Smart solutions for smart networks

Version 1.5

AJ 2885 P

Analog Voice Frequency Modems

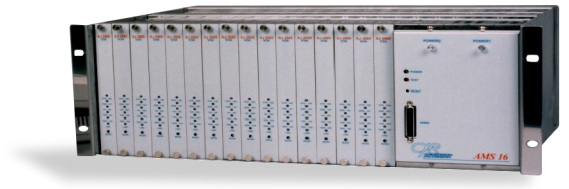
Key features

- Support all standard modulations up to V.34 bis
- All speeds detection and negociation up to 33.6 kbps
- Dial-up or 2W/ 4W leased line with automatic unattended dial back-up
- V.42/42 bis data correction and compression
- Security with several password protections and dial back-up
- Flash EPROM for software down-loading
- Choice of DTE interfaces V.24, V.11, V.35
- Rack-mount and table-top
- Choice of AC or DC power supplies in both standalone and rack-mount versions
- Optional LCD display
- Compatible with CXR universal shelves and management system
- Industrial strength versions

Applications

The Power Modems is a complete line of professional grade modems which have been designed to meet the very stringent requirements of networking professionals who need a high degree of reliability and performance. It is part of a complete family of transmission and network access products designed and manufactured by CXR Anderson Jacobson a leading company in analog and digital transmission. The Power Modems family is intended to be used for both dial-up and leased line applications with automatic unattended dial back-up. All members of the Power Modems family includes a wealth of advanced features and options which is generally not available with other vendors. For industrial applications where the requirements are even more severe the Power Modems can be delivered with special metallic enclosures, extra line protections, alarm contact and different other features which make them suitable for severe and impaired environment (see separate brochure on industrial versions). The Power modems are available as standalone or rack-mountable units and are fully manageable via the CFIP controller card when inserted in the Universal Chassis (smart rack). The rack– mountable card can be co-located with the other members of the CXR's transmission product family (ISDN terminal adapters, ISDN digital modems, MSDSL high speed modems etc..). Existing shelves can then be used to their full capacity by then reducing the required floor space while minimizing the capital expenditure.

For the standalone versions the Power Modems comes with a variety of other options like internal or external AC or DC power supplies and a 32 character LCD display for easy configuration.



Features

- Meets all International standards
- High quality standards
- The one source modem supplier
- A solution for every application
- SNMP management

Applications

The Power Modems together with the other members of the CXR's transmission product family can be used in a wide variety of networking or commercial applications like public or private X.25 networks, remote access servers, voice messaging systems, alarm reporting systems, monitoring systems, point of sales etc.. just to name a few. In its industrial strength version the Power Modems can be used in SCADA monitoring systems in environments like power plants, petrochemical installations etc... Thanks to its numerous features, total flexibility and high reliability the Power Modems can used in mission critical applications where the failure of a single component of the system can not be tolerated.

For specific requirement do not hesitate to contact us we may already have the solution.

CXR Networks

Product Description

The Power Modems family allows asynchronous and synchronous transmission over dial-up or 2 wire/4 wire leased lines at speed up to 33.6 kbps. It supports all standard speeds and modulation schemes including group 3 fax as well as TR29 class 1 and 2. DTE speed can be up to 115.2 kbps with auto-rate sensing and full programmability of the control signals to adapt to the DTE characteristics. In asynchronous mode it supports data correction and data compression via standard V.42/V.42 bis and MNP4/MNP5 algorisms. In dial-up applications a unique line qualification mechanism assesses the quality of the line before entering the transmission mode and can automatically redial in case of a poor lines. This mechanism avoid having to transmit in a degraded mode and lead to important money savings in case of long transmissions sessions. For leased line applications the unattended automatic dial back-up and restore feature provides an alternative path via the dialled network in case of serious degradation or failure of the leased line. The Power modems support all standard dialling modes including AT commands, V.25 bis, DTR as well as manual.

A number of security features protects against unauthorized access to the host system. Dial back-up security (with a 100 number built-in directory), manual as well as automatic password presentation are all standard features. When equipped with the flash EPROM option, the Power Modems can be automatically down-loaded with a new software code to take advantage of newly developed features or to implement customer specific features.

For large installed bases this feature can prove to be very useful by eliminating the need to send field personnel to the different sites.

The Power Modems can store up to ten different configurations and can easily be reconfigured manually or automatically by associating a given profile to a telephone number to be dialled.

For X.25 applications the X.32 and ID32 identification are standard features.

For mission critical applications the standalone Power Modems can be factory equipped with a built-in 48 volts DC powers supply with full protection against shorts and inverse polarities. For extreme environmental conditions the Power Modems can be provided with special protection against high humidity and large temperature range. An optional LCD display is also available for easy configuration in the field especially for synchronous environments.

The Power Modems are the clear choice when it comes to performances, reliability , flexibility and features.

Easy Configuration and Diagnostics

The Power Modems are also very easy to operate and configure. Customer or factory defined configurations can be selected from the front panel or even on a per call basis for dial-up applications. For field configuration and when more complex operations have to be programmed, the optional 32 character LCD display is recommended. All parameters can be entered or modified via the associated keypad.

All programming and monitoring functions can also be performed from the central site when the “Smart Rack” is used and equipped with the CFIP management card. Local and remote modems can be accessed and configurations can be loaded or modified. Loops can also be activated when a given channel needs to be troubleshoot and BERT test initiated to assess the quality of a transmission channel. On each modem a live signal quality indicator is also available to monitor the operation of the modem and to be alerted of line degradation. Detailed statistics are also available to monitor traffic and modem usage.

Rackmount Version

The Power Modems are also available as rack-mountable cards to be inserted into the Universal card cage also called the “Smart Rack”. This chassis can house up to 16 cards plus one controller card for shelf management. Up 16 chassis can be linked together to form a fully managed node with 256 slots. Each slot can be used to insert a modem or dual modem card or any other members of the CXR’s transmission product family. Quad ISDN terminal adapter cards or Quad ISDN Digital modem cards with full V.90 support can be inserted together with cards from the new high speed MSDSL modem family. Each chassis can then be used to its full capacity by then reducing the required floor space while minimizing the capital investment.

The Smart Rack can be equipped with one or two AC or DC power supply modules for redundancy purpose with full load sharing. Each card can be hot swapped from the front without disturbing the other cards.

For dial-up applications modem cards are equipped with a busy-out feature which will place the modem in an “engaged” state should a fault occurs on the card. Calls will then be passed to the next modem in the pool.

When the CFIP management card is installed, all modems and other modules in the chassis and other chassis in the node can be fully managed. Remote CXR Power Modems can also be managed from the central console via a dial-up or lease line connection. Various alarm conditions are also reported to the management console either locally or remotely via a dial-up connection. Detailed statistics are also available to monitor the activity of the rack and the associated modules.

All these management features are accessed locally from a console port, or from the network through tcp-ip connection and protocole: telnet, snmp.ftp.

Industrial Version

The Power Modems are also available in an industrial strength version. Designed especially for harsh environments these versions are more immune to adverse conditions than regular versions. Extra line protection, metallic enclosure as well as extended temperature range and high humidity protection are just a few of the characteristics of this version. An optional relay alarm contact is also available should the transmission link fails for what ever reason. This same relay can also be used to remotely activate external devices.

Desk-Top Version

Desk-top versions are available with a number of different options and configurations.

External or internal power-supplies either AC or DC are available. In case of a DC integral model, different voltages are available on demand mainly 12, 24 or 48 volts.

Plastic or metallic case are also available depending to on the particular application.

The 32 character LCD display with the associated keypad is also available as an option as well as a wall mounting bracket.

CXR Networks

Product Specifications

Dial-up line

Transmit level: -16dBm to –0dBm

Receive sensitivity: -43dBm

V.34 bis, V.32 bis, V.32, V.22 bis, V.22, V.21

Fax V.17, V.29 and V.27 ter

Connector : RJ11

Leased line

Type of lone: 2 and 4 wires

Transmit level: -16dBm to –0dBm

Receive sensibility: -33dBm/43

V34 bis, V34, V.32 bis, V.32, V.22 bis, V.22, Bell 202T, V23 1200/1200 ,V29

Connector: RJ11

DTE interface

Choice of three different physical interfaces:

- V.24 with DB25 connector
- V. 11 and V.35 via DB25 connector and adaptation cable

Configuration interface (standalone)

Via DTE interface with extended set of AT commands or V.25 bis commands

LCD display (optional) - 2x16 characters with three associated keys - Menu driven

Remote configuration via central site or local modem

By selecting one of the ten stored configurations via front panel push button or on a per call basis for dial-up applications

Transmission modes supported

Serial

Full duplex and half duplex (V.23 only)

Asynchronous and synchronous

V.42 and MNP4 error correction

V.42 bis and MNP5 data compression

Front panel (standalone)

With optional LCD - LED's for DTR, CD, Data and Test. Key's for Left, Down and Enter

Without LCD - LED's for Power, DTR, CD, CTS and one multifunction push button

Rack-mount card

Front panel same as standalone without LCD

16 cards per chassis

Can be mixed in any order with other CXR cards (modems, ISDN etc..)

Management

Via universal chassis and CF1/CF2 controller card

Alarm reporting and statistics

Optional SNMP agent (to be announced)

Power supply

Standalone: 96 to 240 volts AC integral or 230 volts AC external

12, 24 or 48 volts DC internal

Universal chassis: 110/ 230 volts AC—24 or 48 volts DC - Optional redondant power supply with full load sharing

Physical

Standalone: 29 cm deep, 17 cm wide, 3.5 cm high

Operating temperature

0 to 45 degree C

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