

# Platinum™ IP3 Router

Enterprise-Class Routing

## The Proven Workhorse

### Delivering the highest integration of routing technology.

Platinum™ IP3 delivers the highest integration of routing technology available. Designed for reliable, resilient, high-quality routing of all signal types, Platinum IP3 supports a range of applications, from workflows at multichannel video programming distributors, large national broadcasters or network hubs that require thousands of inputs and outputs down to studios and mobile production trucks.

Providing mixed-format video and audio routing, Frame Synchronization, dis-embedding, embedding, MADI and AES I/O, and Integrated Multiviewer functionality, IP3 also offers direct fiber I/O for SDI and MADI in addition to coaxial options.

IP3 is designed for in-service on-air matrix expansion. With a powerful, operator-friendly control system, set up and reconfiguration can be seamlessly executed. The IP3 features redundant crosspoints, protecting all mission-critical signal paths. IP3 supports the full range of SDI video formats from Standard-Definition (SD) all the way to Ultra High Definition (UHD) signals.



28RU Model Shown

## BENEFITS

- Superior integration in a single frame – Frame Sync, Audio/Video Processing, and Multiviewers
- Clear Progression from SDI to IP and UHD – leveraging the Magellan™ Control System
- Leading multi-frame expansion ability – creates larger routing systems by expanding existing systems
- Best fault tolerance and redundancy – covers audio and video routing, and control
- Field-proven Control System – the Magellan Control System manages SDI and IP matrices simultaneously
- Familiar user interfaces and panels – enabling free-lance environments with a familiar feel
- Fully-Non-Blocking SDI matrix system scalable to 1152x3072 (video) and 16384x49152 (audio channels)

## APPLICATIONS

### Industry's Most Scalable Router

The Platinum IP3 router can scale to multi-frame configurations for large to very large broadcast operations using a common architecture. Each Platinum IP3 28RU scales up to 576x1024 in a single frame, and these frames can be combined to 1152x3072 in multi-frame configurations without external distribution amplifiers or combiners.

The 15RU frame delivers multiformat signal routing up to 288 x 512 video in a single 15RU frame, and up to 288 x 1024 video in two interconnected 15RU frames.

With planning, these multiframe expansion systems can be scaled seamlessly up to the larger matrices while in service.

### Protect Video, Audio and Multiviewer Signals

Platinum IP3 protects audio, video and multiviewer signals. By adding redundant video and audio crosspoints to the Platinum IP3, facilities can maximize on-air security

### Enhanced Control and Monitoring

Platinum IP3 leverages the highly intuitive, centralized Magellan Control System that simplifies communications management between the router and other connected components. A feature-rich user interface and template-driven configuration builders simplify access to information, speeding setup of the database and system, and enabling updates to publish to the entire system in seconds — without any downtime.

### Integrated Multiviewer

Platinum SX Pro output modules can operate in any IP3 router chassis (15 or 28RU). Occupying from one to four slots, the SX Pro MV can flexibly combine with video and audio output cards for ultimate flexibility. In a fully expanded IP3 system, Platinum SX Pro is capable of monitoring up to 1152 sources and driving up to 3072 pips across up to 576 independent displays.

## SCALABLE SOLUTIONS



### 15RU

- Single Frame up to 288 x 512
- Dual Frames up to 288 x 1024



### 28RU

- Single Frame up to 576 x 1024
- Dual Frame (matrix expansion): 1152 x 1024
- Dual Frame (system expansion): 576 x 2048
- Three Frames (system expansion) 576 x 3072
- Four Frames (matrix + system) 1152 x 2048
- Six Frame (matrix + system) 1152 x 3072

## IP3 ROUTING SYSTEM FEATURES

Mixed-signal routing (SD, HD, 3 Gb/s video; Analog, AES, and MADI audio)

Up to 288 x 512 video in a single 15RU frame

Up to 288 x 1024 video in two interconnected 15RU frames

Up to 576x1024 video in a single 28RU frame

Up to 1152x1024 video in two interconnected 28RU frames

Independent signal paths and crosspoints for video and audio

Full redundancy for power, control and signals

Redundant crosspoints protect all signal paths including integrated multiviewers

Clean and quiet switching for on-air applications

Mux/Demux audio processing support

- Mux/Demux 16 channels of audio per video stream
- Full mono breakaway audio routing support
- Seamless integration between demultiplexed and discrete audio
- Multiplex 16 channels of audio into each video output

Optional eight-channel frame sync input card for wild feed ingest and audio shuffling, as well as demultiplexing of up to 16 channels of embedded audio in each video stream

Router matrix expansion functionality enables cost-effective expansion of outputs

MADI support simplifies audio interconnects between production audio consoles and the router to better support high-density audio

Modular I/O in groups of eight or nine provide support for either coaxial or fiber connectivity

Front-loading, hot-swappable modules for 24/7 operation

Full- Featured easy-to-use Magellan™ control system enables dynamic, on-air reconfiguration:

- Wide range of hardware control panels
- Powerful control integration for easy setup and configuration
- Protocol support for Magellan CCS™, SNMP and third-party vendors
- Extensive 3<sup>rd</sup> party protocol support for intermobility
- Easy-to-use HTML 5 software-based control panel

Video routing support

Almost any digital video signal from 3Mb/s to over 3Gb/s including:

- SD-SDI & HD-SDI to 1080p (3 Gb/s)
- ASI, SMPTE 310, SMPTE 305, etc.
- 4K and graphic routing beyond 3Gb/s supported via multiple paths
- SMPTE compliant analog video supported via conversion to/from SD-SDI on I/O

Discrete 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
- Support for Dolby and other compressed formats (without "Quiet Switch")

Platinum™ SX Pro integrated multiviewer:

- Monitoring of up to 576 sources over 192 displays (per 28RU frame)
- Monitoring of embedded, AES, analog or MADI audio
- Closed Caption and Subtitle decode and display
- Onscreen clocks and timers, and infopanel including alarms
- Tallies and UMDs

## SPECIFICATIONS

### PHYSICAL DIMENSIONS 15RU

Width	17.5 in. (44.5 cm)
Depth	18.5 in.(46.7cm) 23.5 in. including rear fans
26.3 in	26.3 in
Weight Fully Loaded (approx)	65.8 kg

### PHYSICAL DIMENSIONS 28RU

Width	17.5 in. (44.5 cm)
Depth	18.5 in. (46.7 cm) 23.5 in. including rear fans
Height	49.0 in. (124.5 cm)
Weight Fully Loaded (approx)	172 kg

### MATRIX MODULE CAPACITY

Input Slots	32 (15RU) 64 (28RU)
Output Slots	32 (15RU) 64 (28RU)
Video Crosspoint Slots	2
Crosspoint Slots	2 (1 Redundant)
Resource Slots	2 (1 redundant)
TDM Slots	2 (1 redundant)
Sync Slots	2 (1 redundant)
PSU Slots	4-15RU 8-28RU (External available as well)
Monitoring Slots	1
Alarm Slots	1

### STANDARD EQUIPMENT

Power Supply	2-15RU 4-28RU
Fan Module (Rear, Front)	6 Front/4 Rear (15RU) 12 Front/7 Rear (28RU)

### UPGRADE OPTIONS

Redundant Power Supply	Yes
Redundant Resource Module	Yes
Redundant Sync Options	Yes
Redundant Crosspoint	Yes

## ORDERING INFORMATION – 28RU

### PLATINUM IP3 FRAME, POWER AND CONTROL

<b>PX-FR-28</b>	Platinum IP3 28RU frame (includes 4 PX-PS, 1 PX-RES)
<b>PX-PS</b>	Platinum IP3 1500-watt power supply
<b>PX-FR-EXPS</b>	Platinum IP3 external power supply frame
<b>PX-EXPS7-CAB</b>	Platinum IP3 set of four 90 in. (7.5 ft) expansion DC power cables
<b>PX-RES</b>	Platinum IP3 resource controller module

### PLATINUM IP3 28RU CROSSPOINTS

<b>PX-576X1024-3G</b>	Platinum IP3 576X1024 3G crosspoint card for 28RU frame
<b>PX-ATDM64-X28</b>	Platinum IP3 64 slot support TDM audio crosspoint card (supports all slots in frame)

### PLATINUM IP3 SDI OUTPUT MODULES

<b>PX-HSR16C-OBG</b>	Platinum IP3 SD/HD/3G output module w/ 16 HD BNC back panel
<b>PX-HSR8C2D-OBG</b>	Platinum IP3 SD/HD/3G output module w/ 8 HD BNC + 2 DensiShield™ back panel
<b>PX-HSR16O-OBG</b>	Platinum IP3 SD/HD/3G output module w/ 16 Fiber/8 SFPs back panel
<b>PX-HSR8O2D-OBG</b>	Platinum IP3 SD/HD/3G output module w/ 8 Fiber/4 SFPs + 2 DensiShield™ back panel

### AUDIO OUTPUT MODULES

<b>PT-ENC-OB</b>	8-SDI to analog encoder output with back plane
<b>PT-AECT-OB</b>	16-unbalanced AES output module with back plane
<b>PT-AEBT-OB</b>	16-balanced AES output module with back plane
<b>PT-DACT-OB</b>	16-balanced AES to stereo output with back plane
<b>PT-MADI4C-OBG</b>	Platinum MADI audio output module w/ 4 active BNC
<b>PT-MADI4O-OBG</b>	Platinum MADI audio output module w/ 4 fiber/2 SFP cages

### PLATINUM IP3 SDI OUTPUT REAR CONNECTORS (FOR PRE-FITTING AHEAD OF FUTURE EXPANSION)

<b>PX-HSR16C-OBP</b>	Platinum IP3 SD/HD/3G 16 HD BNC output back panel
<b>PX-HSR8C2D-OBP</b>	Platinum IP3 SD/HD/3G 8 HD BNC + 2 DensiShield™ output back panel

**PLATINUM IP3 SDI OUTPUT MODULES WITH AUDIO MULTIPLEXING**

<b>PX-HSRMX8C2D-OBG</b>	Platinum IP3 SD/HD/3G Mux Output Module w/ 8 HD BNC + 2 DensiShield back panel
<b>PX-HSRMX8O2D-OBG</b>	Platinum IP3 SD/HD/3G Mux Output Module w/ 8 Fiber/4 SFP's + 2 DensiShield back panel
<b>PX-HSR8CMX8C-OBG</b>	Platinum IP3 SD/HD/3G Mux Output Module w/ 16 HD BNC back panel
<b>PX-HSR8OMX8O-OBG</b>	Platinum IP3 SD/HD/3G Mux Output Module w/ 16 Fiber/8 SFP's
<b>PT-FSOB-OPT</b>	3G frame sync and clean and quiet license

**PLATINUM IP3 SDI INPUT MODULES**

<b>PX-HSR9C-IBG</b>	Platinum IP3 SD/HD/3G input module w/ 9 HD BNC back panel
<b>PX-HSR9C1D-IBG</b>	Platinum IP3 SD/HD/3G input module w/ 9 HD BNC + DensiShield™ matrix expansion + 1 HD-BNC DA back panel
<b>PX-HSR9O-IBG</b>	Platinum IP3 SD/HD/3G input module w/ 9 Fiber/5 SFPs back panel
<b>PX-HSR9O1D-IBG</b>	Platinum IP3 SD/HD/3G input module w/ 9 Fiber/5 SFPs + DensiShield™ matrix expansion + 1 HD-BNC DA back panel

**AUDIO INPUT MODULES**

<b>PT-DEC-IB</b>	8-analog to SDI decoder input with back plane
<b>PT-AECT-IB</b>	16-unbalanced AES input module with back plane
<b>PT-AEBT-IB</b>	16-balanced AES input module with back plane
<b>PT-ADCT-IB</b>	16-stereo to balanced AES input with back plane
<b>PT-FSDMX-IBG</b>	Internal demultiplexer base board-frame sync-capable, coaxial connectivity for signals up to 3 Gb/s
<b>PT-FSDMXO-IBG</b>	Internal demultiplexer base board-frame sync-capable; optical connectivity for signals up to 3 Gb/s
<b>PT-FSIB-OPT</b>	License to enable frame sync capability on PT-FSDMX-IBG or PT-FSDMXO-IBG for signals up to 3Gb/s
<b>PT-MADI4C-IBG</b>	Platinum MADI audio input module w/ 4 active BNC
<b>PT-MADI4O-IBG</b>	Platinum MADI audio input module w/ 4 fiber/2 SFP cages

**PLATINUM IP3 INPUT REAR CONNECTORS (FOR PRE-FITTING AHEAD OF FUTURE EXPANSION)**

<b>PX-HSR9C-IBP</b>	Platinum IP3 SD/HD/3G w/ 9 HD BNC input back panel
<b>PX-HSR9C1D-IBP</b>	Platinum IP3 SD/HD/3G w/ 9 HD BNC + DensiShield™ matrix expansion + 1 HD-BNC output back panel

**PLATINUM IP3 EXPANSION DENSISHIELD™ CABLE**

<b>PX-EXDS6-CAB</b>	Platinum IP3 SD/HD/3G 6 meter multi-frame DensiShield™ expansion cable
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## ORDERING INFORMATION – 15RU

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### PLATINUM IP3 15RU FRAME, POWER & CONTROL

<b>PX-FR-15</b>	Platinum IP3 15RU Frame (Includes (2) PX-PS, (1) PX-RES)
<b>PX-PS</b>	Platinum IP3 1500-watt power supply
<b>PX-FR-EXPS</b>	Platinum IP3 external power supply frame
<b>PX-EXPS7-CAB</b>	Platinum IP3 Set of 4 90" (7.5 ft) expansion DC power cables
<b>PX-RES</b>	Platinum IP3 resource controller module

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### PLATINUM IP3 15RU FRAME, POWER & CONTROL

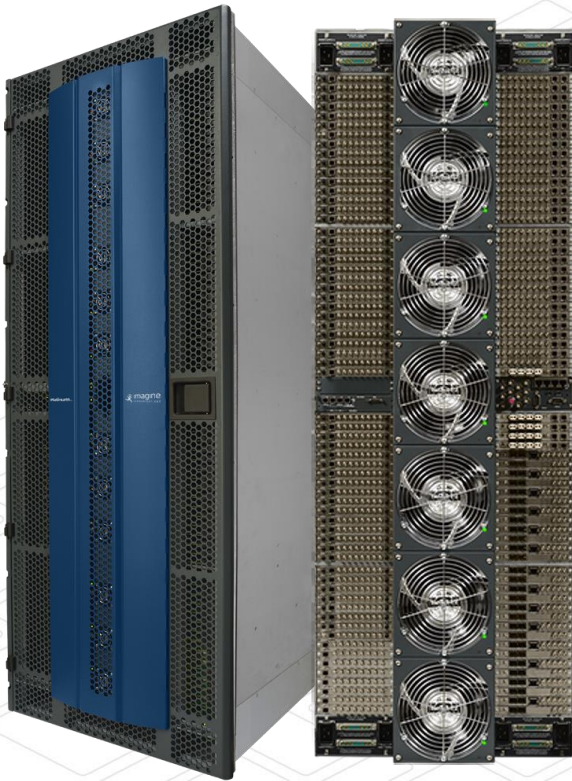
<b>PX-288X512-3G</b>	Platinum IP3 288x512 3G Crosspoint Card
<b>PX-ATDM64-X28</b>	Platinum IP3 64 Slot Support TDM Audio Crosspoint Card (Supports All Slots in Frame)

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**INPUT AND OUTPUT MODULES ARE COMMON BETWEEN THE 28RU AND 15RU IP3 FRAMES**

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Deployed as the core router in broadcast facilities, control rooms and trucks worldwide, Platinum™ IP3 is well-suited for any SDI production environment, providing seamless and synchronous switching and fine-grained audio routing capabilities. The highly integrated Platinum™ IP3 routing system offers unmatched flexibility and scalability, enabling routing workflows from SD to HD to UHD.



**28RU IP3 Frame**



**15RU IP3 Frame**