

Miniature OEM Wireless Digital Data Link

The all new Pico MIMO Digital Data Link is a miniature OEM, high power, 2x2 MIMO 2.3GHz 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.

Only 7 grams!

2X2 MIMO

Up to 25Mbps

Small Footprint

Ethernet + Serial

PTP | Multipoint | Relay



1.3" X 1.05" X 0.30"

pMDDL2350 Features

- Robust 2X2 MIMO 2.3 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 @ 4 MHz channel (-102dBm)
- Extremely small foot print and very lightweight
- Serial Communication Port
- Dual 10/100 Ethernet Ports (LAN/WAN)
- Supports Point-to-Point and Point-to-Multipoint 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



pMDDL Motherboard

◆ Video ◆ 2X2 MIMO ◆ Ethernet ◆ Serial ◆ Security

Specifications

Frequency		2.304 - 2.39 GHz			
Error Detection		32 bits of CRC, ARQ			
Encryption <i>(Requires Export Permit)</i>		128-bit AES (Optional 256-bit)			
Ports		Serial Data/Console Ethernet USB			
Firewall		Port Forwarding, Access Control, IP/MAC List.			
Operating Modes		Point-to-Point, Point-to-Multipoint, Relay			
Diagnostics		Remote Diagnostics, Ping, Traceroute, ARP table, DHCP active leases, IPerf, 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		Digital Voltage = 3.3V / RF Voltage = 5V 7 - 30 VDC			
Connectors:		Antenna: UFL x2 (ANT1, ANT2) Data: 80 Pin SMT			
		Antenna: UFL x2 (ANT1, ANT2) Data: RJ-45 x2 (Ethernet) Female DB9 (Serial) USB Type A Micro-AB USB (Console) 4 PIN Interlock (Vin)			
Environmental		-40°F to 185°F (-40°C to +85°C) 5-95%, non-condensing			
Weight		Approx. 7 grams Approx. 50 grams			
Dimensions		Approx. 1.05" x 1.3" x .15" (27mm x 33mm x 4mm) Approx. 2.0" x 3.0" x 0.70" (50mm x 76mm x 18mm)			
Order Options					
pMDDL2350		2X2 MIMO 2.3GHz OEM DDL Module			

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	

Contact Information

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