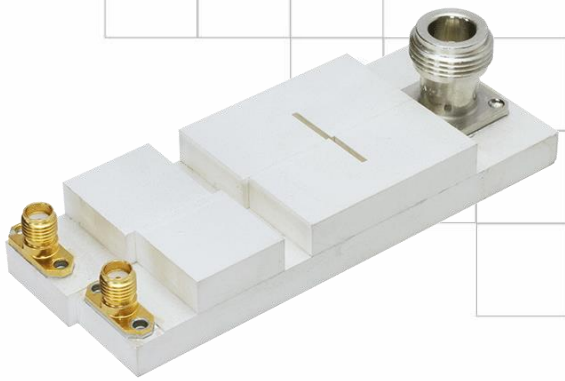
Product Brief

CMD007B - PRELIMINARY

Band 7 CMD Series Duplexer



Part Dimensions: ESTIMATE <140 × <50 × <14.5 mm • <325 g
Materials: Ag plated ceramic block

Features

- Close-in rejection for CEPT19 and OFCOM compliance
- Low Loss 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.

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 (10 MHz avg)	2500 - 2570	1.5dB		1.9 dB max
Passband Return Loss	2500 - 2570			16 dB min
Attenuation:	2620 - 2690			96 dB min est TBC
DL to Antenna Response				
Passband Insertion Loss (10 MHz avg)	2620 - 2690	1.5 dB		1.9 dB max
Passband Return Loss	2620 - 2690			16 dB min
Attenuation:	2500 - 2570			100 dB min est TBC
DL to UL Response				
Attenuation for UL band	2500 - 2570			100 dB min est TBC
Attenuation for Transition band	2570 - 2620			70 dB min
Attenuation for DL band	2620 - 2690			96 dB min est TBC

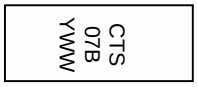
Note: CTS tests each unit to the critical specifications above. Subsequent audits may deviate due to repeatability among different test systems which shall not exceed these allowances.

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

Mechanical Drawing

PCB Layout (Top-Down View)

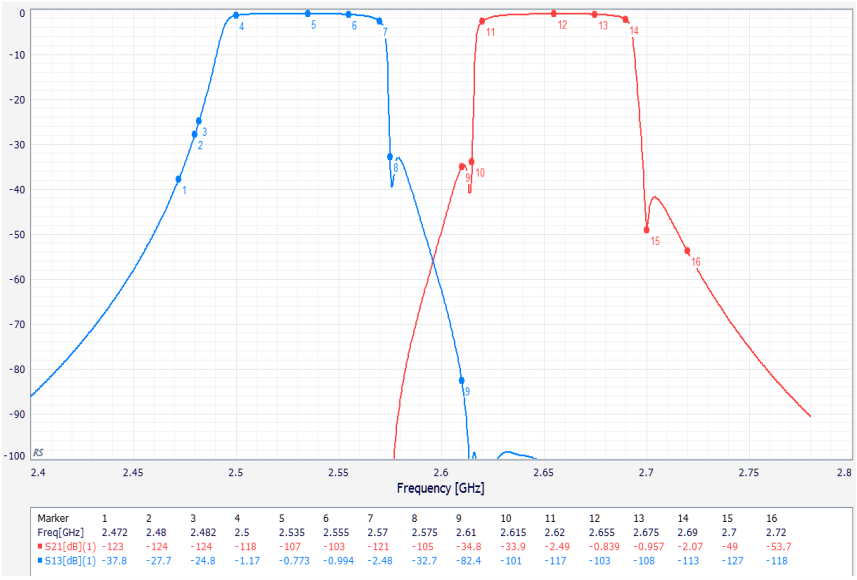
Packaging and Marking



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 - 2400	85 dB		80 dB min
	2400 - 2472	37 dB		30 dB min
	2575 - 2620	32 dB		25 dB min
	2690-3550(?)			70 dB min(?)
DL to Antenna Response				
Attenuation:	1 - 2500			>80 dB min
	2570-2615	32 dB		27 dB min
	2700 - 2720	40dB		15 dB min
	2720 - 2800	50dB		35 dB min
	2800-3550(?)			70 dB min(?)