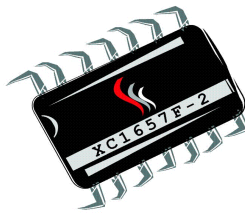


ET-301/EM-406 USB Evaluation Board



ET-301/EM-406 USB Evaluation Board 7/11/2006

1 Overview

The ET-301/EM-406 USB Evaluation Board is a complete module for interfacing either the ET-301 or the EM-406 GPS modules to a computer. The device is powered via the USB interface. A standard FTDI USB-Serial interface provides a serial port via USB to communicate with the GPS module. The ET-301 model has an SMA connector for an external GPS antenna. The EM-406 module has a GPS antenna built on and requires no external antenna.

2 Hardware Description

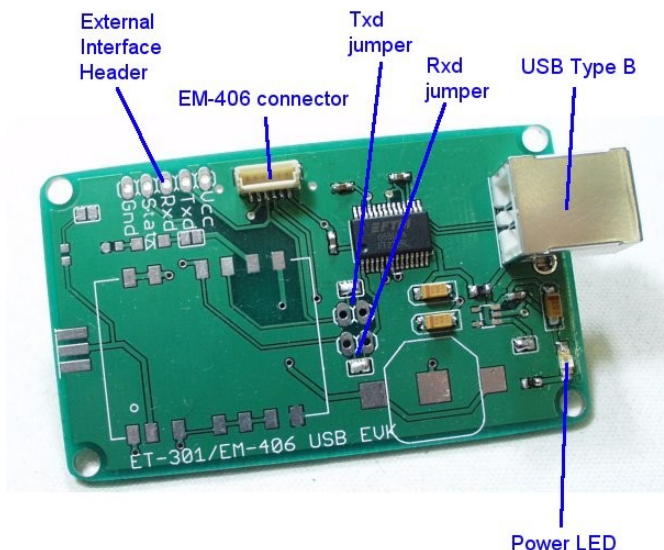
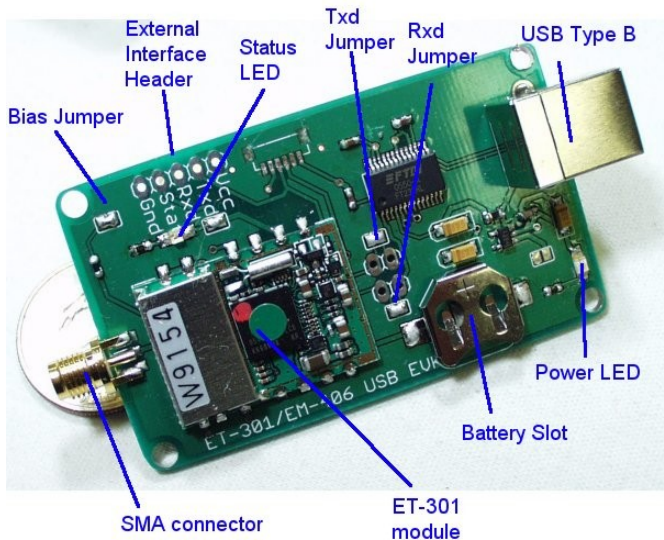
The module comes in two configurations: the ET-301 model with a GPS module soldered in place, or, an EM-406 model with a polarized interface connector for the EM-406.

Both configurations communicate via serial over USB. Port configuration is 4800-N-1, no flow control.

Rxd and Txd are connected to the FTDI bridge via jumpers. By default the solder jumpers connect these signals for USB interfacing. If the external interface header is desired as a communication means, the Txd and Rxd jumpers should be opened. Vcc, if supplied externally, should be chosen according to the module documentation. The status LED indicates a GPS lock by a slow

blinking.

On the ET-301 version, it is desirable to use a battery to avoid cold start at power up. A 3V CR1225 battery is recommended.



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3 References

<http://www.sparkfun.com/datasheets/GPS/ET-301%20USER%20Manual1.pdf>

http://www.sparkfun.com/datasheets/GPS/EM-406%20Product_Guide1.pdf

<http://www.sparkfun.com/datasheets/GPS/NMEA%20Reference%20Manual1.pdf>