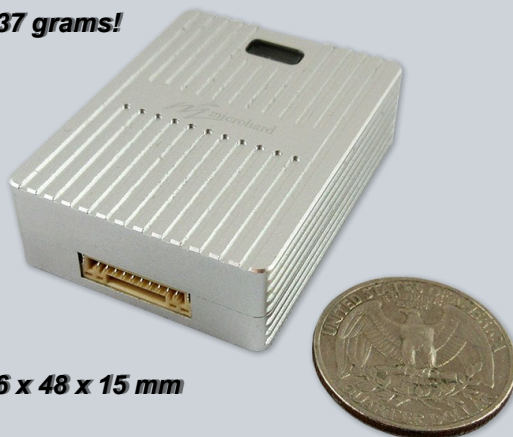


## Low Size, Weight, Power & Cost Enclosed Digital Data Link

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**

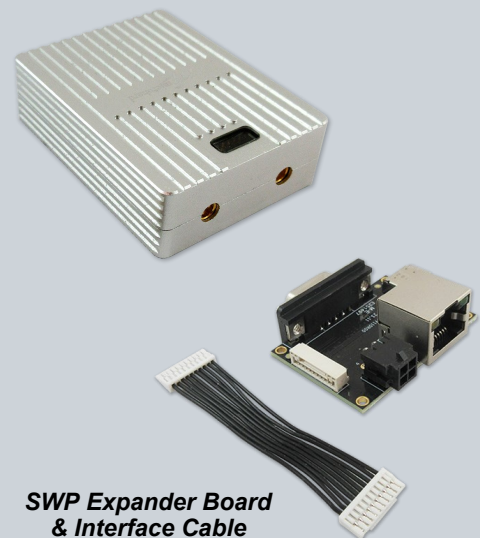
**30 dBm (1W)**

**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
- 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



**SWP Expander Board  
& Interface Cable**

# pMDDL2450-SWP Specifications



<b>Frequency</b>	2.402 - 2.478GHz
<b>Error Detection</b>	32 bits of CRC, ARQ
<b>Encryption (Requires Export Permit)</b>	128-bit AES (Optional 256-bit AES)
<b>Ports</b>	Serial Data/Console Ethernet USB
	RS232 (300bps - 230kbps) Dual 10/100BaseT IEEE802.3 (LAN/WAN) 2.0
<b>Firewall</b>	Port Forwarding, Access Control, IP/MAC List
<b>Operating Modes</b>	Point-to-Point, Point-to-Multipoint, Relay, Mesh
<b>Diagnostics</b>	Remote Diagnostics, Ping, Traceroute, ARP table, DHCP active leases, IPPerf, RSSI
<b>Management</b>	Local Serial Port Console, Telnet, WebUI, SNMP, FTP Upgrade, TFTP, CLI (Command Line Interface)
<b>Rejection</b>	Excellent strong signal interference & rejection characteristics
<b>Input Voltage</b>	8 - 30 V <sub>DC</sub>
<b>Mating Connector</b>	Power, Data: 10-Pin (GHR-10V-S) Antenna(s): 2 x MMCX
<b>Environmental</b>	Temperature Humidity
	-40°F to 185°F (-40°C to +85°C) 5-95%, non-condensing
<b>Weight</b>	~37 grams
<b>Dimensions</b>	~36 x 48 x 15 mm

## Order Options

<b>MHK185570</b>	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
<b>8 MHz (2X2 MIMO ON)</b>			
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
<b>4 MHz (2X2 MIMO ON)</b>			
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
<b>8 MHz (MIMO OFF)</b>			
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
<b>4 MHz (MIMO OFF)</b>			
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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Preliminary



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