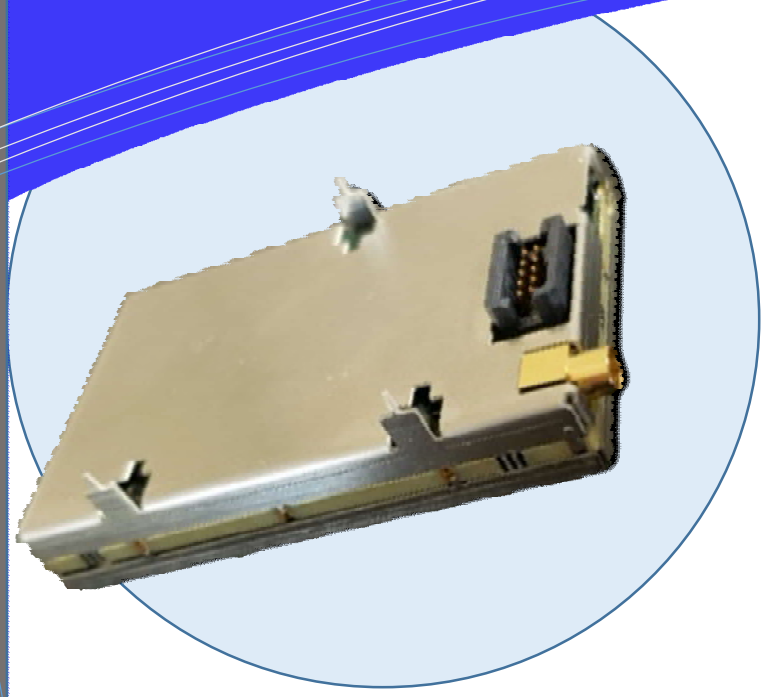
LPM Low Power Transceiver Module



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”x0.5”
  Weighs only 0.78 oz
- RS-485 interface
- Message relay/repeat capability
- Very low power consumption
  Receive: 3.2mA typ
  Sleep: < 10uA typ
- PCB mountable
- Extended Temperature Range with built in temperature sensing
- Messages can be sent using ASCII or binary.

The Qual-Tron LPM, Low Power Module, 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. Users can provide their own (low noise) power supply of at least 6.5 VDC, or the LPM can also be purchased with our robust power supply.

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

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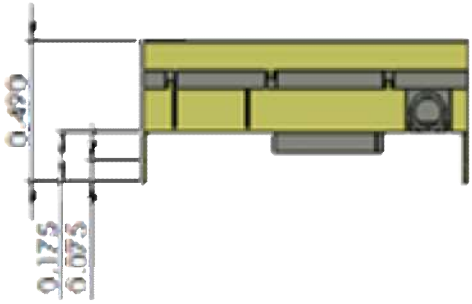
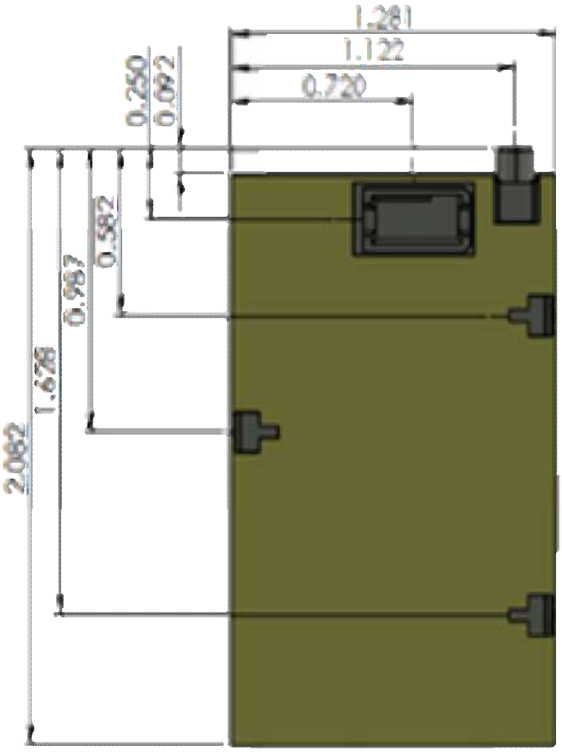
Specifications

Serial Data	
Baud rate	38.4k
Parity	None
Data bits	8
Stop bits	1
Flow Control	None
Power	
Input Voltage	6-12 VDC
Receive Current	<3.2mA @ 9V
Transmit Current	<1A @ 9V, 700mA typical
Sleep Current	<80uA @ 9V, 10uA typical
Power Consumption	<30mW @ 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	-117dB typical
RF Data Rate	2.4 kbps
Agency Approvals	
FCC	pending
I/O Connector - SAMTEC TFM-105-02-L-P-D	
Pin 1,2	Vin [Input] 6.0-12 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 7	NC
Pin 8	NC
Pin 9, 10	GND
RF Connector	
50 ohm	MMCX
Mechanical Dimensions	
L, W, H	2.082"x1.281"x0.49"
Standoff Tabs	0.175" long, 0.075" standoff





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