

Talon Ethernet IoT extender for Sierra mangOH / FX30

Low Cost IoT USB 2.0 to Ethernet 10/100 for mangOH



Ethernet IoT Module

The mangOH Ethernet module provides USB 2.0 to 10/100 full duplex Ethernet. Implements Fully compliant with IEEE802.3/802.3u and USB 2.0 Hi-Speed standard on a small QSF+ form factor. The Talon Ethernet module offers easy integration into the Sierra mangOH™ IoT and FX30 platforms and is targeted as a high performance, low cost USB/Ethernet connectivity solution. The module contains an integrated 10/100 Ethernet PHY, USB PHY, Hi-Speed USB 2.0 device controller, 10/100 Ethernet MAC, TAP controller, EEPROM controller, and a FIFO controller with a total of 30 KB of internal packet buffering. Two KB of buffer memory are allocated to the Transaction Layer Interface (TLI), while 28 KB are allocated to the FIFO Controller (FCT).

Development Environment

The Sierra mangOH™ IoT platform is based on Legato open source Linux which is designed to simplify embedded IoT development.

Legato has everything you need to connect the IoT fast:

- Programming language APIs -- dev tools and APIs to easily write software components and specify how apps will use them.
- Target runtime environment -- set of daemon processes cooperatively implement execution sandboxes, secure IPC, fault monitoring.
- Development and build tools -- target, host, and build tools to create apps ready for deployment to your devices.
- Documentation and automated tests -- a raft of docs and automated tests ready to use.

Applications

The Ethernet IoT form factor offers a proven, low risk option for a wide range of applications including:

- IoT local data gathering
- Medical Equipment
- CE Devices
- Industrial Control
- Networked Printers
- USB Port Replicators
- Embedded asset management
- Consumer devices



Ethernet IoT Module Features

Features

- USB 2.0 Hi-Speed Compliant
- IEEE802.3/802.3u Compliant
- Auto-negotiation, auto-polarity & HP Auto-MDIX
- External MII interface supports Fast Ethernet PHY, HomePNA, and HomePlug
- 30 KB of internal packet buffering
- Various low power modes
- Various Wake Events: "Magic Packet", Wake on LAN, Link Status Change etc.
- Internal EEPROM controller
- Integrated IEEE 1149.1 compliant TAP controller

Physical

- 42.5mm x 22.3mm x 1.2mm QSF+ form factor
- -40°C to +85°C Operation
- +3.3v Operation
- RoHS Compliant

For more information please contact:
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