

Low Size, Weight, Power & Cost Enclosed Digital Data Link

The pMDDL2450-SWP Digital Data Link is a compact enclosed, high power, 2x2 MIMO 2.4GHz wireless solution that provides the bandwidth and range needed for complex data intensive applications. The pMDDL2450-SWP 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 pMDDL2450-SWP features secure & simultaneous Ethernet and Serial Data communications.

Only 37 grams!



36 x 48 x 15 mm

Low Cost

2X2 MIMO

Up to 25 Mbps

30 dBm (1W)

Ethernet & Serial

PTP | PMP | Relay | MESH

Features

- Robust 2X2 MIMO 2.4GHz Operation
- Adjustable total transmit power (up to 30dBm)
- 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)
- Small foot print and lightweight
- Serial Communication Port
- 10/100 Ethernet Port
- 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



**SWP Expander Board
& Interface Cable**

pMDDL2450-SWP Specifications



Frequency	2.402 - 2.478GHz
Error Detection	32 bits of CRC, ARQ
Encryption (Requires Export Permit)	128-bit AES (Optional 256-bit AES)
Ports	Serial Data/Console Ethernet USB
Firewall	Port Forwarding, Access Control, IP/MAC List
Operating Modes	Point-to-Point, Point-to-Multipoint, Relay, Mesh
Diagnostics	Remote Diagnostics, Ping, Traceroute, ARP table, DHCP active leases, IPPerf, RSSI
Management	Local Serial Port Console, Telnet, WebUI, SNMP, FTP Upgrade, TFTP, CLI (Command Line Interface)
Rejection	Excellent strong signal interference & rejection characteristics
Input Voltage	8 - 30 V _{DC}
Mating Connector	Power, Data: 10-Pin (GHR-10V-S) Antenna(s): 2 x MMCX
Environmental	Temperature Humidity
	-40°F to 185°F (-40°C to +85°C) 5-95%, non-condensing
Weight	~37 grams
Dimensions	~36 x 48 x 15 mm

Order Options

MHK185570	SWP 2X2 MIMO 2.4 GHz Digital Data Link
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Optimal Performance Specifications			
Modulation	IPerf Throughput (Mbps)	Optimal MRC Sensitivity (dBm)	Total Tx Power (dBm) +/- 1dB
8 MHz (2X2 MIMO ON)			
BPSK_1/2	3	-99.5	30dBm
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
64QAM_5/6	27.8	-81	30dBm
4 MHz (2X2 MIMO ON)			
BPSK_1/2	1.51	-102.5	30dBm
QPSK_1/2	2.98	-101	30dBm
QPSK_3/4	4.4	-99	30dBm
16QAM_1/2	5.8	-95.5	30dBm
16QAM_3/4	8.6	-93	30dBm
64QAM_2/3	11.4	-88	30dBm
64QAM_3/4	12.8	-86	30dBm
64QAM_5/6	14	-83.5	30dBm

Modulation	IPerf Throughput (Mbps)	Optimal MRC Sensitivity (dBm)	Total Tx Power (dBm) +/- 1dB
8 MHz (MIMO OFF)			
BPSK_1/2	3	-96.5	30dBm
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
64QAM_3/4	24.7	-80.5	28dBm
64QAM_5/6	27.4	-78	27dBm
4 MHz (MIMO OFF)			
BPSK_1/2	1.5	-99.5	30dBm
QPSK_1/2	2.9	-98	30dBm
QPSK_3/4	4.3	-96	30dBm
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

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