Product Brief

# CMD001A - PRELIMINARY

## Band 1 CMD Series Duplexer

### Features

- Extra Low loss and ripple with High Rejection
- Superior power handling and reliability
- Part of the CMD family of Metro-cell duplexers
- Available for either PCB mounting or with various connectors including SMA, SMP-Max, and other options.

Part Dimensions: 74.5 × 33.5 × 14.5 mm • <145 g
Materials: Ag plated ceramic block

### Applications

- Wireless Infrastructure applications
- High-performance carrier-grade active antennas and outdoor Metro-cells for 4-10W at the antenna port.
- Wide-band DAS, Repeaters, or small-cells requiring multi-channel or carrier aggregation

### Description

Ceramic waveguide duplexer based on ClearPlex technology supports FDD frequency bands. Provides superior rejection, insertion loss, reliability, as well as both peak and average power handling compared to other duplexer technologies. Performance is comparable to compact Air Cavity in dramatically smaller size.

### 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 | - | - | - | 20.0 Watt max |
| Peak Input Power | - | - | - | 200 Watt max |
| Passive Intermodulation (2x 5W) | - | - | - | -110 dBm |
| Lightning Surge Handling at Ant port | - | - | - | > 10 kA (TBC) |
| **Antenna to UL Response** | | | | |
| Passband Insertion Loss (5 MHz avg) | 1920 - 1980 | 0.8 dB | 0.9 dB max | <1.1 dB max |
| Passband Return Loss | 1920 - 1980 | | | 16 dB min |
| Attenuation: | 2110 - 2170 | 77 dB | | >75 dB min |
| **DL to Antenna Response** | | | | |
| Passband Insertion Loss (5 MHz avg) | 2110 - 2170 | 1.0 dB | 1.1 dB max | <1.3 dB max |
| Passband Return Loss | 2110 - 2170 | | | 16 dB min |
| Attenuation: | 1920 - 1980 | 93 dB | | >90 dB min |
| **DL to UL Response** | | | | |
| Attenuation for UL band | 1920 - 1980 | 95 dB | | >90 dB min |
| Attenuation for Transition band | 1980 - 2110 | | | >55 dB min |
| Attenuation for DL band | 2110 - 2170 | 80 dB | | >75 dB min |

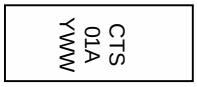
Note: CTS tests each unit to the critical specifications above. Subsequent audits may deviate due to repeatability among different test systems which shall not exceed these allowances.

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

## Mechanical Drawing

## PCB Layout (Top-Down View)

## Packaging and Marking




Product is shipped in
Pre-formed foam trays

The trays have xx slots each with one filter per slot. Boxes are packed with 12 Trays per box for a total of xx filters per box.

## Electrical Response