

Overview of Internet or Ethernet Interfaces and Modules

Introduction

A whole range of interface boxes, modules and plug in boards are available for connecting existing or new products to the Internet or to PC networks. The majority are for serial port/UART connections but there are options for Digital I/O and Dual Port RAM.

Digital I/O

If your existing or new application has parallel I/O, then the HD1100 module and Starter Kit will solve your problem. We recommend that new users purchase the Starter Kit which includes a HD1100 module and makes development much easier.

Starter Kit Features HD1100SK

- 5V Power Adapter and Interface cables
- Complete software suite for development
- Sample programs in C and Java
- Includes source code
- Demo board
- User manual
- HD1100 board



Board Features HD1100

- Customisable web server
- 10-base T Ethernet Interface
- 16-pin Digital Input (TTL level)
- 16-pin Digital Output (TTL level)
- Built-in TCP/IP stack
- 86 x 53 mm - credit card size



Dual Port Ram

If your existing or new application needs to access Dual Port RAM, then the HD1200 module and Starter Kit will solve your problem. We recommend that new users purchase the Starter Kit which includes a HD1200 module and makes development much easier.

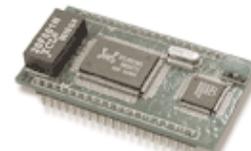
Starter Kit Features HD1200SK

- 5V Power Adapter and Interface cables
- Complete software suite for development
- Sample programs in C and Java
- Includes source code
- Demo board
- User manual
- HD1200 board



Board Features HD1200

- Customisable web server
- 10-base T Ethernet Interface
- 2KB Dual-Port RAM interface
- Built-in TCP/IP stack
- 66 x 33 mm



Serial Port/UART

If your existing or new application has a serial port connection, then there are a whole series of options for you to choose from including Interface boxes, boards and modules. There are four main series

- HD Series
- Lite Series
- Pro Series
- Super Series

Each series has different cost and feature balances that allow you to get exactly what you need for your application. The next page shows the principle features of each series.

External Boxed Solutions

The four main series are available as plug-in boards or in boxed form. The complete Interface boxes are the best for existing products or for minimum design input in new products. They provide the simplest and quickest way to get to market and are easy to configure. They all come with management and development software to quickly interface your product to a network or the Internet.

Model	Ports	Serial Interface	Network Interface	Security Level	Protocols
HD1320E	1	RS232 DB9	10Base-T	Password	TCP/IP, DHCP
LS100	1	RS232 DB9	10Base-T	ID/Password	TCP/IP, UDP, DHCP, Telnet, PPPoE
PS100 PS200 PS400	1 2 4	RS232/422/485 DB9	10Base-T	ID/Password /IP Filtering /Data Encryption	TCP/IP, UDP, DHCP, Telnet, DNS, SMTP, PPPoE
SS100 SS110 SS400 SS800	1 4 8	RS232/422/485 DB9 RS232/422/485 RJ45 RS232/422/485 RJ45	10/100Base-T	ID/Password /IP Filtering /Data Encryption	TCP/IP, UDP, DHCP, Telnet, DNS, SNMP, PPPoE, HTTP, FTP, SMTP

Simple and fast network connection for serial port based products with Xon/Xoff control
HD1300 Series HD1320E



Modules and Boards based on HD13xx, LS, PS and SS series have almost the same features as the boxed versions, except for HD1300 board which has more features than HD1320E

Add Telnet and PPPoE for DSL connection to broadband network
Lite Series LS100



Add 3DES Data Encryption, IP Address Filtering, multiple serial ports or RS422/485
Pro Series PS100, PS200, PS400



Add SSL Data Encryption, 100Base-T connection, HTTP, FTP and SMTP Protocols or up to 8 serial Ports plus Wireless connection (not SS100)
Super Series SS100, SS110, SS400 or SS800



MORE FEATURES

HD Series HD1320E

Probably the easiest product to get going.
Ideal for rapid product development



Features

- 32 KB SRAM serial port buffer
- Male DB9 RS-232 Serial Port
- Serial Speeds 50bps~115Kbps
- Signals: Rx, Tx, RTS, CTS, GND
- Flow Control: Software XON/XOFF
Hardware RTS/CTS
- Serial Speeds 150bps ~ 115Kbps
- RJ45 Ethernet Connector
- Static & Dynamic IP Address
- Protocols: ARP, IP/ICMPTCP/IP
Server & Client or both, DHCP Client
- Reliable TCP/IP protocol stack
- Voltage 7.5 - 9V DC, 150mA min
- Dimensions (LxWxH) 98x 66 x 30mm
- Full software included

Lite Series LS100

Low cost product with many features including
Telnet interface.



Features

- 32 KB SRAM serial port buffer
- Male DB9 RS-232 Serial Port
- Serial speeds 1200bps to 115Kbps
- Signals: Rx, Tx, RTS, CTS, DTR, DSR, GND
- Flow Control: Hardware RTS/CTS
- RJ45 Ethernet Connector
- Static & Dynamic IP Address
- Protocols: ARP, IP/ICMP, TCP/IP, Telnet,
DHCP client, PPPoE
- PPPoE protocol for DSL connection to
broadband network
- Reliable TCP/IP protocol stack
- Voltage 7.5 - 15V DC, 3000mA min
- Dimensions (LxWxH) 100x 72 x 25 mm
- Full software included

Pro Series : PS100, PS200 and PS400

More sophisticated, with Data encryption facilities,
more protocol support and extra features.

Features

- 1, 2 and 4 Serial port options
- Supports RS232, RS422 and RS485
- Serial speeds 1200bps to 115Kbps
- Signals: RS422: Rx+, Rx-, Tx+, Tx-
RS485: Data+, Data-
RS232: Rx, Tx, RTS, CTS, DTR, DSR, GND
- Telnet, Serial console, HelloDevice Manager

PS100



- Flow Control: Hardware RTS/CTS
- RJ45 Ethernet Connectors
- Static and dynamic IP address
- Data Encryption: 3DES
- IP address filtering
- 7.5V - 30V (300mA @ 7.5V)
- System log and statistics
- LED: Power, Ready, 10 Base-T Link,
Serial Rx/Tx for each serial port
- Downloadable firmware stored in flash
- Admin & Management software

Super Series : SS100, SS110, SS400 and SS800

Even more sophisticated, with SSL Data encryption
facilities, more protocol support including web based
protocols, faster serial ports and net-
work connections plus extra features.

Features

- 1, 4 and 8 Serial port options
- Supports RS232, RS422 and RS485
- Serial speeds 1200bps to 230 Kbps
- Signals: RS422: Rx+, Rx-, Tx+, Tx-
RS485: Data+, Data-
RS232: Rx, Tx, RTS, CTS, DTR, DSR, GND
- Web, Telnet, Serial console, HelloDevice Manager
- 10Base-T and 100Base-T support
- PCMCIA - ATA storage card, 802.11b Wireless LAN
card and Modem card (SS110/400/800 only)

SS100



- Flow Control: Hardware RTS/CTS
- DB9 connector on SS100
- RJ45 Ethernet Connectors SS400/800
- Static and dynamic IP address
- Data Encryption: SSL
- IP address filtering
- 5VDC 1A SS100, 1.5A SS400/800
- System log and statistics
- LED: Pwr, Ready, 10 Base-T Link,
Serial Rx/Tx for each serial port
- Downloadable firmware stored in flash
- Admin & Management software



SS400
SS800



SS110

Boards and Modules

If you would rather embedded the network connectivity into your product, then we have board and module solutions to let you do that. These are only available for single serial port options. Each series listed above have the equivalent board option. There are also 2 IC style plug in modules, with 0.1" headers.

Model Number	Form Factor	Serial Interface	Network Interface	Security Level	Protocols Supported
HD1300	Board	RS232/485 DB9	10Base-T	Password	TCP/IP, DHCP/HTTP
HD1320	Board	RS232 DB9			TCP/IP, DHCP
HD1321	Module	UART			
LS100B	Board	RS232 DB9	10Base-T	ID/Password IP Filtering	TCP/IP, UDP, DHCP, Telnet, PPPoE
LS100M	Module	UART			
PS100B	Board	RS232/422/485 DB9	10Base-T	ID/Password/IP Filter/3DES	TCP/IP, UDP, DHCP, Telnet, DNS, SMTP, PPPoE
SS100B	Board	RS232/422/485 BD9	10/100Base-T	ID/Password/IP Filter/SSL	TCP/IP, UDP, DHCP, Telnet, DNS, SMTP, PPPoE,HTTP, FTP, SMTP

The HD1300 is more sophisticated than other HD13xx products as it supports HTTP and web based applications. It is the recommended product for web applications and a starter kit is available. If you also need SSL or 100Base-T, then you will need the Super Series SS100B.

The rest of the boards and modules are the same as their boxed equivalents described above. So,

- HD1320 board and HD1321 module have the same features as the HD1320E interface box
- LS100B board and LS100M module are the same as LS100 interface box
- PS100B board is the unboxed equivalent of PS100 product
- SS100B board is the same as the SS100 interface box.

Starter Kit Features HD1300SK

- 5V Power Adapter and Interface cables
- Complete software suite for development
- Sample programs in C and Java
- Includes source code
- Demo board
- User manual
- HD1300 board



Board Features HD1300

- Customisable web server
- 10-base T Ethernet Interface
- 512KB Flash Memory for user web files
- 1 Channel RS232/485
- Built-in TCP/IP stack
- HTTP / BOOTP/TCP / UDPIP / ICMP / ARP/Ethernet (IEEE802.3)



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