



LPMX

**Low Power Transceiver Radio Modem
+ Power Supply**



Features

- Frequency Ranges:
 - 138-154 MHz
640 channels
25 kHz step
 - 154-158.3 MHz
860 channels
5 kHz step
 - 164-174 MHz
1600 channels
6.25 kHz step
- Weighs only 0.75 lb
- Sealed case allows for outdoor use.
- RS-485 interface
- Message relay/repeat capability
- Very low power consumption
 - Receive: 4.4mA typ
 - Sleep: < 80uA typ
- Extended Temperature Range with built in temperature sensing
- Messages can be sent using ASCII or binary.
- Robust power supply that greatly increases battery life for remote applications, and built in current limiting for USB.
- USB programming cable and TNC antenna included.

The Qual-Tron LPMX, Low Power Modem, is an RF data modem designed to make it easy for users to send data over-the-air, to and from remote units. The LPMX consumes very little power when receiving, and only microamperes while in sleep mode. The LPMX is an ideal solution for remote units that require battery power. The included robust power supply, adds enhanced battery operation that allows the user to power the LPMX with 4.5 VDC up to 16.5 VDC, with built-in current limiting for USB.

The LPMX defaults to ASCII text mode, which allows the user to send and receive messages with the use of any terminal program.

The LPMX also has the option of a pure binary mode, which allows the user to send binary messages, with half the overhead of ASCII.

Applications:

- Security
- Sensor reporting
- Telemetry
- Remote Control

Qual-Tron, Inc.

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Specifications

Serial Data

| | |
|--------------|-------|
| Baud rate | 38.4k |
| Parity | None |
| Data bits | 8 |
| Stop bits | 1 |
| Flow Control | None |

Power

| | |
|-------------------|--|
| Input Voltage | 4.5-16.5 VDC with current protection for USB |
| Receive Current | <4.4mA @ 9V |
| Transmit Current | <500mA |
| Sleep Current | <80uA @ 9V |
| Power Consumption | <40mW Receiver on |

Environmental

| | |
|-----------------------|--------------|
| Operating temperature | -40 to +65 C |
| Storage temperature | -50 to +70 C |

Radio Frequency

| | |
|----------------------|---------------------------------|
| Frequency | 138-154, 154-158.3, 164-174 MHz |
| Transmitter Power | 1.3 W typical |
| Receiver Sensitivity | -117 dB typical |
| RF Data Rate | 2.4 kbps |

Agency Approvals

| | |
|-----|---------|
| FCC | pending |
|-----|---------|

I/O Connector – Amphenol PT02E-8-4P

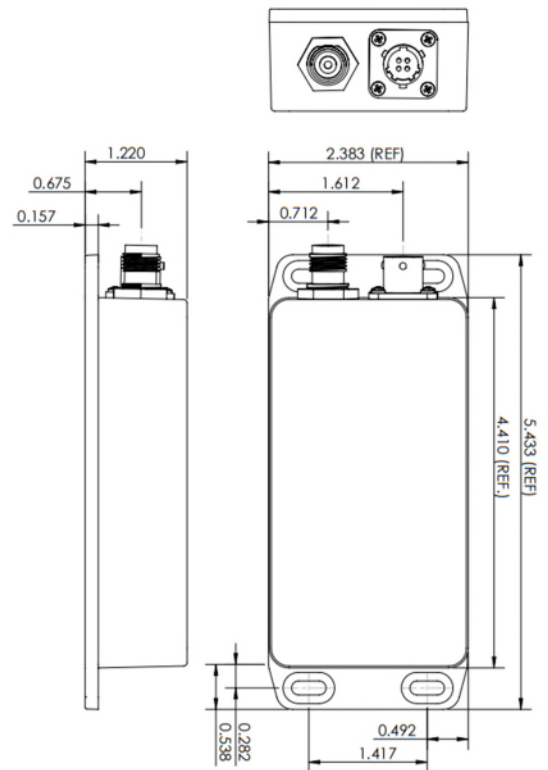
| | |
|-------|------------------------------------|
| Pin A | GND |
| Pin B | Vin [Input] 4.5-16.5 VDC 1.5A Peak |
| Pin C | RS485 Data [A] |
| Pin D | RS485 Data [B] |

RF Connector

| | |
|--------|-----|
| 50 ohm | TNC |
|--------|-----|

Mechanical Dimensions

| | |
|---------|-------------------|
| L, W, H | 5.43"x2.38"x1.22" |
|---------|-------------------|



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