

Controller/Power Supply Module



Product Description

The CPS 4200 controller/power supply module is the intelligent engine of the HLP 4200 broadband platform. It provides microprocessor control of the high-efficiency switching power supply, control of the communication bus, and supplies 24 VDC power to the power bus.

The power supply board drives all modules in the HLP 4200 platform using a common DC power bus. The controller portion of the CPS 4200 module controls the communication bus of the HLP 4200 platform, and provides local and remote communications for system monitoring and control. The CPS 4200 provides an internal fault diagnostic menu that can be read on the HLP 4200WD display, or remotely by means of the NETWatch™ Element Management System. Microprocessor controlled regulation circuitry and over voltage/current protection ensure optimal performance and reliability, and a microprocessor controlled fan maintains the unit's proper operating temperature.

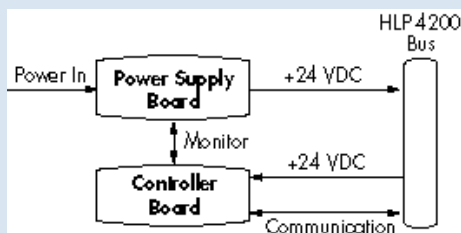
The reliability of the CPS 4200 is further enhanced by powering the controller board directly from the platform bus, maintaining control in case of power supply board failure. A second CPS 4200 module may be installed in the platform and operated in a hot redundancy mode to enhance system reliability.

Advantages

The CPS 4200 module offers many advantages to enhance the power and flexibility of Harmonic's broadband communications equipment:

- Highly efficient 270 Watt power supply reduces overall power consumption.
- Over voltage protection enhances performance and reliability.
- Microprocessor controlled three-speed fan automatically maintains optimal temperature, ensuring continuous, reliable operation.
- On-line replaceable fan allows for uninterrupted service.
- Automatic sensing of input AC voltage from 100 to 240 VAC provides for ease-of-installation.
- IEC power connector ensures worldwide cord availability.

Standard Configuration



User Interface

Front panel:

ON/OFF switch

Bi-state status LED: Normal = Green, Alarm = Red

Module selection indicator: Yellow LED

Rear panel:

IEC male power connector

62 pin D connector for controller cable to HLP 4200 platform

Output Power

Output voltage: 24.8 ± 0.3 VDC

Output current: 11 Amps maximum

Short circuit and over voltage protection

Power Requirements

Input voltage: 100 - 240 VAC, auto sensing, 50/60 Hz

Back-up input voltage: +24 VDC

Efficiency: 80% minimum at full load

Consumption: 30 Watts maximum (CPS 4200 only)

IEC male power connector

Fuse: Slow blow, 250 V, 5 Amps, 5 x 20 mm

Environmental

Operating temperature range: 0° to +50° C / +32° to +122° F

Storage temperature range: -40° to +70° C / -40° to +158° F

Automatic three-speed fan adjustment at: 40° & 50° C / 104° & 122° F

Relative humidity: Maximum 85% non-condensing

Physical

Dimensions: 2.6" W x 4.4" H x 10.7" D/

6.6 W x 11.2 H x 27.2 D cm

Weight: 3.75 lbs. / 1.7 kg

Mounting: HLP 4200 platform; one module slot