

 **MAXX-2400 HD**

High Definition Broadcast Server

360 Systems[®]
BROADCAST

HD

MAXX-2400 HD

The High Definition Broadcast Server for every market size. Four Channels, Massive Storage, Highest Reliability.



Designed for Mid-Markets and Pro A/V

MAXX 2400 HD brings high reliability, and the industry's best price-performance.



The Industry's Most Advanced Technology

Nearly 3,000 360 Systems video servers deliver content across America and around the world.

360 Systems
BROADCAST

Coming
Soon

Preliminary Information – The content in this brochure presents advance specifications, subject to change, and should be used for general information.

MAXX-2400 HD High Definition Image Server

Lowest Cost Per Channel | Better Cost-per-hour | Highest Reliability | Smart Economics

MAXX-2400 HD Delivers More

360 Systems' new High Definition MAXX 2400 HD sets a new standard for performance among broadcast video servers. Now, get four video outputs, two inputs, twelve Terabytes of storage, and a broad set of server tools in one attractively priced package.

Four High Definition Channels

MAXX 2400 HD plays up to four high-definition video streams at once. Or it can record two streams, while playing two others. It's also a graphics store, with linked key-and-fill capability. Standard features include HD SDI video inputs, able to record wild sources like tape and satellite feeds. Audio formats include SDI-embedded audio, and your choice of AES/EBU digital or +4 balanced analog.

Better Images with JPEG 2000

When image quality has to be high, and cost manageable, JPEG 2000 is a first choice. New wavelet-based coding has made it a leading format for new cameras and production, while its I-frame structure makes editing easy. And it's the sole standard for digital cinema. 360 Systems offers JPEG-2000 at bandwidths from 50 Mb all the way to 120 Mb, to suit every level of image quality.

Next-Gen Workflows

MAXX 2400 HD handles today's file-based work-flows, communicating easily over Gigabit Ethernet. It's HD SDI inputs, and outputs, plus analog and digital audio formats, make it a smooth fit with production and broadcast. Compatible with leading automation systems, MAXX 2400 HD is ideally suited as a play-to-air server, as a cache for satellite ingest, graphics storage, remote trucks, and for extra channels in DTV broadcast.

FEATURES

Two record channels

Four HD-SDI outputs with SD monitoring

Double fault-tolerant RAID-6 protection of stored program material

250 hours of program storage

Redundant hot-swap power and cooling

Includes trimming, segmenting, playlisting, As-Run logs

Software for remote PC Workstations

Slow-motion forward and reverse

File import & export on Gigabit Ethernet

Embedded, +4 analog, and AES/EBU audio

8 audio channels per video channel

Full-featured Graphic User Interface

Hot-swap drives with easy front access

Industry leader in price and performance

MAXX-2400 HD High Definition Broadcast Server

250 Hours of Program Storage

Exceptional Value for Every Broadcast and Pro A/V Market

Applications Include

- HD storage and play-to-air
- Satellite program cache
- File transfers to NLEs
- Instant Replay of sporting events
- Slow-Motion playout
- Key-and-Fill playout
- Multi-channel source for large screen and projection displays
- High resolution display panels
- File exchange with Network Storage
- Ingest / trim / playlisting workstations

Smooth Integration with Leading Broadcast Equipment

360 Systems' servers are on air with every major broadcast automation system. Choose from market leaders like Crispin, Harris, Nverzion and Sundance. Overseas, it's Ibis, Pebble Beach, ProBel, Ninsight, Hardata, Aveco, and more. So pick your system with the confidence that the high-definition MAXX 2400 HD will work exactly as you expect.

MAXX 2400 HD is also a plug-and-play fit with serial control from video switchers like Ross and Echolab, and will play up to four channels of video or graphics in perfect sync.

Working with desk-top controllers, MAXX 2400 HD delivers excellent instant replay and optional slow-motion performance for sports and entertainment.

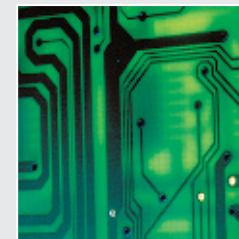
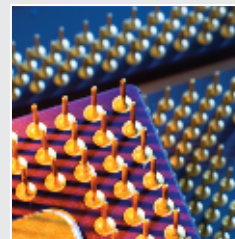
Designed for Broadcast Reliability

Redundant Power & Cooling. Each of the redundant power supplies can be replaced, even with the server in use. Quiet, forced-air cooling is also redundant, with conservatively rated fans. And a sophisticated alarm system reports events in the server's operation that may need attention.

Fault Tolerant RAID-6 Storage. Twelve Terabytes of internal storage provide 250 hours of program content. 360 System's Double Fault Tolerant™ RAID-6 technology distributes program data across all drives for the highest level of security. As many as two drives can fail without compromising program safety, or server performance. Of course, drives are hot-swappable, and easily replaced from the front panel.

A new standard of performance.

Since 1972, 360 Systems' semiconductor technology has redefined industry standards for quality, features and price.



Where else can you find such improved workflow and superior reliability in a High Definition broadcast server?

MAXX 2400 HD Delivers:

- 2 HD-SDI Inputs
- 4 HD-SDI Outputs
- 4 Composite Monitoring Outputs
- 8 channels of Embedded Audio
- 8 channels of AES/EBU Audio, or
- 8 Channels of +4 Balanced Analog Audio
- 4 Serial Control Inputs
- VDCP & Odetics protocols
- 12 Programmable GPI Inputs
- 12 Programmable GPI Outputs
- 12 Terabytes of RAID-6 Storage
- Gigabit Ethernet File Transfer
- 4-Channel Graphic User Interface
- Remote Workstation Software
- Advanced Playlisting Software
- File Trimming Tools
- Diagnostic Tools
- Key-and-Fill Playback
- Redundant Power and Cooling
- Dual Mains Inputs
- Fault Monitoring/Reporting



MAXX-2400 HD High Definition Broadcast Server

Full-Featured GUI | Remote Workstation Software | Advanced Playlisting

Extended Feature Set

The MAXX 2400-HD includes a big package of production, playout and maintenance features as standard equipment. An easy-to-use and intuitive graphic user interface gives access to each channel for manual control, using VTR-type buttons. Included are head and tail marking, trimming and segmenting.

Advanced Playlisting Included

360 Systems' Advanced Playlisting software builds rundowns of any length, with full drag-and-drop editing, pause, skip and hold control. For many applications, MAXX 2400-HD's playlisting may be all that's needed to get to air. Playlists can run simultaneously on each of the four server outputs, and can be created or edited from workstations anywhere in the building.



Crystal Clear audio for High Definition video.
8 Channels per video stream, in every format.

Built with experience.

- Superior 24-bit quality
- 8-channel for surround
- All audio formats



Audio for High Definition

To support high definition surround sound, up to eight audio channels are available with each video stream. Embedded audio is standard, and a choice of AES/EBU digital audio or +4 dBu balanced analog audio is available on breakout panels. Interfacing with existing equipment is easy, by locating the panels wherever needed within the rack.

360 Systems' long experience in professional audio provides superior 24-bit quality, gold XLR connectors, and even sample-rate conversion for wild AES sources. Of course, compressed files such as Dolby®-E or AC-3 can pass through using our exclusive Bit-for-Bit® technology.

FEATURES

Embedded Audio

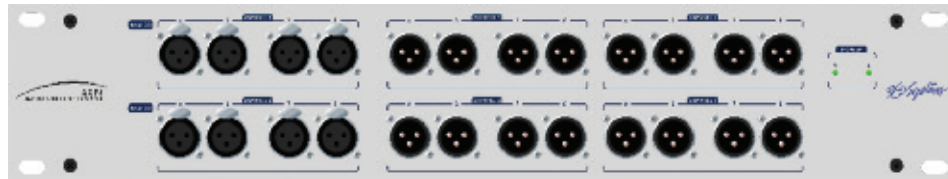
AES/EBU Digital Audio

+4 Balanced Analog Audio

16 Inputs, 32 Outputs



AES/EBU Audio I/O Module DXP-1



Analog Audio I/O Module AXP-3

Contact us today to find out how the
MAXX-2400 HD Broadcast Server
can make your future more profitable.



Please visit our web site at
www.360systems.com
Or call us direct at
+1 (818) 991-0360

Large scale server.
Small scale price.

MAXX-2400 HD High Definition Broadcast Server

TECHNICAL SPECIFICATIONS

VIDEO

Video Input	2 Channels
Video Outputs	4 Channels
Simultaneous video streams	4
Video Format	HD-SDI, SMPTE 292M. Supports SMPTE 274M & SMPTE 296M formats at 29.97, 59.94, 25 & 50 Hz
HD Record/Play Formats	1080i, 720p
Encoding Format	JPEG-2000, to 130Mb/Sec
Off Speed Play (Variplay)	Variable rate jog/shuttle and playout from .1X to 2X frame rates
Frame Accuracy	Frame accurate play, pause and stop
Monitor Outputs	Composite video, NTSC (525) or PAL (625). Down-scaled from HD
Video Genlock Input	RS-170 blackburst

ANCILLARY DATA

VBI Data	Closed Caption EIA 608B (SD), EIA 708B (HD), VITC
Video Indexing	SMPTE RP186
LTC Input	2, BNC

AUDIO INPUTS / OUTPUTS (PER VIDEO CHANNEL)

SDI Embedded Audio	8 channels – SMPTE 299M
Analog Audio Input, +4 dBu, balanced, XLR-3 connectors	Standard: 4 Channels. Optional: 8 Channels with AXP-4 I/O panel
Digital Audio Input, AES/EBU, XLR-3 connectors	8 Channels with DXP-1 I/O panel.
Bit-for-Bit® data handling	Transparent to Dolby®-E, AC-3
Audio coding	48KHz, 24-bit, linear PCM
Frequency response	10 Hz to 20 kHz ± .1 dB
Dynamic Range (analog)	112 dB
Distortion (analog)	<.002% THD @ full scale -1 dB

STORAGE

Disk Storage System	Serial ATA array, 12 1-Terabyte drives, Hardware RAID 6 controller
Total Capacity	12 Terabytes
Drive Replacement	Hot Swappable, removable from behind front panel
CD-ROM drive	Internal CD-ROM drive for upgrade of application features

CONNECTIVITY

Networking	Gigabit Ethernet
Ethernet Transport	JPEG-2000 files, Remote GUI control, machine diagnostic files
Serial Control	4, VDCP or Odetics protocols, 9-pin on CXP-1 expansion module.
GPI Control	12 Inputs, Outputs, Programmable

MISCELLANEOUS

Fault Monitoring LEDs	Front Panel LEDs, power, genlock, fans, system, RAID
Fault Monitoring Output	GPI output, open collector
Software Updates	CD-ROM
Power Supply	Dual Redundant, 100-250V - 50/60 Hz. 450W, rear panel plug-in
Cooling	Redundant slow-speed fans, replaceable without tools
Chassis	3-RU x 19" Rack, side slide rails. Weight: approx 100 lb. (45 kg)

EXPANSION MODULES

Model AXP-3 Analog Audio	4 inputs/outputs per video channel, +4 balanced on XLR. Self powered, redundant supplies. Add AXP-4 for 8 analog channels. 2-RU
Model DXP-1 AES/EBU Audio	8 inputs/outputs per video channel, AES/EBU on XLR. Self powered, redundant supplies. 2 RU
CXP-1	Serial and GPI control module. 1 RU

360 Systems brings legendary quality and reliability to broadcasting and Pro A/V projects. With over 35 years of experience and 30,000 hard disk products in service worldwide, 360 Systems leads the field in practical experience.



For more information on 360 Systems' high definition servers, please visit our web site at

www.360systems.com

Or call us direct at

(818) 991-0360