Superior AV over IP

Matrox® **Maevex 6152 Quad 4K Encoder**
TAA Compliant Quad 4K Encoding at Ultra Low Latency

Matrox® Maevex 6152 is a quad HDMI® video encoder that delivers 4K input capture and encode, and supports at least four 4K streams and recordings—simultaneously. Providing secure streaming, multiple chroma sub-sampling, adjustable encoding parameters, zero-latency pass-through, and compositing, all in a convenient, quiet, low power, rack-ready appliance form factor that fits almost any encoding application—for today and tomorrow. Maevex 6152 is the ideal solution for a range of organizations seeking to leverage existing 1 GbE network deployments and future proof their infrastructure.

video.matrox.com

matrox®
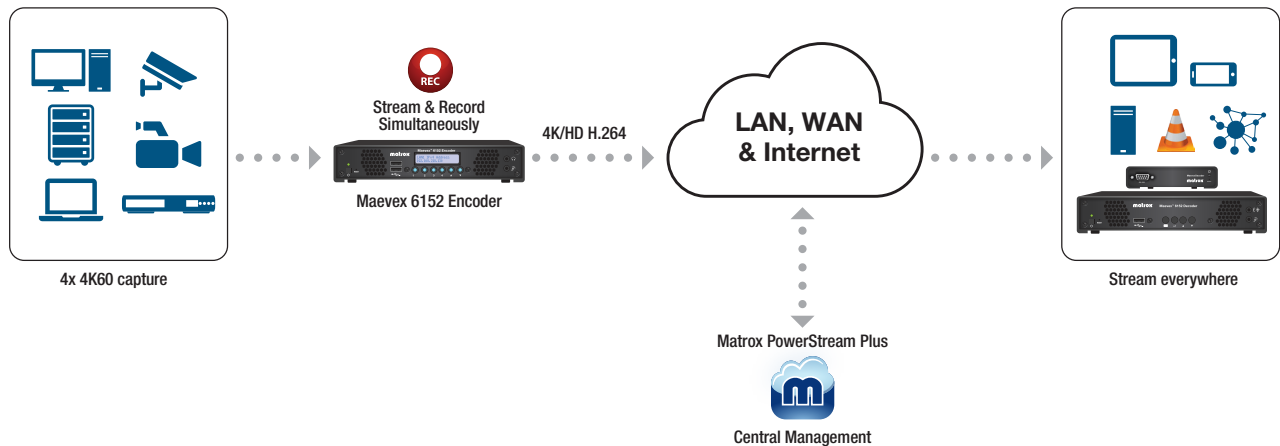video

Key features and benefits

Quad 4K input with zero latency pass-through	Achieve zero-latency pass-through for real-time output of audio/video content on up to four 4K displays.
Ultra low latency	Maximize your existing infrastructure investment with glass-to-glass latency as low as 50 ms when paired with Maevex 6100 Series decoders.
Streaming flexibility	Enjoy six streaming protocols—HLS, MPEG2-TS, RTP, RTMP, RTSP, and SRT—for secure, trouble-free streaming.
Enterprise-grade security	HTTPS, Active Directory and 802.1x support.
H.264	Standards-based codec that delivers flawless quality at much lower bandwidth with exceptionally low latency.
Flawless image quality	Benefit from up to 4:4:4 sub-sampling support as well as user definable bitrates and quantization parameters to best balance the bitrate and compression demands of different content.
Quiet and rack mountable	Support up to eight 4K streams and recordings from a single U of rack space. Whisper-quiet operation makes Maevex ideal for environments that require a noise level of 25 dB and less.
Complimentary Maevex SDKs and APIs	Build new applications or integrate the functionalities of PowerStream Plus into existing applications.

Low latency. High quality. Massive scalability.

A high-performance H.264 encoder, Maevex 6152 integrates seamlessly into existing infrastructures and interoperates with virtually any network device, ensuring high-density content distribution and system scalability—all without sacrificing image quality. Maevex uses existing 1 Gigabit Ethernet infrastructure to allow many streams of any quality to be transmitted on a single cable, eliminating the need for a dedicated distribution network.

Quad stream and record. Anywhere, at the same time.

Reach your audience anywhere, anytime. The Maevex 6152 encoder delivers source content to on-premises end points (over LAN, WAN, or internet), feeds cloud-based servers, and records to local or network storage for later editing and viewing.

Markets

Maevex 6152 4K Encoders are a perfect fit for many applications. Have a specific idea in mind?
Contact our sales team and work together to build a solution.

Digital Signage

Military

Enterprise

Science & Technology

Industrial, Automation & Production

Healthcare

Government

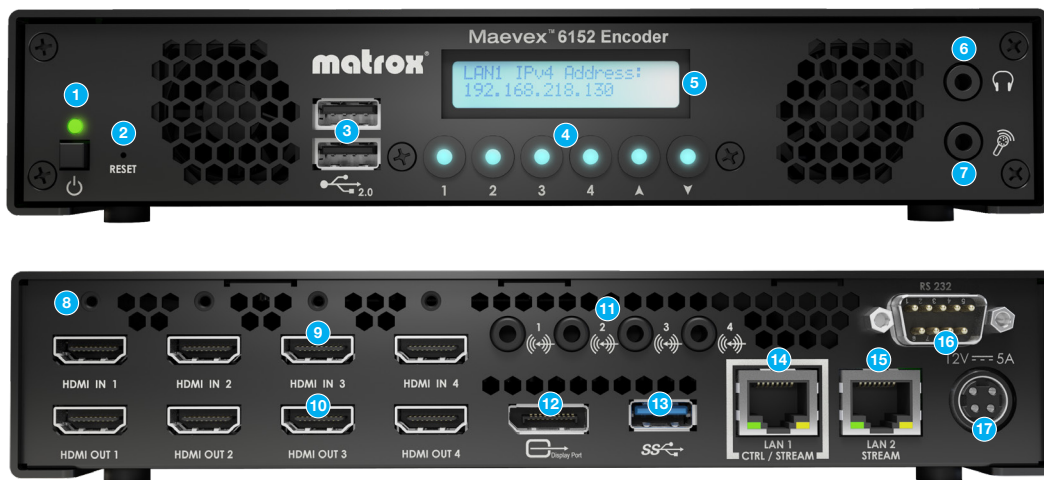House of Worship

Education

Security

Video on Demand

OTT Services

Appliance overview

1. Power Button
2. Reset Button
3. 2x USB 2.0
4. Programmable and LCD Control Buttons
5. LCD Display
6. Headphones Out
7. MIC In
8. 4x Secure Locking Connector Thread
9. 4x HDMI 2.0 Input
10. 4x HDMI 2.0 Output
11. 4x Analog Audio Input
12. DisplayPort 1.1
13. USB 3.0
14. LAN 1
15. LAN 2
16. RS-232
17. DIN 4-pin Power Connector Female (locking)

Technical specifications

Performance

Maximum Capture Resolution
- 4x 3840x2160 @60Hz or 4x 4096x2160 @60Hz

Color Space Capture
- RGB and YUV 8- and 10-bit support
- Color space conversion support

Encoding

Formats (Codecs)
- Video: H.264/MPEG-4 Part 10 (AVC)
- Audio: MPEG-4 AAC-LC/HEv1/HEv2

Chroma Sub-Sampling
- 4:0:0, 4:2:0 (8-bit and 10-bit)
- 4:2:2 (8-bit), 4:4:4 (8-bit)

**Encoding Capability
(Maximum & Other Examples)[1]**
@4:2:0
- 4x 3840x2160 @30Hz
- 3x 4096x2160 @30Hz
- 2x 3840x2160 @60Hz
- 1x 4096x2160 @60Hz
- 4x 2560x1600 @60Hz
- 8x 1920x1080 @60Hz
- 16x 1920x1080 @30Hz

@4:4:4
- 1x 2560x1600 @60Hz
- 1x 3840x2160 @30Hz
- 1x 4096x2160 @30Hz
- 3x 1920x1080 @60Hz
- 6x 1920x1080 @30Hz

Profiles
- Baseline (BP), main (MP), high (HiP), high 10 (Hi10P), high 4:2:2 (Hi422P), high 4:4:4 predictive profile separate plane (Hi444PP), CAVLC 4:4:4 intra (44)

Encoding Level
- Up to 5.2

Bitrate Range (Per Stream)[2]
- 50 Kbps to 120 Mbps
- 15 Mbps (default)

Rate Control
- CBR, VBR, adjustable GOP size

Audio Sample Frequency
- 32 kHz, 44.1 kHz, and 48 kHz

Audio Bitrates
- Up to 576 Kbps (AAC-LC), 288 Kbps (AAC-HEv1), 144 Kbps (AAC-HEv2)

Video Compositing
- Yes, fixed formats including Picture-in-Picture (PiP), Picture-by-Picture (PbP), quadrant

Scaling
- Yes

Security

- 802.1x (EAP-TLS) support

Recording

File Formats
- MP4, MOV, fMP4

Programmability
- Start date and time, duration, maximum file length, file frequency

Recording Locations
- Shared network drive or NAS
- Local USB ports for USB flash drive and external hard drive
  - 2x USB 2.0 (front) and 1x USB 3.0 (back)

Networking interface

Streaming Protocols
- RTSP (TCP), RTCP & RTP (UDP) - all required
- RTP/RTCP (both required) over UDP
- SRT over UDP
- RTMP
- MPEG2-TS over UDP
- HLS
- RTSP over TCP (interleaved)

Command & Control
- HTTPS over TCP, UPnP (discovery)

Network Standard
- IGMP Version 2 and 3
- 100/1,000 base-T Ethernet, auto speed, half/full duplex

IP Addressing
- IPv4, IPv6, DHCP (default) and static IP address support

IP Stream Support
- Unicast, multi-unicast, multicast

Software

PowerStream Plus (Free download)
- Compatible with Maevex 5100 Series, Maevex 6100 Series and Maevex 7100 Series
- Network discovery
- Multi-encoding and recording management
- Multi-protocol management
- Frame rate management
- Resolution control
- Administrator and user credential management
- Scaling management
- SNMP support

Maevex 6100 Series RS-232 API (Free download)
- Control Maevex 6100 appliances via Crestron™, Kramer™, Extron™, or other tabletop touch-screen controllers
- Access basic commands including list, start/stop streaming and recording, and device reboot

Maevex SDK for Windows and Linux[3]
- Full access to entire feature set via SDK
- NET 4.5.1 or higher, standalone library and Mono 5.2 or higher for Linux®

Maevex 6100 Series REST API[3]
- Available for lower-level development

Supported Operating Systems
- Windows Server 2022, Windows server 2019, Windows 11 and Windows 10.

Connectivity

Network Connector
- 2x RJ45 with status LED indicators
  - 1x control and stream/record
  - 1x stream/record only

Video Input
- 4x HDMI® (Type A) with audio support

Video Output/Pass-Through
- 4x HDMI® (Type A) with audio support

Video Monitoring Output[4]
- 1x DisplayPort™ 1.1

Audio Input
- 4x HDMI digital LPCM two-channel stereo audio
- 4x 3.5 mm analog stereo audio
  - 1 Vrms (0 dBV)
  - 14.3 kΩ (gain = 0 dB)
  - -60 dB to +6 dB (default is 0 dB)
- 1x 3.5 mm stereo mic in
  - 2.5 V
  - 1 Vrms (0 dBV)
  - 15 kΩ (gain = 0 dB), 5 kΩ (gain≥ 10 dB)
  - -74 dB to +41 dB (default is 0 dB

Audio Output
- 4x HDMI digital LPCM two-channel stereo audio
- 1x 3.5 mm headphones out
  - 1.2 Vrms (1.6 dBV)
  - 32 mW into 32Ω
  - -74 dB to 0 dB (default is 0 dB)

USB (For Recording)
- 2x USB 2.0 (front)
- 1x USB 3.0 (back)

Hardware

Noise Emission
- ~25 dB at full stream/record capacity

Power Supply
- 100-240 VAC in, 12 VDC out, 60W
- DIN4 locking power connector

Power Cords Included
- US, EU, UK, Aus/NZ

Product Dimensions
- 8.53 x 7.52 x 1.68 in (21.7 x 19.1 x 4.3 cm)

Form Factors
- Standalone appliance
- Rack mountable (1U, 1/2R)

Part Numbers[5]
- Part Number: MVX-E6152-42

Accessories
- Rackmount Kit (part number: RMK-19TR-A)
- Secure Cable Solution for HDMI (part number: SK-SLND-4)
- NRG Redundant Power Supply Unit
  - Rack tray with one NRG RPSU pre-installed (part number: NRG-5-1DB)
  - Rack tray with two NRG RPSU pre-installed (part number: NRG-5-2DB)

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1. *Each encoding capability is independent of the others listed, and excludes any additional processing such as compositing, scaling, etc. Content can affect results. For more details and encoding capability support, contact Matrox Video.*
2. *Maximum operational bitrate per stream is dependent on number of streams and features enabled.*
3. *For more information, contact Matrox Video.*
4. *Maximum resolution: 1920x1080.*
5. *Please contact your Matrox Video representative to verify the TAA part number for your product.*

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