

UMD071A

Band 71 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 × 19 mm • <120 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 TBC

Antenna to UL Response (**WARNING HB is UL**)

Passband Insertion Loss (5 MHz avg)	663 - 698	2.6 dB max
Passband Return Loss	663 - 698	14 dB min
Attenuation:	617 - 652	72 dB min

DL to Antenna Response (**WARNING LB is DL**)

Passband Insertion Loss (5 MHz avg)	617 - 652	2.6 dB max
Passband Return Loss	617 - 652	14 dB min
Attenuation:	663 - 698	77 dB min

DL to UL Response

Attenuation for UL band	663 - 698	78-80 dB min
Attenuation for DL band	617 - 652	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.

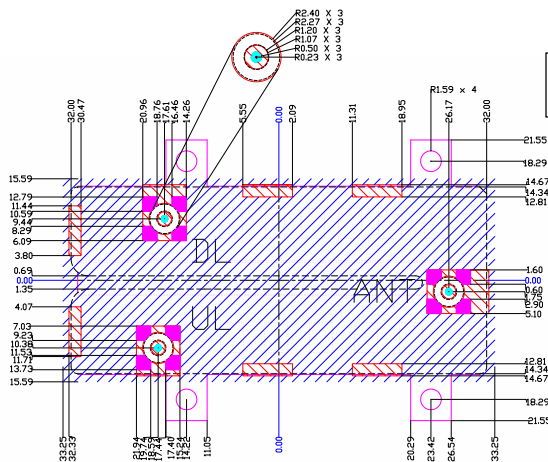
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

TBC = To be confirmed

Mechanical Drawing

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

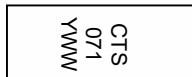
PCB Layout (Top-Down View)



WARNING: HB is UL and LB is DL

- Filter Outline
- Exposed Conductor for Surface Mount
- Exposed Conductor for SMP-MAX Connector
- Pin for Pinmount
- Solder Resist Over Conductor (Keep Out Area)
- Solder Resist over Dielectric
- Via for Pin Mount

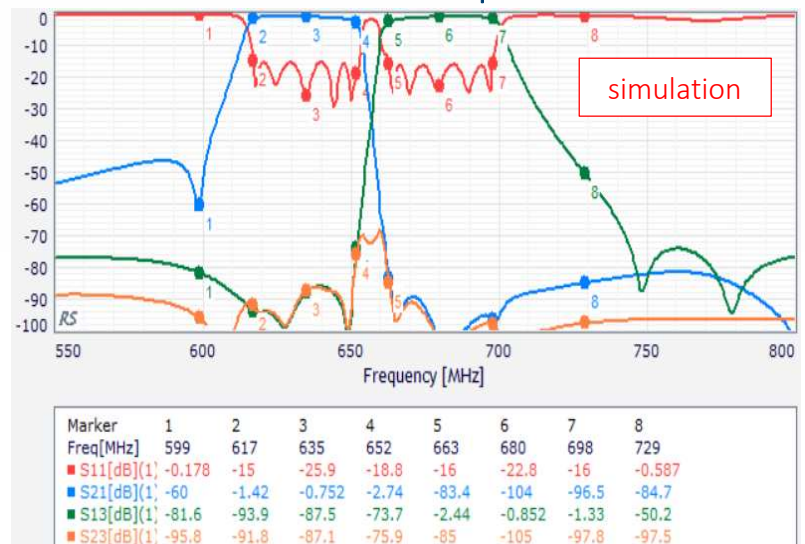
Packaging and Marking



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 - 616			>58-60 dB min
	729 - 894			>47-50 dB min
DL to Antenna Response				
Attenuation:	1 – 599 flex			>15-18 dB min flex
	698 - 849			>58-60 dB min

Ordering Options

Part Number	Code	Connector Option Description
UMD071A	[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