

Miniature OEM Wireless Digital Data Link

The all new pMDDL900 Digital Data Link is a miniature OEM, high power, 2x2 MIMO 900 MHz wireless OEM solution that provides the bandwidth and range needed for complex data intensive applications. The Pico MIMO DDL features 2x2 MIMO Digital Data Link, using Maximal Ratio Combining (MRC), Maximal Likelihood (ML) decoding and Low-Density Parity Check (LDPC) to achieve robust RF performance. The pMDDL features secure & simultaneous Ethernet and Serial Data communications.

2X2 MIMO

Up to 21 Mbps

Small Footprint

Ethernet + Serial

PTP | PMP | Relay | MESH

Only 7 grams!

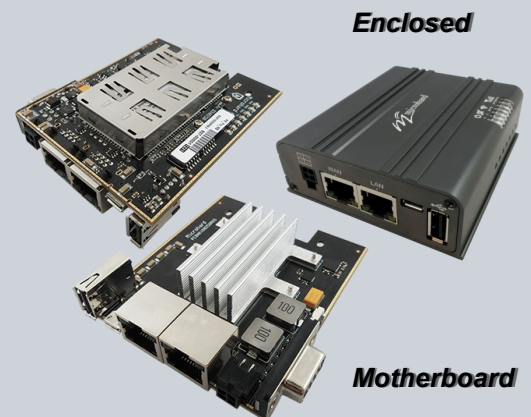


1.05" X 2.0" X 0.11"

pMDDL Features

- Robust 2X2 MIMO 900 MHz Operation
- Maximal Ratio Combining (MRC), Maximal Likelihood (ML) decoding
- Low-Density Parity Check (LDPC)
- Up to 21 Mbps Iperf Throughput @ 8 MHz channel (-78 dBm)
Up to 2 Mbps IPerf Throughput @ 4 MHz channel (-102 dBm)
- Extremely small foot print and very lightweight
- Serial Communication Port
- Dual 10/100 Ethernet Ports (LAN/WAN)
- Point-to-Point, Point-to-Multipoint & MESH Networks
- Master, Remote, Relay Operating Modes.
- Adjustable total transmit power (up to 1W)
- Interface through local console, telnet, and web browser
- Local and remote wireless firmware upgrading through FTP

Interface Options



Specifications

Frequency		902 - 928 MHz	Optimal Performance Specifications			
Error Detection		32 bits of CRC, ARQ	Modulation	IPerf Throughput (Mbps)	Optimal MRC Sensitivity (dBm)	Total Tx Power (dBm) +/- 1dB
Encryption (Requires Export Permit)		128-bit AES (Optional 256-bit)				
Ports		Serial Data/Console Ethernet USB RS232 TTL level (300bps to 921kbps) Dual 10/100BaseT IEEE802.3 (LAN/WAN) 2.0 (Future Development)	8 MHz (2X2 MIMO ON)			
Firewall	Port Forwarding, Access Control, IP/MAC List.		BPSK_1/2	3.1	-99.5	30dBm
			QPSK_1/2	6.0	-98	30dBm
			QPSK_3/4	8.4	-96	30dBm
			16QAM_1/2	10.7	-92	30dBm
			16QAM_3/4	14.8	-90	30dBm
Operating Modes	Point-to-Point, Point-to-Multipoint, Repeater, Mesh	64QAM_2/3	18.1	-85	30dBm	
		64QAM_3/4	19.0	-83.5	30dBm	
		64QAM_5/6	21.0	-81	30dBm	
Diagnostics		Remote Diagnostics, Ping, Traceroute, ARP table, DHCP active leases, IPerf, RSSI	4 MHz (2X2 MIMO ON)			
Management	Local Serial Port Console, Telnet, WebUI, SNMP, FTP Upgrade, TFTP, CLI (Command Line Interface)	BPSK_1/2	1.57	-102.5	30dBm	
		QPSK_1/2	3.0	-101	30dBm	
		QPSK_3/4	4.3	-99	30dBm	
Rejection	Excellent strong signal interference & rejection characteristics	16QAM_1/2	5.4	-95.5	30dBm	
		16QAM_3/4	7.4	-93	30dBm	
Input Voltage	OEM Enclosed	Digital Voltage = 3.3V / RF Voltage = 4.2V 7 - 30 VDC	64QAM_2/3	7.8	-88	30dBm
			64QAM_3/4	8.0	-86	30dBm
			64QAM_5/6	10.0	-83.5	30dBm
Connectors:		OEM Antenna: UFL x2 (ANT1, ANT2) Data: 116 Pin SMT	Modulation	IPerf Throughput (Mbps)	Optimal MRC Sensitivity (dBm)	Total Tx Power (dBm) +/- 1dB
Enclosed	Antenna: RP-SMA Female x2 Data: RJ-45 x2 (Ethernet) Female DB9 (Serial) USB Type A Micro-AB USB (Console) 4 PIN Interlock (Vin)					
		8 MHz (MIMO OFF)				
Environmental	Temperature Humidity	-40°F to 185°F (-40°C to +85°C) 5-95%, non-condensing	BPSK_1/2	3.1	-96.5	30dBm
			QPSK_1/2	6.0	-95	30dBm
			QPSK_3/4	8.4	-93	30dBm
Weight	OEM Enclosed	Approx. 7 grams Approx. 230 grams	16QAM_1/2	10.7	-89	30dBm
			16QAM_3/4	14.8	-87	30dBm
			64QAM_2/3	18.1	-82	28dBm
Dimensions	OEM Enclosed	Approx. 1.05" x 2.0" x .11" (26.5mm x 51mm x 2.8mm) Approx. 3.20" x 3.50" x 1.15" (81mm x 88mm x 29mm)	64QAM_3/4	19.0	-80.5	28dBm
			64QAM_5/6	21.0	-78	27dBm
			4 MHz (MIMO OFF)			
Approvals	FCC / IC RoHS Compliant		BPSK_1/2	1.57	-99.5	30dBm
			QPSK_1/2	3.0	-98	30dBm
			QPSK_3/4	4.3	-96	30dBm
Order Options	pMDDL900 pMDDL900-ENC	2X2 MIMO 900 MHz OEM DDL Module 2X2 MIMO 900 MHz Enclosed DDL Module	16QAM_1/2	5.4	-92.5	30dBm
			16QAM_3/4	7.4	-90	30dBm
			64QAM_2/3	7.8	-85	28dBm
			64QAM_3/4	8.0	-83	28dBm
			64QAM_5/6	10.0	-80.5	27dBm

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