

# PCU<sub>2</sub>

## Cable Extension & Cable Concentration



The PCU2 (Port Concentrator Unit) is the customer interface point for a wide variety of analog and digital interfaces.

The unit has two functions. Use the PCU2 in conjunction with Cornet Switching Systems' (CTI) matrix engines to provide full any-to-any connection capability. To reduce under floor cabling and extending cable distances between high speed devices, look no further than the affordable PCU2 Cable Concentration solution. This flexible solution is deployable within traditional data centers or throughout a campus environment. With the PCU2 connectivity can be provided over copper or fiber.

For ultimate reliability, PCU2s offer connectivity through dual paths to either separate engines if matrix switching is desired or to another PCU2. Whichever way is chosen, path switching is automatic, fast, and on a per port pair basis.

#### PCU<sub>2</sub>

The PCU2 can accept up to sixteen (16) port cards, multiplex all sixteen outputs, place them on a pair of fibers, and in single-mode transmit them to another PCU2 up to 31.07 miles or 50 km away. The PCU2 comes with standard built-in redundant power supplies. Optional Dual fiber control cards are also available to provide backup fiber links between PCUs. Each port card in the PCU2 is independent. Any card

can be a DTE or DCE interface or any of seven different interface types up to 10.048 Mbps.

## **Interface Types**

Various types of port cards are available to concentrate interfaces, such as EIA-232, EIA-449, EIA-422, EIA-530, X.21,V.35, standard 2-wire FXS/FXO, 4-wire, 4-wire E&M, 6-wire, I2-wire NB, I2-wire WB, telco interfaces, TI/EI, TI CSU, and EI CSU and extend them up to 50 kilometers while passing data rates up to 10.048 Mbps. These card types may be mixed and match within the same PCU2 as needed. Interface adapters are available to convert the standard DB-25 to the physical interface required for each interface type.

Unique to CTI's PCU2 is the ONEcard which supports any of six different interface types: EIA-232, EIA-530,V.35, X.21, EIA-449, and EIA-422. This card is great for networks in transition. Purchase the card for a EIA-232 or V.35 line today and when the service is updated to EIA-530 simply change a setting, relearn the ports and the matrix portion of the service is upgraded; it's that simple.

All PCU2 interface cards have built in LEDs for monitoring Transmit and Receive Data, Loopback, Distant End Synchronization, and the DTE/DCE physical interface. In many cases there is no need to put a breakout box in the link, just glance at the LEDs and the problem may be solved.

## **Key Features**

- Multiple Interfaces in Same Chassis
- DTE and DCE on Same Card
- Integral Redundant Power Supplies
- High Data Rates (up to 10 Mbps)
- Redundant Fiber paths
- Supports Both Single Mode and Multimode Fiber
- Complete Control from CTI's CorScan Management Software
- Dual auto redundant station clock inputs 1/2-16 distribution
- AC & DC power
- · Red and black versions

### **Fiber Options**

Based upon the type of media available and the transceiver selected, the PCU2 offers multiple fiber options. See the table below. A multimode fiber transceiver is standard and allows the PCU chassis to be separated up to 250 meters. Where longer distances are required, a single-mode fiber transceiver using a LASER transmitter permits the PCU chassis to be separated up to 50 kilometers.

Transceiver Type	Fiber Type	Distance
Multi-mode	Multi-mode	250 metres
Single-mode LASER	Multi-mode	550 metres
Single-mode LASER	Single-mode	10 kilometres
Single-mode LASER	Single-mode	50 kilometres

#### **Power Supply Redundancy**

The PCU2 is configured with dual redundant power supply modules. These modules are part of the chassis configuration and allow each module to "share" the total load; however, each module is capable of powering the entire PCU. If a power module fails, the redundant module will automatically assume the entire load. The port-to-port connections will continue to pass data and the failure will be reported to CorScan® (CTI's control software).

#### **Control Card Redundancy**

The optional dual control card configuration brings redundancy to the control level. The in-service card keeps its mate updated with the current status of the PCU. If a control link problem surfaces, the second card can be enabled allowing continued control of the system until the defective card has been replaced.

Both control cards are equipped with standard battery-backed Non Volatile Random Access Memory (NVRAM). This NVRAM maintains the individual card configuration against the possibility of a power failure. When the power is restored, the NVRAM will automatically configure the port cards to their last configuration, bringing the circuits back up without any operator intervention.

#### **Expansion and Upgrade**

The PCU2 is fully compatible with the Cornet Switching Systems Switching and Cable Management System. Upgrade the flexible PCU2 at any time to enjoy the full suite of matrix functionality (including NxN switching, automated test/monitor access, interface conversion, integral modem eliminator, BERT testing, etc.) by simply adding a CTI switch engine (TVCS.VCS, MTX,etc.). There is no hardware obsolescence.

#### **Specifications**

Port Types: RS-232, EIA-530, V.35/36, X.21, T1/E1,

RS-449, RS-422, 2-wire, 2-wire FXS/FXO, 4-wire, 4-wire with E&M, 6-wire, I2-wire NB, I2-wire WB,TI-

CSU, EI-CSU

Data Rates: 50 bps to 10.048 Mbps

Port LEDs: TD, RD, Sync, DTE, DCE, Loopback

Interface Type: DTE or DCE, same card

Distance:

Single Mode: up to 31.07 miles/50Km

Multi Mode: up to 550 meters/1,100m both

sides

Concentration: 16 to 1

Station Clock: Dual Auto Redundant input 12/-16

distribution

AC Power: 90 to 260 VAC Autoranging

47-63 Hz, Single Phase

DC Power: -48 VDC

Dimensions: 5-1/4"H x 19" W x 11" D Options: 50-pin Telco Chassis

Red or black versions