Product Brief

UMD026B - PRELIMINARY

Subset of Band 26 (817-849/862-894)

ESTIMATE Part Dimensions: 64 × 29 × 17 mm • <105 g
Materials: Ag plated ceramic block with tin plated brass shield

Features

- Subset of Band 26 & extended Band 5 for North American uses
- 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 < 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 (TBC)
Antenna to UL Response				
Passband Insertion Loss (5 MHz avg)	817 - 849	2.2 dB	2.4 dB max	2.5 dB max
Passband Return Loss	817 - 849			14 dB min
Attenuation:	862 - 894			74 dB min
DL to Antenna Response				
Passband Insertion Loss (5 MHz avg)	862 - 894	2.2 dB	2.4 dB max	2.5 dB max
Passband Return Loss	862 - 894			14 dB min
Attenuation:	814 - 849			78 dB min
DL to UL Response				
Attenuation for UL band	817 - 849			80 dB min
Attenuation for Transition band	849 - 862			55 dB min
Attenuation for DL band	862 - 894			74 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

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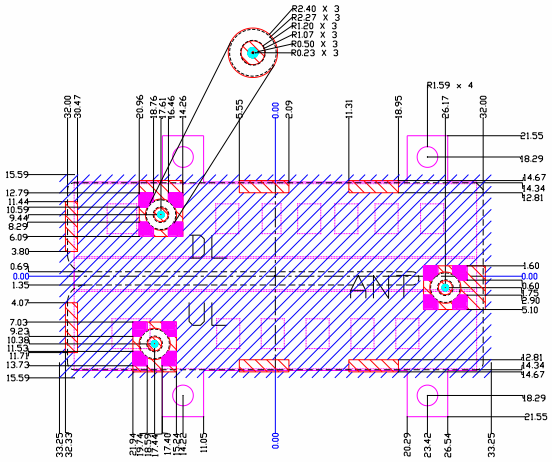
Mechanical Drawing

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

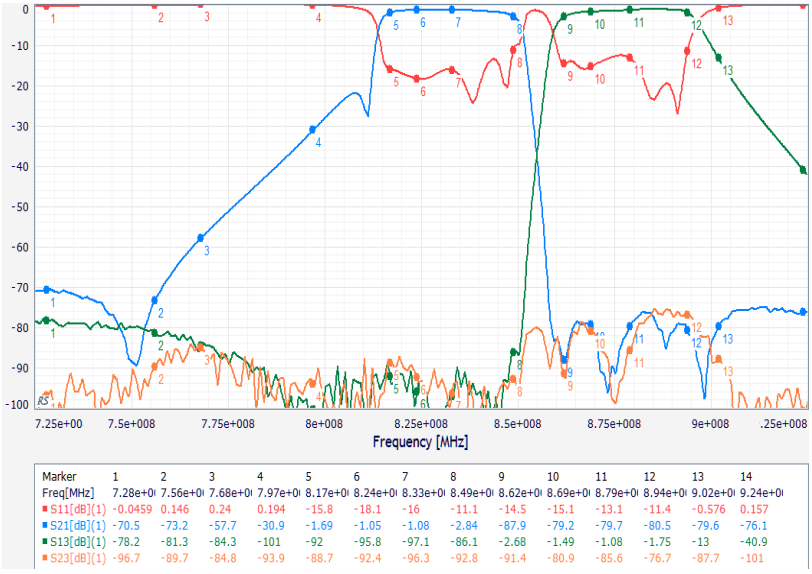
PCB Layout (Top-Down View)



Packaging and Marking

Product is shipped in Pre-formed foam trays

Electrical Response

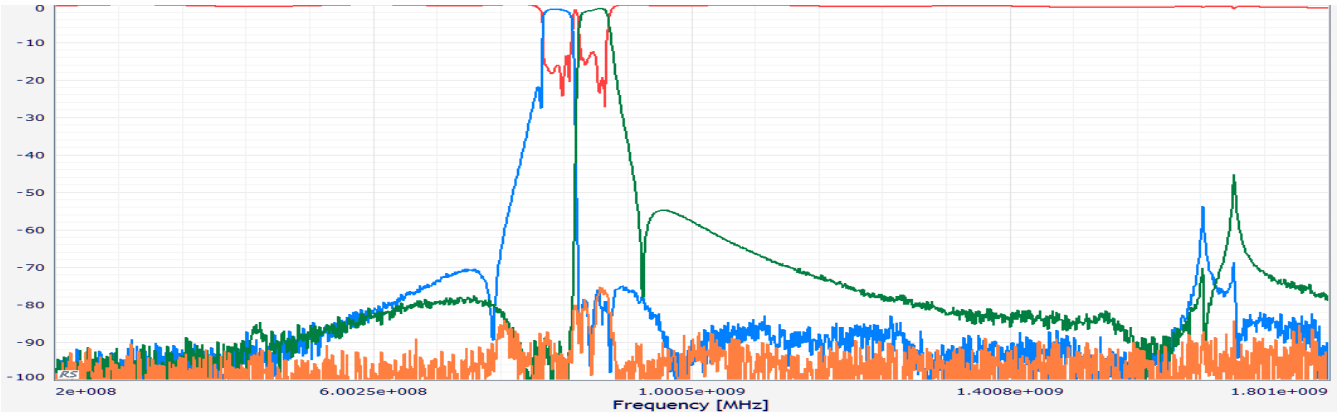


Marker	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Freq[MHz]	7.28e+0	7.56e+0	7.68e+0	7.97e+0	8.17e+0	8.24e+0	8.33e+0	8.49e+0	8.62e+0	8.69e+0	8.79e+0	8.94e+0	9.02e+0	9.24e+0
S11[dB](1)	-0.0459	0.146	0.24	0.194	-15.8	-18.1	-16	-11.1	-14.5	-15.1	-13.1	-11.4	-0.576	0.157
S21[dB](1)	-70.5	-73.2	-57.7	-30.9	-1.69	-1.05	-1.08	-2.84	-87.9	-79.2	-79.7	-80.5	-79.6	-76.1
S13[dB](1)	-78.2	-81.3	-84.3	-101	-92	-95.8	-97.1	-86.1	-2.68	-1.49	-1.08	-1.75	-13	-40.9
S23[dB](1)	-96.7	-89.7	-84.8	-93.9	-88.7	-92.4	-96.3	-92.8	-91.4	-80.9	-85.6	-76.7	-87.7	-101

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 - 728			>50 dB min
	728 - 756			>41 dB min
	756 - 768			>35 dB min
	768 - 797			15-18 dB min
	894-1880(?)			>50 dB min
DL to Antenna Response				
Attenuation:	1 - 814			>60 dB min
	902 - 924			10 dB min
	924 - 1020			>40 dB min
	1020-1785(?)			>50 dB min



Ordering Options

Part Number	Code	Connector Option Description
UMD026B	[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
	-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