

 **MAXX-2420 HD**

4-Channel Broadcast Server

30 Systems[®]
BROADCAST

HD

MAXX-2420 HD

A New Four-Channel HD Server for Mid-Markets.
Compact, 16 TB of Storage, Highly Reliable,
With Economics that Make Sense.

HD



Designed for Mid-Markets
and Pro A/V
MAXX 2420 HD brings high
reliability, and the industry's best
price-performance.



The Industry's Most
Advanced Technology
Over 3,000 360 Systems video
servers deliver content across
America and around the world.

360 Systems
BROADCAST

MAXX-2420 HD High Definition Broadcast Server

4 Channels in 2 Rack Spaces | Low Cost per Channel | High Reliability | Smart Economics

MAXX-2420 HD Delivers More

360 Systems' new High Definition 2420 Server sets a new standard for channel count and storage capacity—in only two rack spaces. The 2420 delivers four HD outputs, two inputs, and sixteen Terabytes of storage in an attractively priced package.

Four High Definition Channels

The 2420 can play up to four HD streams at once; or it can record two streams and play two others, while still ingesting files by Ethernet. It's a graphics store too, with linked program and key-and-fill capability. Standard features include internal file trimming, playlisting, 720p slow motion, and frame sync on wild sources. Audio formats include SDI-embedded and your choice of AES digital or +4 balanced analog sources.

The 2420 HD server is compatible with automation and GPI control. It's ideally suited for play-to-air, as a cache for satellite ingest, or as a graphics store. It's small size and 10-bit images also make it a good fit for sports.

File-Compatible Workflows

Many HD formats exist—each different, and all requiring rapid interchange. Now, an extremely fast transcoding solution exists—one that works in most HD formats, is highly affordable, and gives 360 Systems' 2420 Server the power of high cost systems.

Ipera Technology® produces the transcode package that achieves these superior results. They call it 'Pixel Xtream®'. When paired with 360 Systems' 2420, the power to manage multi-format video is within reach of every broadcast market.

The 2420's internal JPEG-2000 format gives it an exceptional price advantage over other HD servers; and with faster-than-real-time transcoding, it now delivers seamless file interchange. No other server comes close to the price and performance of 360 Systems' new 2420 HD server.

FEATURES

Four HD-SDI payout channels

Two record channels

Up to 300 hours (16 TB) of RAID protected program storage

Redundant cooling, plug-in power supplies

Includes file trimming, segmenting & playlisting, plus as-run logs

Software for remote control from a PC

File import & export via Ethernet

AES/EBU, +4 analog & embedded audio
8 audio channels per video stream

Full-featured Graphic User Interface

Fast front panel access to drives

360 Systems has 3,000 servers on-air. We understand reliability.

MAXX-2420 HD High Definition Broadcast Server

300 Hours of Storage

An Exceptional Value for Broadcast and Pro A/V

Applications Include

- HD storage and play-to-air
- Satellite program cache
- Ethernet file exchange
- Fast, low-cost transcoding with companion products
- Instant Replay of sporting events
- Slow-Motion payout
- Key-and-Fill payout
- Multi-screen displays
- Trimming, segmenting & playlisting
- Backup payout for disaster recovery
- News rundowns

Smooth Integration with Leading Broadcast Equipment

360 Systems servers are on-air with every major automation system.

Choose from market leaders like Crispin, Harris and Nverzion. Overseas, it's Ibis, Pebble Beach, ProBel, Ninsight, Aveco, and more. Build your system with the confidence that the 2420 server will work exactly as you expect.

The 2420 is plug-and-play via serial control from video switchers like Ross and Broadcast Pix, and can play up to four channels of video or graphics in perfect sync.

Working with desk-top controllers like DNF, the 2420 delivers excellent instant replay and 720p slow-motion for sports and entertainment.

Designed for Broadcast Reliability

REDUNDANT POWER & COOLING

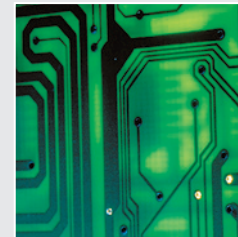
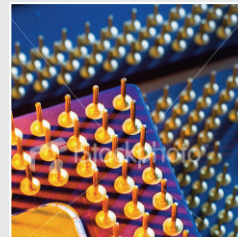
360 Systems' servers rank among the most reliable models in broadcast. Dual power supplies protect against server failure, and provide twin AC inputs. And of course they're plug-in replaceable. Multiple fans (quiet ones) keep components cool to extend the server's operating life. Most important, 360 Systems servers use a lean Linux® operating system having none of the errors common to PCs.

FAULT TOLERANT RAID STORAGE

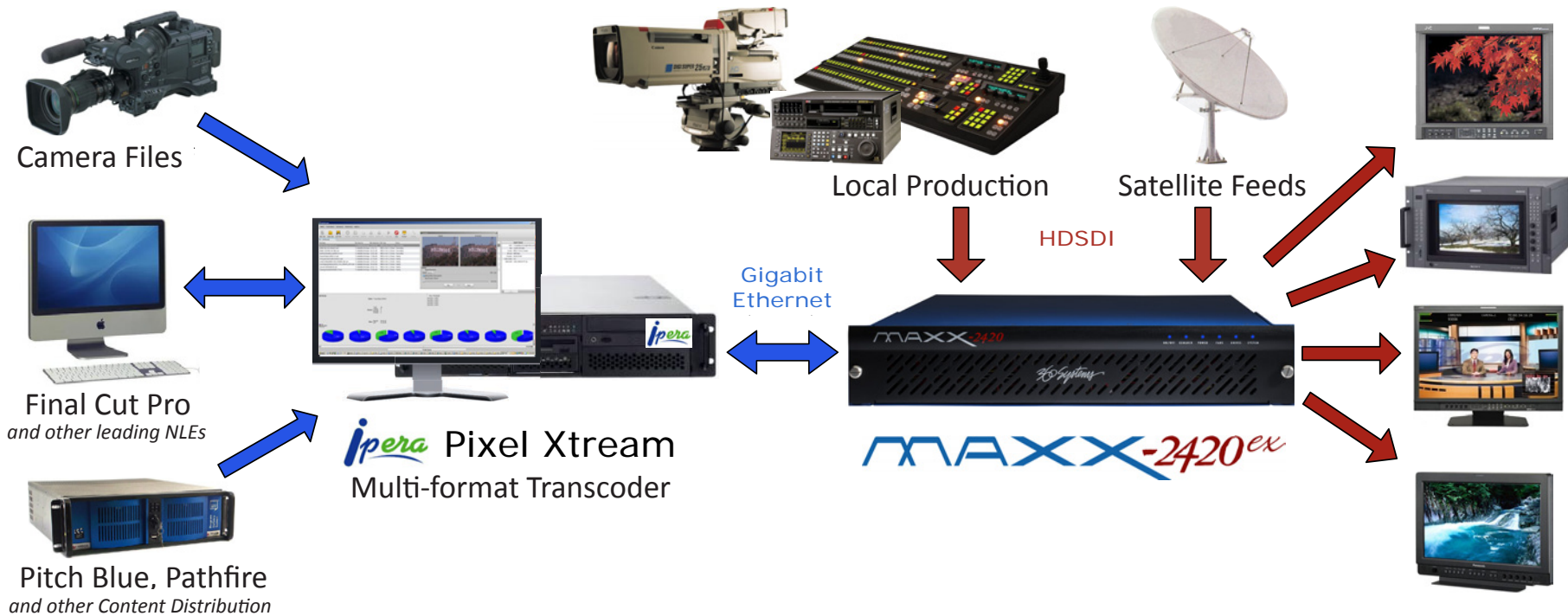
A choice of eight or sixteen Terabytes of internal storage is available in an eight drive RAID array, providing up to 300 hours of storage. 360 Systems' fault tolerant technology distributes program data across all drives for a high level of security. Drives are easily replaced by removing the front panel.

A new standard of performance.

Since 1972, 360 Systems' engineers have set new standards for performance, quality, and price.



Nowhere else will you find such versatile workflow and superior reliability in a mid-market, high definition server.



MAXX 2420-ex Delivers

- 2 bi-directional HD I/O channels
- 2 dedicated HD playout channels
- 4 Composite SD Monitor Outputs*
- Transcode packages available
- 8 channels of Embedded Audio
- 8 channels of AES/EBU Audio*
- 8 Channels of +4 Balanced Analog Audio*
- 4 Serial Control Inputs (VDCP/Odetics)
- 12 Programmable GPI Outputs and 12 Inputs
- 8 or 16 Terabytes of RAID Storage*
- 4-Channel Graphic User Interface
- Remote Workstation Software
- Advanced Playlisting Tools
- File Trimming Tools
- Key-and-Fill Playout
- Diagnostics, Fault Monitoring and Reporting
- Redundant Power and Cooling with dual AC Power Inputs*

*Order option

360 Systems
BROADCAST

MAXX-2420 HD

High Definition Broadcast Server

Full-Featured GUI

Advanced Playlisting

Remote Workstation Software

Extended Feature Set

The MAXX 2420-HD has an impressive group of production, playout and maintenance features. An easy-to-use and intuitive GUI gives access to each channel, with traditional VTR-type buttons. Tools include marking, head and tail trimming, and program segmenting.

Advanced Playlisting Included

The 2420 provides advanced drag-and-drop playlisting tools that let you build rundowns of any length, including pause, skip, and hold commands. Even GPI events can be programmed in a rundown. For many applications, the 2420's playlisting may be all that's needed to get to air. Playlists can run independently on each of the four server channels, and can be created or edited from workstations located anywhere in the building.



Crystal Clear Audio for High Definition 8 Channels per stream, in any format.

The 2420 Server offers audio in every format for HD production and broadcasting. Embedded audio is standard, and your choice of 8 channels of AES/EBU digital, or +4 dBu balanced analog, is available on active I/O panels. The panels can be placed wherever needed in a rack, to simplify system design.

360 Systems' 40 years experience in professional audio provides superior 24-bit quality. We've included sample-rate converters for wild AES sources, redundant power, and even gold XLR connectors. Compressed audio formats like Dolby®-E or AC-3 can pass through with 360 Systems' exclusive Bit-for-Bit® technology.

Premium quality audio

- Every audio format
- 8 channels of audio
- Superior 24-bit quality



AUDIO CAPABILITIES

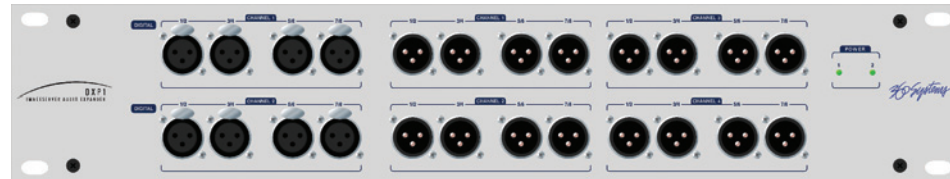
Embedded Audio - standard

AES/EBU Digital Audio

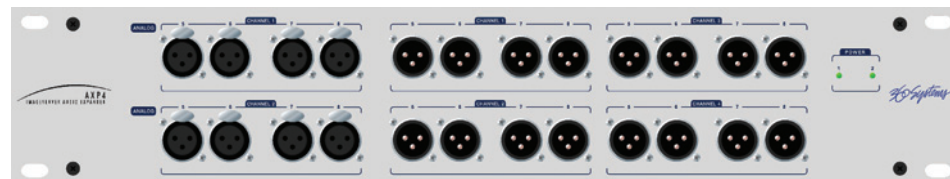
+4 Balanced Analog Audio

16 Inputs, 32 Outputs

Choose discrete analog or digital audio capabilities to match your needs.



AES/EBU Audio I/O Module DXP-1



Analog Audio I/O Module AXP-3

Large scale performance
Small scale package
Economics that make sense

MAXX-2420 HD High Definition Broadcast Server

TECHNICAL SPECIFICATIONS

VIDEO

Video Inputs	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, up to 100Mb/Sec
Off Speed Play (Variplay)	Variable rate jog/shuttle and play
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

VANC Data	720p: any 12 lines from 8 to 22; 1080i: any 6 line pairs from 8 to 22
Supports	Closed Caption EIA 608B, EIA 708B, ATC
LTC Input	2, BNC

AUDIO INPUTS / OUTPUTS (PER VIDEO CHANNEL)

SDI Embedded Audio	8 channels – SMPTE 299M
Analog Audio I/O +4 dBu, balanced, XLR-3 connectors	Option, 4 or 8 Channels with AXP-3 and AXP-4 I/O panel (s).
Digital Audio I/O, AES/EBU, XLR-3 connectors	Option, 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 8 drive array, hardware RAID-5 controller
Total Capacity	8 terabyte. 16 TB Optional
Drive Replacement	Removable from front panel

CONNECTIVITY

Networking	Gigabit Ethernet
Ethernet Transport	JPEG-2000 files, Playlist and As Run files Remote GUI control, machine diagnostic files.)
Serial Control	4, VDCP or Odetics protocols, 9-pin RS-422 on CXP-1 expansion module.
GPI Control	12 Inputs, 12 Outputs

MISCELLANEOUS

Fault Monitoring LEDs	Front Panel LEDs, power, genlock, fans, system, RAID
Fault Monitoring Output	GPI output, open collector
Software Updates	USB
Power Supply	450W rear panel plug-in, 100-250V- 50/60 Hz. Dual Redundant option
Cooling	Redundant slow-speed fans
Chassis	2-RU x 19" Rack mount. Weight: approx 50 lbs. (22.7 kg)

EXPANSION MODULES

Model AXP-3 Analog Audio	4 inputs/outputs per video channel, +4 balanced on XLR. Add AXP-4 for 8 analog channels. Redundant power
Model DXP-1 AES/EBU Audio	8 inputs/outputs per video channel, AES/EBU on XLR. Redundant power.

The 2420 Server is offered in different models

2420-HD has 8 TB of internal storage and a single power supply.

2420-EX has 16 TB of internal storage and dual power supply.

The **AXP-3, AXP-4, DXP-1** are optional discrete audio I/O modules.

For more information on the new **2420 Server**, please visit our website at: www.360systems.com

Or call us at:
(818) 991-0360



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