

## UMD030A Band 30 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 × 12 mm • <100 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

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 min <b>TBC</b>

#### Antenna to UL Response

Passband Insertion Loss (10 MHz avg)	2305 - 2315		1.8 dB max
Passband Return Loss	2305 - 2315		14 dB min
Attenuation:	2350 - 2360		72 dB min

#### DL to Antenna Response

Passband Insertion Loss (5 MHz avg)	2350 - 2360		1.8 dB max
Passband Return Loss	2350 - 2360		14 dB min
Attenuation:	2305 - 2315		77 dB min

#### DL to UL Response

Attenuation for UL band	2305 - 2315		78 dB min
Attenuation for DL band	2350 - 2360		73 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.

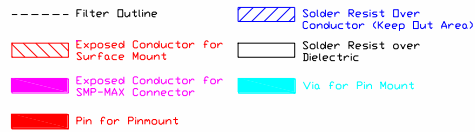
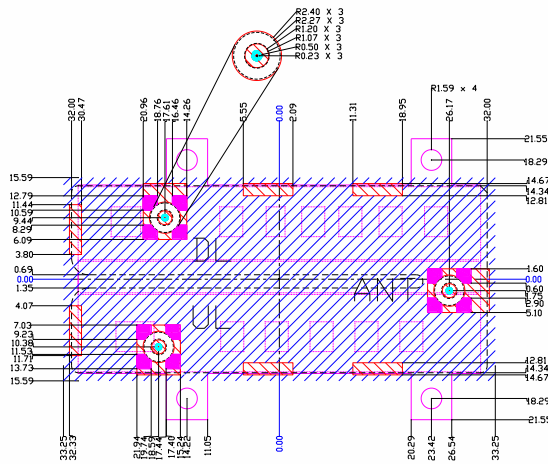
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

**TBC** = To be confirmed

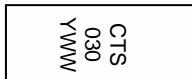
Mechanical Drawing

Dim.	Nominal (mm)	Tolerance ( $\pm$ mm or Max)
A	64.00	Max
B	29.00	Max
C		
D		
E		
F		
G		
H		
I		
J		0.13
K		0.20

PCB Layout (Top-Down View)



Packaging and Marking



Product is shipped in Pre-formed foam trays

Electrical Response

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 Specifications – Supplemental Spectrum Specifications

Parameter	Frequency (MHz)	Typical at 25°C	Spec. at 25°C	Spec. over -40°C to +85°C
<b>Antenna to UL Response</b>				
Attenuation:	1 - 2200			>58-60 dB min flex
	2285			>5 dB min flex
	2335			>5 dB min flex
	2402 - 2690			>58-60 dB min
<b>DL to Antenna Response</b>				
Attenuation:	1 - 2304			>58-60 dB min
	2402 - 2483			>38-40 dB min >47-50 dB min flex
	2496 - 2690			>47-50 dB min

### Ordering Options

Part Number	Code	Connector Option Description
UMD030A	[blank]	No pins or connectors
	-C3	3 SMP-Com Male with limited detent
	-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