

UMD012A Band 12 UMD Series Duplexer

Features

- Low Loss with High Rejection
- Superior power handling and reliability
- Universal footprint across all UMD Series frequency bands
- Available for either PCB mounting or with various connectors including SMA, SMP-Max, and other options.



Available as direct-solder to PCB or with various connector options.

ESTIMATE Part Dimensions: 64 × 29 × 16 mm • <105 g (excl. connectors)
Materials: Ag plated ceramic block with tin plated brass shield

Applications

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

Description

Ceramic duplexer supports a universal footprint across all FDD frequency bands < 1 GHz 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	-	-	-	20.0 Watt max
Peak Input Power	-	-	-	200 Watt max
Passive Intermodulation (2x 5W)	-	-	-	-106 dBm TBC

Antenna to UL Response

Passband Insertion Loss (5 MHz avg)	699 - 715			2.1 dB max
Passband Return Loss	699 - 715			15 dB min TBC
Attenuation:	729 - 745			77 dB min

DL to Antenna Response

Passband Insertion Loss (5 MHz avg)	729 - 745			2.1 dB max
Passband Return Loss	729 - 745			15 dB min TBC
Attenuation:	699 - 715			80 dB min

DL to UL Response

Attenuation for UL band	699 - 715			80 dB min
Attenuation for Transition band	716 - 728			55 dB min
Attenuation for DL band	729 - 745			77 dB min

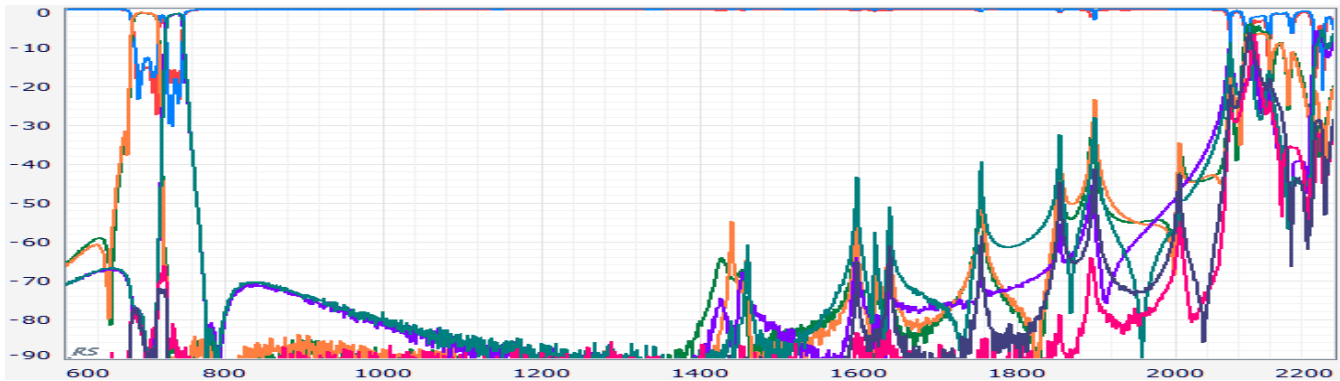
Note: CTS tests each unit to the critical specifications above. Subsequent audits may deviate due to repeatability among different test systems which shall not exceed these allowances.

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

TBC = To be confirmed

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 - 617			>60 dB min
	617 - 652			47 dB min
	678			20 dB min
	722 - 727			32 dB min
	746 - 894			47 dB min
DL to Antenna Response				
Attenuation:	1 - 663			>60 dB min
	663-698			>50 dB min
	717 - 722			28 dB min
	777-849			>50 dB min



Ordering Options

Part Number	Code	Connector Option Description
UMD012A	[blank]	No pins or connectors
	-C3	3 SMP-Com Male with limited detent
	-CF2	SMP-Com Male with limited detent antenna port + 2 SMP female cables
	-M3	3 SMP-Max Slide-type Male
	-NS2	N-type antenna port + 2 SMA Male (CMD only)
	-P3	3 thru-hole pins for soldering to PCB (UMD only)
	-S3	3 SMA Female