

RDatIET UHF Data Modem



User Manual

Innovative Electronic Technologies

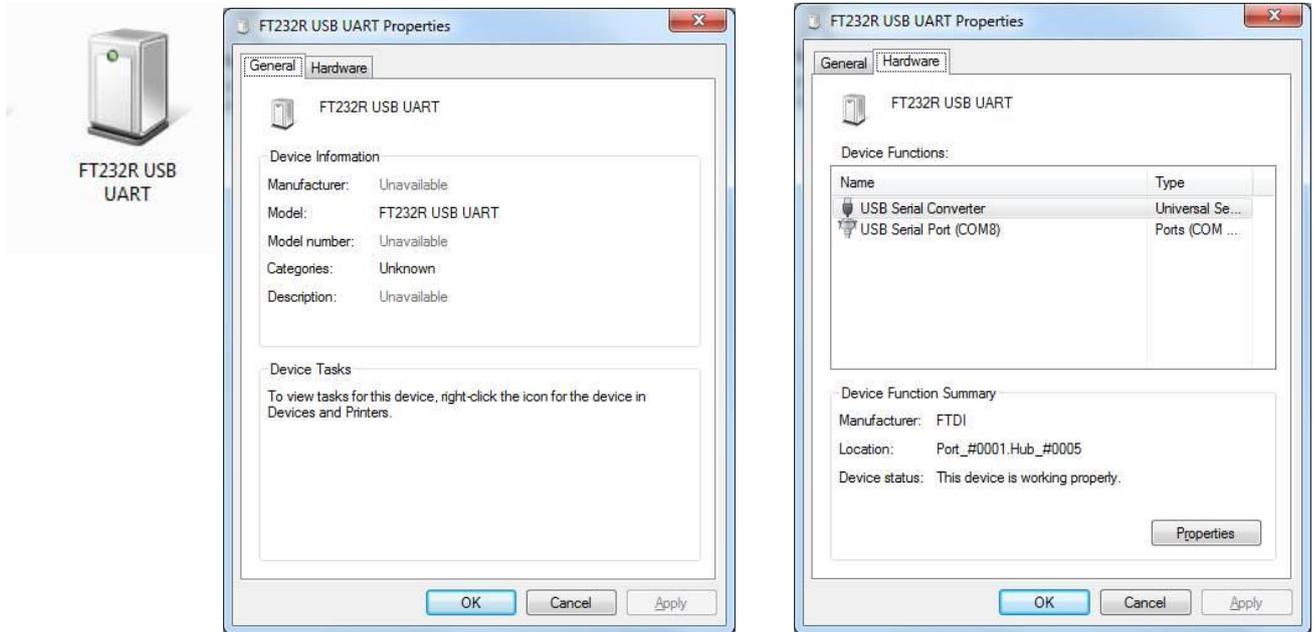
www.radtech.com.au

Overview.

Our RDatIET data modem is designed to interface a PC to another PC or appropriate hardware via a half-duplex, user configured radio link.

The modems are designed to be used in pairs, connecting to a PC via a USB Port.

The modems appear in the devices & printers (Control Panel) screen as a USB Serial Port



with the port number as shown. It behaves as a normal serial port and can be accessed normally by appropriate software.

While the modem can be used to pass any data between compatible hardware, we have designed it as part of the RssiLog suite of applications, primarily to transmit parsed GPS data from a remote mobile site to a local (Fixed) recorder.

This function facilitates the inclusion of real-time GPS positions of the mobile signal source in the received RssiLog level data records.

Installing the Modem.

An RDatIET modem is installed by plugging it into a USB socket on the PC or appropriate hardware. Windows then installs it automatically and advises the user. To determine the port number, open Control Panel and view the UART hardware details as above.

Modem operating Specifications.

Working Frequency433.400 Mhz to 473.000 Mhz. (400 Khz Steps)

Supply Voltage5 Volts DC. (USB port)

Maximum Supply Current100 Milliamps.

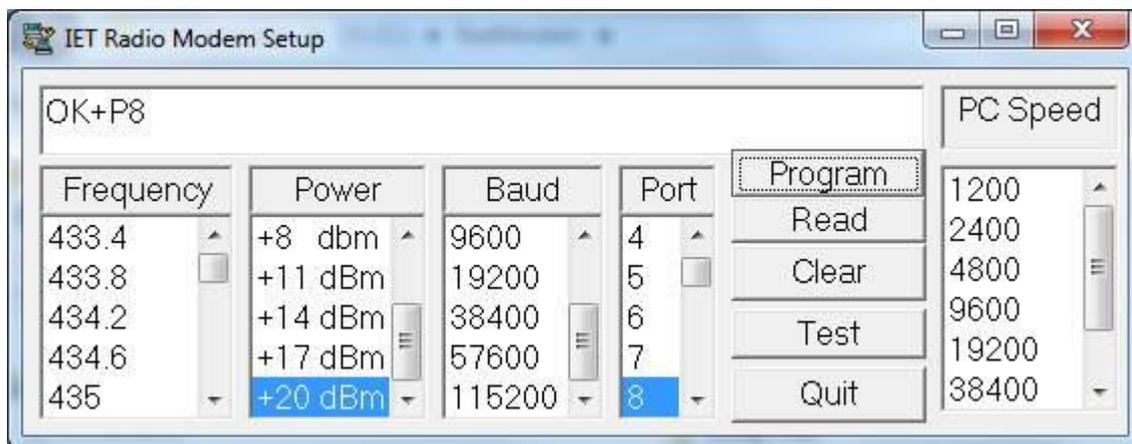
Baud Rate1.2 K to 115.2K

RX Sensitivity-117 dBm to -100 dBm (Min to Max Baud Rate)

Transmit Power-1 dBm to +20 dBm.
 Interface ProtocolUART/TTL, Half Duplex.
 Operating Temperature-40 Deg C to +85 Deg C.
 EnvironmentIndoor use or protected from rain & moisture.
 Antenna Connector”N: type Female.

Configuring the Modem.

The modem can be configured using our RadModem application.



This application facilitates the easy reading of the modems current configuration as well as changing the configuration. Configuration is achieved by pressing the Clear button then selecting the value of the **single** parameter you wish to change.

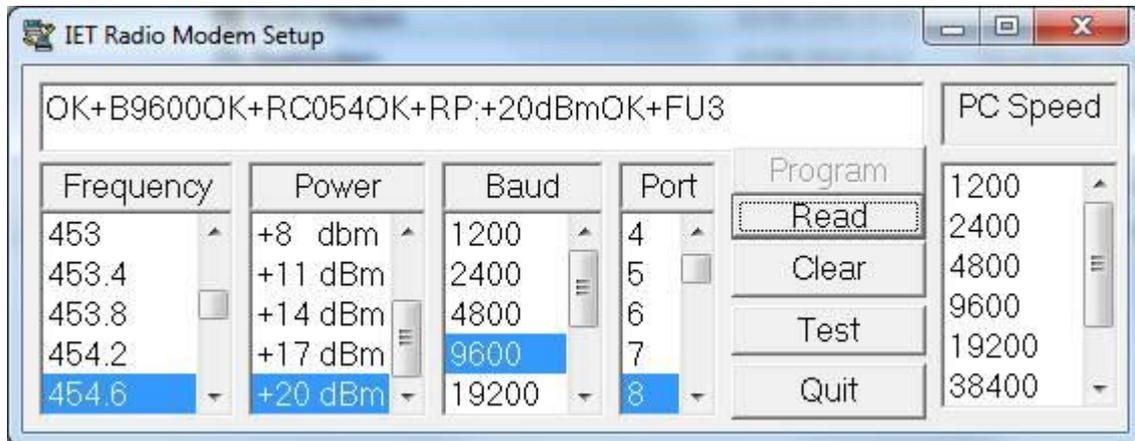


NOTE **** If you change the Baud rate, it is necessary that you also change the PC speed to the same baud rate so the PC can communicate with the Modem. It is also necessary that the Modem with which it is desired to communicate be set to the same baud rate.

1. Toggle and hold the Non-Locking “Prog” switch on the Modem down. (Adjacent to the TXD LED.)
2. Press the “Program” button in the application while holding the “Prog” switch down.
3. The relevant configuration applied to the Modem will be displayed in the application (In this case P8 i.e Power Level 8 which is +20 dBm or 100 Mw.)
4. If the configuration change has been successful, the command will be displayed preceded by “OK”.
5. Release the “Prog” switch.
6. Repeat the Configuration process to change other parameters as required.

7. In the event that the configuration change has not been successful, press the “Clear” button and repeat the process.

Reading Modem Configuration.



1. Press the “Clear” button in the application GUI.
2. Toggle and hold down the “Prog” switch on the Modem.
3. While holding the “Prog” switch down, press the “Read” button.
4. The configuration string is shown in the GUI .
5. The current Configuration values are highlighted in the GUI.

The current configuration is maintained as the default until it is changed.