

UPD013A - PRELIMINARY

Band 13 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: 43.4 × 13.9 × 8.2 mm • 22.3 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)	777-787	2.3 dB	2.5 dB max	2.6 dB max
Passband Return Loss	777-787	14 dB	12 dB min	12 dB min
Attenuation:	746-756	60 dB	57 dB min	57 dB min
	728-746	50 dB	38 dB min	38 dB min
	756-768	31 dB	28 dB min	28 dB min
	807-851	12 dB	10 dB min	10 dB min
	851-894	31 dB	28 dB min	28 dB min

DL to Antenna Response

Passband Insertion Loss (5 MHz avg)	746-756	2.3 dB	2.5 dB max	2.6 dB max
Passband Return Loss	746-756	14 dB	12 dB min	12 dB min
Attenuation:	777-787	64 dB	61 dB min	61 dB min
	787-849	45 dB	41 dB min	41 dB min
	698-716	31 dB	28 dB min	28 dB min

DL to UL Response

Attenuation for UL band	777-787	64 dB	61 dB min	61 dB min
Attenuation for DL band	746-756	60 dB	57 dB min	57 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.

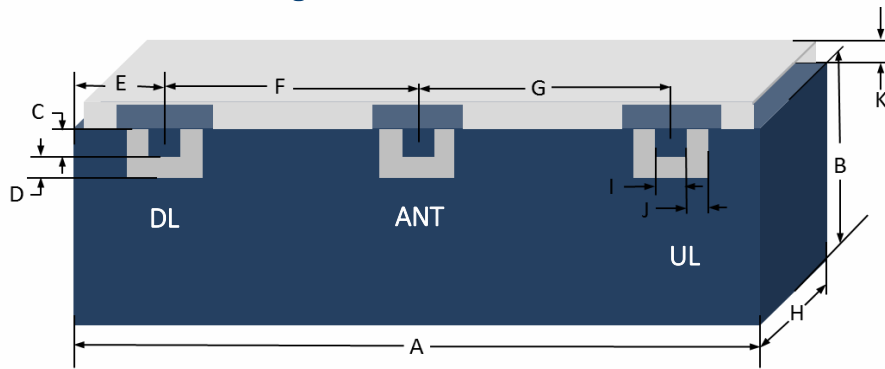
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB



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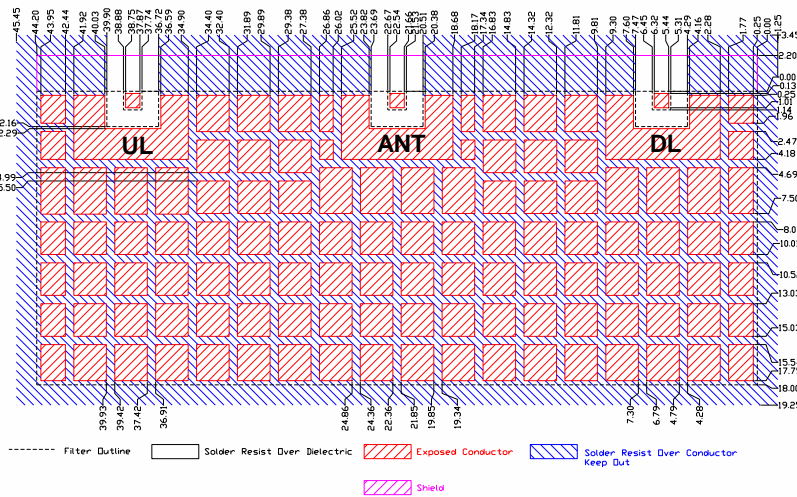
Band 13 UPD Series Duplexer

Mechanical Drawing

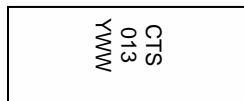


Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	43.4	0.30
B	12.4	0.30
C	1.10	0.13
D	1.10	0.13
E	5.88	0.13
F	16.22	0.13
G	16.22	0.13
H	8.20	0.20
I	1.00	0.13
J	1.00	0.13
K	1.50	0.20

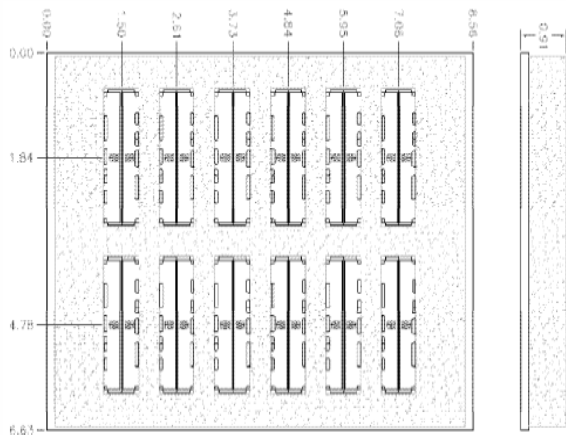
PCB Layout



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

