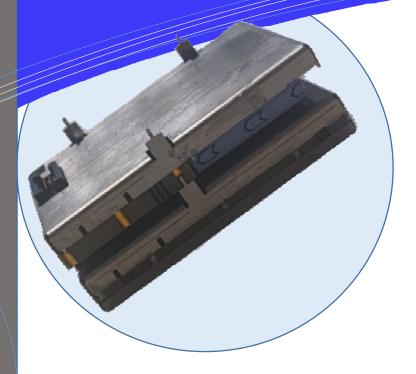


# LPM+

## Low Power Transceiver Module + **Power Supply**



The Qual-Tron LPM+, Low Power Module plus power supply, is an RF data modem designed to make it easy for users to send data over-the-air, to and from remote units. The LPM+ consumes very little power when receiving, and only microamperes while in sleep mode. The LPM+ 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 LPM+ with 4.5 VDC up to 16.5 VDC, with built-in current limiting for USB.

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

The LPM+ 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

#### **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
- Small Form Factor 2.1"x1.3"x0.8" Weighs only 1.59 oz
- RS-485 interface
- Message relay/repeat capability
- Very low power consumption Receive: 10.3mA typ Sleep: < 10uA typ
- PCB mountable
- 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.

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### Specifications

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

**Power** 

Input Voltage 4.5-16.5 VDC w/ current protection for USB

Receive Current <4.4mA @ 9V Transmit Current <500mA Sleep Current <80uA @ 9V

Power Consumption <40mW @ 9V 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 2.4 kbps

**Agency Approvals** 

FCC pending

I/O Connector - SAMTEC TFM-105-02-L-P-D

Pin 1,2 Vin [Input] 4.5-16.5 VDC 1.5A Peak
Pin 3 Transmit Enable [Output] Active Low

 Pin 4
 RS485 Data [A]

 Pin 5
 RS485 Data [B]

 Pin 6
 NC

Pin 6 NC
Pin 7 NC
Pin 8 NC
Pin 9, 10 GND

**RF Connector** 

50 ohm MMCX

**Mechanical Dimensions** 

L, W, H 2.1"x1.3"x0.8"

Standoff Tabs 0.175" long, 0.075" standoff

