

APD-8

8-Channel FRAD / X.25 PAD



FEATURES

- 8-channel asynchronous FRAD/ X.25 PAD
- Asynchronous data rate up to 115.2 kbps
- SLIP/PPP supported on all async ports
- One synchronous Frame Relay/X.25 link operating at data rate of up to 2 Mbps
- Telnet client/server to support terminal/server applications
- SNMP management via the RADview PC or UNIX platforms
- FLASH memory for software upgrades

DESCRIPTION

- APD-8 is a miniature FRAD/PAD, which connects up to 8 asynchronous channels to a Frame Relay or X.25 network.
- Using the SLIP/PPP protocol, each asynchronous port operates at data rates of up to 115.2 kbps.
- The main link operates at data rates of up to 2 Mbps.
- Typical applications include:
 - Transferring asynchronous data over X.25/Frame Relay networks
 - Reliable async over Frame Relay using encapsulation of X.25 over Frame Relay (Annex G)
 - IP PAD facilities allowing easy migration of terminal/server applications to an IP environment, while improving its durability (see *Figure 1*)

FRAME RELAY

- APD-8 provides access to public or private Frame Relay networks. Async data is sent directly over the Frame Relay or encapsulated over X.25 / Frame Relay (Annex G), to achieve maximum reliability (see *Figure 2*)
- A unique funneling mechanism adjusts feeder throughput to CIR levels.
- LMI and ANSI PVC management protocols are supported and operation is in compliance with ANSI T1.606, T1.618, T1.617, Annex D, and ITU Rec. Q.922 Annex A.

X.25

- X.25-configured links support permanent virtual circuits (PVCs) or switched virtual circuits (SVCs). Link packet size is up to 4096 bytes.

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- APD-8 supports both mandatory and additional ITU X.25 facilities.
- Dial-up X.25 links are supported via a dial-up modem controlled by a DTR signal or V.25 bis commands.
- APD-8 supports X.25 multicasting.

X.32

- APD-8 supports X.32 protocol for a dial-up X.25 link. This enables users to access an X.25 network remotely, via a dial-up modem with X.32, or to use the backup dial-up link for an X.25 or Frame Relay network.

ASYNCHRONOUS ACCESS

- All async channels can act according to X.3, X.28 and X.29 profiles, at traffic speeds of up to 115.2 kbps. Async traffic can be packetized directly over Frame Relay network, or packetized over the X.25 network. All channels are configured and monitored by the management agent of APD-8.

- Each one of the APD-8 ports can be configured to SLIP or PPP modes, operating at data rates of up to 115.2 kbps.

ISDN

- PPP, Frame Relay, or X.25 can be transmitted over an ISDN physical interface ('S' interface).
- Dialed and leased lines are supported.
- ISDN support includes up to 128 kbps (Bundle two B channels).
- APD-8 supports Connection On Demand (COD), which enables the opening of the ISDN line only when real data is available. When an inactivity period occurs, the ISDN session is terminated.

MANAGEMENT CAPABILITIES

- APD-8 contains an SNMP agent, which enables remote configuration, collection of statistics/status reports, and diagnostics. The management agent can be programmed to periodically send statistics/status reports to a maximum of five management stations.
- Configuration, monitoring and controlling of all network resources can be performed from a RADview-PC or RADview-HPOV SNMP management station.
- A management station can be connected directly to APD-8 using PPP or SLIP.
- The SNMP agent supports private and standard MIBs, including MIB II with RFC 1213, RFC 1381 and RFC 1382 for X.25, and RFC 1315 for Frame Relay.

APPLICATIONS

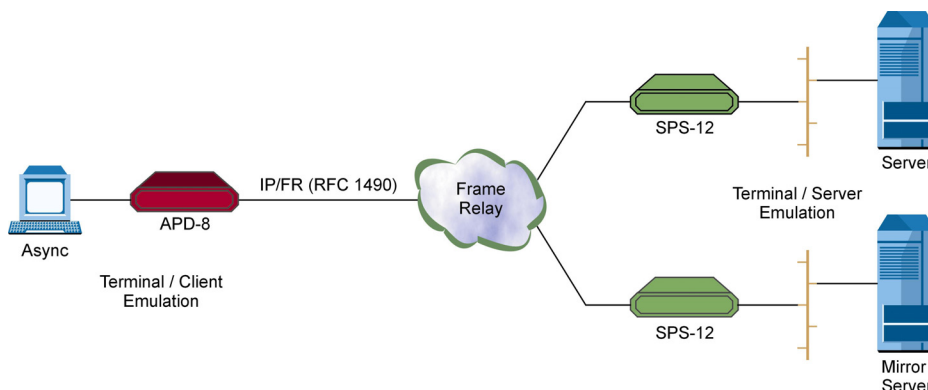


Figure 1. Terminal/Server Emulation Application

8-Channel FRAD / X.25 PAD

SPECIFICATIONS

SYNCHRONOUS LINK

- **Data Rate**
Up to 2 Mbps
- **Interface**
V.24/RS-232, X.21, V.35, V.36/RS-449, RS-530, IBE (see *Ordering*)
- **Connector**
V.24/RS-232: 25-pin D-type, female
X.21: 15-pin, female
V.35: 34-pin, female
RS-530: 25-pin D-type, female
V.36/RS-449: 37-pin, D-type, female, via adapter cable
IBE: 'S' interface, RJ-45
- **Protocols**
X.3, X.25, X.28, X.29, X.32:
All comply with ITU
Frame Relay: LMI and ANSI PVC management protocols.
Complies with ANSI T1.606, T1.617 Annex D, T1.618 and ITU Rec. Q.922 Annex A

ASYNCHRONOUS LINKS

- **Number of Ports**
8

- **Interface**
V.24/RS-232
 - **Connectors**
RJ-45
 - **Data Rate**
75 bps to 115.2 kbps
 - **Flow Control**
XON/XOFF
CTS/RTS
 - **Channel Logon Messages**
Welcome
Bulletin (defined by the user)
 - **Command Modes**
X.28, X.29
 - **Controls and Switches**
Front panel: Reset button
Rear panel: Power button
 - **Physical**
Height: 44 mm (1.7 in)
Width: 219 mm (8.5 in)
Length: 246 mm (9.5 in)
Weight: 1.8 kg (3.9 lb)
 - **Environment**
Temperature: 0°–50°C (32°–122°F)
Humidity: Up to 90%, non-condensing
 - **Power**
115 or 230 VAC (±10%), 50/60 Hz
 - **Power Consumption**
15W
- GENERAL**
- **Indicators**
PWR ON when unit is powered (green)
ERR ON when failure in operation is detected (red)
OVF ON when overflow is detected (red)
TEST ON momentarily at power-up or RESET (red)
SYNC ON when synchronization in the protocol layer is achieved (green)
ACTIV ON when data is transmitted on the line (yellow)

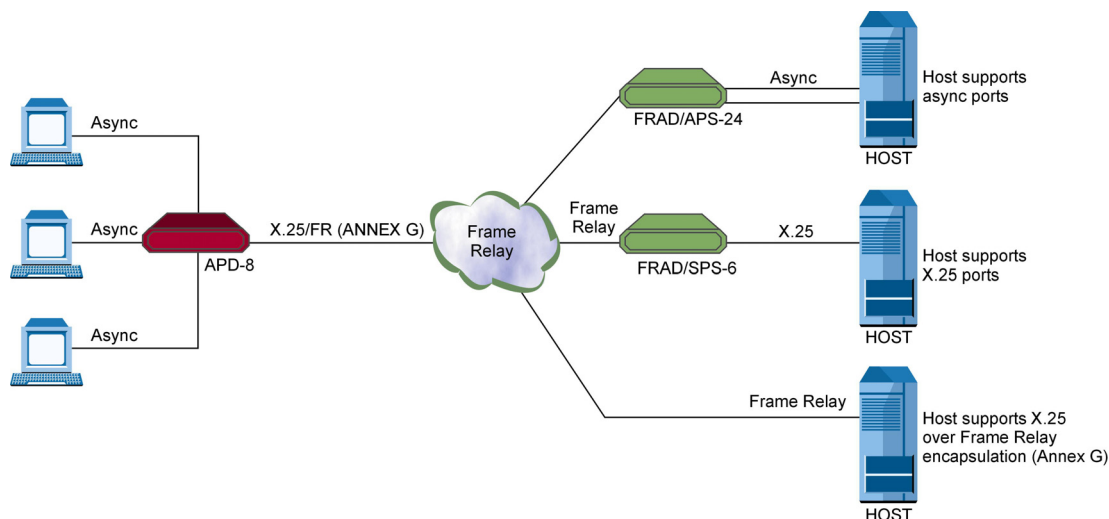


Figure 2. Asynchronous Traffic over Frame Relay

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ORDERING

APD-8/*/#

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* Specify optional DC power supply:

24 for 24 VDC

48 for 48 VDC

Specify main link interface:

V24T for V.24/RS-232 (DTE)

V24C for V.24/RS-232 (DCE)

V35T for V.35 (DTE)

V35C for V.35 (DCE)

V36T for V.36 (DTE)

X21T for V.21 (DTE)

530T for RS-530 (DTE)

IBE for ISDN BRI 'S' interface

IBU for ISDN BRI 'U' interface

DDS for integral CSU/DSU

UTP for 10BaseT interface

SUPPLIED ACCESSORIES

Power cable

CBL-RJ45/D9/F/STR

Adapter cable for connecting an ASCII terminal to an asynchronous port

CBL-8H/F

Adapter cable for V.35 (if V.35 interface is ordered)

CBL-530/499/F

Adapter cable for V.36 (if V.36 interface is ordered)

CBL-530T/21C/F

Adapter cable for X.21 (if X.21 interface is ordered)



data communications

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211-100-10/06