

CMD001B - PRELIMINARY

Band 1 CMD Series Duplexer

Features

- Low Loss with High Rejection
- Close-in rejection for Cat B and 3GPP Rx Blocker specs
- 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	1.1 dB	< 1.3 dB max	<1.5 dB max
Passband Insertion Loss (20 MHz avg)	1920 - 1980	1.1 dB	< 1.3 dB max	<1.5 dB max
Passband Return Loss	1920 - 1980			16 dB min
Attenuation:	2110 - 2170	85 dB		>77 dB min

DL to Antenna Response

Passband Insertion Loss (5 MHz avg)	2110 - 2170	1.5 dB	<1.7 dB max	<1.9 dB max
Passband Insertion Loss (20 MHz avg)	2110 - 2170	1.3 dB	<1.3 dB max	< 1.5 dB max
Passband Return Loss	2110 - 2170			16 dB min
Attenuation:	1920 - 1980	91 dB		>80 dB min

DL to UL Response

Attenuation for UL band	1920 - 1980	91 dB		>80 dB min
Attenuation for Transition band	1980 - 2110			>55 dB min
Attenuation for DL band	2110 - 2170	85 dB		>77 dB min

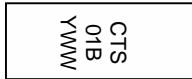
Note: CTS tests each unit to the critical specifications above. Subsequent audits may deviate due to repeatability among different test systems which shall not exceed these allowances.

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

Mechanical Drawing

PCB Layout (Top-Down View)

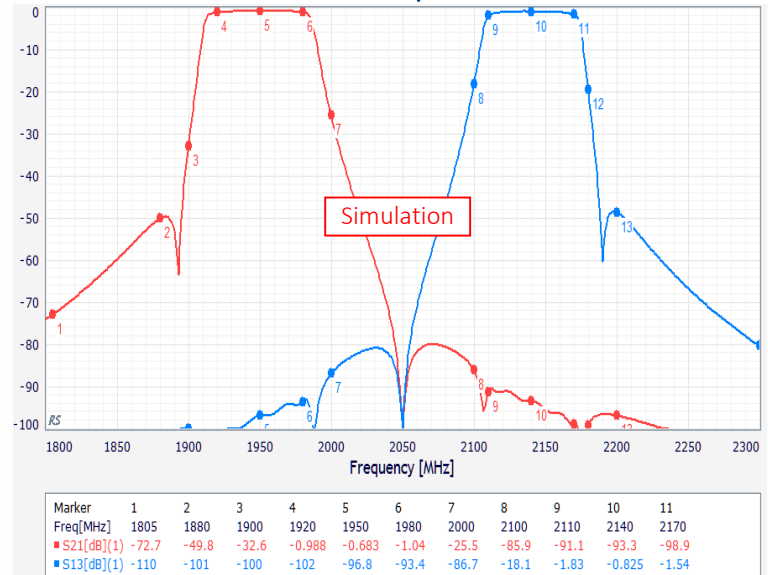
Packaging and Marking



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





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 - 1805			>70 dB min
	1805 - 1880			>47 dB min
	1900			20 dB min
	2000			20 dB min
	2300 - 2483			>60 dB min
DL to Antenna Response				
Attenuation:	1 - 1920			>70 dB min
	1920 - 1980			>80 dB min
	2100			15 dB min
	2180			15 dB min
	2300 - 2483			>60 dB min