

Miniature OEM Wireless Digital Data Link

The Pico MIMO Digital Data Link is a miniature OEM, high power, 2x2 MIMO 2.5GHz 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.

> 30km Range

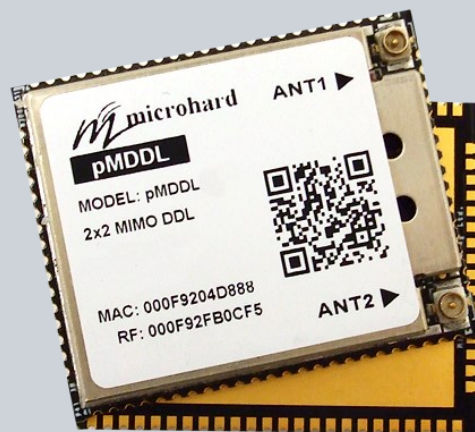
Up to 25Mbps

34dBm (2.5W)

Ethernet + Serial + USB

Mesh | Multipoint | Relay

Only 7 grams!

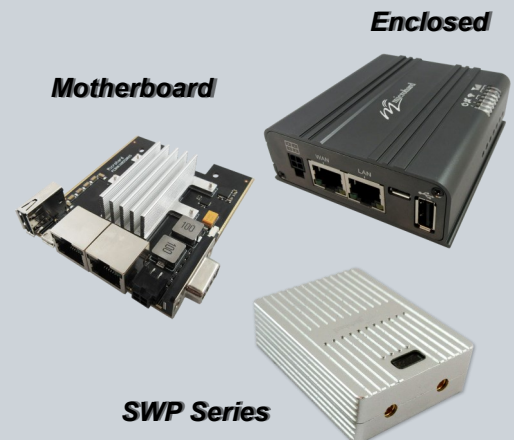


1.3" X 1.05" X 0.14"

pMDDL Features

- Robust 2X2 MIMO 2.5GHz Operation
- Adjustable total transmit power (up to 36dBm)
- Maximal Ratio Combining (MRC), Maximal Likelihood (ML) decoding
- Low-Density Parity Check (LDPC)
- Up to 25Mbps Iperf Throughput @ 8MHz channel (-78dBm)
Up to 2Mbps IPerf Throughput @ 4MHz channel (-102dBm)
- Extremely small foot print and very lightweight
- Serial Communication Port
- Dual 10/100 Ethernet Ports (LAN/WAN)
- Supports Point-to-Point, Point-to-Multipoint and Mesh Networks
- Master, Remote, Relay, Mesh Operating Modes.
- Interface through local console, telnet, and web browser
- Local and remote wireless firmware upgrading through FTP

Interface Options



Specifications

Frequency		2.500 - 2.570 GHz	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		RS232 TTL level (300 bps - 230 kbps) Dual 10/100BaseT IEEE802.3 (LAN/WAN) 2.0 Ethernet USB	8 MHz (2X2 MIMO ON)			
			BPSK_1/2	3	-99.5	34dBm
			QPSK_1/2	5.9	-98	34dBm
Firewall		Port Forwarding, Access Control, IP/MAC List.	QPSK_3/4	8.8	-96	34dBm
Operating Modes			16QAM_1/2	11.6	-92	34dBm
			16QAM_3/4	17.1	-90	31dBm
Diagnostics		Remote Diagnostics, Ping, Traceroute, ARP table, DHCP active leases, IPerf, RSSI	64QAM_2/3	22.8	-85	30dBm
			64QAM_3/4	25.5	-83.5	30dBm
Management		Local Serial Port Console, Telnet, WebUI, SNMP, FTP Upgrade, TFTP, CLI (Command Line Interface)	64QAM_5/6	27.8	-81	30dBm
			4 MHz (2X2 MIMO ON)			
Rejection		Excellent strong signal interference & rejection characteristics	BPSK_1/2	1.51	-102.5	34dBm
			QPSK_1/2	2.98	-101	34dBm
Input Voltage		Digital Voltage = 3.3V / RF Voltage = 5V 7 - 30 VDC	QPSK_3/4	4.4	-99	34dBm
OEM Motherboard/ENC			16QAM_1/2	5.8	-95.5	34dBm
Connectors:		Antenna: UFL x2 (ANT1, ANT2) Data: 80 Pin SMT Antenna (ENC): RP-SMA Female Data: RJ-45 x2 (Ethernet) Female DB9 (Serial) USB Type A Micro-AB USB (Console) 4 PIN Interlock (Vin)	16QAM_3/4	8.6	-93	31dBm
OEM			64QAM_2/3	11.4	-88	30dBm
			64QAM_3/4	12.8	-86	30dBm
Motherboard/ENC			64QAM_5/6	14	-83.5	30dBm
			Modulation	IPerf Throughput (Mbps)	Optimal MRC Sensitivity (dBm)	Total Tx Power (dBm) +/- 1dB
			8 MHz (MIMO OFF)			
Environmental		Temperature Humidity	BPSK_1/2	3	-96.5	31dBm
			QPSK_1/2	5.8	-95	31dBm
Weight		~ 7 grams ~ 75 grams ~ 230 grams ~ 37 grams	QPSK_3/4	8.6	-93	31dBm
			16QAM_1/2	11.5	-89	31dBm
			16QAM_3/4	16.9	-87	30dBm
			64QAM_2/3	22.2	-82	28dBm
			64QAM_3/4	24.7	-80.5	28dBm
Dimensions		~27 x 33 x 4 mm ~70 x 83 x 23 mm ~81 x 88 x 29 mm ~36 x 48 x 15 mm	64QAM_5/6	27.4	-78	27dBm
			4 MHz (MIMO OFF)			
			BPSK_1/2	1.5	-99.5	31dBm
			QPSK_1/2	2.9	-98	31dBm
			QPSK_3/4	4.3	-96	31dBm
			16QAM_1/2	5.7	-92.5	31dBm
		16QAM_3/4	8.4	-90	30dBm	
		64QAM_2/3	11.3	-85	28dBm	
		64QAM_3/4	12.5	-83	28dBm	
		64QAM_5/6	14	-80.5	27dBm	
Order Options						
MHK185700		2X2 MIMO 2.5 GHz OEM Digital Data Link				
MHK185750		2X2 MIMO 2.5 GHz Enclosed Digital Data Link				
MHK185770		2X2 MIMO 2.5 GHz SWP Digital Data Link				

Contact Information

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