

Miniature Dual Frequency OEM Digital Data Link

The all new pMDDL5824 is a miniature OEM, high power, software selectable 2.4GHz & 5 GHz wireless digital data link solution. The Pico MIMO DDL features a 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.

2.4 & 5 GHz

Up to 25Mbps

2X2 MIMO

Ethernet + Serial + USB

Mesh | Multipoint | Relay

pMDDL5824 Features

- Robust 2X2 MIMO with Selectable 2.4 GHz or 5 GHz Operation
- Maximal Ratio Combining (MRC), Maximal Likelihood (ML) decoding
- Low-Density Parity Check (LDPC)
- Up to 25 Mbps Iperf Throughput @ 8MHz channel (-78dBm)
Up to 2 Mbps IPerf Throughput @ 2MHz channel (-102dBm)
- Extremely small foot print and very lightweight
- Serial & USB Ports
- Dual 10/100 Ethernet Ports (LAN/WAN)
- Supports Point-to-Point, Point-to-Multipoint, Mesh Networks
- Master, Remote, Relay, Mesh Operating Modes.
- Adjustable total transmit power (up to 1W)
- Interface through local console, telnet, and web browser

Only 20 grams!



1.25" X 2.25" X 0.2"



Interface Options

pMDDL5824 Motherboard



pMDDL5824 Enclosed



Specifications

Frequency (Selectable)	2.402 - 2.478 GHz 5.000 - 5.900 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)	8 MHz (2X2 MIMO ON)			
Ports Serial Data/Console Ethernet USB	RS232 TTL level (300bps to 921kbps) Dual 10/100BaseT IEEE802.3 (LAN/WAN) 2.0	QPSK_1/2	5.9	-98	30dBm
		QPSK_3/4	8.8	-96	30dBm
		16QAM_1/2	11.6	-92	30dBm
		16QAM_3/4	17.1	-90	30dBm
		64QAM_2/3	22.8	-85	30dBm
		64QAM_3/4	25.5	-83.5	30dBm
Firewall	Port Forwarding, Access Control, IP/MAC List.	64QAM_5/6	27.8	-81	30dBm
Operating Modes	Point-to-Point, Point-to-Multipoint, Relay, Mesh	4 MHz (2X2 MIMO ON)			
Diagnostics	Remote Diagnostics, Ping, Traceroute, ARP table, DHCP active leases, IPerf, RSSI	QPSK_1/2	2.98	-101	30dBm
		QPSK_3/4	4.4	-99	30dBm
Management	Local Serial Port Console, Telnet, WebUI, SNMP, FTP Upgrade, TFTP, CLI (Command Line Interface)	16QAM_1/2	5.8	-95.5	30dBm
		16QAM_3/4	8.6	-93	30dBm
		64QAM_2/3	11.4	-88	30dBm
Rejection	Excellent strong signal interference & rejection characteristics	64QAM_3/4	12.8	-86	30dBm
		64QAM_5/6	14	-83.5	30dBm
Input Voltage	OEM Enclosed Digital Voltage = 3.3V / RF Voltage = 5V 7 - 30 VDC	Modulation	IPerf Throughput (Mbps)	Optimal MRC Sensitivity (dBm)	Total Tx Power (dBm) +/- 1dB
Connectors:	OEM Enclosed Antenna(s): UFL x2 Data: 100 pin OEM Header 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)			
		QPSK_1/2	5.8	-95	30dBm
		QPSK_3/4	8.6	-93	30dBm
		16QAM_1/2	11.5	-89	30dBm
		16QAM_3/4	16.9	-87	30dBm
		64QAM_2/3	22.2	-82	28dBm
Environmental	Temperature Humidity -40°F to 185°F (-40°C to +85°C) 5-95%, non-condensing	64QAM_3/4	24.7	-80.5	28dBm
		64QAM_5/6	27.4	-78	27dBm
		4 MHz (MIMO OFF)			
Weight	OEM Enclosed ~20 grams ~230 grams	QPSK_1/2	2.9	-98	30dBm
		QPSK_3/4	4.3	-96	30dBm
Dimensions	OEM Enclosed ~1.25" x 2.25" x 0.2" (32mm x 57mm x 5mm) ~3.20" x 3.50" x 1.15" (81mm x 88mm x 29mm)	16QAM_1/2	5.7	-92.5	30dBm
		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

MHK185800	2X2 MIMO 2.4 / 5 GHz OEM DDL Module
MHK185850	2X2 MIMO 2.4 / 5 GHz Enclosed DDL Module

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