

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!

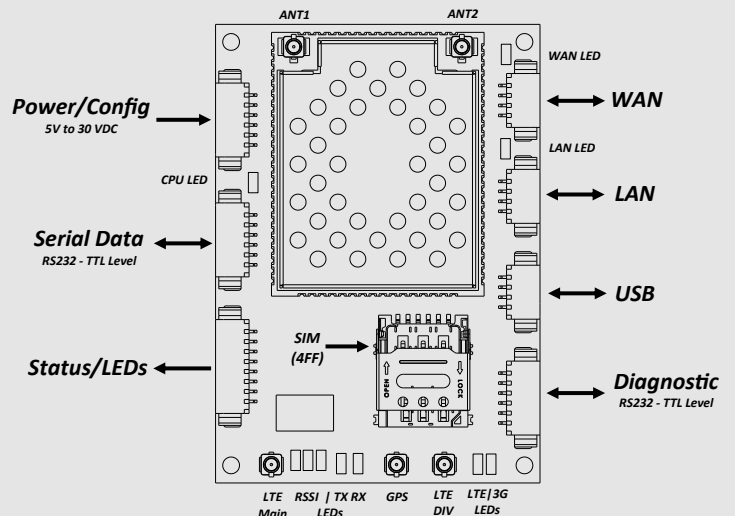
1.6" X 2.25" X 0.35"



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 |
| <i>*Band 5 disabled in ALO models</i> | | 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 |
| <i>*Module Standalone Lab Performance</i> | | 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 | 7 - 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_5/6 | 22.2 | -82 | 28dBm |
| | | 64QAM_2/3 | 24.7 | -80.5 | 28dBm |
| | | 64QAM_3/4 | 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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