HCS - Hiltron Universal Control Unit

Flexible fully modular controller

Universal Ultra Flexible fully modular Controller (2 RU) for monitoring, control, supply and redundancy switching in Different Control Applications for Satellite Earth Station Equipment.

Features

- Monitoring and power supply for fiberoptic modules.
- Controller for N:1 redundancy switching.
- Monitoring and power supply for LNA/BDC/LNB/BUC.
- All modules hot swappable.
- Controller for N:1 redundancy HPA switching.
- Controller for redundancy systems for DVB MPEG encoders/modulators/ IRDs and other applications.
- Monitoring of status messages.
- Integration of serial controlled equipment into IP world.
- 19”/2U chassis.
- Redundant power supply.
- Web based user friendly operator interface (Web Interface HTTP).
- Control via SNMP for M&C.
- Serial Interface for extension.

Options

- It is possible to supply a reduced cost version without the LCD display. In this case, only remote control is available.

The 19”/2U chassis can be equipped with two AC or DC power supplies for redundancy. For local monitoring and control the user interface comprises a touch sensitive LCD display at the front panel. It is possible to remove the LCD display for cost reasons.

The controller HCS offers 13 interface connection slots (A1 to A13). The slot (A1) is used for a network interface card module type HCS4.PSN which provides an Ethernet interface and a serial interface RS422. The slot (A13) is reserved for the module HCS3.PSC. Its serial interface can be used for extension with sub-units.

The remaining 11 interface connection slots (A2 to A12) can be equipped with different hot-pluggable functional card modules like switch cards, I/O cards, signal I/O cards, etc. whose designation is HCS3.xxx where xxx defines the module type. This results in a very high flexibility. Thus, the controller can be tailored to different versions by selection of the appropriate functional card modules.

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HILTRON Communications

Specifications

General

Application:	Monitoring & Control of switches, LNBs, HPA, FO-modules etc.
Interfacing card modules:	HCS3.PSN, HCS3.PSC, HCS3.IO3, HCS3.IO5, HCS3.SWI, HCS3.KST, etc

Electrical

Power Supply:	redundant
- Power Requirements:	95 – 245 VAC, 47 – 63 Hz, PFC
- Power Consumption:	max. 1A at 230V (depending on configuration)
- Max. output power:	90 W

Monitoring & Control

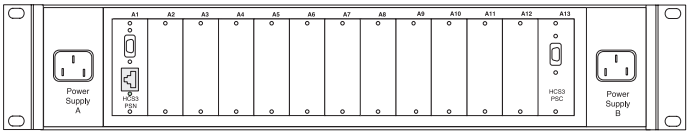
Local Control:	Touch Screen Width: 128 Pixel LCD Height: 64 Pixel LCD Touch field: 8 x 4
Remote Control:	Web Interface TCP/IP, RJ45 10/100 Base-T, SNMP (optional)
Interfaces:	
- LAN interface:	Ethernet / IEEE802.3 Data transfer rate: 10/100 Mbit/s Connector: RJ45 Communication: Web / SNMP
- RS422 interface:	Type: RS422/RS485 Connector: Sub-D 9 m Baud rate etc.: configurable

Mechanical / Environmental

LAN interface	Ethernet / IEEE802.3 Data transfer rate: 10 Mbit/s Connector: RJ45 Communication: Web / SNMP
USB interface	for maintenance (data logging, software update)
RS485 interface	Type: RS485 Connector: RJ11 Baud rate: tbd.
Control input	form C contacts optional
Monitor output	form C contacts optional

Mechanical / Environmental

Size:	Width: 19“ rack-mountable Height: 89 mm (3.5“, 2U) Depth: 500 mm (20“, including connectors)
Weight:	~10.5 kg
Temperature	
- Operating:	0°C to +50°C
- Non-operating:	-20°C to +80°C
Humidity	
- Operating:	5% to 95% non-condensing
- Non-operating:	0% to 100% non-condensing
CE safety :	EN60950-1 / UL 60950
CE EMC:	EN 55022 Class B
Emissions:	EN 61000-6-4
Immunity:	EN 61000-6-2



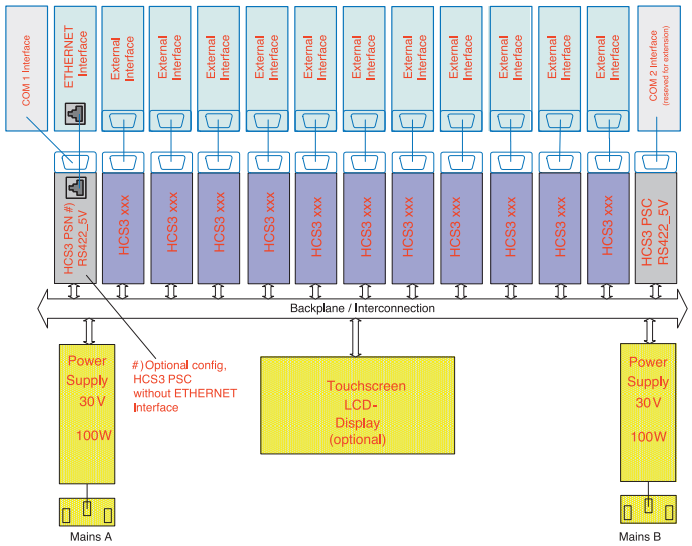
Controller HCS – rear view

The card modules are programmable to provide the functionality for the various controller versions. Presently, the following versions are available.

- Monitoring, control and power supply for fiber optic modules
- Fiber optic N:1 switchover systems
- LNB redundancy systems for C- and Ku-Band
- HPA redundancy systems
- Redundancy systems for DVB MPEG encoders/modulators/IRDs
- Other applications for Monitoring & Control

Moreover the modules are capable of supplying DC power to fiber optic modules, waveguide and coaxial switches, LNBs, etc.

(3) Further picture



Controller HCS - Schematic Diagram

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