HDLC-Sync/Async Adapter – Model HSAA-01

- Converts HDLC-Sync data to Async
- Transports HDLC-Sync data via Async Channels
- Async composite speeds to 115.2 Kbps
- HDLC-Sync port to 128 Kbps
- Terminal or HSAA clock source
- Operate over IP networks using the DCB Etherpath or Etherpoll

DESCRIPTION

The HDLC-Sync/Async Adapter performs the unique function of converting HDLC-Sync data to an asynchronous data stream for transmission through asynchronous data links. The Adapter provides the way to pass synchronous data over asynchronous data links such as satellites, ISM license-free radio modems, statistical multiplexers, and packetized routers. The Adapter is the opposite of the typical sync/async adapter which is designed for passing asynchronous data over synchronous data links. The HDLC-Sync/Async Adapter provides the reverse function, a more difficult requirement that was not available until the introduction of this DCB product.

Applications for the HDLC-Sync/Async Adapter include:
- Passing X.25 synchronous composite links through async modems, stat mux ports, terminal server ports, async wireless radio links, TCP/IP networks.
- Passing Frame Relay synchronous composite links through async modems, stat mux ports, terminal server ports, async wireless radio links, TCP/IP networks.
- Passing SDLC synchronous composite links through async modems, stat mux ports, terminal server ports, async wireless radio links, TCP/IP networks.
- Passing PPP synchronous composite links (routers) through async modems, stat mux ports, terminal server ports, async wireless radio links, TCP/IP networks.

The HDLC-Sync/Async Adapter is easy to set up, simple to use. Most applications can use the default settings if the async speed of 115.2 Kbps is correct for your application. There are only a few settings. One is the speed of the async composite port, ranging from 9600 to 115,200 bps (default is 115.2 Kbps). Another is the HDLC port, changing from NRZ (default, typical for Frame Relay and X.25) to NRZI (used for SDLC applications, although SDLC will operate in NRZ mode). A terminal port is selected to accept terminal clock, or a port is selected and a synchronous speed is set if the HSAA is to supply the clock.

The HSAA can be used with the DCB EtherPath or the DCB EtherPoll unit to pass the HDLC synchronous data through TCP/IP networks. The EtherPath and EtherPoll units convert the RS232 asynchronous output of the HSAA to Ethernet. The EtherPath packages the data in TCP/IP. The EtherPoll packages the HSAA data in UDP packets. The EtherPoll option is more appropriate if the HDLC protocol cannot tolerate the possibility of duplicate HDLC packets, which can happen due to the error correction function of TCP/IP.

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SPECIFICATIONS

General
    All ports are RS-232, implemented in RJ-45 8-wire connectors
    Async Composite rate: 115.2 Kbps default, 9600, 19200, 38400, 57600, 115200 bps
    Synchronous HSAA internal clock rates: 9600, 19200, 38400, 57600, 115200 bps
    Modem CTS to HSAA-01 BUSY flow control on the async composite
    Sync port to 128 Kbps with terminal supplied clock rates
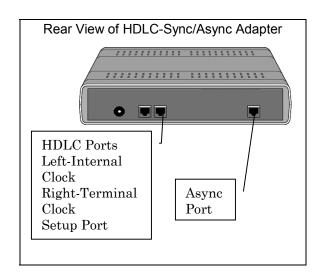   Defaults to NRZ, NRZI option
    Application: Point-to-point

Controls and Indicators
    Front panel push button for loopback and reset
    Front panel push button for Terminal or HSAA supplied clock
    Side door accessible firmware cartridge for installing firmware upgrades
    Setup via the rear panel NMP management port
    Power, Activity, Line Error, Modem Ready, Setup, Loopback LED's
    The HDLC port not used for the sync terminal is the management port-Front panel button is
used to select HSAA internal or terminal clock

Physical/Electrical
    Power requirements: 120 VAC, wall mount power
    supply
    60 Hz, 18 Watts
    10 1/4" x 9 3/4" x 2 1/4"
    One pound

Rear View of HDLC-Sync/Async Adapter

HDLC Ports
Left-Internal
Clock
Right-Terminal
Clock
Setup Port

Async
Port

Application

Async Link via modems, stat mux,
wireless radio link, etc

HDLC-Sync/Async
Adapter

Sync Device
running HDLC Protocol

HDLC-Sync/Async
Adapter

Sync Device running HDLC Protocol
(X.25, Frame Relay, SDLC, etc)