

# PRESENTATION RECORDER™ HD ULTRA

Rackmount: PR-HD-ULTRA-R

Dual Rackmount: PR-HD-ULTRA-D



## PRESENTATION RECORDING AND STREAMING

The PR-HD-ULTRA-R/D captures video, audio and computer feeds together into a combined HD video that records the entire presentation to the very popular H.264/MP4 open standard. The PR-HD-ULTRA-R/D may also simultaneously stream the resulting file either locally within a network or across the internet with the NCast Presentation Server or other content delivery services. The rackmount unit may be configured with a single encoder (-R) or with dual encoders (-D).

The PR-HD-ULTRA-R/D fully automates this recording and streaming by offering a dedicated hardware solution with a powerful set of features.

The PR-HD-ULTRA-R/D allows users to:

- Capture—several multimedia feeds: graphics, video, and audio,
- Compose—these feeds with PiP into a single multimedia stream,
- Encode—the stream into a standard MP4 (H.264) file,
- Cast—that file on the Internet using realtime streaming protocols,
- Archive—the stream for on-demand viewing.

The PR-HD-ULTRA-R/D introduces support for up to WUXGA (1920x1200) input resolutions with up to WXGA (1280x720) capture resolutions and PiP (Picture-In-Picture) video and graphics overlay. The unit is a dedicated hardware solution that combines simple operation with a powerful set of features. Enjoy universal interoperability with any RGB/DVI source: laptops, PCs, MACs, document cameras, diagnostic equipment, etc.

## APPLICATIONS

The PR-HD-ULTRA-D is a unique dual encoder unit which enables four different application solutions:

1. Two independent encoders – With identical inputs, one encoder may be setup to stream and record a high-bandwidth, high-resolution stream and the second encoder provides for a reduced resolution, reduced bandwidth stream.
2. Dual wide-screen delivery - Each encoder is capable of recording and streaming a full hi-def image independently. While one encoder transmits a 1080p hi-def camera stream, the other encoder transmits a wide-screen presentation. Telepresence at a budget price!
3. Synchronized Encoders - Two HD 1920x1080 wide-screens side by side.
4. Fail-Safe System – Each encoder independently transmitting the same material. Should one fail, the receivers can switch to the other.



## FEATURED HIGHLIGHTS

### INTEGRATED VIDEO AND GRAPHICS

PR-HD technology integrates high resolution graphics and video sources into a PiP (Picture-in-Picture) or Picture-by-Picture format for H.264 playback. The PR-HD-ULTRA supports 3G-SDI input.

### PIP CUSTOMIZATION

Robust control set available for Picture-in-Picture technology, logo insertion and textual description. Graphical and dynamic text overlays add details.

### CHANNEL/SESSION TEMPLATES

User-defined preset templates simplify session setup.

### SCHEDULING

Schedule one or more Recorders using Google Calendar or other iCalendar based tools.

### ROBUST

Embedded Linux kernel for secure, crash-free operation. Diskless operation for ultra-reliability. Green design, very low power.

### SCALABLE

NCast technology allows for maximum scalability with remote users if streamed through multicast.

### GRAPHICS RESOLUTION

Supports up WUXGA (1920x1200) input and HD (1920x1080) record or stream, simultaneous WXGA (1280x720) stream and record capabilities.

### GRAPHICS QUALITY

Retain full integrity of original image using motion adaptive de-interlacing.

### AUDIO CAPABILITIES

Audio input is fully synchronized with the video and graphics presentation for flawless playback.

### RECORD CAPABILITIES

Archiving feature captures any source for later download or remote viewing.

### PLAYBACK OPTIONS

Recorded archives auto-upload to a VOD server. H.264 encoding is compatible with Flash Media players.

### COMPLETELY AUTOMATED

Automated scheduling, recording, work-flow processing, and distributing.

### DESKTOP PLAYERS

Anyone connected to the network may view a presentation via a web browser or media player (Flash, Quicktime, VLC, HTML5 etc.) Playback by Windows Media Player and more.

# TECHNICAL SPECIFICATIONS

**Rackmount: PR-HD-ULTRA-R**  
**Dual Rackmount: PR-HD-ULTRA-D**

## GRAPHIC AND VIDEO INPUTS

DVI-I (Laptops, HD Video)  
RGB (DB15), Y-Pr-Pb  
HDMI  
Display Port  
Composite Video  
3G-SDI  
Supports: WUXGA, WXGA, XGA, SVGA, 720p, and 1080p

## GRAPHICS RESOLUTIONS & PERFORMANCE

Simultaneously records and streams up to 720p (1280x720) at 30 fps  
Records or streams up to 1080p (1920x1080) at 25 fps

## GRAPHICS OUTPUTS

720p (1280x720) / 1080i (1920x1080)  
Y-Pb-Pr or RGB (DB15) 16.7 M colors, wide-screen displays

## GRAPHICAL OVERLAYS

Add JPEG, PNG, and GIF images to the final screen composition  
Dynamic text overlays add real-time titles and text

## GRAPHICS COMPRESSION

H.264 (ISO/IEC 14496-10)

## AUDIO

MP4 AAC (ISO 14496-3), Low Complexity Profile  
Input Sampling, 16 Bits, 44.1 kHz  
Input, Stereo, Line-In & Mic-In on 3.5mm Jack (PC Audio type)  
Output, Stereo, Line Out, 3.5mm Jack (PC Audio type)  
XLR Audio Line-Level Input Support, Mono only

## NETWORK INTERFACE

RJ-45 (LAN, DSL, Cable Modem), Ethernet 10/100 Mbps, DHCP

## COMMUNICATION PROTOCOLS

Multicast, Unicast, HTTP, HTTPS, UDP, TCP/IP, RTP, RTCP, RTSP, RTMP, DHCP, NTP, FTP, SFTP, Telnet, SMTP, SNMP

## EXTERNAL INTERFACES

Serial RS-232 port on DB-9 connector, USB, Power Connector

## ENCODING BITRATES

Graphics 128 Kbps to 5Mbps  
Audio 16 Kbps to 128 Kbps

## ENTERPRISE SYSTEM MANAGEMENT

Serial Crestron/AMX compatibility (Serial, Telnet, HTTP)  
iCalendar support (Google Calendar)  
Optional Java or Python Systems Manager  
NCast Management Dashboard

## PR-HD-ULTRA SERIES MODELS

PR-HD-ULTRA-R Rackmount Recorder (1U)  
PR-HD-ULTRA-D Rackmount Dual Stream Recorder (1U)

## ARCHIVE FEATURES – SOLID STATE DISK

Archive and record options – 32/64/128 GB storage  
Archives stored as MP4 files or H.264 files (ISO 14496-14)  
Playback using Windows Media Player, Quicktime, VLC, etc  
Audio using MP4 AAC (ISO 14496-3)  
Metadata index files with title, author, and subject  
Saves to USB  
Automated FTP and SSH FTP file push  
Upload to NCast Presentation Server or Kaltura  
Closed Caption SRT files

## SETUP

USB Stick for IP Settings

## USER INTERFACE CONTROLS

Capture size, Resolution and Aspect ratio  
Graphics overlay positioning (vertical, horizontal)  
PiP size, location (Overlap or Side-by-side)  
Brightness, contrast, sharpness, saturation, hue  
Audio Input Gain, Audio Output Volume  
Dynamic text overlays, Closed Caption controls and Chapters  
User-defined channel preset templates

## STREAMING CAPABILITIES

Multicast, RTSP or RTMP Unicast to a Streaming Server  
Flash Player, Quicktime, HTML5, DivX, VLC, and others supported

## SECURITY

Embedded Linux OS, HTTPS, SSL Certificate, SSH FTP

## DIMENSIONS AND WEIGHT

Rackmount: 19.0" W (482.6mm) x 10" L (254.0mm)  
x 1.75" H (44.5mm), 10 lbs (4.55 kg)  
Dual Rackmount: 19.0" W (482.6mm) x 15" L (381.0mm)  
x 1.75" H (44.5mm), 15 lbs (6.8 kg)

## POWER – GREEN DESIGN

Power Consumption: 30 W (Rackmount)/60 (Dual)  
Power Supply: Internal AC 100-240V 50/60 Hz—80/160W

## ENVIRONMENTAL OPERATION

Operating Temperature: 10° to 35°C (50° to 95°F)  
Non-operating Temperature: -40° to 70°C (-40° to 158°F)  
Operating Relative Humidity: 8% to 90% (non-condensing)  
Non-operating Relative Humidity: 5 to 95% (non-condensing)

## REGULATORY

FCC Part-15 Class A  
EMC Directive 2004/108/EC  
EMD Low Voltage Directive 2006/95/EC  
RoHS Compliant 2002/95/EC

