

# **Product Brief**





# **UMD001A - Preliminary Band 1 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 directsolder to PCB or with various connector options.

ESTIMATE Part Dimensions: 64 × 29 × 13 mm • <90 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 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.

#### **Flectrical Specifications**

Parameter	Frequency	Typical	Spec.	Spec. over
i ai ai i i e te i	(MHz)	at 25°C	at 25°C	-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)	1920 - 1980			1.8 dB max
Passband Return Loss	1920 - 1980	15 dB	14 dB min	14 dB min
Attenuation:	2110 - 2170	74 dB	72 dB min	72 dB min
DL to Antenna Response				
Passband Insertion Loss (5 MHz avg)	2110 - 2170			1.8 dB max
Passband Return Loss	2110 - 2170	15 dB	14 dB min	14 dB min
Attenuation:	1920 - 1980	80 dB	78 dB min	78 dB min
DL to UL Response				
Attenuation for UL band	1920 - 1980	82 dB	80 dB min	80 dB min
Attenuation for DL band	2110 - 2170	76 dB	74 dB min	74 dB min
Note: CTS tests each unit to the critical speci		Specification A		TBC = To be confirmed
Subsequent audits may deviate due to repea different test systems which shall not exceed		Insertion Loss Return Loss	0.1 dB 1.0 dB	

Attenuation 1.0 dB

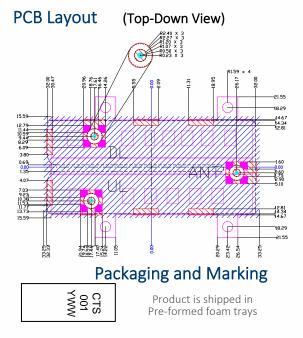


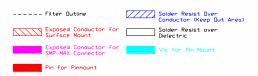
### **Mechanical Drawing**

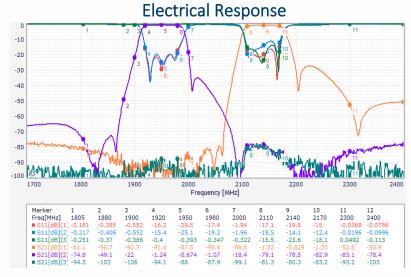
# Preliminary - UMD001A

Band 1 UMD Series Duplexer

Dim.	Nominal (mm)	Tolerance (±mm or Max)	
Α	64.00	Max	
В	29.00	Max	
С			
D			
Е			
F			
G			
Н			
J			
K			







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.

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# 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 - 1804			60 dB min
	1805 - 1880			47 dB min
	1900			5 dB min
	2000			5 dB min
	2181 - 2483			60 dB min
DL to Antenna Response				
Attenuation:	1 - 1919			60 dB min
	2300 - 2483			50 dB min

# **Ordering Options**

Part Number	Code	Connector Option Description
UMD001A	[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
	-P3	3 thru-hole pins for soldering to PCB
	-S3	3 SMA Female