## Routing Switchers

<table>
<thead>
<tr>
<th>Product</th>
<th>Description and Features</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Large Routing</strong></td>
<td></td>
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<tr>
<td><strong>Platinum™</strong></td>
<td>Innovative large-scale routing</td>
</tr>
<tr>
<td></td>
<td>Up to 512x512 in 28RU (up to 1024x1024 discrete audio)</td>
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<td></td>
<td>Up to 256x256 in 15RU (up to 256x256 discrete audio)</td>
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<tr>
<td></td>
<td>Mixed-signal routing for any format from analog to digital up to 1080p (3 Gb/s)</td>
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<td></td>
<td>Highly reliable, enhanced control and monitoring</td>
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<tr>
<td><strong>Platinum™ MX</strong></td>
<td>Advanced medium-scale routing</td>
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<td></td>
<td>Up to 128x128 in 9RU (up to 256x256 discrete audio)</td>
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<td></td>
<td>Up to 72x64 in 5RU (up to 144x128 discrete audio)</td>
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<td></td>
<td>Mixed-signal routing for any format from analog to digital up to 1080p (3 Gb/s)</td>
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<td></td>
<td>Highly reliable with even the cross-points providing full redundancy</td>
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<td></td>
<td>Built-in processing with automatic conversion as required</td>
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<td><strong>Integrator®</strong></td>
<td>Traditional medium-scale routing</td>
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<td></td>
<td>64x64 in 4RU, 128x64 in 6RU, 128x128 in 8RU (audio/data)</td>
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<td></td>
<td>Mixed-signal routing including “true” analog, DS3/E3, digital up to SD-SDI (270 Mb/s), audio and data</td>
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<td><strong>Small Routing</strong></td>
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<tr>
<td><strong>Panacea™</strong></td>
<td>Market-leading small-scale routing</td>
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<td></td>
<td>8x8 to 32x32 and monitoring sizes from 16x1 to 256x4 — wide range of formats available</td>
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<td></td>
<td>Mixed-signal routing for any format from analog to digital up to 1080p (3 Gb/s)</td>
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<td></td>
<td>Also available as dual-channel Clean/Quiet switch</td>
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<tr>
<td><strong>Panacea™ Lite</strong></td>
<td>Cost-effective utility 12x1 routing</td>
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<tr>
<td></td>
<td>Any signal format from analog to digital up to HD-SDI (1.5 Gb/s)</td>
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<td></td>
<td>Ultra low-cost routing</td>
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<tr>
<td><strong>Specialty Routing</strong></td>
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<tr>
<td><strong>Panacea™ Clean/Quiet Switch</strong></td>
<td>Industry’s only dual-channel clean/quiet switch</td>
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<td></td>
<td>16x2 with 6 auxiliary outputs; dual 8x1 with 3 auxiliary outputs each</td>
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<td></td>
<td>HD-SDI, SD-SDI or mixture with transitions on both video and audio switching</td>
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<tr>
<td><strong>Standalone Routing</strong></td>
<td>RS-12 Standalone analog video with stereo audio in 12x1 with video loop through</td>
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<td>PVS6 Standalone passive 6x1 analog video with stereo switching</td>
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## Routing Control

<table>
<thead>
<tr>
<th>Product</th>
<th>Description and Features</th>
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</thead>
<tbody>
<tr>
<td><strong>RCP-IDe</strong></td>
<td>LCD buttons with downloadable text and graphics</td>
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<tr>
<td><strong>Programmable Pushbutton</strong></td>
<td>Customizable button-per-source panels</td>
</tr>
<tr>
<td><strong>NUCLEUS™</strong></td>
<td>Customizable control of routing, processing and network equipment</td>
</tr>
<tr>
<td><strong>ABA</strong></td>
<td>Alphanumeric break-away panels with 8-character displays</td>
</tr>
<tr>
<td><strong>CCS Navigator™</strong></td>
<td>System-wide control and monitoring application</td>
</tr>
<tr>
<td></td>
<td>• Completely user-customizable GUIs</td>
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<tr>
<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>
</tr>
<tr>
<td><strong>RouterWorks®</strong></td>
<td>Software-based router control panel application</td>
</tr>
<tr>
<td></td>
<td>• Single-bus, Multi-bus, Matrix panels</td>
</tr>
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<td></td>
<td>• Especially well-suited for small to medium-size routing systems</td>
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<td></td>
<td>• Simple Wizard set-up with ability to limit access by sources, destinations and levels, and the ability to configure the number of and size of buttons, icons, etc.</td>
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<tr>
<td><strong>Edge Gateway</strong></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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<tr>
<td></td>
<td>• As we are a market leader, many vendors support our native protocol directly</td>
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<tr>
<td><strong>Built-In/Native Protocol Support</strong></td>
<td>Platinum and Panacea have built-in/native support for:</td>
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<tr>
<td></td>
<td>• Harris CCS Protocol over serial and Ethernet</td>
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<td></td>
<td>• Harris XY Passthrough Protocol serial and Ethernet</td>
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<tr>
<td></td>
<td>• Optional software license support for SNMP</td>
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<tr>
<td><strong>Legacy SPT (Serial Protocol Translator)</strong></td>
<td>Small, third-party protocol conversion for small to medium-size systems</td>
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<td></td>
<td>• Thomson/GVG 20-TEN and Horizon; Pro-Bel System 2; Sandar, Tandberg, Panasonic MARC II, TSL</td>
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<td></td>
<td>• Also useful as a simple serial port expansion and/or router simulator</td>
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<tr>
<td><strong>Automation Vendor Support</strong></td>
<td>Harris, AMX, Crestron, Crispin, Florical, Leightronix, MATCO, Micro-First, Sundance, etc.</td>
</tr>
<tr>
<td><strong>Master Control Systems</strong></td>
<td>Harris, Miranda, NVision, Pro-Bel, Thomson/GVG, Utah Scientific, etc.</td>
</tr>
<tr>
<td><strong>Tally/UMD Control Systems</strong></td>
<td>Image Video, Television Systems Limited (TSL), Videoframe Systems, etc.</td>
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</table>
Innovative Large-scale Routing

Platinum Routing Switchers
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 larger routing needs. Designed to support high-quality routing for 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 signals.

Higher 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 support either eight inputs or eight outputs, thereby limiting the number of signals affected by any one module. Each Platinum frame supports redundant control, and redundant cross-points are available in most configurations.

Enhanced Control and Monitoring
The distributed control system used in Harris routing switchers is unique in the industry in that it does not require a separate, centralized controller. Each Platinum frame features redundant control modules that store configuration information related to that frame in non-volatile memory. While every frame in the system can be used to store and retrieve a full copy of the complete system configuration, a complete failure of both modules — or of the complete frame — would only affect the signals in that frame. The rest of the system would continue to operate. In addition, communications from control panels can be distributed throughout a facility, removing yet another single point of failure.

Key Benefits
- Mixed-signal routing
  - Up to 256x256 in 15RU (NOTE: up to 512x512 discrete stereo/audio)
  - Up to 512x512 in 28RU (NOTE: up to 1024x1024 discrete stereo/audio)
- Modular I/O in groups of 8
- Front-loading, hot-swappable modules for 24/7 operation
- Redundant power supplies, controllers and signal paths
- Enhanced control and monitoring
  - Wide range of hardware control panels
  - Software and Web-based applications with user-configurable GUIs
  - Protocol support for CCS™, SNMP and third-party vendors
  - Secure access rights with restrictions by level, source and destination
- Video routing support
  - 1080p (3 Gb/s) signal routing (any size)
  - Almost any digital video signal from 3 Mb/s to 3 Gb/s including: HD-SDI, SD-SDI, ASI, SMPTE 310, SMPTE 305, coax or fiber, etc.
  - Environmentally friendly, industry-first “Green” output board
  - Analog video supported via conversion to/from SD-SDI on I/O
  - NOTE: Certain low-quality signals require TBCs (i.e., VHS)
- Audio routing support
  - Digital audio signals including balanced and unbalanced AES
  - Analog stereo/mono audio via conversion to/from AES on I/O modules
  - Support for up to 16 embedded AES streams per video input
  - “Quiet switch” with transitions
  - Optional daughtercard to support up to 128 embedded channels
World’s Only Integrated Audio Processing Router

Platinum™ combines the best of both high-bandwidth video signal routing and an internal time-division multiplexing (TDM) architecture to provide the world’s only embedded audio infrastructure router housed within a single chassis. The combination of these technologies enables Platinum to provide unprecedented functionality in routing video and audio signals within the same frame, perform phase reversal, swap, sum and “quiet” break-away switching of the audio between any discrete inputs, and provide gain/level adjustments on a per-channel basis.

By adding a daughterboard to the video input and output boards, Platinum has the capability to demux incoming audio signals and then multiplex any audio signal within the router on a video output. This provides enhanced signal capabilities to manipulate, switch and process embedded audio signals within the frame. These optional PT-DMX/PT-DMX-3G and PT-MUX/PT-MUX-3G daughtercards can be combined with the current AES and analog discrete audio I/O boards and TDM MAX crosspoint for the ability to route to/from any analog, AES discrete or embedded audio signal.

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. These cards are ideal for applications at networks, local broadcasters, mobile production units, cable companies, telcos, the military and government, and corporations.

Significant Space, Power and Cost Savings

CENTRIO™ — The Breakthrough Multiviewer

combines a superior graphics engine, a robust, broadcast-quality router and integrated test and measurement tools. It supports systems with up to 512 inputs (HD, SD or analog) in a single frame with access to every video and audio signal. And because CENTRIO resides in a router, users enjoy simplified design, easy scalability, rack space savings and streamlined operation.

CENTRIO™ is a landmark development in multiviewer design and value, which
Platinum MX Routing Switchers

Platinum™ MX is part of the Platinum line of routing switchers that combine a highly robust architecture with the flexibility required to future-proof your investment, delivering unsurpassed value for your larger routing needs. Designed to support high-quality routing for 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 moderate number of signals.

Higher Reliability

Platinum MX 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 MX 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 MX I/O modules support either eight inputs or eight outputs, thereby limiting the number of signals affected by any one module. Each Platinum MX frame supports redundant control, power and redundant cross-points.

Enhanced Control and Monitoring

The distributed control system used in Harris routing switchers is unique in the industry in that it does not require a separate, centralized controller. Each Platinum MX frame features redundant control modules that store configuration information related to that frame in non-volatile memory. While every frame in the system can be used to store and retrieve a full copy of the complete system configuration, a complete failure of both modules — or of the complete frame — would only affect the signals in that frame. The rest of the system would continue to operate. In addition, communications from control panels can be distributed throughout a facility, removing yet another single point of failure.

Key Benefits

- Mixed-signal routing
  - Up to 128x128 in 9RU (NOTE: Up to 256x256 discrete stereo/audio)
  - Up to 72x64 in 5RU (NOTE: Up to 144x128 discrete stereo/audio)
- Modular I/O in groups of 8
- Front-loading, hot-swappable modules for 24/7 operation
- Redundant power supplies, controllers and cross-points
- Enhanced control and monitoring
  - Wide range of hardware control panels
  - Software and Web-based applications with user-configurable GUIs
  - Protocol support for CCS, SNMP and third-party vendors
  - Secure access rights with restrictions by level, source and destination
- Video routing support
  - 1080p (3 Gb/s) signal routing (any size)
  - Almost any digital video signal from 3 Mb/s to 3 Gb/s including: HD-SDI, SD-SDI, ASI, SMPTE 310, SMPTE 305, coax or fiber, etc.
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  - NOTE: Certain low-quality signals require TBCs (i.e., VHS)
- Audio routing support
  - Digital audio signals including balanced and unbalanced AES
  - Analog stereo/mono audio via conversion to/from AES on I/O modules
  - Support for up to 16 embedded AES streams per video input
  - “Quiet switch” with transitions
  - Optional daughtercard to support up to 128 embedded channels
Traditional Medium-scale Routing

**Integrator Routing Switchers**
The Integrator® line of routing switchers allows you to switch multiple signal formats within the same 4RU, 6RU or 8RU frame. With expansion in groups of 32 inputs or 32 outputs, Integrator provides cost-effective scalability for analog video and many telco formats up to 64x64 in 4RU or 128x64 in 6RU. Analog audio can be expanded up to 128x128 in 6RU, with balanced and unbalanced up to 128x128 in 8RU. Even data (i.e., RS-422/232) routing is supported with up to 64 ports in an 4RU and 128 ports in 8RU frame.

As Integrator routing switchers support “true” analog video and analog routing, they are especially well-suited to the routing of composite signals (including lower-quality signals such as VHS), and telco signals such as DS3 or E3 and time-code. The Integrator family of routing switchers is widely used in network, local broadcaster, mobile production, cable, telco, military, government and corporate applications.

**High Reliability**
Integrator routing frames are designed for harsh operation (including mobile truck environments) and feature front-loading, hot-swappable modules for ease of serviceability. Integrator frames support redundant, load-sharing power supplies. Redundant controllers/logic cards are also supported, providing seamless transition in the event of a failure. All I/O modules, power supplies and controllers/logic cards are front-loading and hot-swappable for 24/7 operation.

**Enhanced Control and Monitoring**
The distributed control system used in Harris routing switchers is unique in the industry in that it does not require a separate, centralized controller. Each Integrator frame features redundant control modules that store configuration information related to that frame in non-volatile memory. While every frame in the system can be used to store and retrieve a full copy of the complete system configuration, a complete failure of both modules — or of the complete frame — would only affect the signals in that frame. The rest of the system would continue to operate. In addition, communications from control panels can be distributed throughout a facility, removing yet another single point of failure.

**Key Benefits**
- Mixed-signal routing:
  - 4RU frame: single 64x64; dual 32x32
  - 6RU frame: single 128x64; triple 32x32
  - 8RU frame: single 128x128 (audio only); dual 64x64
- Modular I/O in groups of 32
- Front-loading, hot-swappable modules for 24/7 operation
- Redundant power supplies and controllers
- Enhanced control and monitoring
- Video routing support
  - True analog video routing up to 100MHz
  - Telco formats such as DS3 and E3
- Audio routing support
  - True analog audio routing
  - Timecode routing
Small-Scale Routing

The affordable, compact Panacea™ routing switcher line is the market leader for small routing applications, offering the largest selection of matrix sizes, options and built-in control features — allowing you to purchase a router tailored to your applications.

HD/SD-SDI
The Panacea wideband digital multi-rate routing switcher offers a clear growth path from lower bitrate SDI and ASI to high-bandwidth HDTV applications. Panacea routes signals from 3.072 Mb/s to 3 Gb/s.

SD-SDI
From 8x8 to 32x32, the Panacea SDI router switches signals from 3.072 Mb/s to 540 Mb/s.

Wideband Analog Video Routing Switcher
The Panacea wideband analog video router switches standard composite NTSC, PAL, SECAM and analog component video signals, and RF/IF-up to 200 Mhz.

Analog Audio Routing Switcher
The Panacea analog audio router switches standard stereo and mono analog audio signals as well as timecode.

AES/EBU Digital Audio Routing Switcher
The Panacea AES/EBU routing switcher provides synchronous or synchronous quiet switching for balanced or unbalanced digital audio signals.

Key Benefits
- Flexible matrix sizes from 8x8 to 256x4
- Widest range of formats in the industry
- Control via Ethernet, coax X/Y, and serial standard
- Redundant power supplies available
- Small-frame footprint
- Budget-conscious price
- Superior quality

Features
- Flexible matrix partitioning options allow for flexibility and customization
- Available in the widest array of format sizes available — from 8x8 through 32x32 and up to a 256x4 solution.
- Available in 1RU or 2RU sizes:
  - Panacea 1RU — Single-Format Matrix Options 16x16, 16x4, 16x1, 8x8
  - Panacea 2RU — Single and Dual-Format Matrix Options 32x32, 32x4 Dual 16x16, Dual 16x4, Dual 16x1, Dual 8x8
- Comprehensive signal formats include HD-SDI (3 Gb/s), SD-SDI, ASI, Analog Video, Analog Audio, AES/EBU balanced and unbalanced, and RF.
- Choose either integrated universal AC or DC power supplies or external (brick) universal power supplies
- Redundant power supplies, external 1RU and 2RU, integrated 2RU only
- 3 Gb/s capability standard on all HD-SDI routers
- Ethernet communications standard on all Panacea routers except Panacea Lite
- Clean switching of discrete SDI or HD-SDI video option
- Quiet switching of discrete AES/EBU digital audio option
- Signal diagnosis capabilities (i.e., signal presence, error detection)
- Small frame footprint, only 5.25 in./13.3 cm deep
- Control via XY, serial RS-232/422, local control panel, optional remote control panel or direct-to-frame. Optional IP/Ethernet/SNMP
Panacea™ Lite

Small Utility Routing

Panacea™Lite offers mixed-format, broadcast-quality 12x1 utility routing — all within an affordable, compact 1RU frame.

Wide Range of Signal Formats
Featuring the widest format range in the industry in a 1RU frame, Panacea Lite is available as a dual-format analog video and audio, SDI video and AES, HD-SDI video and AES router for coverage of the countless utility applications. Panacea Lite is also offered in the following standalone formats: analog video, analog audio, SDI or HD-SDI video.

Single/Dual-Format Within a 1RU Frame
Panacea Lite is one of the most compact 12x1 routers for utility routing applications available today. With a frame depth of only 5.25 in. (13 cm), Panacea Lite allows for either front or rear rack mounting. In addition, both video and audio are housed in the compact 1RU frame for maximum space efficiency.

Control is Tailored To Your Requirements
Panacea Lite allows you to select local and/or remote control panels with standard breakaway operation. If rear rack mounting is desired, Panacea Lite lets you tailor your remote control applications by offering XY remote control as standard. This allows you the freedom of remote panel distances up to 2000 ft (615 m). Multiple routers can be linked together for multiple level switching, and because a common Harris control system is incorporated, Panacea Lite can be easily integrated into existing facilities. In addition, serial control is available with GPI.

Panacea Lite Fits Any Facility
Panacea Lite fits into any television production facility, cable facility, production or post production facility, outside broadcast vans/trucks, DBS satellite operation, webcaster, or telco facility with ease.

FEATURES
- Competitive pricing
- Shallow 1RU frame with adjustable mounting ears — mount in the rear of an equipment rack!
- Comprehensive support of signal formats
- Built-in AC supply
- Available as a dual-format router (analog video and audio, SDI video and AES, HD-SDI video and AES router), or in standalone formats (analog video, analog audio, SDI and HD-SDI video)
- Control via XY, serial RS-232/422, local control panel, optional remote control panel, or GPI

Key Benefits
- High-quality, low-cost utility 12x1 utility routing
- Widest range of formats in the industry
- Single or dual formats available
- Local and/or remote control panels available
- Small-frame footprint
Panacea™ Clean/Quiet Switch

Panacea™ Clean/Quiet Switch is the industry’s most powerful dual-channel clean video with discrete or embedded audio routing switcher — providing more features, functions and signal outputs than any similar product available today.

Two Clean and Quiet Outputs
The Panacea Clean/Quiet Switch provides two clean and quiet outputs for SDI and HD-SDI signals with embedded or discrete audio, along with six additional auxiliary buses to be used for utility routing. This unique feature permits routing of SDI and HD-SDI signals simultaneously in an HD-SDI wideband version of the clean switch, 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
Six auxiliary outputs are available for preview of both clean outputs, as well as additional outputs for secondary destinations.

Full, Embedded Audio Control
In addition, embedded audio quiet switching has been added to provide clean and quiet switching. Full control of the audio levels, audio fade options and channel assignment is provided for complete management of your embedded audio content.

Transitions for Video and Embedded Audio
A variety of video transitions with variable transition rates are available including dissolve, “V” fade, cut-fade, fade-cut and cut.

Panacea Clean and Discrete Quiet Switch
Panacea Clean and Discrete Quiet Switchers provide 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 “hiccups” 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.

Key Benefits
- Two continuous, error-free, clean outputs for HD-SDI and/or SD-SDI signals
- Two synchronous and quiet digital audio stream outputs with the Discrete Quiet Switch
- Ability to be configured as two independent 8x1 clean/quiet switches with three auxiliary outputs each
- Six auxiliary outputs that can be configured as a preview for each of the clean outputs or as additional non-clean, non-quiet outputs
- Selectable transition types and rates for video and audio
- Full control of embedded/discrete audio levels, fade options, and channel assignment
Distributed Control System

Distributed control maximizes reliability by avoiding the single point of failure inherent to centralized controllers. Our unique, distributed control architecture requires no separate, centralized controller, as control resides within each Harris router. With systems becoming more distributed, this approach not only eliminates the single point of failure, but also allows a routing system to be easily distributed within the same rack, the same building, the same city or throughout the world. Should the control processor in any of the routers within the distributed network fail, the overall system remains operational. This creates redundancy and reliability akin to the modern Ethernet computing network, in which a port or hub can fail, and network communications — with the exception of the particular PC connected to the failed port or hub — still remain operational. Because the same control protocol is used across all our router lines, hardware control panels and software applications, as well as interfaces to third-party automation and control systems, remain the same.

Distributed Control

Each router frame has its own controller and optional redundant controller. This provides superior redundancy in case of failure.

Key Benefits

- No centralized controller
- Primary and redundant controller in each frame
- Control system consistent across all Harris router lines
- Legacy control panels can be used with new systems
- Consistent interface to automation systems and other third-party control devices
- Frame and system configuration stored in non-volatile memory within the system
- Configuration PC does not need to stay connected to the system once configured
NUCLEUS™ and RCP-IDe 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.

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®, X75™ 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!

Key Benefits
- Available in a wide range of sizes
- Panel configurations: single-bus, multi-bus and XY
- Control panels consistent across all Harris router lines
- Legacy control panels can be used with new systems
- Available with both Ethernet and coaxial XY interface
- Configuration PC does not need to stay connected to the system once configured

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.

Key Benefits
- Simple, button-per-crosspoint operation
- Available in wide range of sizes:
  - 64x1, 32x32, 32x8, 32x1, 16x16, 16x8, 16x4, 16x1, 8x8, 8x1, 4x4 and 4x1
- User-definable button mapping
- Field-legendable, backlit pushbuttons
- Powerful features including: Panel Enable, Destination Lock/Protect and Salvo Execute
Alphanumeric Breakaway (ABA) Control Panels

Ethernet (ABA) Control Panels

RCP-ABA1E-XYp, RCP-ABA2E-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.

RCP-ABA1E-XYp

RCP-ABA2E-XYp

(ABA) Control Panels

RCP-ABA1-XYp, RCP-ABA2-XYp
The RCP-ABA series control panels are 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.

Progammable Control Panels

Button-Per-Crosspoint Control Panels
The Programmable Panel Series of button-per-crosspoint router control panels combines the simplicity of button-per-crosspoint operation with the flexibility of user-definable button mapping. The button-per-crosspoint control panels can be ordered as remotes for the Integrator and Panacea routing switcher series. Alternatively, for Panacea routing systems, the button-per-crosspoint control panels can be installed as a local control panel mounted at the front of the frame. 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.

Key Benefits

- Available in a wide range of sizes
- Available configurations: single-bus, multi-bus and XY
- Control panels consistent across all Harris router lines
- Legacy control panels can be used with new systems
- Available with both Ethernet and coax XY interface
- Completely programmable buttons allow for unsurpassed flexibility
- Configuration PC does not need to stay connected to the system once configured

Key Benefits

- Simple, button-per-crosspoint operation
- Available in wide range of sizes: 64x1, 32x32, 32x8, 32x1, 16x16, 16x8, 16x4, 16x1, 8x8, 8x1, 4x4 and 4x1
- User-definable button mapping
- Field-legendable, backlit pushbuttons
- Powerful features including: Panel Enable, Destination Lock/Protect and Salvo Execute
Software Applications

Advanced software applications such as CCS Navigator, RouterMapper®, RouterWorks and Router Web offer powerful configuration and control, locally or remotely, using serial ports of TCP/IP over Ethernet. SNMP is supported directly to our Ethernet-based control systems and third-party router control as provided via Edge Protocol translator or SPT devices. These act as a bridge between Harris XY router protocols and other third-party router control and monitoring protocols. 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.

CCS Navigator — Advanced Graphical Navigation Application

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

RouterWorks — Windows®-based Router Control and Status Software

Suited to a great variety of PC-based control applications, the Windows®-based RouterWorks provides simple control and monitoring of any size routing switcher. RouterWorks offers single-bus, multi-bus and matrix views to combine the flexibility of the most powerful hardware control panel with the simplicity of a graphical user interface. Wild database mapping allows you to logically reassign crosspoints, freeing you from the physical restraints of hardware crosspoint matrices and levels.

Key Benefits

- Source, destination and level restrictions can be tailored for each user
- Most GUI elements configurable (i.e., size and number of buttons, colors, icons, etc.)
- Multiple software panels can be run simultaneously on the same screen
- Easy setup, execution and statusing of salvos
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 CCS Protocol over serial and Ethernet
- Harris XY Passthrough Protocol serial and Ethernet
- Optional SW license support for SNMP

**Key Benefits**
- Support for:
  - Harris router SNMP agents
  - Existing routing systems
  - Automation vendors
  - Master control UF
  - Multiviewers/tally control systems
- Provides connectivity expansion to existing router systems
- Protocol translation to/from third-party equipment and systems
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.

Provided by: Mega Hertz  800-883-8839

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