

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, USB and Serial Data communications.

2X2 MIMO

Up to 21 Mbps

Small Footprint

Ethernet + Serial + USB

PTP | PMP | Relay | MESH

Only 7 grams!

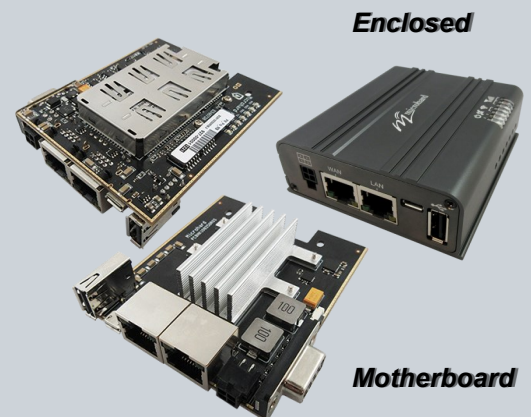


1.05" X 2.0" X 0.11"

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 AES)				
Ports	Serial Data/Console Ethernet USB	RS232 TTL level (300bps to 921kbps) Dual 10/100BaseT IEEE802.3 (LAN/WAN) 2.0	8 MHz (2X2 MIMO ON)			
			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
Firewall		Port Forwarding, Access Control, IP/MAC List.	16QAM_3/4	14.8	-90	30dBm
Operating Modes		Point-to-Point, Point-to-Multipoint, Repeater, Mesh	64QAM_2/3	18.1	-85	30dBm
Diagnostics		Remote Diagnostics, Ping, Traceroute, ARP table, DHCP active leases, IPerf, RSSI	64QAM_3/4	19.0	-83.5	30dBm
Management		Local Serial Port Console, Telnet, WebUI, SNMP, FTP Upgrade, TFTP, CLI (Command Line Interface)	64QAM_5/6	21.0	-81	30dBm
Rejection		Excellent strong signal interference & rejection characteristics	4 MHz (2X2 MIMO ON)			
Input Voltage		OEM Enclosed Digital Voltage = 3.3V / RF Voltage = 4.2V 7 - 30 VDC	BPSK_1/2	1.57	-102.5	30dBm
Connectors:		OEM Antenna: UFL x2 (ANT1, ANT2) Data: 116 Pin SMT	QPSK_1/2	3.0	-101	30dBm
	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)	QPSK_3/4	4.3	-99	30dBm
Environmental		Temperature Humidity -40°F to 185°F (-40°C to +85°C) 5-95%, non-condensing	16QAM_1/2	5.4	-95.5	30dBm
Weight		OEM Enclosed ~7 grams ~230 grams	16QAM_3/4	7.4	-93	30dBm
Dimensions		OEM Enclosed ~1.05" x 2.0" x .11" (26.5mm x 51mm x 2.8mm) ~3.20" x 3.50" x 1.15" (81mm x 88mm x 29mm)	64QAM_2/3	7.8	-88	30dBm
Approvals		FCC / IC RoHS Compliant	64QAM_3/4	8.0	-86	30dBm
			64QAM_5/6	10.0	-83.5	30dBm
Order Options			8 MHz (MIMO OFF)			
	MHK185900	2X2 MIMO 900 MHz OEM DDL Module	BPSK_1/2	3.1	-96.5	30dBm
	MHK185950	2X2 MIMO 900 MHz Enclosed DDL Module	QPSK_1/2	6.0	-95	30dBm
			QPSK_3/4	8.4	-93	30dBm
			16QAM_1/2	10.7	-89	30dBm
			16QAM_3/4	14.8	-87	30dBm
			64QAM_2/3	18.1	-82	28dBm
			64QAM_3/4	19.0	-80.5	28dBm
			64QAM_5/6	21.0	-78	27dBm
			4 MHz (MIMO OFF)			
			BPSK_1/2	1.57	-99.5	30dBm
			QPSK_1/2	3.0	-98	30dBm
			QPSK_3/4	4.3	-96	30dBm
			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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