Product Brief

UMD025A - Preliminary

Band 25 UMD Series Duplexer

Available as direct-solder 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

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.

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.

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 TBC
Antenna to UL Response				
Passband Insertion Loss (5 MHz avg)	1850 - 1915	2.4 dB	2.6 dB max	2.6 dB max
Passband Return Loss	1850 - 1915	15 dB	14 dB min	14 dB min
Attenuation:	1932 - 1995	72 dB	70 dB min	70 dB min
	1930 - 1931	57 dB	55 dB min	52 dB min
DL to Antenna Response				
Passband Insertion Loss (5 MHz avg)	1930 - 1995	2.4 dB	2.6 dB max	2.6 dB max
Passband Return Loss	1930 - 1995	15 dB	14 dB min	14 dB min
Attenuation:	1850 - 1910	79 dB	77 dB min	77 dB min
	1911 - 1913	63 dB	61 dB min	58 dB min
	1914 - 1915	57 dB	55 dB min	52 dB min
DL to UL Response				
Attenuation for UL band (5 MHz avg)	1910 - 1915	58 dB	55 dB min	55 dB min
	1850 - 1910	80 dB	78 dB min	78 dB min
Attenuation for DL band (5 MHz avg)	1930 - 1935	58 dB	55 dB min	55 dB min
	1935 - 1995	73 dB	70 dB min	70 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.

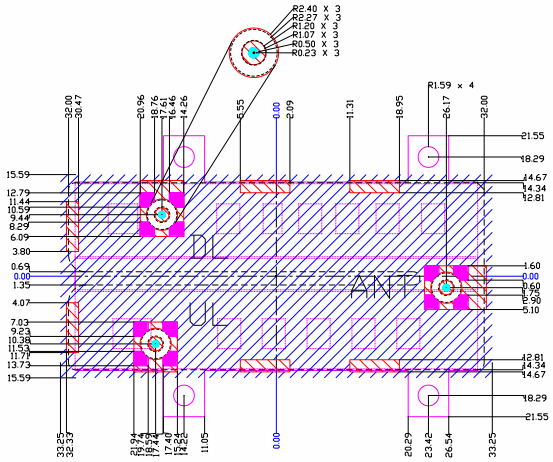
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

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		
K		

PCB Layout (Top-Down View)



Packaging and Marking

CTS
025
YWW

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
Antenna to UL Response				
Attenuation:	1 - 1684			50 dB min optional
	1685 - 1785			35 dB min optional
	1830			5 dB min optional
	1996 - 2483			52 dB min
	2484 - 2690			52 dB min
DL to Antenna Response				
Attenuation:	1 - 1850			52 dB min
	2110-2200			35 dB min optional
	2200 - 2483			52 dB min optional
	2484 - 2690			52 dB min optional

Ordering Options

Part Number	Code	Connector Option Description
UMD0025A	[blank]	No pins or connectors
	-C3	3 SMP-Com Male with limited detent
	-M3	3 SMP-Max Slide-type Male
	-P3	3 thru-hole pins for soldering to PCB
	-S3	3 SMA Female