

UPD002A - PRELIMINARY

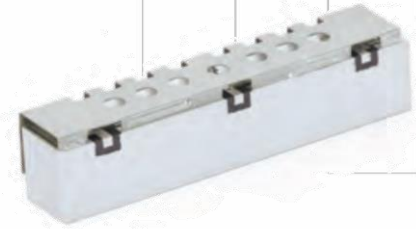
Band 2 UPD Series Duplexer

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: 44.3 × 10.0 × 8.5 mm • 11.7 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)	1850-1910	2.8 dB	2.9 dB max	3.0 dB max
Passband Return Loss	1850-1910	13 dB	12 dB min	12 dB min
Attenuation:	1930-1990	55 dB	54 dB min	54 dB min

DL to Antenna Response

Passband Insertion Loss (5 MHz avg)	1930-1990	2.7 dB	2.9 dB max	3.0 dB max
Passband Return Loss	1930-1990	13 dB	12 dB min	12 dB min
Attenuation:	1850-1910	60 dB	59 dB min	59 dB min

DL to UL Response

Attenuation for UL band	1850-1910	62 dB	59 dB min	59 dB min
Attenuation for UL band (5MHz avg)	1850-1910		61 dB min	61 dB min
Attenuation for DL band	1930-1990	56 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.

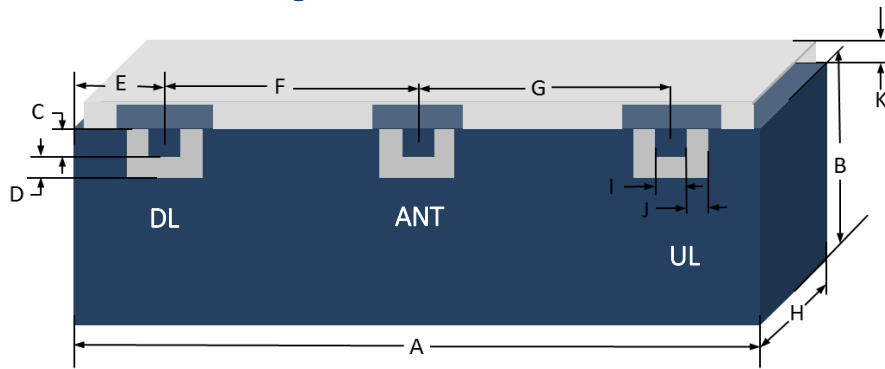
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB



PRELIMINARY - UPD002A

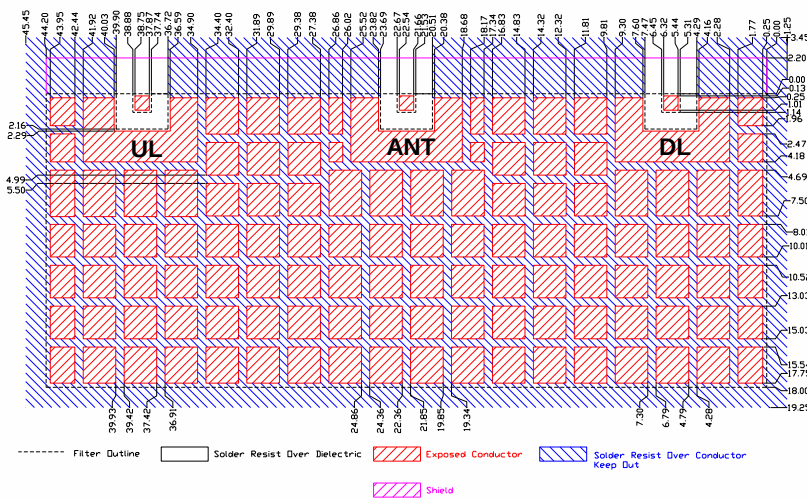
Band 2 UPD Series Duplexer

Mechanical Drawing

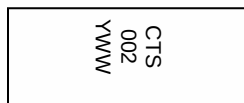


Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	43.9	0.30
B	7.90	0.30
C	1.10	0.13
D	1.10	0.13
E	5.88	0.13
F	16.22	0.13
G	16.22	0.13
H	8.20	0.20
I	1.00	0.13
J	1.00	0.13
K	1.50	0.30

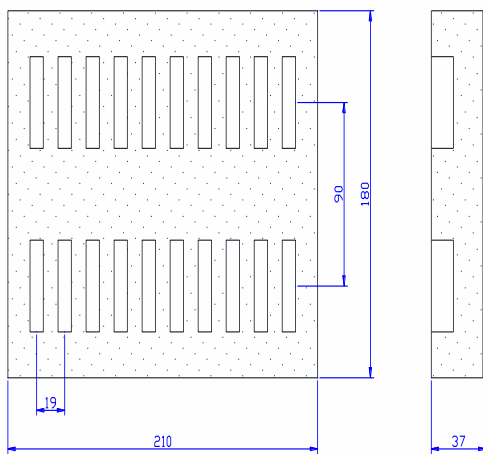
PCB Layout



Packaging and Marking

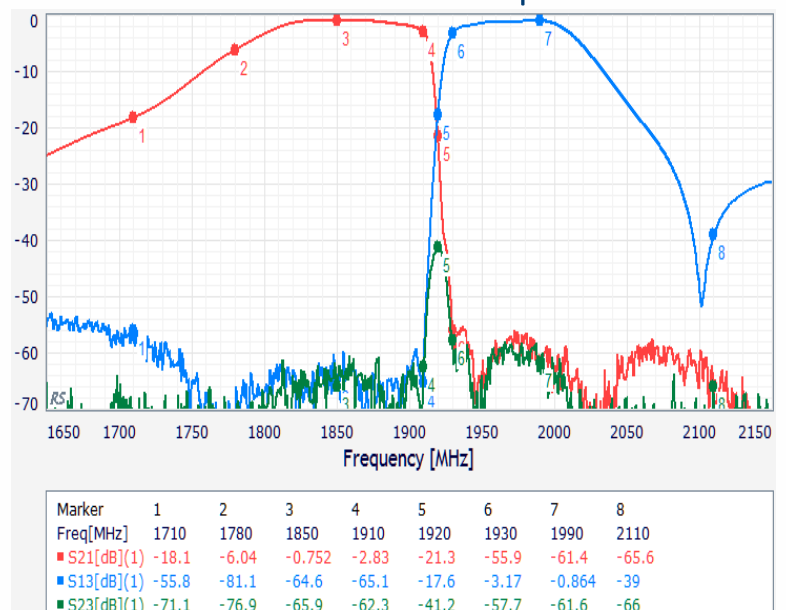


Product is shipped in Pre-formed foam trays



The trays have 20 slots each with one filter per slot. Boxes are packed with 12 Trays per box for a total of 240 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:	1-960	60 dB	40 dB min	40 dB min
	960-1463	35 dB	25 dB min	25 dB min
	1463-1525	32 dB	20 dB min	20 dB min
	1525-1559	28 dB	20 dB min	20 dB min
	1559-1710	15 dB	10 dB min	10 dB min
	1710-1780	6 dB	5 dB min	5 dB min
	1990-2710	63 dB	40 dB min	40 dB min
	2710-3400	42 dB	37 dB min	37 dB min
	3400-3600	36 dB	30 dB min	30 dB min
	3600-3800	30 dB	25 dB min	25 dB min

DL to Antenna Response

Attenuation:	1-1850	50 dB	40 dB min	40 dB min
	1910-1915	35 dB	20 dB min	20 dB min
	1915-1920	15 dB	7 dB min	7 dB min
	2110-2200	30 dB	10 dB min	10 dB min
	2200-2300	30 dB	15 dB min	15 dB min
	2305-2400	33 dB	28 dB min	28 dB min
	2400-2496	36 dB	31 dB min	31 dB min
	2496-2690	38 dB	31 dB min	31 dB min
	2690-3400	41 dB	31 dB min	31 dB min
	3400-3800	32 dB	22 dB min	22 dB min
	3800-4000	26 dB	22 dB min	22 dB min

Wideband Response

