

UPD026B - PRELIMINARY

Subset of Band 26 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 pico-cells requiring multi-channel aggregation.



Part Dimensions: 43.7 × 13.1 × 8.5 mm • 19.9 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)	817-849	2.9 dB max	3.1 dB max
Passband Insertion Loss (single-point)	817-849	4.1 dB max	4.4 dB max
Passband Ripple	817-849	3.0 dB max	3.3 dB max
Passband Return Loss	817-849	11 dB min	11 dB min
Attenuation:	862-894	50 dB min	50 dB min
	1-768	37 dB min	37 dB min

DL to Antenna Response

Passband Insertion Loss (5 MHz avg)	862-894	2.9 dB max	3.1 dB max
Passband Insertion Loss (single-point)	862-894	4.1 dB max	4.4 dB max
Passband Ripple	862-894	3.0 dB max	3.3 dB max
Passband Return Loss	862-894	11 dB min	11 dB min
Attenuation:	817-849	55 dB min	55 dB min
	1-816	45 dB min	45 dB min

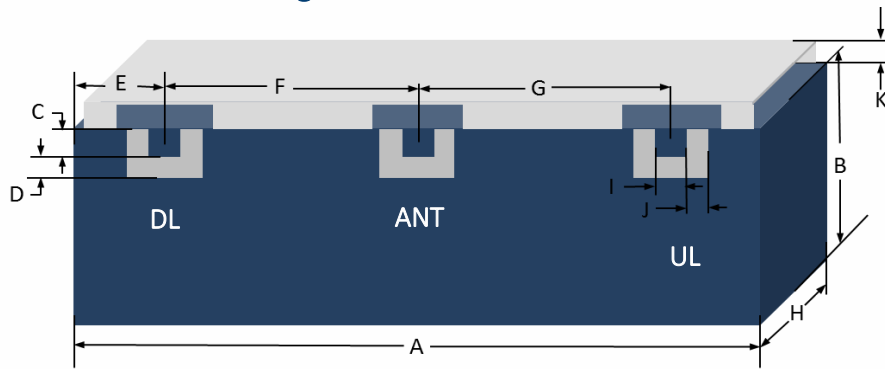
DL to UL Response

Attenuation for UL band	817-849	55 dB min	55 dB min
Attenuation for DL band	862-894	50 dB min	50 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.

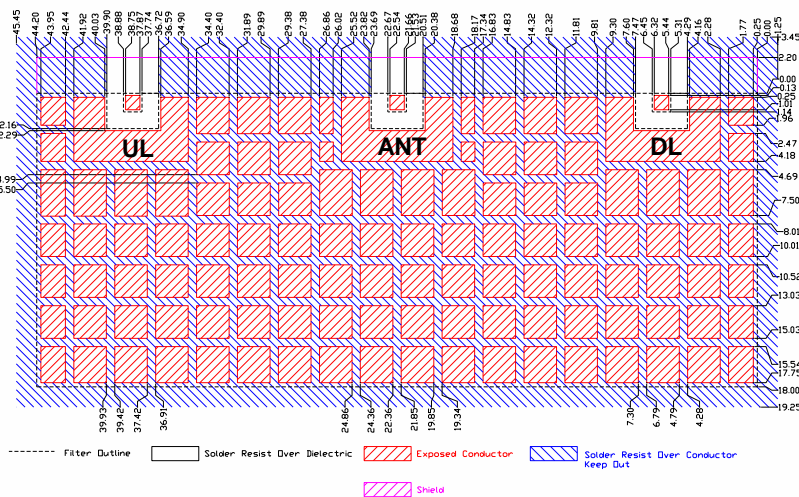
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	43.30	0.40
B	10.9	0.50
C	1.10	0.13
D	1.10	0.13
E	5.43	0.20
F	16.22	0.13
G	16.22	0.13
H	8.30	0.20
I	1.00	0.13
J	1.00	0.13
K	1.50	0.20

PCB Layout

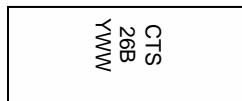


IMPORTANT: Please assure ≥ 20 mils (0.5mm) thickness of dielectric beneath the I/O Pads and the surrounding clearance zone down to the required ground plane.

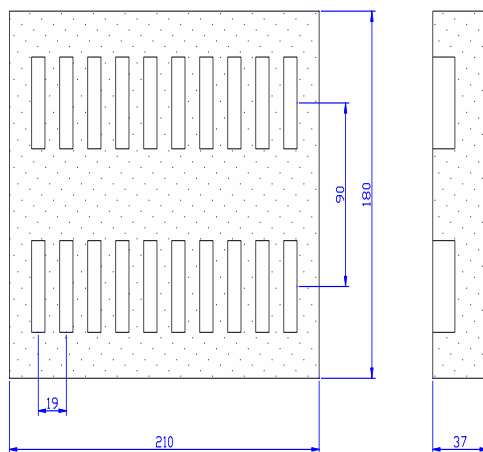
Please assure sufficient ground vias between the top metal ground plane and the primary ground plane.

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

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

