10/100 Ethernet Interface for StackableUSB™ USB1350

Features

✓ Hi-Speed USB 2.0, 10/100 Ethernet

✓ Fully compliant with IEEE802.3/802.3u

✓ HP Auto-MDIX, 10/100 Ethernet

✓ 30KB of internal packet buffering

✓ Windows XP, Vista, WinCE, Linux, Mac OSX driver support

✓ Low-power operating modes

✓ Small 1.85" x 1.74" board

✓ -40° to +85°C operation

The USB1350 provides 10/100 Ethernet connectivity to any systems with USB. It is ideal for adding Ethernet ports to a system or upgrading Ethernet performance in older systems. Interfacing through a High-Speed USB2.0 port, the 10/100 Ethernet adapter comes with drivers and full documentation.

The USB1350 is equipped with four (4) on-board status LEDs (Power, Link/Act, Speed, and Full Duplex) which give visual indication of the boards current status and simplifies network troubleshooting. Additionally, the module has a 30KB SRAM memory buffer to hold RX and TX packets until the packet transmission can be completed. This safety feature minimizes the risk of losing network packets.

To provide applications with power management flexibility, the USB1350 has three (3) low-power operating modes as well as remote wakeup functionality. Powered by a SMSC's LAN9500I USB-to-Ethernet controller, the USB1350 also provides an impressive set of additional features including auto-negotiation, auto-polarity correction, HP Auto-MDIX, and more.

The 1.85" x 1.74" module is USB 2.0 compliant providing users the advantages of plug-and-play interfacing. The module stacks onto the top or bottom of any StackableUSB Host single board computer or microcontroller forming a small, rugged, embeddable system, ideal for harsh environments. The USB1350 can be connected to desktop PCs and laptops via a Mini-B USB connector for development.
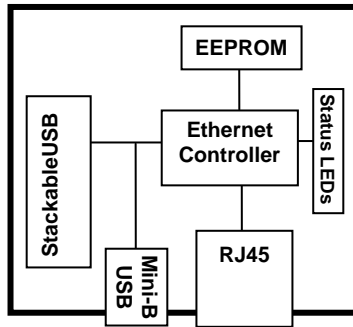
Software/Driver Support	Compatible Hardware	Mounting/Packaging
Windows 7 Windows Vista Windows XP Windows CE Linux Mac OSX	StackableUSB Host single board computers and microcontrollers PC Host desktops and laptops Networks on twisted pair media	¼-Size 104™ Form Factor Standoffs, STDOFFUSB

Specifications:

Mechanical:
- ❑ 1.85" x 1.74" StackableUSB
- ❑ ¼-Size 104™ Form Factor

Power Requirements:
- ❑ +5v ±5% at 210mA maximum

Environmental:
- ❑ -40° to +85°C operating temp
- ❑ -40° to +85°C storage temp
- ❑ 5%-95% relative humidity, non-condensing

USB to Ethernet Controller:
- ❑ Fully compliant with Hi-Speed USB 2.0
- ❑ Supports HS (480Mbps) and FS (12Mbps) modes
- ❑ Fully compliant with IEEE 802.3/802.3u
- ❑ Integrated 10/100 Ethernet MAC with Full-Duplex support
- ❑ Integrated 10/100 Ethernet PHY with HP Auto-MDIX support
- ❑ 10BASE-T and 100BASE-TX support
- ❑ TCP/UDP/IP/ICMP checksum offload support
- ❑ 30KB of internal packet buffering

External Connectors:
- ❑ StackableUSB
- ❑ Mini-B USB
- ❑ RJ45
- ❑ 2-pin reset header

LEDs
- ❑ Four (4) status LEDs
  - Power LED   (green)
  - Full Duplex LED   (green)
  - Speed LED   (yellow)
  - Link/Act LED   (green)

Internal Electrical Interface:
- ❑ USB 1.1 &2.0 compatible, High-Speed

Development Kit:
- ❑ Base module
- ❑ Complete cable set
- ❑ Documentation, schematics, drivers

Ordering Information:

OEM Modules:

USB1350-ST	Hi-Speed USB 2.0 to 10/100 Ethernet Adapter Board for StackableUSB stack-through connector
USB1350-PC	Hi-Speed USB 2.0 to 10/100 Ethernet Adapter Board with Mini-B USB connector for PC connection
CS1350	Complete cable set

Related Products:

STDOFFUSB	StackableUSB standoff kit
CA4136	A to Mini-B USB cable

Development Board Kits*	
DK1350-ST	USB1350-ST development kit.
DK1350-PC	USB1350-PC development kit.

*See Development Kit Specifications