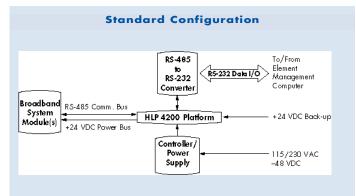


Product Description

The HLP 4200 is Harmonic's flexible platform for mounting broadband communications equipment. The platform measures three RU in height, accommodates a power supply and up to five of Harmonic's standard 2.6" wide plug-in modules, or up to ten 1.3" wide PWRLinkTMII plug-in modules. It includes a common communication and DC power bus with RS-232 and RS-485 interface connectors. This high-density packaging design minimizes headend space requirements, making it an ideal platform for narrowcasting applications. With its modular design and built-in communications interfaces, the HLP 4200 provides operators with the infrastructure to meet emerging broadband network requirements.

Two configuration options are available. Model HLP 4200WD, with the front panel display option, enables module set-up and monitoring via the 40 character alphanumeric display with push button controls. With the model HLP 4200ND, without the front panel display, module set-up is accomplished via the module front panel function slide switch and set-up adjustment. With either option, module set-up and monitoring can be accomplished using the NETWatchTM Element Management System or a local computer connection.



Advantages

Broadband Platform

The innovative design of the Harmonic broadband system offers many advantages to address the needs of emerging broadband networks, making it a truly next-generation platform:

- Accommodates a wide range of interoperable modules including:
 - PWRLink[™] Plus 1310 nm DFB transmitters
 - High packing density PWRLink II 1310 nm DFB transmitters
 - MAXLink™ 1550 nm optical transmitters
 - MAXLink 1550 nm optical amplifiers
 - Optical receivers and switches
 - QAM modulators
 - Power supplies
 - RF amplifiers
- Universal platform approach enables seamless network management integration of diverse equipment, providing user interface commonality, and maximizing rack space efficiency.
- Built-in comprehensive local and remote element management allows monitoring and system control from one location, lowering network management costs and increasing network reliability.
- Modular platform provides infrastructure for easy, costeffective growth to accommodate current and future modules, providing added capabilities.
- High-density packaging reduces headend space requirements by accommodating one power supply module and up to five standard (2.6" wide) modules, or ten of the half-width (1.3" wide) modules in three rack units of height.
- Plug-in modules are all individually fan cooled, allowing the platform to be tightly stacked without a need for thermal spacing.
- Power bus architecture allows both 24 Volts DC back-up powering interface module and redundant ("hot") power supply capability to provide automatic power back-up for uninterrupted operation.
- Guaranteed performance stability over wide operating temperature range offers increased flexibility in system planning.





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User Interface

Front panel:

Five control buttons

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

Super luminescent 40 character alphanumeric display Rear panel:

Alarm activated relay contact: Normally open (NO)/ normally closed (NC)

62 pin D connector for controller cable to CPS 4200/ CPS 4248 controller/power supply

Element Management System - NETWatch[™]

NETWatch interface: RS-485, RJ11C, RS-232C connectors

Power Requirements

Back-up input voltage: +24 VDC Consumption: 1 Watt (platform only)

Electrical

Backplane current capacity: 11 Amps max

Environmental

Operating temperature range: 0° to $+50^{\circ}$ C / $+32^{\circ}$ to $+122^{\circ}$ F Storage temperature range: -40° to $+70^{\circ}$ C / -40° to $+158^{\circ}$ F Relative humidity: Maximum 85% non-condensing

Physical

Dimensions: 19" W x 5.25" H x 13" D / 48.3 cm W x 13.3 cm H x 33.02 cm D cm Weight (without modules): 17.25 lbs. / 7.84 kg Mounting: 19" EIA rack, 3 RU spaces

Standard Accessory

HCC 4000: Controller cable to interconnect HLP 4200 platform with CPS 4200/CPS 4248 controller/power supply

Optional Accessories

HLC 4000: Decorative blank module panel cover plate HPK 4000: Decorative panel kit with two side panels, top panel and mounting hardware

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Configuration Information

- HLP 4200 platform or HLP 4200ND platform (without display) with HCC 4000 controller cable (62 pin): Six module slots
- CPS 4200 controller/100 240 VAC power supply module
- CPS 4248 controller/-48 VDC power supply module
- HLT 7700 750 MHz 1550 nm optical transmitter modules
- HLT 7800 870 MHz 1550 nm optical transmitter modules
- HLD 7800 forward path directly modulated 1550nm narrowcast transmitter
- HLD 7200 return path directly modulated 1550nm narrowcast transmitter
- HOA 7000 1550 nm optical amplifier modules
- PWL 4700P 750 MHz 1310 nm DFB optical transmitter modules
- PWL 4800P 870 MHz 1310 nm DFB optical transmitter modules
- PWL 4700 II 750 MHz 1310 nm DFB optical transmitter modules
- PWL 4800 II 870 MHz 1310 nm DFB optical transmitter modules
- HPA 4710-4 750 MHz pre-amplifier module
- HPA 4809-4 870 MHz pre-amplifier module
- HOS 7000H optical switch modules
- HRM 3810 receiver modules
- QMM 8000 QAM modulator modules