



T1/FT1 CSU/DSU Series

CV2000

CXR Anderson Jacobson's CV2000 provides the interface between customer equipment and full or fractional T1 facilities. It has a built-in T1 ESF CSU/DSU and one built-in data interface, 10Base-T Ethernet, V.35 or X.21. The type of digital service accessed, full T1 or Fractional T1, is a user selectable option that requires no hardware upgrade.

Highlights

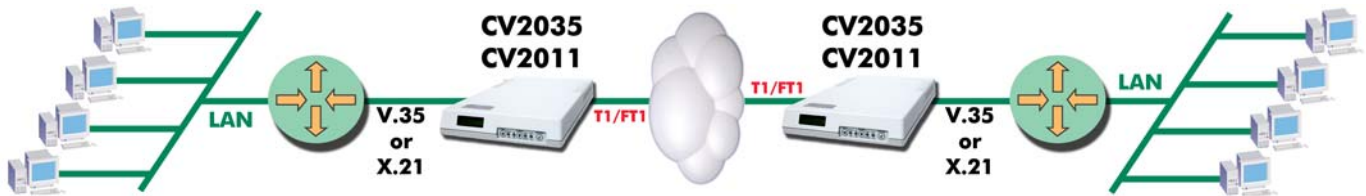
- T1/FT1
- N x 56/64K
- SNMP Management
- Non-Contiguous DSO
- 10Base-T Ethernet
- V.35
- X.21
- SF/ESF
- V.54 Diagnostics

Access

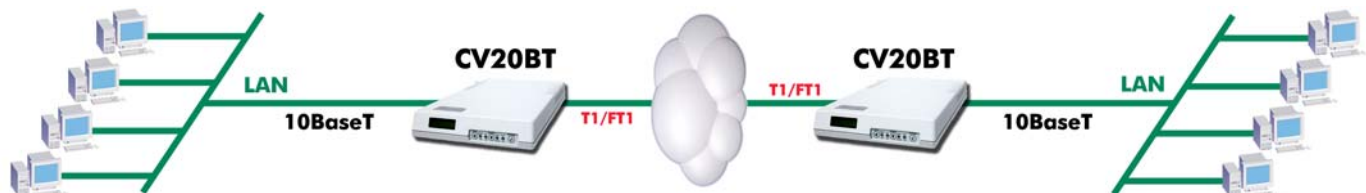
The Anderson Jacobson CV2000 has an extensive set of built-in diagnostic tools to help pinpoint communications problems. Local and remote network interface loopbacks can be initiated from the Command Port or SNMP Network Manager (for rackmount models). User data port testing is accomplished using the local digital and V.54 remote digital loopback commands. The remote digital loop command can be sent to any V.54 compatible device and is usable in point-to-point T1 connections and fractional T1 or integrated access based network applications. The CV2000 includes registers that statistically count Errored Seconds, Seconds in Test, Unavailable Seconds, Severely Errored Seconds and more.

Applications

The CV2000 can be used in numerous applications. Here it is used to connect an X21 or V35 router to a T1 (1.544Mbps) carrier-based circuit.



The CV2000 is used as an interface converter to connect a 10BT Network to an FE1 access in channel mode. The clock used for the synchronizing of both the CV2000 and the data equipment is provided by the network.



Network

The network interface accommodates the T1/FT-1 D4/ESF framed standard, from one to twenty four channels (DS0s). The synchronous user interface provides a V.35, X.21 or 10Base-T Ethernet connection that can be used for a wide variety of synchronous applications. It will operate at any multiple of 56/64K bps up to 1.536M bps including current Frame Relay service data rates.

AT&T ANSI ESF Compatibility

The Anderson Jacobson CV2000 Series provides all the benefits of the Extended SuperFrame (ESF) T1 framing format. It is compatible with both the AT&T 54016 and ANSI T1.403 ESF reporting standards allowing the user to benefit from ESF regardless of the service provider. The user has access to the T1 link quality data registers.

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Easy & Error Free Operation

The CV2000 has an easy to use menu-driven user interface. Whether it be through the ASCII terminal interface or the SNMP Manager, anyone can become an accomplished operator in minutes. The CV2000 is easy to configure and can be "on-line" in a matter of a few minutes. Monitoring network performance, performing fault isolation or diagnosing network problems is quick and simple using a single button.

Because of Anderson Jacobson's commitment to standards based products, the CV2000 uses SNMP as its network management platform. In today's multi-vendor environment an enterprise-wide network management system that provides access to all of the equipment on the network is essential.

The CV2000 rackmount models have an integrated SNMP agent and can be managed by an SNMP network manager.

The units support MIB1 and MIB II and have an integrated enterprise MIB. Network performance monitoring, unit configuration test and diagnostics can all be accessed and controlled via SNMP.

The SNMP agent is integrated into the CF-IP Network Management card. Because of this, the users do not need a proxy agent to manage the device. The network administrator can manage all CV2000 nodes from the SNMP network management station (e.g. Hewlett Packard's HP Openview) via SNMP. CV2000 equipment is compatible with RFC 1213 MIB II and our own proprietary MIB to give the network administrator maximum control for support of the CV2000 object groups. All of the Anderson Jacobson enterprise MIBs are registered and are publicly available through the Internet.

CV2000 Series Technical Data - T Series

Line Interface T1/FT1

Line Rate : 1.544 Mbps ±50ppm
Line Coding : AMI or B8ZS
Frame Format : ESF and D4
Standards : ANSI T1.403
AT&T 62411 (Bit Stuffing)
AT&T TR-54016
LBO : 0, 7.5, 15, 22.5 dB
Termination : 8 position RJ-48C

Timing

Clock Sources : Internal Frequency locked to Network (Loop time)
Frequency locked to Serial Port

Network Diagnostics

Local Loops : CSU, Line (LLB), Payload
Remote : Line (RLB), Payload
Indicators : Alarm, Loop, BPV, Density

Serial Data Interface

Input Data Rates : n x 64 Kbps - 1.536 Mbps
Interface(s) : V.35 or X.21 or 10Base-T
Loopbacks : Local Digital Loop, Remote Digital V.54 Loop (both bi-directional)
Indicators : Loop, Test, Carrier Detect

Interface: 10BaseT of CV 20BT

Speed : 10 Mbps
Interface : 10BaseT, IEEE 802.3
Connector : RJ-45
H/W Bridging : Able to learn 10,000 MAC addresses.
Capacity : 15000 pps (memory 255 frame).
Filtering : On/Off.
Optimization: Suppression of Padding bits (in short Ethernet frames)

Interface X21 of CV 2011

DTE Rates : 1.536 Mbps +/- 50 ppm in TS n x 64 Kbps.
Circuits : T(103), R(104), C(105), I(109), S(114).
Transmit Clock : Internal, external or slaved.
Connector : DB25 to DB15 adapter cable

Interface: V35 of CV 2035

DTE Rate : 1.536 Mbps +/- 50 ppm in TS n x 64 Kbps.
Circuits : 103, 104, 105, 106, 107, 108, 109, 114, 115.

Transmit Clock : internal, external and slaved.
Connector : DB25 to Winchester adapter cable.

Management port

RS-232—8 bits at 19.2 Kbps, no parity or flow control.
VT 100, AT command or menu.

LED Indicators

POWER.
Active interface : RTS/V35, LAN/10BT, C/X21
Synchronization of T1, red loss of carrier.
ERR : CRC error detection or LCV (Line Code Violation) on T1
DATA : active data on T1.
TEST : active test.

Push button

Cancel alarms.

Administration

Local or distant.
Diagnostics : local loops and distant V54, B3 and B5.
Administration in the AMS16 rack (or Smart Rack) with the CFIP.
SNMP management with CFIP (rackmount models)
Administration through a network utilizing one time slot (1 to 24).

Power Supply

External : 115 VAC : CV2000-PVU.
Internal : 115 VAC : CV 2000-PIU.
Internal : 48 VDC : CV 2000-PCU (36 to 72 VDC).

Physical

Standalone : 7.7in.x4.7in.x1.7in. (196m x120mmx44mm)
Rackmount:
Weight : 2Lbs (900g.)
Operating temperature : 0 to 50 degree C
UL Safety Standard 950
FCC Part 15A
CE (EN 60950, EN 50081-1, EN 50082-1).

Ordering Configurations

CV 2 XXX—PZTU

XXX—Interface (DTE)

011 = V11

035 = V35

0BT = Port Ethernet 10BaseT

Option : + CV2000-BNC (75 Ohms with BNC)

P- Standard front panel with LED indicators

Z- Equipment Configuration, where Z = _:

C- Standalone with internal 48 VDC power supply

I- Standalone with internal 96-240 VAC power supply

R- Rackmount card for CXR AMS16/4

V- Stand alone with external power supply

T- T1

U- USA

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