 0.25-0.5W and linear PA to 1.0W at the antenna port.
- Wide-band femto-cells or pico-cells requiring multi-channel or carrier aggregation.



Part Dimensions: 42.8 × 12.9 × 8.2 mm • 17.7 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	-	-	-	3.0 Watt max
Peak Input Power	-	-	-	30 Watt max

Antenna to UL Response

Passband Insertion Loss (5 MHz avg)	880-915	3.0 dB	3.1 dB max	3.2 dB max
Passband Return Loss	880-915	12 dB	11 dB min	11 dB min
Attenuation: (single point)	925-960	54 dB	52 dB min	52 dB min

DL to Antenna Response

Passband Insertion Loss (5 MHz avg)	925-960	3.0 dB	3.1 dB max	3.2 dB max
Passband Return Loss	925-960	12 dB	11 dB min	11 dB min
Attenuation: (single point)	880-915	62 dB	60 dB min	60 dB min

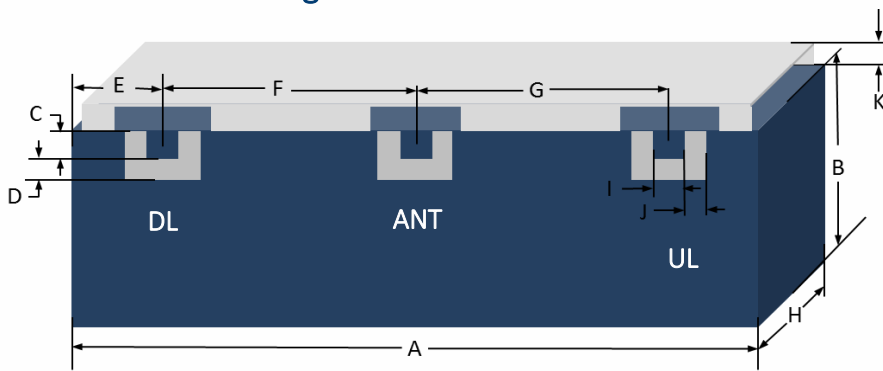
DL to UL Response

Attenuation for UL band (5 MHz avg)	880-915	64 dB	63 dB min	63 dB min
Attenuation for DL band (5 MHz avg)	925-960	57 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.

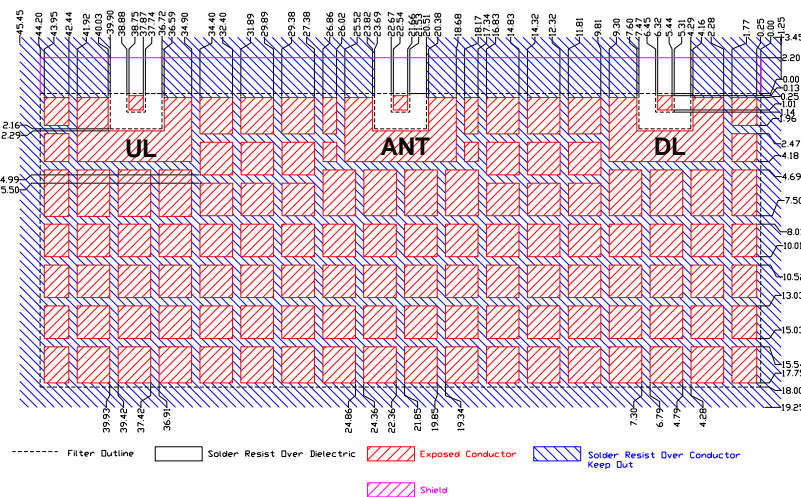
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	42.5	0.30
B	11.00	0.30
C	1.10	0.13
D	1.00	0.13
E	5.03	0.13
F	16.22	0.13
G	16.22	0.13
H	8.00	0.20
I	1.00	0.13
J	1.00	0.13
K	1.40	0.20

PCB Layout

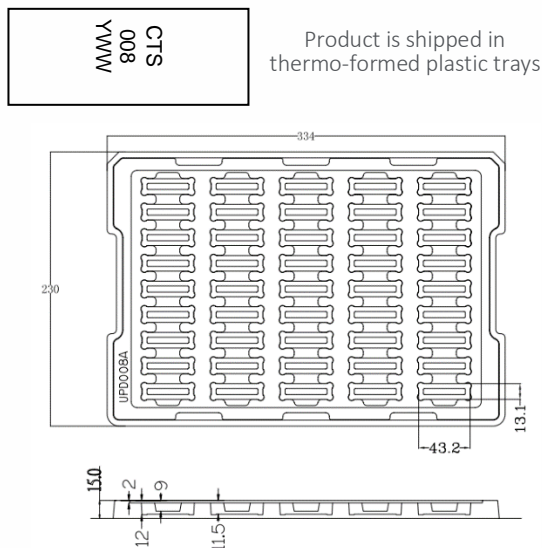


IMPORTANT: Please assure ≥ 20 mils (0.5mm) thickness of dielectric beneath the I/O Pads and the surrounding clearance zone down to the required ground plane.

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

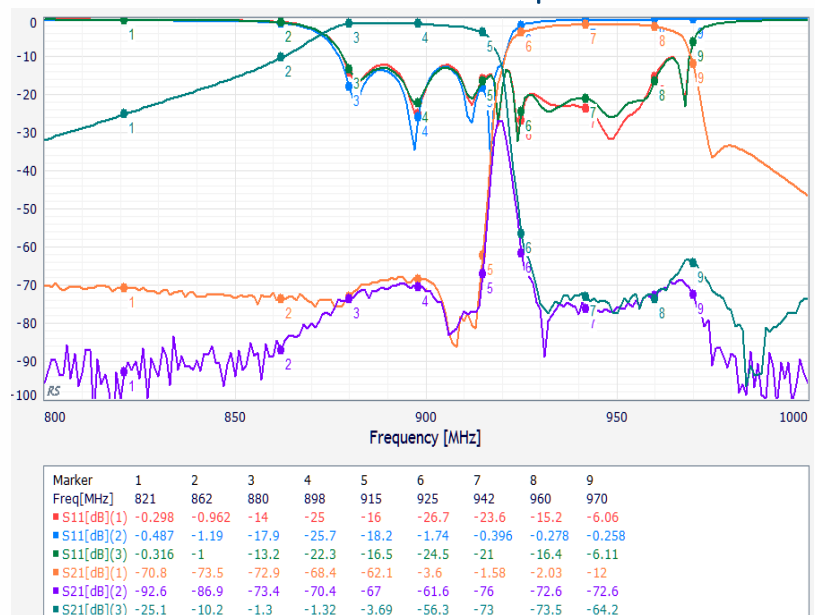
Recommended solder: 4-6 mils of SAC305 with reflow incl. 120s of soak at 217°C, and up to 30 sec peak at 241°C.

Packaging and Marking



The trays have 45 slots each with one filter per slot. Boxes are packed with 4 Trays per box for a total of 180 filters per box.

Electrical Response





Electrical Specifications – Supplemental Spectrum Specifications

Parameter	Frequency (MHz)	Typical at 25°C	Spec. at 25°C	Spec. over -40°C to +85°C
Antenna to UL Response				
Attenuation:	1 - 821			24 dB min
	821 - 860			6 dB min
	860 - 862			5 dB min
	960 - 1100			43 dB min
	1100 - 1700			30 dB min
DL to Antenna Response				
Attenuation:	1 - 880			>43 dB min
	970 - 1100			8 dB min

Wideband Response