### Product Description and Features

<table>
<thead>
<tr>
<th>Product</th>
<th>Description and Features</th>
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</table>
| **Platinum™ and Platinum™ MX**  | - Integrated Multiformat Routing and Processing  
- Parallel audio and video paths allow mixed matrix routing with no compromises  
- Wide range of frame sizes supports a wide variety of matrix requirements  
- Up to 512x512 video in 28RU  
- Up to 256x256 video in 15RU  
- Up to 128x128 video in 9RU  
- Up to 72x64 video in 5RU  
- New eight-channel frame sync input card for wild feed ingest and audio shuffling  
- Internal mux/demux provides discrete audio functionality in a single-frame solution  
- Fully redundant control, power and switching for 24/7 reliability  
- Lowest impact block in the industry with modularity in groups of eight  
- Each I/O can support fiber or electrical connectivity, allowing complete configuration flexibility  
- 3 Gb/s performance from any input to any output future-proofs your investment  
- Integrated CENTRO™ multiviewer technology simplifies design and wiring requirements  
- Built-in automatic A/D and D/A for audio and video eliminates external conversion  
- Powerful new control integration provides easy setup and configuration  |
| **Panacea™ and Panacea™ Lite**  | - Worldwide Market Leader in Small-Scale Routing  
- Analog and digital matrices for both video and audio  
- Wide range of matrix sizes from 8X8 to 32X32 satisfies all requirements  
- Cost-effective monitoring solutions from 16x1 to 256x4  
- 3 Gb/s performance future-proofs your investment  
- Mixed-format routing in single frames supports A/V requirements  
- Ultra low-cost 12x1 utility routing up to 1.5 Gb/s for cost-sensitive applications  |
| **Panacea™ Clean and Quiet**    | - Industry’s Only Dual-Channel, Relay Bypass-Protected Switch  
- Fully redundant control, power and switching for 24/7 reliability  
- Lowest impact block in the industry with modularity in groups of eight  
- Each I/O can support fiber or electrical connectivity, allowing complete configuration flexibility  
- 3 Gb/s performance from any input to any output future-proofs your investment  
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| **Integrator®**                 | - True Analog and Port Routing  
- High-quality analog routing for time code and video reference  
- Bidirectional port routing for machine control (RS-422 and RS-232)  
- Efficient space usage in frame sizes from 4 to 8RU  
- Individual frames support multiple formats for flexibility  |
## Routing Control

<table>
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<th>Product</th>
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<td><strong>Hardware Panels</strong></td>
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<tr>
<td>RCP-IDe</td>
<td>LCD buttons with downloadable text and graphics</td>
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<tr>
<td>Programmable Pushbutton</td>
<td>Customizable button-per-source panels</td>
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<tr>
<td><strong>Software Applications</strong></td>
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<tr>
<td>CCS Navigator™</td>
<td>System-wide control and monitoring application</td>
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<tr>
<td></td>
<td>- Completely user-customizable GUIs</td>
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<td></td>
<td>- Real-time control and monitoring of wide range of applications including routing, master control, processing, test and measurement, third-party SNMP equipment, etc.</td>
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<tr>
<td>DB Editor</td>
<td>New CCS Navigator-based tool</td>
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<td>- Provides intuitive and powerful user interface for router editing</td>
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<td>- Enhances ability to create and maintain a routing system</td>
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<tr>
<td><strong>Protocol Support</strong></td>
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<tr>
<td>Edge Gateway</td>
<td>1RU external gateway device providing protocol translation between native Harris and third-party protocols</td>
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<tr>
<td></td>
<td>- Protocols supported include: Thomson/GVG, Utah Scientific, NVision, Pro-Bel</td>
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<td></td>
<td>- Other protocols continually being added — please call for more information</td>
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<td>- As we are a market leader, many vendors support our native protocol directly</td>
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<tr>
<td>Built-In/Native Protocol Support</td>
<td>Platinum and Panacea have built-in/native support for:</td>
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<tr>
<td></td>
<td>- Harris LRC protocol over Ethernet (Platinum only)</td>
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<td></td>
<td>- Harris XY Passthrough protocol serial and Ethernet</td>
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<td>- Optional software license support for SNMP</td>
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<td>- Harris CCS protocol over serial and Ethernet</td>
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<td>Legacy SPT (Serial Protocol Translator)</td>
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<td>- Also useful as a simple serial port expansion and/or router simulator</td>
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<td><strong>Other Interfaces</strong></td>
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<td><strong>Automation Vendor Support</strong></td>
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<tr>
<td>Automation Vendor Support</td>
<td>Harris, AMX, Crestron, Crispin, Florical, Leightonrix, MATCO, Micro-First, Sundance, etc.</td>
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<tr>
<td><strong>Tally/UMD Control Systems</strong></td>
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<td>Image Video, Television Systems Limited (TSL), Videoframe Systems, etc.</td>
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<tr>
<td><strong>Master Control Systems</strong></td>
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Platinum™ and Platinum™ MX — Powerful Routing Tools in All Matrix Sizes

The Platinum line of routing switchers combines a highly robust architecture with the flexibility required to future-proof your investment, delivering unsurpassed value for your large-scale routing needs. All Platinum frames provide independent signal paths and crosspoints for audio and video, allowing complete versatility regardless of matrix size. Designed to support high-quality routing of all analog and digital video and audio signals, Platinum seamlessly integrates the capabilities of a discrete audio infrastructure in a fully embedded video plant without the need for a secondary audio frame.

Continuing the tradition of innovation that has come to be the hallmark of Platinum routing systems, Harris introduces an eight-channel frame sync input card. This new option allows up to eight wild video signals to be synchronized to house reference without the use of external frames or wiring. Additionally, this new card will perform demultiplexing of up to 16 channels of embedded audio in each video stream that can then be routed independently and discretely.

Created to support 24/7 operation, Platinum routing switchers are well-suited to network, local broadcaster, mobile production, cable, telco, military, government and corporate applications — any environment that requires routing of a large number of audio and video signals.

World’s First True Embedded Audio Processing Router — A Fundamental Shift in System Design

Platinum combines the best of both high-bandwidth video signal routing and an internal TDM architecture to provide the world’s first embedded audio infrastructure router. With parallel signal paths and dedicated, redundant crosspoints for both audio and video within a single frame, Platinum can demux incoming embedded audio signals internally. All audio within the frame is presented to the TDM MAX crosspoint, routed independently and discretely, and can be multiplexed within the router into any digital video output. Additionally, utilizing the TDM crosspoint, Platinum can perform phase reversal, swap, sum and “quiet” break-away switching of audio between any discrete or embedded input and provide gain/level adjustments on a per-channel basis.

The ability to process and route both discrete and embedded audio all within the Platinum frame eliminates the need for racks of external equipment and saves on space, cabling, troubleshooting and maintenance. All the capabilities of a discrete audio infrastructure are now available with the straightforward wiring of an embedded plant. System designers can now reduce the number of modules and frames, and simplify wiring and system integration tasks while providing enhanced functionality for the end user.

System Configuration and Programming Made Easy

Harris router control systems make even the most complex router configuration simple and intuitive to implement and maintain. Among the powerful tools available for administering systems are low-level discovery of available hardware, allowing database creation and maintenance to be accomplished from the engineer’s desk; and automatic wizard-based creation of logical source assignments for demultiplexed audio levels. The database editor interface provides access to the Platinum router’s distributed control architecture, which drives router frames and control surfaces without reliance on a centralized controller. Each Platinum frame features redundant control modules that store configuration information related to that frame in non-volatile memory — protecting your crucial configuration information and current routing status. This topology also allows control panel communication to be distributed throughout the facility, eliminating single points of failure.
No Wiring Needed For Multiviewer, Installs Directly into the Frame

Platinum is the only routing system in the world to offer an internal multiviewer system. CENTRIO™ modules reside in the Platinum frame, seamlessly providing multiviewer performance for all inputs presented to the router. Combining superior graphics, industry-proven architecture and integrated test and measurement tools, CENTRIO is a landmark development in multiviewer design and value. CENTRIO delivers a lower-cost solution, simpler system design and a more efficient use of space for broadcast video and audio monitoring, master control rooms, broadcast trucks and sports/special event facilities. Each multiviewer output provides up to 32 discrete PiP (picture-in-picture) images that are controlled from the router control system in the same way as dedicated outputs, creating a user-friendly experience that is easily understood by operators.

24/7 Solid Reliability

Platinum routing frames are designed for harsh operation (including mobile truck environments) and feature front-loading, hot-swappable modules for ease of serviceability. Employing the latest technology, Platinum allows more functionality at lower power consumption, and is supported by redundant, load-sharing power supplies. Airflow is from front to back, with each fan individually replaceable without taking the system offline. For further reliability, Platinum I/O modules are based on eight inputs or outputs, thereby limiting the number of signals affected by any single module. Each Platinum frame supports redundant control, and redundant crosspoints are available in most configurations.

Classic Embedded Audio Complexity

Platinum™ Architecture
Supporting a wide array of formats and matrix sizes, the Panacea line of routing switchers offers the largest selection of small matrix routing in the industry in a compact, affordable package. Analog and digital video and audio routing are available independently and as mixed-format devices. Matrix sizes from 8x8 to 32x32 are supported in all formats, in addition to 16x4 and 32x4 monitoring matrices. High-definition digital video is supported from 3 Mb/s to 3 Gb/s to ensure that your installation is future-proof, and Panacea offers a clear growth path from ASI and SDI to HDTV. Every Panacea frame has the option of internal, external or DC power supplies. Panacea integrates seamlessly with the Harris router control system, and local and remote control panels are available for all matrices to suit your every control requirement.

**Panacea™ Lite**

**Mixed-Format, Broadcast-Quality 12x1 Utility Routing**

With its small 1RU footprint, Panacea Lite has a frame depth of only 5.25 inches, making it ideal for either front- or rear-rack mounting. Both video and audio can be housed in the same 1RU frame for maximum space efficiency. Single-format models are also available. Local and remote control panels are available, allowing you to tailor the control system to meet your requirements. Panacea Lite is the broadcast-quality choice for low-cost utility routing.

**Panacea™ Embedded Clean/Quiet Switch**

**The Industry’s Most Powerful Dual-Channel Clean and Quiet Routing Switcher**

**Two Clean and Quiet Outputs Support Today’s Multiformat Applications**

The Panacea Clean and Quiet Switch provides two clean and quiet outputs for SDI and HD-SDI signals with embedded or discrete audio. This unique feature permits routing of SDI and HD-SDI signals simultaneously in HD-SDI wideband versions, allowing full use of your clean switch investment while transitioning from SDI to HD-SDI. The two copies of both clean outputs can be combined with flexible partitioning options of the 16 inputs to fit any multiformat application.

**Auxiliary Output Buses Offer Enhanced Versatility**

Six auxiliary outputs are available for preview of both clean outputs, as well as additional outputs for secondary destinations. This creates a truly powerful solution in an extremely compact package.

**Full, Embedded Audio Control Allows Total Signal Management**

Embedded audio demultiplexing and processing provides quiet switching to complement the clean video performance. Full control of the audio levels, audio fade options and channel assignment enables complete management of embedded audio content. A variety of transitions with variable transition rates for both video and audio, including dissolve, “V” fade, cut-fade, fade-cut and cut, allows for total customization of your output signals.
Panacea™ Discrete Clean/Quiet

Dual-Channel, Clean Video Switching and Quiet AES Audio Switching for Non-Embedded Audio

Panacea Clean Switch provides two continuous, error-free, clean outputs for HD-SDI and SDI signals. Our unique data-buffering scheme eliminates picture roll and encoder “hicups” by synchronizing the router sources. This ensures the switch between sources is frame-aligned without any disruption in the output video signal stream. Panacea Discrete Quiet Switch can be combined in the same frame with Panacea Clean Switch to provide two synchronous and quiet digital audio streams. Panacea Discrete Quiet Switch guarantees noise-free switching between loud and soft audio content. In addition, Panacea Discrete Quiet Switch can be ordered in a standalone frame to provide four synchronous and quiet digital audio streams with the same ramping and cross-fade features.

Integrator®

High-Quality Analog Infrastructure for Machine Control, Reference and Timecode Routing

While analog to digital conversion is convenient and appropriate for most audio and video signals, machine port control, video reference and timecode must stay in the analog domain. Integrator routing systems deliver true analog performance for these essential functions. Available in 4, 6 and 8RU sizes, Integrator routers can support any mixture of analog signals. Most importantly, these routers integrate seamlessly with Platinum using Harris router control to create a single multilevel router system.
The control system is the “face” of the router and provides intuitive, intelligent user interfaces for the operators, as well as logical and systematic system configuration and maintenance for the engineering staff. This high-level functionality has to be consistent across both the software and hardware platforms. Invest in a future-proof routing control system that is powerful and versatile, simple to setup and configure, and easy to use and update.

The Harris router control system is based on three fundamental pillars — speed, ease-of-use and power — and offers:

- Quick setup and updates to both database and system
- Fast Excel-like editing functions and Excel-based configuration templates
- Easy reconfiguration of routing system
- Simple system configuration and commissioning
- Easy to use editing features available from toolbar and by a simple click of the mouse
- Clear tab-based organization
- “Smart” power operation options
- Device-type and template driven
- Direct configuration of logical database and tie lines from the same interface
RCP-IDe and NUCLEUS™ Control Panels

Harris offers a wide range of programmable control panels for both local and remote operation, including simple, button-per-source, single-bus panels with or without downloadable text and graphics; multilevel, alphanumeric, break-away panels; and network control panels that unify and streamline the operation of routers, processing products and remote monitoring products.

RCP-IDe — Router Control Panels
Harris RCP-IDe routing control panels combine the ease of operation of a button-per-crosspoint control panel, the clarity of LCD display buttons and the flexibility of downloadable text and graphics — allowing for fast and easy changes and setup. Capable of communicating over coaxial XY or Ethernet, the panel also includes the ability to page up/down through sources and destinations, configure buttons to show current source and/or destination status, and notify users of alarms on displayed sources and destinations.

The RCP-32x32IDe and RCP-64x1IDe panels now support an optional grouping mode that provides enhanced performance and capabilities.

NUCLEUS — User-Configurable Network Control Panel
NUCLEUS™, a next-generation, 2RU network control panel, and NUCLEUS-DM, a deskmount network control panel, unify and streamline the operation of routers, processing products and remote monitoring products with a fully user-configurable interface. NUCLEUS is completely user programmable (by means of an intuitive panel wizard), ensuring that each network control panel can be tailored to meet the exacting demands of every user.

NUCLEUS-TRAX integrates router source selection and upstream processing product control. It simplifies workflow in master control and quality control stations, speeding up access to the controls of devices upstream from the router, and dramatically minimizes the possibility of mistakes. NUCLEUS-TRAX can save both time and money for the customer.

NUCLEUS Supports:
• 6800+™, NEO® and X85™ processing products
• Panacea, Integrator, and Platinum routers
• Videotek® legalizers
More products will continue to be added, making NUCLEUS the most versatile and powerful control panel in the industry!
Router Control

Hardware Control Panels

Ethernet ABA Control Panels

RCP-ABA1E-XYp, RCP-ABA2E-XYp
The RCP-ABA (Ethernet) series control panels are Ethernet-enabled router control panels designed for use with the Platinum series, Integrator and Panacea routing switchers. The panels include easy-to-read alphanumeric displays, and can be ordered in XY, single-bus, or multi-bus configurations.

ABA Control Panels

RCP-ABA1-XYp, RCP-ABA2-XYp
The RCP-ABA series control panels are designed for use with the Platinum MX and Panacea routing switchers. The panels include easy-to-read alphanumeric displays, and can be ordered in XY, single-bus or multi-bus configurations.

Progammable Control Panels

Button-Per-Crosspoint Control Panels

Software Control and Configuration
Advanced software applications such as the DB editor, CCS Navigator and EDGE-RTR-WEB offer powerful configuration and control, locally or remotely, using Ethernet, coaxial or serial connections. SNMP is supported directly to our Ethernet-based control systems and third-party router control as provided via Edge Protocol gateway. In addition, the Harris® Command Control System (CCS™) encompasses a powerful system of software applications, control panels, protocols and gateways that enable monitoring and control of both Harris and third-party products within a network.

DB Editor

Router Control Application
The DB Editor is a powerful CCS Navigator-based tool that greatly enhances your ability to create and maintain your routing system. It provides a quick, intuitive and powerful user interface to router editing. Features of the DB Editor include:

- Name column restrictions (8 or 16 character capability for names)
- Wizard types
- Long name unicode support
- Quick editing:
  - Multi-column support
  - Filtering
  - Import/export Excel
  - Export/import names.txt
  - Automatic renaming

CCS Navigator

Advanced Graphical Navigation Application
CCS Navigator is a Windows®-based software application that provides graphical tools to create easy-to-use GUls (Graphical User Interfaces) that visually represent operational environments. These GUls will consolidate and ease network-wide status monitoring and control by representing broadcast systems with familiar and intuitive interfaces.

All panels have backlit, positive-touch pushbuttons that can be labeled using the clear film legends provided or by user-customized legends printed by the panel configuration utility.
Third-Party Interfaces

Protocol Support: Native and Third-Party

Edge
Router Protocol Translator
Many system opportunities today require interoperability among different manufacturers’ router systems within existing facility designs. End users very often favor one manufacturer’s control system over another. Also, end users often have another manufacturer’s routing system in place and are simply looking to expand current routing capabilities.

Edge is a 1RU device that acts as a bridge between Harris XY router protocols and other third-party router control/monitoring protocols. Edge is distinguished from existing Harris SPTs (Serial Protocol Translators) in that it can support third-party TCP/IP protocols as well as serial protocols. Many system designs require Harris router control panels to manage third-party routers. Other system designs require Harris routers to be controlled by third-party router control panels. Edge is bidirectional and can control third-party routers and be controlled by third-party router control panels.

Current Third-Party Translations Supported:
- EDGE-SMS7000
- EDGE-Jupiter
- EDGE-nVision
- EDGE-Utah
- EDGE-Bel

Legacy SPT
(Serial Protocol Translator)
- Small, third-party protocol conversion for small to medium-size systems
- Thomson/GVG 20-TEN & Horizon; Pro-Bel System 2; Sandar, Tandberg, Panasonic MARC II, TSL
- Also useful as a simple serial port expansion and/or router simulator

Built-in/Native Protocol Support
Platinum and Panacea have built-in/native support for:
- Harris LRC protocol over Ethernet (Platinum only)
- Harris XY passthrough protocol serial and Ethernet
- Optional software license support for SNMP
- Harris CCS protocol over serial and Ethernet
ONE Company for Workflow Solutions Throughout the Media Chain
Harris is the ONE company delivering interoperable workflow solutions across the entire media delivery chain — providing today’s broadcaster with a single, integrated approach to capitalize on the benefits of IT and mobile applications. By providing unparalleled interoperability across our product portfolio, Harris is able to offer customers integrated solutions that improve workflows, save money, enable new revenue streams and provide a migration path to emerging media business models. To meet the evolving needs of broadcast, distribution, government agencies and entertainment businesses, Harris is the ONE answer for change.

Service And Support
At Harris, we are committed to customer service excellence. It is our goal to provide the highest level of support by applying a simple rule: We take ownership of helping our customers succeed. Our support teams consist of innovative technical experts who support all situations regarding product performance, integration and operational processing. We are adept at providing proven solutions, making workflows better and ensuring reliability of the product and system. At Harris, our experienced and dedicated teams stand ready to help you meet your goals for premium product performance, 100% up-time and reduced maintenance investment.

Warranty
Because we want to assure you that Harris stands beside its products and system solutions, our products carry a standard set of warranty services, which are competitive with — and in some cases outperform — others in the industry.

Service Packages
We offer value-add services that allow you to customize the level of services you need in meeting mission-critical performance levels. Our service package options offer many ways to upgrade your standard warranty by choosing the All-Inclusive OnePak, or by selecting individual services from our extensive portfolio. Our service and support advisors can assist in the selection of the individual services that best suit your requirements.

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For more information, please visit www.broadcast.harris.com/routers.