



## HCS - Hiltron Control System

### Universal Ultra Flexible Highly Modular Controller for Different Control Applications for Satellite Earth Station Equipment



### Features

- > 19"/2U chassis with redundant power supply
- > 8 & 16 slot chassis with external 24V power supply
- > Any new or replacement module recognizes which slot it is located in and registers itself under this address
- > All modules are hot-pluggable and can be exchanged easily during operation
- > Each module possesses independent functionality. The communication between the modules is maintained even when there is no network module in place.
- > Web based intuitive operator interface (HTML)
- > External control via SNMP
- > Serial & LAN Interface for extension

### Applications

- > Controller for N:1 redundancy HPA switching
- > Monitoring and control of SSPA's, HPA's, BUC's, UC's, Modulators
- > Controller for N:1 redundancy switching of up-converters (IF and L-Band switching)
- > Monitoring, power supply, 10MHz for LNA / LNB
- > Control of redundancy systems for DVB MPEG encoders/modulators/IRD's and other applications
- > Antenna Control Unit
- > Deice Controller
- > Low phase noise redundant 10MHz station reference system.

### Available Modules

- > HCS4-Net – Module for network communication, LAN interface, controller, external modules like HF power detection or wind sensors
- > HCS4-SSI – Module for antenna axis control with interface for 17bit optical SSI encoders
- > HCS4-RES – Module for antenna axis control with interface for resolver transducer
- > HCS4-DCD – Module for antenna axis control with interface electronic motors and monitoring with resistive sensors
- > HCS4-PSD – Module for DC power supply, e.g. used in chassis with 8/16 slots
- > HCS4-PSA – 230VAC Power Supply for 19"/2U chassis.
- > HCS4-DCU – Module for antenna deice control with 2 separate high load (20A) circuits and additional feed heater circuit for 24V or 230V
- > HCS4-10M – 10MHz reference source with internal (via BUS) and external signal distribution. Free run or synchronization from GPS or external sync. 19"/2U chassis.
- > HCS4-EXT – Module with serial interface, power supply for LNA's, monitoring and control of HPA's, SSPA and other equipment
- > HCS4-SWI – Module for monitoring and control for WG and Coax Switches
- > HCS4-LST – Module with integrated transfer switch
- > HCS4-DBT – Dual Bias T Module for LNB power supply, 10MHz insertion, RF level det.
- > HCS4-L21 – Module for 2:1 L-Band redundancy switching

Since 1996 Hiltron has been manufacturing control units for SatCom equipment and for industrial M&C applications. Maintaining the reliability and functionality of the HCS-3, the HSC-Control System forms the central control element for a wide range of satcom applications. The HCS - Control System is available as a 2U high 19 inch rack mount unit with main and backup power supplies plus 13 slots for active modules. Also available are two chassis mountable frames accommodating up to 6 or up to 14 active modules respectively.

**Specification for the HCS-Control System (19"/2U Chassis)**

**Application:** Monitoring & Control of switches, LNBs, HPA, Antenna Control units, Antenna Heating systems etc.

**Interfacing card modules:** HCS.NET, HCS.SSI, HCS.RES, HCS.DCD HCS.DCU, HCS.PSD, HCS.PSA, etc.

**Module handling** hot swappable

**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: 180 W

**Monitoring & Control**

**Remote Control:** Web Interface TCP/IP, RJ45 10/100 Base-T, SNMP, ModBus

**Interfaces:**

- LAN interface: Ethernet / IEEE802.3U Data transfer rate: 10/100

**Mbit/s**

- RS422 interface: Connector: RJ45  
Communication: Web / SNMP  
Type: RS422  
Connector: Sub-D 9 m  
Baud rate etc.: configurable

**Mechanical / Environmental:**

**Size**

- Width: 19" rack-mountable
- Height: 89 mm (3.5", 2U)
- Depth: 500 mm (20", including connectors)

**Weight** max. 10.5 kg

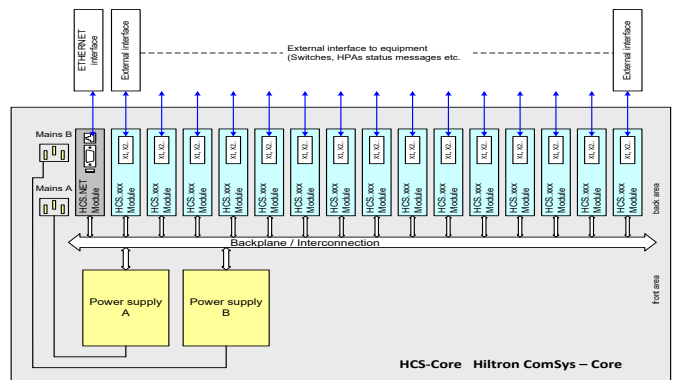
**Temperature**

- Operating: 0°C to +50°C
- Non-operating: -20°C to +80°C

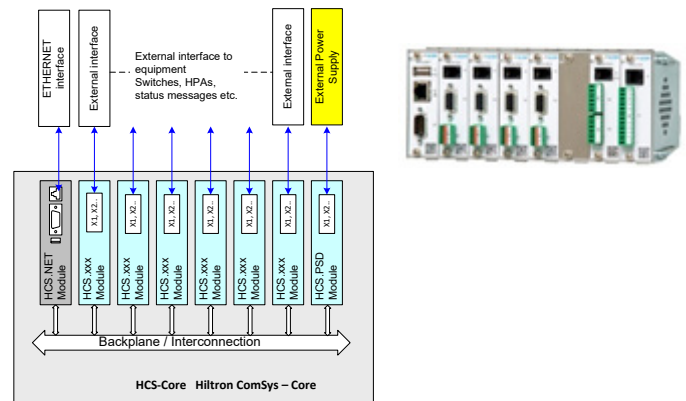
**Humidity**

- 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 61000-3-2, -3  
**Immunity** EN 50082-1



**Hiltron Control System - HCS:**  
Schematic Diagram of System implemented in 19"/2U chassis with 16 modules capability



**HiltronControl System - HCS:**  
Schematic Diagram of System implemented in chassis with 8 and 16 modules capability

