

## Device Controller

### Common Device Control for ADC™ Systems



The Harris<sup>®</sup> Device Controller is a common hardware platform that supports all Harris ADC™ automation solutions. As the core hardware element of your automation system, the Device Controller manages all basic ADC functionality from a high-performance server that hosts the real-time operating system, application software and device drivers.

The Device Controller, available in efficient 2RU and 4RU configurations, is built for demanding broadcast automation operations. The system was developed from the ground up with high reliability and maintainability and specifications designed to handle future growth.

The Device Controller chassis houses serial interface cards, network cards for communication and device control and the timecode

reference card, in a variety of configuration options. The platform is fully compliant with environmental standards, including the international WEEE and RoHS regulations. Serial- and IP-network connections are employed to provide high-speed communications with video servers and other broadcast devices. Additionally, the 2RU and 4RU chassis share a large number of components, reducing spare parts and inventory administration.

If you're already using ADC automation, upgrading to the Device Controller future-proofs your playout system and allows you to take full advantage of software developments supporting new broadcast models and technologies.

**Now available in both 2RU and 4RU configurations that provide high-performance, cost-effective and efficient device control for your operation.**

## FEATURES

Designed for high reliability and maintainability from the ground up, the Device Controller is an industrial hardware platform capable of evolving as your needs change. Unlike commercial, off-the-shelf hardware, the Device Controller meets the exacting Harris standards for reliability and flexibility, increasing maintainability and reducing end-of-life issues. In addition, the platform features:

- Increased performance and throughput
- Scalable hardware for system extensibility, driving more devices and more channels.
- Greater communications bandwidth, featuring native dual Gigabit Ethernet network connectivity
- Space-efficient packaging available in 2RU and 4RU configurations
- Outstanding reliability, availability and serviceability, from shared parts to standard dual power supplies to readily accessible disk drives

Both the 2RU and 4RU chassis share a large number of components, allowing them to be deployed together to match your system needs.

Common parts include power supplies, CPU, memory, drive controllers, COM ports, parallel ports, PCI cards and network interfaces.

## 2RU or 4RU: Which is right for you?

The Device Controller is available in 2RU and 4RU configurations, which can be used to tailor the deployed hardware to the size of your operation, allow for growth, or add high-reliability clients to your operation.

The 2RU version of the Device Controller is available with 8, 16 or 24 ports. For smaller systems, this is a cost-effective solution that affords more capacity in a smaller form-factor, providing more memory and reliability, while saving two rack units when compared to the current ADC chassis. Larger systems can span multiple device controllers, mixing 2RU and 4RU chassis to tailor the hardware to the operation.

The 2RU chassis can also be incorporated into the environment as a high-reliability client for high-performance, mission-critical operations. This provides maximum uptime, redundancy features and the ability to share spare parts across all of your deployed Device Controllers.

The 4RU version of the Device Controller is available in 32- or 64-port configurations. For smaller systems looking to expand, this chassis can be supplied with a reduced number of installed interfaces, providing a platform with the capacity to manage future growth.

All systems can span multiple device controllers, with a combination of 2RU and 4RU chassis, to more precisely tailor the hardware to various aspects of your operation, including expanded serial device support, expanded list support, system segmentation and backup functionality.

## Backup (Redundant) Device Controller Option:

The ability to recover immediately from hardware failure in a playout environment is crucial. Protection against automation computer failure can be achieved by implementing a backup Device Controller, configured in the same manner as the main Device Controller, plus an RS-422 switching unit.

- If the main automation computer fails, the backup automation computer automatically takes over the tasks handled by the main automation computer.
- A manual switching option is available.

## Implementation

The Device Controller hosts the core automation software necessary for ADC to manage device control, allowing organizations deploying ADC systems to:

- Significantly expand offerings by managing incremental channels on a single server
- Save space and cost with a smaller, more powerful hardware platform
- Improve the ability to manage rich media content with enhanced network connectivity and more ingest and playout device options

The Device Controller is supported in ADC Version 9, and later releases.

## Recommended Strategy

For customers currently running ADC automation, the Device Controller can be deployed without changing your current software or Device Control cards. This provides the immediate benefits of the smaller form factor, reliability and accessibility.

We encourage you to visit with your account team to review the benefits of the Harris Device Controller and to plan for the upgrade.

## Specifications

### 4RU Chassis

- 14-card passive backplane, 13 PCI + 1 PICMG v1.3
- Hot-swappable fans with rotation sensors and connectors
- Front and rear USB ports
- External alarm connector
- Removable hard drive caddy and drive — accessible via front panel
- 80 GB, 7,200 RPM SATA 3.0 Gb/s, hot-swappable hard drive with RAID option
- DVD reader/writer ± R/W, 16X, dual layer
- Dual redundant hot-swappable 300-watt power supplies
- Universal input voltage, AC plug on each module, no common components
- Fault detection LEDs

### Processor, Memory and Interfaces

- Intel® Pentium 4™, 3.0 GHz, LGA 775 processor (upgradeable)
- 1 GB, 184-pin, DDR 400 SDRAM ECC system memory
- Two DDR II DIMM sockets — upgradeable to 4 MB
- VGA output, connector on rear panel
- Two Gigabit Ethernet Network Interface Connections with connectors on rear panel
- Serial and parallel ports
- PS/2 port for keyboard and mouse on rear panel
- On-board hardware RAID controller

### 2RU Chassis

- 6-card passive backplane, 5 PCI + 1 PICMG v1.3
- Replaceable fans with rotation sensors and connectors
- Front and rear USB ports
- External alarm connector
- Removable hard drive caddy and drive\* — accessible via front panel
- 80 GB, 7,200 RPM SATA 3.0 Gb/s, hot-swappable hard drive\*
- DVD reader/writer ± R/W, 16X, dual layer\*
- Dual redundant hot-swappable 300-watt power supplies\*:
- Universal input voltage, AC plug on each module, no common components
- Fault detection LEDs

### Processor, Memory and Interfaces

- Intel® Pentium 4™, 3.0 GHz, LGA 775 processor (upgradeable)\*
- 1 GB, 184-pin, DDR 400 SDRAM ECC system memory\*
- Two DDR II DIMM sockets — upgradeable to 4 MB
- VGA output, connector on rear panel\*
- Two Gigabit Ethernet Network Interface Connections with connectors on rear panel\*
- Serial and parallel ports (cloning not supported)
- PS/2 port for keyboard and mouse on rear panel\*

\* option is a shared component between the 4RU and 2RU chassis

## Configuration Options

The Device Controller is designed to support up to 128 ports, with 64-port connectivity currently available. The 4RU chassis allows a full complement of cards to be installed (eight serial, four GPI, and one timecode/sync), while the 2RU is limited to three serial cards, one GPI card and one timecode/sync card. The actual number of devices that can be supported depends on system limits for different types of devices and the available slots in the chassis. Refer to Harris technical support for guidance.

**For more information, please visit [www.broadcast.harris.com/adc](http://www.broadcast.harris.com/adc).**

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