

2X2 MIMO Digital Data Link w/LTE

The all new pMLTE-4GL-2450 combines our high powered Digital Data Link and a robust LTE Connection into a single compact OEM package. The Data Link features 2.4 GHz 2x2 MIMO, Maximal Ratio Combining (MRC), Maximal Likelihood (ML) decoding and Low-Density Parity Check (LDPC) to achieve robust RF performance. The LTE Connection provides globally supported LTE Bands with 3G/HSPA Fallback and delivers up to 150 Mbps. The pMLTE features Dual Ethernet, USB, Dual RS232 Serial/Console and GPS!

150 Mbps LTE w/Fallback

25 Mbps Digital Data Link

Compact Size

Ethernet | Serial | USB

PTP | PMP | MESH



Only 30 grams!

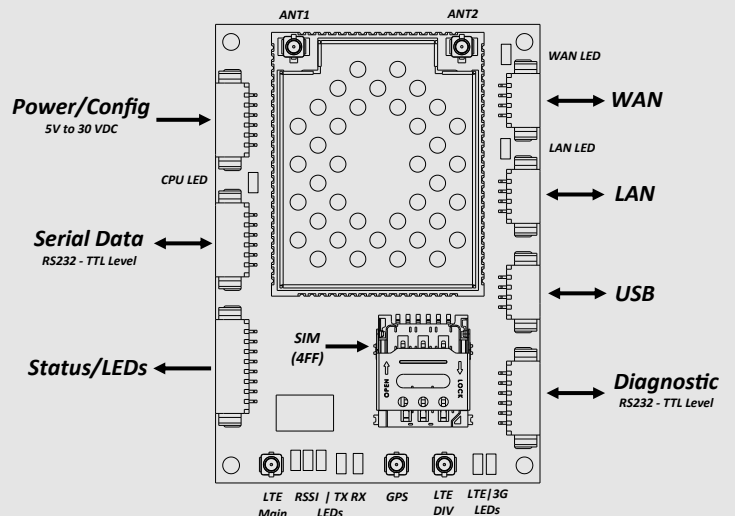
1.6" X 2.25" X 0.35"



Optional Motherboard for Easy Testing & Evaluation!

pMLTE Features

- Robust 2X2 MIMO 2.4 GHz Digital Data Link
- 150 Mbps (DL) 4G/LTE Operation w/Global Band Support
- Data Link: 25 Mbps Iperf Throughput @ 8 MHz channel (-78 dBm)
- Dual RS232 Serial Communication Ports (Data/Console)
- Dual 10/100 Ethernet Ports (LAN/WAN)
- Supports Point-to-Point and Point-to-Multipoint Networks
- Master, Remote, Relay, Mesh Operating Modes.
- Adjustable total transmit power (up to 1W)
- Standalone GPS
- Interface through local console, telnet, and web browser
- Local and remote wireless firmware upgrades
- Verizon Airborne LTE Operation (ALO) Certified for Drone Operations



pMLTE Series Specifications

Digital Data Link Specifications		Optimal Performance Specifications (Digital Data Link)			
Operating Frequency	pMLTE-4GL-2450: 2.402 - 2.478 GHz pMLTE-4GL-2350: 2.304 - 2.390 GHz pMLTE-4GL-2550: 2.500 - 2.570 GHz	Modulation	IPerf Throughput (Mbps)	Optimal MRC Sensitivity (dBm)	Total Tx Power (dBm) +/- 1dB
Error Detection	32 bits of CRC, ARQ	8 MHz (2X2 MIMO ON)			
Encryption (Requires Export Permit)	128-bit AES (Optional 256-bit)	BPSK_1/2	3	-99.5	30dBm
Operating Modes	Point-to-Point, Point-to-Multipoint, Relay, Mesh	QPSK_1/2	5.9	-98	30dBm
Rejection	Excellent strong signal interference & rejection	QPSK_3/4	8.8	-96	30dBm
Cellular Specifications		16QAM_1/2	11.6	-92	30dBm
Cellular Supported Bands	LTE FDD: B1, B2, B3, B4, B5*, B7, B8, B12, B13, B18, B19, B20, B26, B28 TDD: B38, B39, B40, B41 WCDMA: B1, B2, B4, B5*, B8, B6, B19 GSM: B2/B3/B5*/B8	16QAM_3/4	17.1	-90	30dBm
<small>*Band 5 disabled in ALO models</small>		64QAM_2/3	22.8	-85	30dBm
Cellular Data Features*	LTE FDD: Up to 150 Mbps DL, 50 Mbps UL LTE TDD: Up to 130 Mbps DL, 35 Mbps UL DC-HSPA+: Up to 42 Mbps DL, 5.7 Mbps UL WCDMA: Up to 384 Kbps DL, 384 Kbps UL EDGE: Up to 296 Kbps DL, 236.8 Kbps UL GSM: Up to 107 Kbps DL, 85.6 Kbps UL	64QAM_3/4	25.5	-83.5	30dBm
<small>*Module Standalone Lab Performance</small>		64QAM_5/6	27.8	-81	30dBm
General Specifications		4 MHz (2X2 MIMO ON)			
Ports	2x RS232 (300bps to 921kbps) (Serial/Console) 2x 10/100BaseT IEEE802.3 (LAN/WAN) USB 2.0	BPSK_1/2	1.51	-102.5	30dBm
Firewall	Port Forwarding, Access Control, IP/MAC List, VPN/GRE, DMZ, NAT	QPSK_1/2	2.98	-101	30dBm
Diagnostics	Remote Diagnostics, Ping, Traceroute, ARP table, DHCP active leases, IPerf, RSSI	QPSK_3/4	4.4	-99	30dBm
Management	Local Serial Port Console, Telnet, WebUI, SNMP, FTP Upgrade, TFTP, AT Commands	16QAM_1/2	5.8	-95.5	30dBm
Input Voltage	5 - 30 VDC	16QAM_3/4	8.6	-93	30dBm
Connectors:	DDL Antenna: UFL x2 (ANT1, ANT2) LTE Antenna: UFL x3 (Main, Div, GPS) Power: 6-Pin Quick Connect Serial/Console: 2x 6-Pin Quick Connect Status/LEDs: 8-Pin Quick Connect WAN/LAN: 2x 4-Pin Quick Connect USB: 4-Pin Quick Connect SIM Slot: Nano(4FF)	64QAM_2/3	11.4	-88	30dBm
Environmental	Temperature: -40°F to 185°F (-40°C to +85°C) Humidity: 5-95%, non-condensing	64QAM_3/4	12.8	-86	30dBm
Weight	Modem: 30 grams Motherboard: 55 grams	64QAM_5/6	14	-83.5	30dBm
Dimensions	Modem: 1.60" x 2.25" x 0.35" (40x57x9mm) Motherboard: 2.6" x 3.56" x 0.58" (70x90x14.5mm)	Modulation	IPerf Throughput (Mbps)	Optimal MRC Sensitivity (dBm)	Total Tx Power (dBm) +/- 1dB
Approvals	pMLTE-4GL-2450: FCC/IC pMLTE-4GL-2350: N/A pMLTE-4GL-2550: N/A Verizon ALO	8 MHz (MIMO OFF)			
Order Options		BPSK_1/2	3	-96.5	30dBm
pMLTE-4GL-ALO (MHK186505)	2.4 GHz 2X2 MIMO DDL w/LTE (Verizon ALO Certified)	QPSK_1/2	5.8	-95	30dBm
pMLTE-4GL-2450 (MHK186500)	2.4 GHz 2X2 MIMO Digital Data Link with LTE	QPSK_3/4	8.6	-93	30dBm
pMLTE-4GL-2350 (MHK186600)	2.3 GHz 2X2 MIMO Digital Data Link with LTE	16QAM_1/2	11.5	-89	30dBm
pMLTE-4GL-2550 (MHK186700)	2.5 GHz 2X2 MIMO Digital Data Link with LTE	16QAM_3/4	16.9	-87	30dBm
		16QAM_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

Microhard
150 Country Hills Landing N.W.
Calgary, AB, Canada T3K 5P3

Email: info@microhardcorp.com
Tel: (403) 248-0028
Fax: (403) 248-2762



www.microhardcorp.com

Copyright 2022 Microhard Systems Inc.
Specifications subject to change without notice.