CV 200 TTX

ETHERNET BRIDGE OVER E1/T1 – G-704 INTERFACE

Characteristics & Benefits

E1 2.048 Mbps and T1 1.544 Mbps

Network interface : balanced 100/120 Ohm RJ45 and unbalanced 75 Ohm BNC

Ethernet 10/100 BaseT, automatic rate

E1 : G703, G704 at 2,048 MBPS +/- 50 ppm
T1 : G704, DSX-1 and CSU Line Build Out, D4 and ESF framing

Based on up to date technologies for clock recovery, jitter, bandwidth allocation

Flexible timeslot allocation

Rate: Nx64 or Nx56 kbps

E1 or T1 network mode selectable by the user

ETHERNET BRIDGE AND E1/T1 G704 CONVERTER

The **CV-200** is a manageable 10 / 100 Base-T Ethernet bridge that connects to a G704 network termination in E1 – 2,048 Mbps or T1 – 1,544 Mbps.

The **CV-200** is a must component of E1/T1 network to interconnect Ethernet Local Area Networks.

The **CV-200** fits in a compact metallic enclosure with a choice of 230 Vac or 110 Vac mains power supply, or 48 Vdc or 12-36 Vdc DC/DC converter to satisfy most industrial and Telco's requirements.

The **CV-200** embeds a T1 and E1 network interface. It can easily be deployed in international applications and be set by the user for European E1 or USA T1 network access.

The **CV-200** includes a powerful Ethernet bridge. It will suit most network interconnection needs thanks to its Ethernet frame filtering, compression algorithm, VLAN and other protocol transparency features.

The **CV-200** encapsulates Ethernet frames over HDLC or PPP-BCP protocol which makes it compatible with most other equipments. It supports double VLAN tagging (Q-in-Q).

The **CV-200** is very easy to operate, especially thanks to its Windows graphical software offered with the equipment. The **CV-200** can also be managed from the local area network with the IP protocols : Telnet, SNMP, FTP. Management traffic can be isolated through a dedicated VLAN.

The **CV-200** installation is very flexible. It can be mounted on a DIN rail with an optional kit. Two units may also be installed in a 19 inch bay.

The **MX-200-TTX** is also part of this range of products. It is a Drop and Insert multiplexer with an Ethernet interface and an RS232 port to connect an asynchronous equipment.

Applications

Interconnecting local corporate networks via an E1 / T1 network

Characteristics & Benefits

Can be used as a short or long range modem (1.6 km)

Filtering Ethernet bridge

100,000 address memory

400 frame buffer Data compression algorithm

PPP-BCP and HDLC transport

Single and double VLAN tagging, Q-in-Q

Easy to manage : VT100 menus, Windows graphical software

Local and remote Network management : Telnet, FTP, SNMP, TRAP

Compact metallic enclosure, choice of mains power supply and DC/DC converter

48 Vdc or 12-36 Vdc DIN rail kit

19'' kit for two units / 1U

The **CV-200** is an efficient and cost effective Ethernet bridge to connect two enterprise LAN's over an E1 or T1 network such as a PDH loop, or a microwave link, or other network with E1/T1 interface, or in a point to point schema. The CV-200 provides all features and rate conversion capability of a complete CSU-DSU, with a E1 and T1 network interface, and both Nx64 and Nx56 K conversion.

The Ethernet bridge provides a lot of advantages such as high performance, protocol transparency, ease of installation and configuration, data compression.

SPECIFICATIONS

E1 Interface
Transparent (G703) or framed mode (G704)
G704 framing : PCM31, PCM31C, PCM30, PCM30C.
Impedance 120 Ohms, RJ45 socket
Impedance 75 on BNC sockets for the network interface
Phase jitter performance : G823
Line code : HDB3
Rate : 2048 Kbps +/- 50 ppm
Long Haul / Short Haul : -16 / -40 dBm
Transmit clock : internal, network, external from the D&I E1 terminal
Insulation : 1500V as per K20 et K21 standards

T1 Interface
Line code : AMI, B8ZS
Line Build Out : DSX-1 and CSU
Framing : D4, ESF
RJ45 socket
G704 : 1 to 24 IT
Timeslot rate : Nx64 or Nx56 KBPS
Phase jitter performance : G823
Rate: 1,544 Kbps +/- 50 ppm
Transmit clock : internal, network, external from the D&I T1 terminal
Impedance : 100 Ohms on a RJ45 socket
Insulation : 1500V as per K20 et K21 standards

Ethernet Interface
Rate : 10 / 100 MBPS
Interface : 10/100 BaseT, IEEE 802.3
Socket : RJ45
Ethernet bridge with automatic MAC address learning : 10,000 MAC address memory
400 Ethernet frame buffer
Filtering of Ethernet frame can be enabled / disabled
Padding bit suppression : enable / disable
Data compression algorithm for rates up to 256 KBPS
Statistics : sent and received frame counters, filtering diagnostics
Bridge : PPP-BCP, HDLC
Provider Bridge : double VLAN tagging (Q-in-Q)
Dedicated VLAN for management and test
Max Ethernet frame size : 2028 bytes.

Time slot Allocation
Timeslot extraction from the network interface to the Ethernet port
User defined allocation, no restriction
Nx56KBPS or Nx64KBPS

Configuration Port
RS232, V24/V28, RJ45 socket, 8 bits, 19.2 Kbps
VT 100 menus, AT commands

LED Indicators
Power / management in progress
Test
Link : LAN is connected
LAN RX : data received from the LAN
LAN TX : data sent to the LAN
WAN CD : signal received on the WAN E1/T1 port
WAN SYNC : E1/T1 network is synchronized

Management
Local management through the console port : AT commands, VT 100 menus
Windows graphical software MX-CFG : edit and save configuration on the PC, supervision, test control, firmware upgrade
Diagnostics : network test loop, PING
TCP-IP management : Telnet, SNMP, FTP for configuration and firmware file transfer
Remote control through TCP-IP protocols
Statistics over 24 hours : counters for Loss Of Synchronization, loss of carrier, Errored Seconds, Severely Errored Seconds, UnAvailable Seconds

Power supply
External 230 Vac : CV-200-TTX-MVE
External 110 Vac : CV-200-TTX-MVU
Internal   48 Vdc : CV-200-TTX-MC
Max power consumption : 8 W

Environment
Size : 146.5 x 144 x 30.7mm
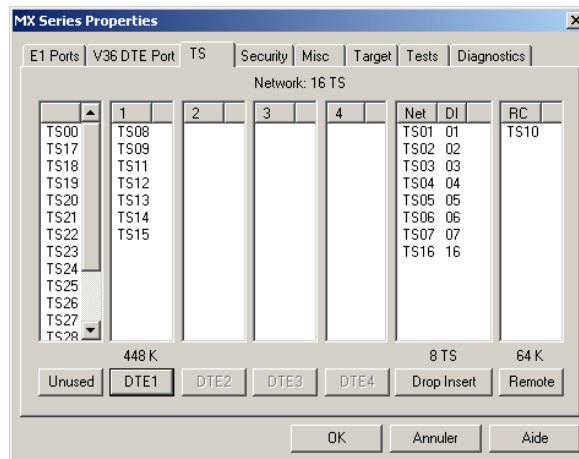Weight : 0.5 kg - Mains power supply: 0.1 kg
Operating temperature : 0-55 °C (32-131°F)

CV-200 has been design to comply with the following standards :
EEC : EN-60950,EN-50081-1,EN-50082-1
FCC Part-15, Class A.
MTBF : 245.000 h

MXCFG : Windows graphical soft-
ware to manage the CV and MX
range of products

ORDERING INFORMATION

CV200-TTX - MYZ

Y : Power supply
- V   External mains adapter
- C   Internal 48 Vdc DC/DC converter

Z : Destination

- E   Europe
- U   USA

Options

- **DIN-WALL** : wall mounting kit
- **DIN-CPE** : DIN rail mounting kit
- **RACK-DUAL-CPE** : 19'' mounting it (2 products)