



CHP Max5000®

Chassis, Power Supply, and Element Management

- Accelerate deployment of new, revenue generating advanced services
- Converged high density platform
- 2RU scalable system
- High speed backplane to support data communication in gigabit EPON applications
- High speed shelf interconnect option with 100 BaseT Ethernet connection
- Supports all CHP application modules
- Simplified installation and management
- Universal management through Craft interface, SNMP with HMS, or remote IP access



Accelerate Deployment of New Revenue Generating Services

The CHP Max5000 Converged Headend is a converged, high-density platform that converges headend, hub, and digital transport onto a single 2RU scalable system allowing service providers to accelerate deployment of advanced services such as VOD, high speed data, and telephony.

The CHP Max5000 platform offers 13 module slots in a 2RU chassis, providing 10 module slots for application modules, 2 for isolated redundant power supplies, and 1 for a management module. The high speed backplane supports data communication in gigabit EPON applications. A high speed shelf interconnect option with a 100 BaseT Ethernet connection provides daisy chaining capability for multiple chassis.

CHP Max5000 isolated, load-sharing, redundant power supplies are efficient, switched mode modules that accept either AC input from 85 to 264 Vac for international use, or DC input from -72 to -36 Vdc. One power supply supports a completely loaded chassis, while two offer power redundancy that eliminates service interruption if one power supply or line-in feed service fails.

The CHP Max5000 Craft Management Module (CMM) offers local monitoring and configuration along with a PC compatible graphical user interface (GUI). The System Management Module (SMM) offers all the functionality of the CMM plus remote management using Simple Network Management Protocol (SNMP) with HMS-compliant Management Information Base (MIB)s for use with an external element manager or remote access to the CMM interface using an IP connection through the Ethernet interface from the remote GUI software. Both management modules offer an RS-485 interface for interconnecting multiple chassis at one site for single point control from an SMM.

A standard 40RU rack holds up to 200 CHP Max5000 transmitters or 400 return receivers providing exceptional space efficiency to help MSOs relieve the pressure on precious headend space while reducing cooling and power costs.

CHP Max5000 Chassis

The CHP Max5000 (2RU) chassis fits into a 19-inch or 23-inch rack that holds 10 single-width application modules, and routes power and element management signals. An optional bracket kit is available. Each chassis requires one power supply module and accepts a second for redundancy. The high speed backplane supports data communication in gigabit EPON applications. A high speed shelf interconnect option with a 100 BaseT Ethernet connection provides daisy chaining capability for multiple chassis.

Modules slide into the chassis from the front of the rack, and all RF and optical connections are at the rear. A fiber routing aperture offers front panel access to fiber if required. Separate interfaces built into the back panel of each chassis direct power to and convey element management information to/from installed modules. Universal slots accept the plug-in application modules in virtually any combination to accommodate a variety of service delivery requirements.

Designed for thermal efficiency, the CHP Max5000 chassis provides a wide operational temperature range for maximum reliability. A plenum with eight large fans create more airflow and offer better reliability than module-based fans; in the event of a fan failure, application modules—and the services provided—remain in operation.



CHP Max5000 Rear Fiber Chassis



CHP Max5000 Front Fiber Chassis

CHP Max5000 Power Supply*

The CHP Max5000 switched-mode AC power supplies, model CHP-PS/AC1-Q, accepts AC input from 85 to 264 VAC (47 to 63 Hz) and provides DC voltages to drive application modules. Each chassis accepts a second backup AC power supply for load sharing and redundancy. The power supplies are fully isolated, which eliminates a single point of power failure.

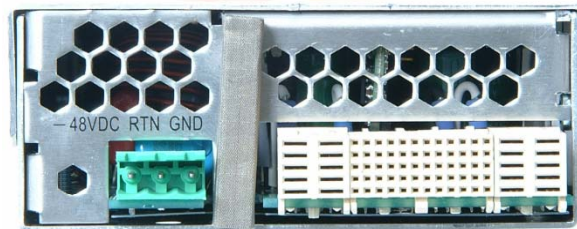
The CHP Max5000 switched-mode DC power supplies, model CHP-PS/DC1-Q, accepts DC input from -72 to -36 Vdc and produces 246 W or 405 W to power a fully-loaded chassis of application modules. Each chassis accepts a second backup DC power supply for load sharing and redundancy. These power supplies are fully isolated, eliminating a single point of power failure.

CHP power supplies are located on the far right side of the chassis behind the Craft Management Module (CMM) or System Management Module (SMM). Isolated outputs allow the primary and redundant supplies to operate in a power-sharing configuration. Should the primary power source fail, a second power supply provides all necessary DC power. AC and DC power supplies should not be installed in the same chassis.

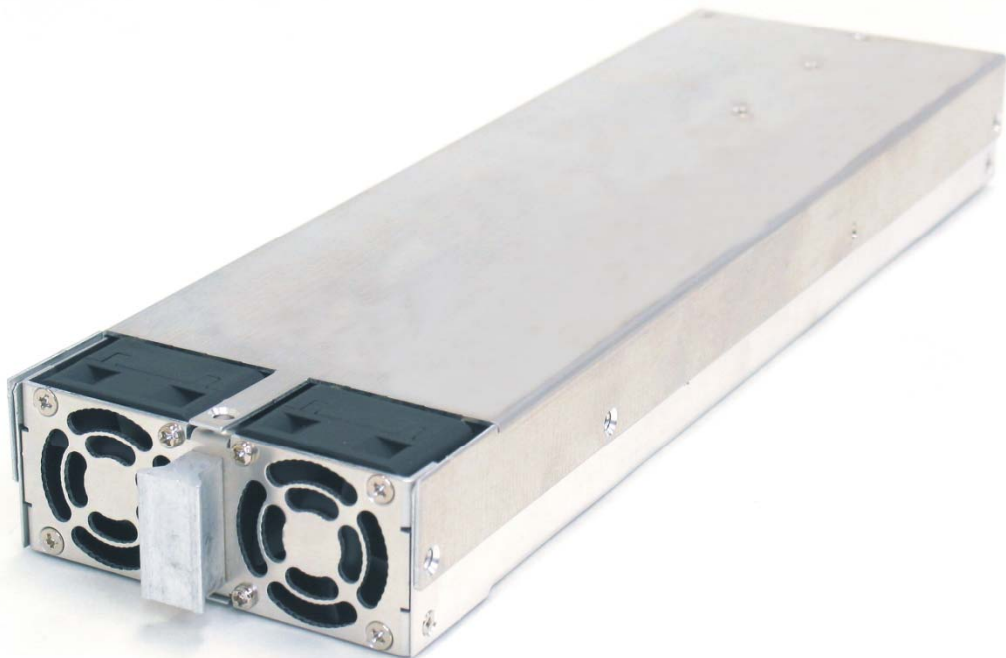
**AC power supply with or without US power cord. International customers will need to order the power supply without the power cord and select the appropriate power cord for their application from the ordering matrix in the CHP System technical specification.*



CHP Max5000 Power Supply Front View



CHP Max5000 Power Supply Back View



CHP Max5000 Chassis, Power Supply, and Element Management

CHP Max5000 Management Modules

The CHP Max5000 Craft Management Module (CMM) offers local monitoring and configuration along with a provided PC compatible graphical user interface (GUI). The CHP Max5000 GUI simplifies system installation, provides monitoring on easy to read screens and displays all critical module information to assist in operational as well as inventory management. A complete equipment manual is also included in the Craft Management Software (CMS) bundle for access on a PC with either the Windows® 98 2nd ed., NT 4.0, 2000 SP1, or XP Professional operating system.

The System Management Module (SMM) offers all the functionality of the CMM plus remote management using SNMP with HMS-compliant MIBs through the Ethernet interface for use with an external element manager. The SMM also provides remote access to the CMM interface using an IP connection through the Ethernet interface from the remote GUI software without requiring the capital expenditure of SNMP element manager. Both management modules offer an RS-485 interface for interconnecting multiple chassis at one site for single point control from an SMM. The SMM provides SNMP access for remote management and monitoring of the CHP Max5000 headend equipment via both HMS public domain and enterprise MIBs. To monitor up to 10 chassis, install 1 CMM in up to 9 chassis and 1 SMM in a tenth chassis. The chassis can then be daisy-chained and an Ethernet connection used to program, provision, monitor, and manage the CHP Max5000 equipment via an SNMP element manager. Managing more than 10 chassis is accomplished by using a 10baseT Ethernet hub or switch between the Remote Management System and the chassis containing the SMM module.



**CHP Max5000 CMM Module
Front View**

www.arrisi.com—Find more information about the CHP Max5000 Chassis, Power Supply, and Element Management:

- Product Specifications—Chassis, Power Supply, and Element Management CHP Max5000 Technical Specifications (Publication Code: CHPSYS_TS.pdf)

Customer Care—Contact Customer Care for product information and sales

- United States: 866-36-ARRIS, International: +1-678-473-5656

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