To accompany the Telegesis ETRX357 wireless mesh networking modules the ETRX357USB universal serial bus stick offers an easy way to ZigBee-enable personal computers.

Using a virtual COM port the Telegesis AT-Command interface - based on the EmberZNet meshing stack - can be easily accessed by the application software. Custom firmware development is also supported.

USB features

- ETRX357USB acts as a USB2.0 to serial bridge connected to an ETRX357 module
- Driver Support for Windows, WinCE, MAC OS-X, Linux
- Telegesis Terminal support for Windows
- Allows access to the module's AT-Command line interface via a virtual COM port
- USB 2.0 Full Speed Device, backwards compatible to USB1.1 hosts
- Form factor: L82mm x W26mm x H8.5mm
- In circuit Programming/Debugging Headers allow for custom firmware development based on the EM357 platform
- On Request application specific firmware can be developed.
- Operating Temperature range -40°C - +85°C

ETRX357 Features

- ETRX357 is based on the EM357 – the industry's first ARM® Cortex-M3 based family of ZigBee modules
- 192kB flash and 12kB of RAM
- 2.4GHz ISM Band digital direct sequence spread spectrum transceiver
- Hardware acceleration for IEEE802.15.4 operations
- Hardware supported encryption (AES-128)
- No need for RF design experience or expertise
- Module comes with standard Telegesis AT-style command interface based on the ZigBee PRO feature set
- Firmware upgrades via serial port or over the air (password protected)
- Can be configured to act as a ZigBee coordinator, router or end device
- Ideal for use as a commissioning tool when setting up networks
- Long Range version with a link budget of up to 124dB available in the same form factor
- Over-the-air compatible with the ETRX2

Windows Software

As a helpful starting point for developers, Telegesis supplies the Telegesis Terminal application with the ETRX357USB. This terminal program fully supports the USB stick

Host application development is very straightforward as the ETRX357USB stick is simply accessed via a virtual COM port

Suggested Applications

- AMR – ZigBee Smart Energy applications
- Wireless Alarms and Security
- Home/Building Automation
- Wireless Sensor Networks
- M2M Industrial Controls
- Lighting and ventilation control
- Remote monitoring
- Environmental monitoring and control

Example AT-Style Commands

- AT+BCAST   Send a Broadcast
- AT+UCAST:<address>   Send a Unicast
- AT+EN   Establish network
- AT+JN   Join network

At power-up the last configuration is loaded from non-volatile S-Registers, which can eliminate the need for an additional host controller.

The ETRX357USB is also available in a long range form – see ETRX357-LRS module for specification details

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