

UMD030A - Preliminary

Band 30 UMD Series Duplexer

Features

- Low Loss with High Rejection
- Superior power handling and reliability
- Universal footprint across all UMD Series frequency bands
- Equivalent to UMD030A-C3.

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 TBC

Antenna to UL Response

Passband Insertion Loss (10 MHz avg)	2305 - 2315	2.2 dB	2.4 dB max	2.4 dB max
Passband Return Loss	2305 - 2315	15 dB	14 dB min	14 dB min
Attenuation:	2350 - 2360	74 dB	72 dB min	72 dB min

DL to Antenna Response

Passband Insertion Loss (10 MHz avg)	2350 - 2360	2.7 dB	2.9 dB max	2.9 dB max
Passband Return Loss	2350 - 2360	15 dB	14 dB min	14 dB min
Attenuation:	2305 - 2315	80 dB	77 dB min	77 dB min

DL to UL Response

Attenuation for UL band	2305 - 2315	81 dB	78 dB min	78 dB min
Attenuation for DL band	2350 - 2360	75 dB	73 dB min	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



ESTIMATE Part Dimensions: 64 x 29 x 12 mm • <100 g (excl. connectors)
Materials: Ag plated ceramic block with tin plated brass shield

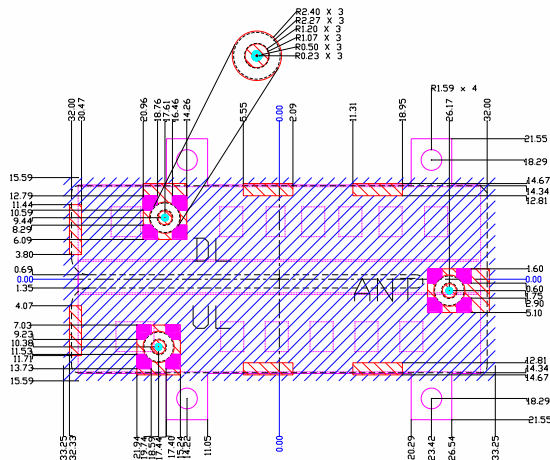


Mechanical Drawing

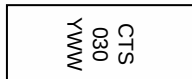
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PCB Layout (Top-Down View)



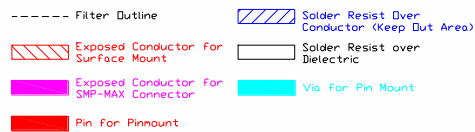
Packaging and Marking



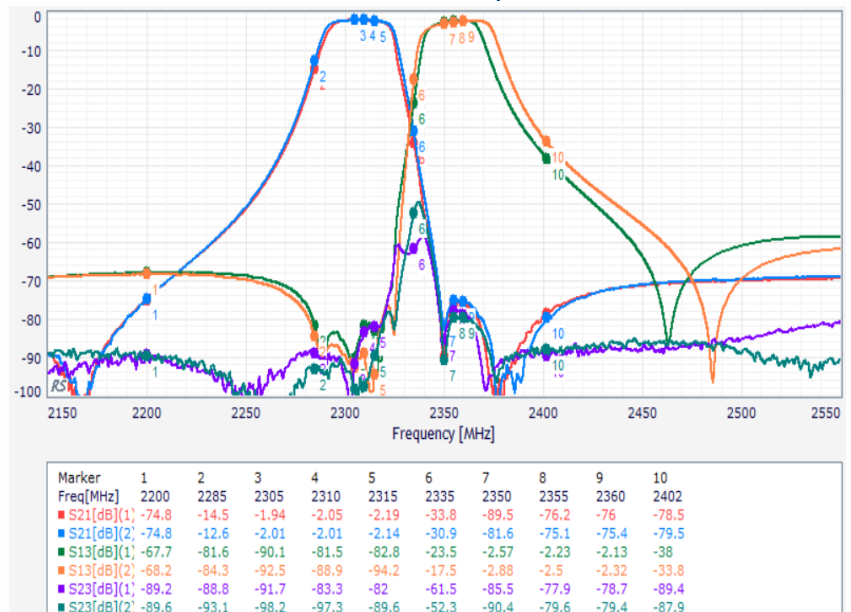
Product is shipped in Pre-formed foam trays

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.

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



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 - 2200		60 dB min	60 dB min
	2285		7 dB min	5 dB min
	2335		7 dB min	5 dB min
	2402 - 2690		60 dB min	60 dB min
DL to Antenna Response				
Attenuation:	1 - 2304		60 dB min	60 dB min
	2402 - 2483		31 dB min	30 dB min
	2496 - 2690		50 dB min	50 dB min

Ordering Options

Part Number	Code	Connector Option Description
RMD030B	[blank]	3 SMP-Com Male with limited detent