

XPression®



> **REAL-TIME MOTION GRAPHICS ENGINE SCALES TO MEET ANY PRODUCTION WORKFLOW DEMANDS.**

NEWS ELECTIONS SPORTS ENTERTAINMENT HOUSES OF WORSHIP SOCIAL VS/AR

Ross Video's XPression line of real-time motion graphics systems, clip servers, workflow tools, and purpose-built software applications deliver complete solutions for your most demanding tasks.

EASE OF USE

XPression features clean user interfaces, logical menus and controls that are based on other common creation tools designers use every day. This shortens the learning curve and gets your artists up and running with XPression, creating compelling content in no time. Designers learn to create traditional character generator content can expand their skills with the same software for virtual sets and augmented reality.

REAL-TIME, ALL THE TIME

XPression is a true real-time motion graphics render engine with no lag between keyboard entry and system operation. Unlike other systems which depend on constant disk access and seek times on the drive, XPression uses intelligent caching to provide real-time access to content.

DESIGNER FRIENDLY

XPression was developed with designer use cases and best practices top of mind. XPression's clean user interfaces, logical menus, and controls are based on other widely deployed creation tools, shortening any learning curve. With XPression, you're able to handle all the traditional graphics tasks, as well as more demanding workflow such as virtual sets and augmented graphics from the same core interface with no retraining.

SOFTWARE DEFINED

PRODUCTION

XPression software editions now define the channel configurations. Standard Definition all the way to UHD/4K in SDI, NDI™ and now SMPTE-ST; XPression can provide the right configuration for your productions. With up to 8 active Video I/O ports on the 4RU HD-SDI system, select the edition which is right for you. Users can assign video I/O ports as active video inputs, video or key outputs and hardware preview outputs.

FLEXIBLE

Choose between HD-SDI, 12G or IP-based video configurations, and have the confidence that the 4RU XPression engines will scale with the needs of your facility. Increase the channel capacity by upgrading the XPression Software edition.

> **XPression 4RU all-metal chassis**



XPression®



> There is virtually no graphics task that XPression solutions cannot handle for you. With multiple hardware platforms, software applications, and workflow tools, along with connectivity to many other products, XPression fits into almost any environment you can imagine.

XPRESSION STUDIO AND BLUEBOX PLATFORM SPECIFICATIONS

FEATURE	DESCRIPTION
OPERATING SYSTEM	Microsoft® Windows® 10 Professional, 64-bit
MAINBOARD	ASUS WS X299 SAGE/10G
PROCESSOR	Intel® i7-9800X, 3.8GHz, 16.5MB CACHE, LGA2066
MEMORY	16GB DDR4 2666 UDIMM
GPU	PNY NVIDIA QUADRO RTX 4000 8GB GDDR6
RAID CONTROLLER	LSI® MegaRAID® SAS 9361-8i
STORAGE MEDIA	3x 1TB SSD RAID 5
SYSTEM DRIVE	2x 256GB SSD RAID 1 (Mirrored)
MEDIA DRIVE	1.8 TB
NETWORK	2 x 10 Gigabit LAN Controller(s) RJ-45
POWER SUPPLY	960W EPS 12V Hot-swappable 1+1 redundant power supply
USB	6 x USB 3.1 Gen 1 port(s) (4 at back panel, 2 at mid-board) 2 x USB 3.1 Gen 2 port(s) (2 at back panel, Type-A + USB Type-C™) 1 x USB 3.1 Gen 2 port(s) (1 at mid-board)
SERIAL PORT	1 RS-232 Serial Port / Serial GPI
GPI	12 GPI In/12 GPI Out on 25-pin D-Sub Connector, Unlimited RossTalk™ Smart GPI over TCP/IP
GENLOCK	Black Burst, Tri-level Sync, Lock to Input Source or Free-Running

XPRESSION STUDIO AND BLUEBOX SUPPORTED VIDEO FORMATS

FEATURE	DESCRIPTION
SD TO 1080p SUPPORT	480i 29.97Hz (NTSC), 576i 25Hz (PAL), 720p 50Hz, 720p 59.94Hz, 720p 60Hz, 1080i 25Hz, 1080i 29.97Hz, 1080i 30Hz, 1080p 29.97Hz, 1080p 50Hz, 1080p 59.94Hz, 1080p 60Hz, 1080psf 23.976Hz, 1080psf 24Hz, 1080psf 25Hz, 1080psf 29.97Hz, 1080psf 30Hz, Custom Formats
UHD AND 4K SUPPORT	2160p (Quad) 29.97Hz, 2160p (Quad) 50Hz, 2160p (Quad) 59.94Hz, 2160p (2SI) 29.97Hz, 2160p (2SI) 50Hz, 2160p (2SI) 59.94Hz, Custom Formats
IMAGE FILE FORMATS	*.tga, *.tif, *.psd, *.bmp, *.jpg, *.gif, *.png
3D MODEL FORMATS	*.3ds, *.obj, *.fbx
CLIP FILE FORMATS	AVI, MPEG, QuickTime, Sequential Images

XPRESSION STUDIO AND BLUEBOX SUPPORTED AUDIO STANDARDS

FEATURE	DESCRIPTION
Embedded Audio	Up to 16 channels of audio per video stream.
AES Audio (SDI Only)	Up to 16 channels of audio per video stream.

XPRESSION STUDIO AND BLUE BOX VIDEO STANDARDS

FEATURE	DESCRIPTION
SD	SMPTE 259M
HD	SMPTE 292M, SMPTE 424M -A
QUAD LINK UHD / 4K	SMPTE 425-5
12G-SDI	SMPTE 2082
IP	SMPTE 2022-6, SMPTE 2022-7, SMPTE 2110

XPRESSION STUDIO AND BLUEBOX M8 GENERATION HARDWARE PHYSICAL SPECIFICATIONS

FEATURE	DESCRIPTION
HEIGHT	6.9 inches (17.6 cm)
WIDTH	16.9 inches (43 cm)
DEPTH	23.3 inches (59.2 cm)
WEIGHT	57 lbs. (25.9 kg) Net Weight 62 lbs. (28.1kg) Net Weight with Rails 83 lbs. (37.6 kg) Gross Weight When Shipped

XPRESSION STUDIO AND BLUEBOX INCLUDED ACCESSORIES

FEATURE	DESCRIPTION
RACKMOUNT KIT	Slide rails, handles, and mounting hardware
KEYBOARD	Standard USB PC Keyboard
MOUSE	USB mouse
SECURITY KEY	USB license key pre-installed internally
SOFTWARE	XPression Software and Workflow Tools package on optical media
WARRANTY	12 Month System Warranty (parts / labor & software updates) / 5-Years Hard Disk Drives

*Some formats may require third-party codecs for support. Specifications subject to change.

XPRESSION STUDIO AND BLUE BOX SDI AND IP I/O OPTIONS



HD-SDI XPN-4RU-M8

XPression Studio or XPression BlueBox Up to 4 Channels of 1080P or 1 Quad-Link 4K/UHD

- Up to 16 channels of AES/EBU inputs and outputs
- Black-burst or Tri-level Sync
- GPI/O and LTC Input
- Baseband Preview Channels possible
- Automatic video relay bypass and A/V watchdog support
- Matrox DSXLE4/8/100F I/O card



IP FORMAT XPN-4RU-IP-M8

XPression Studio or XPression BlueBox

- User-Configurable I/O Choices
- Multi-channel HD or single-channel UHD support for SMPTE ST 2022-6, SMPTE ST 2022-7, or SMPTE ST 2110
- GPI/O and LTC Input
- IP Bypass and Fail-safe mechanisms
- Matrox DSXLE5 D25



12G FORMAT XPN-4RU-12G-M8

XPression Studio or XPression BlueBox Up to 1 Channel 12G

- Primary I/O in up to 12G, 1 channel out, 2 video inputs (SFPs included)
- 2 additional Bi-Directional 3G ports
- 16-Channel 48kHz embedded audio
- GPI/O and LTC Input
- Black-burst or Tri-Level Sync
- Matrox XMIO3/12G/100 I/O Card

XPression	HD-SDI			IP SMPTE ST 2022-6, 2022-7 and 2110		12G
HARDWARE MODEL	1 RACK UNIT	2 RACK UNITS	4 RACK UNITS	2 RACK UNITS*	4 RACK UNITS**	4 RACK UNITS
SOFTWARE EDITION	XPN-1RU-M8	XPN-2RU-M8	XPN-4RU-M8	XPN-2RU-IP-M8	XPN-4RU-IP-M8	XPN-4RU-12G-M8
STUDIO SCE XSTS-0001	●	●	●	●	●	-
STUDIO FLEX XSTF-0001	-	●	●	-	●	●
BlueBox SCE XBBS-0001	●	●	●	●	●	-
BlueBox XBB3-0001	●	●	●	●	●	-
BlueBox FLEX XBBF-0001	-	●	●	-	●	●
CLIPS 1-CHANNEL XCLS-0001	●	●	●	●	●	-
CLIPS 2-CHANNEL XCLD-0001	●	●	●	●	●	-
CLIPS 4-CHANNEL XCLF-0001	-	●	●	-	●	-

*2x 10G SFP Cages

**2x 25G SFP Cages

Ross Video has a complete range of technical services available to ensure that your XPression installation is a success.

Operational Training can be provided at Ross Video, on-site or on the web. Experienced Ross operators will teach your staff to get the most out of your new system, and enhance your productions.

Commissioning is a service to help get your graphics system properly configured, connected and installed. This service is performed by factory trained Ross technical staff.

Technical Training can be provided at Ross Video, on-site or over the web. Technical training will teach your engineering staff the technical details of the system you have purchased. System configuration, interfaces, databases, and routine maintenance procedures are some of the topics covered.

XPression comes standard with a 1 year system warranty / 5-Years Hard Disk Drives (parts / labor & software updates). **Extended Warranties** on hardware and software maintenance are available for an annual fee.

Technical advice is available on-line, by telephone, or email to Ross Video – **Included for the life of your system.**

ROSS VIDEO PRODUCTION TECHNOLOGY EXPERTS

SOLUTIONS

Broadcast & Production
Augmented Reality & Virtual Sets
Sport & Live Events
Legislative
Mobile Production
House of Worship
Education
Corporate

PRODUCTS

Production Switchers
Motion Graphics & Clip Servers
Replay & Production Servers
Robotic & Camera Systems
Control Systems
Routing Infrastructure
Signal Processing Infrastructure
News, Live & Social Production Management
Media Asset Management

SERVICES

Creative Services
Mobile Production

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