

# UPD020A - PRELIMINARY

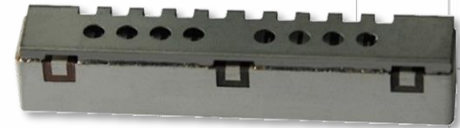
## Band 20 UPD Series Duplexer

### 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? × 14.7? × 8.2? mm • 24 g est  
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 (These specs are NOT guaranteed. Will be revised following prototype run.)

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)	832-862			<=3.0 dB max
Passband Return Loss	832-862	14 dB	12 dB min	12 dB min
Attenuation:	791-821			>=55 dB min
	703-790			>=40 dB min
	880-924			>=12 dB min
	925-960			>=40 dB min

#### DL to Antenna Response

Passband Insertion Loss (5 MHz avg)	791-821			<=3.0 dB max
Passband Return Loss	791-821			12 dB min
Attenuation:	832-862			>=60 dB min
	703-733			31 dB min
	734-748			27 dB min
	749-781			5 dB min

#### DL to UL Response

Attenuation for UL band (5 MHz avg)	832-862			63 dB min
Attenuation for DL band (5 MHz avg)	791-821			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.

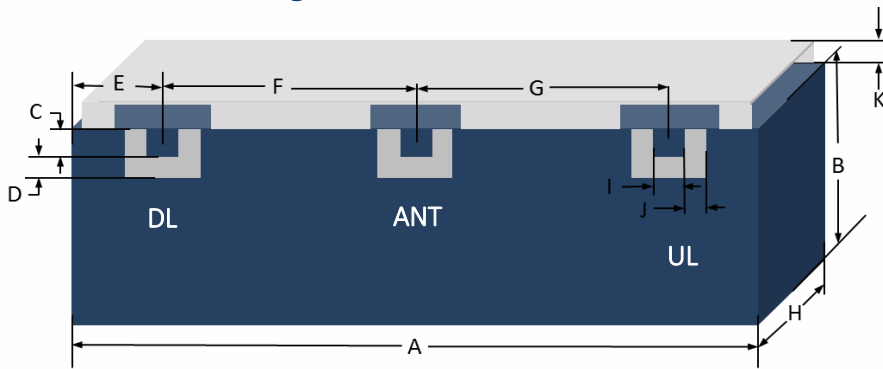
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB



## PRELIMINARY - UPD020A

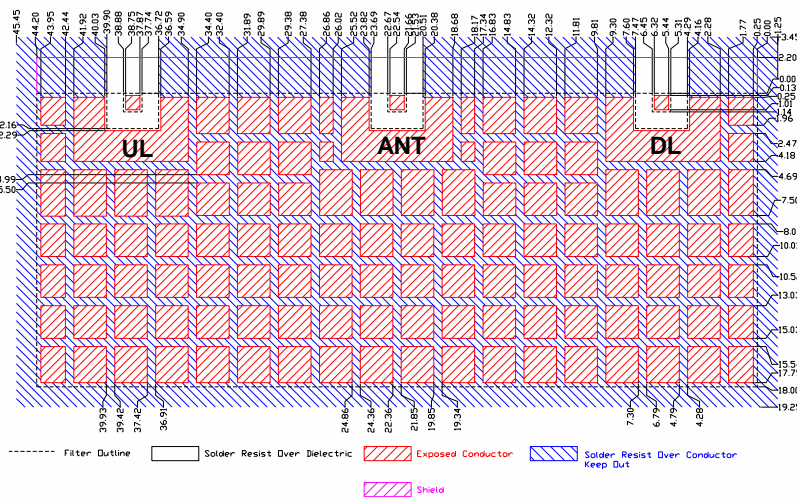
Band 20 UPD Series Duplexer

### Mechanical Drawing

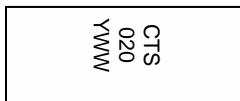


Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	43.4?	0.30
B	12.7?	0.30
C	1.10	0.13
D	1.10	0.13
E	5.88?	0.13
F	16.22	0.13
G	16.22	0.13
H	8.20	0.20
I	1.00	0.13
J	1.00	0.13
K	1.50	0.13

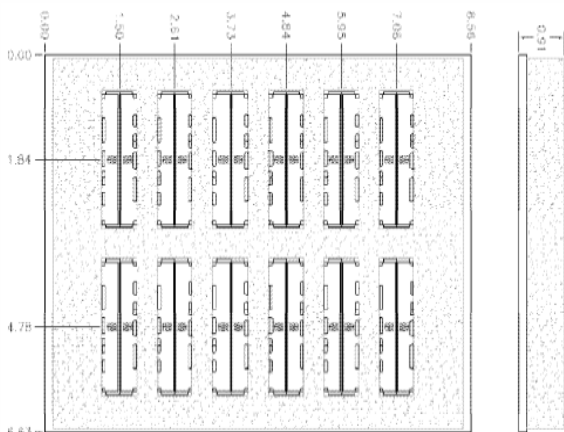
### PCB Layout



### 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

