

VIDEOJET decoder 8000

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BOSCH

Invented for life



- ▶ HD, 4K UHD and MP decoding
- ▶ Flexible monitor layouts
- ▶ Directly drives up to two 4K UHD monitors
- ▶ Displays VCA metadata
- ▶ Compact size and VESA mount

VIDEOJET decoder 8000 displays video from Standard Definition (SD), High Definition (HD), 4K Ultra High Definition (UHD), and Megapixel (MP) cameras and encoders using H.264 or MPEG-4 encoding at up to 60 frames per second over IP networks.

It can flawlessly decode 4 4Kp30 streams at 32 Mbps or 7 1080p30 streams at 10 Mbps. Alternatively, it can simultaneously decode 8 H.264 SD streams at up to 5 Mbps from fast-moving AUTODOME cameras with the highest clarity. When H.264 SD streams at up to 2.5 Mbps from medium activity scenes are connected, up to 15 streams can be displayed.

VIDEOJET decoder 8000 can drive two 4K UHD displays directly, each with an independently configurable screen layout, and so is ideally suited for applications with flat-screen monitor walls at a moderate cost-per-monitor.

Compact in size in relation to its decoding power, VIDEOJET decoder 8000 is perfect for any display application that requires space-saving solutions. Control the viewing mode remotely and establish the video connections using comprehensive Bosch video management systems.

System overview

VIDEOJET decoder 8000 is based on the latest Intel fifth generation Core i3 CPU. The system has a 64 GB SSD module as boot medium for operating system and application. It uses a Gigabit Ethernet port.

The system runs a tailored and Bosch-branded Microsoft Windows 8.1 embedded operating system and Monitor Wall software based on UHD-capable VideoSDK 6. Making use of Intel's hardware decoding accelerators, the software is fine-tuned for 4K UHD and MP video decoding support.

VIDEOJET decoder 8000 provides two Mini DisplayPorts, both capable of driving up to 4K UHD monitors simultaneously.

The system is enclosed in a specially designed housing. It can be directly mounted to the back of a monitor, using the 100 mm (3.937 in) VESA mount option.

Functions

High performance

Transmit 4K UHD and MP IP video to a high-performance VIDEOJET decoder 8000 and present it with ultimate clarity on large, flat-screen HD monitors, for example, high-performance 19" to 55" Bosch HD LCD monitors.

VIDEOJET decoder 8000 is capable of flawlessly decoding 4 4Kp30 streams at 32 Mbps or 7 1080p30 streams at 10 Mbps - displayed in one of the pre-defined and on-the-fly switchable layouts. It can handle up to 15 SD streams at up to 2.5 Mbps with full resolution and frame rate, and display it in flexible layouts on both monitors.

At a lower resolution, bit rate, or frame rate, the decoder is capable of displaying up to 60 video streams, arranged in various selectable screen layouts. Layouts can be switched at any time during operation, initiated by the controlling video management system. Layout switching can be based on alarm scenarios. VIDEOJET decoder supports landscape and portrait video and monitors. Layouts will adapt automatically to optimally utilize the available screen space.

Decoding performance

Encoding	Streams	Resolution	Max. bit rate / stream
H.264 MP	3	12MPp20	32 Mbps
H.264 4K UHD	4	2160p30	32 Mbps
H.264 HD	7	1080p30	10 Mbps
	2	720p60	10 Mbps
	3	720p60	5 Mbps
	5	720p30	10 Mbps
	6	720p30	5 Mbps
H.264 SD	8	4CIF/432p	5 Mbps
	15	4CIF/432p	2.5 Mbps

Access security

The decoders offer various security levels for accessing the network, the unit, and the data channels. System access is password-protected with two levels.

Also the communication channels - video, audio, or serial I/O - are then AES encrypted.

Malware resistance

VIDEOJET decoder has been designed to be resistant to viruses and other malware. To prevent security holes, the installed Bosch software limits transactions to operation and maintenance and the embedded operating system is tailored to the needs. No other than Microsoft and Bosch software is running on the decoder. Its firewall performs at the highest security

level and allows communication only for a minimum of needed services. All access is password-protected, USB and other storage devices are disabled, and update files are authenticated and encrypted, thus putting robustness against malicious software to the highest degree.

Easy upgrade

Remotely upgrade the decoder whenever new firmware or software becomes available. This ensures up-to-date products, thus protecting investment with little effort.

Certifications and approvals

Safety

Region	Number
	IEC 60950

Electromagnetic compatibility

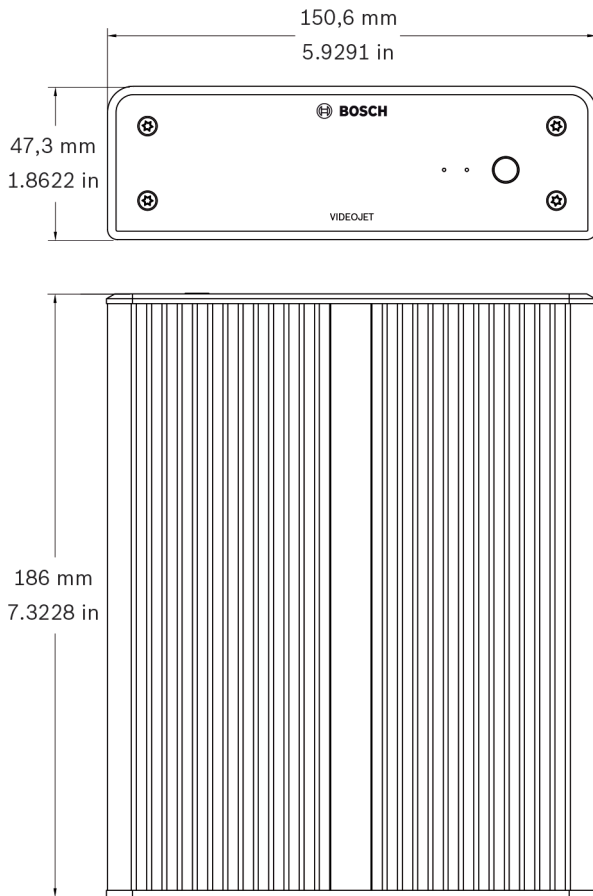
Region	Number
EU	EN55022 ITE
	EN55024 ITE
US	FCC 47 CFR Chapter 1 Part 15

Approvals

Region	Certification	
Europe	CE	VIDEOJET decoder 8000
USA	UL	VIDEOJET decoder 8000

Installation/configuration notes

Dimensions



Connectors and indicators



- 1 SSD activity (orange)
- 2 Power indicator (blue)
- 3 Power switch
- 4 DC power connector
- 5 Mini DisplayPort 1
- 6 Ethernet
- 7 Dual USB 3.0
- 8 Mini DisplayPort 2
- 9 Kensington lock

Technical specifications

Electrical

Power supply	Wide-range, external, included in the box
Input voltage	100 to 240 VAC, 50/60 Hz
Power consumption	Approx. 15 W, 65 W max

Video

Video outputs	2 simultaneously
• connector	2 x Mini DisplayPort 1.2, no VGA support
Standards	H.264 (ISO/IEC 14496-10) MPEG-4
Data rates	
• MP	up to 32 Mbps
• 4K UHD	up to 32 Mbps
• HD	up to 20 Mbps
• SD	up to 6 Mbps per stream
GOP structure	I, IP, IBBP
Monitor resolutions	
• DP	3840 x 2160 (UHD) at 60 Hz

Audio

G.711	
• Frequency range	300 Hz to 3.4 kHz
• Data rate	80 kbps at 8 kHz sampling rate
L16 (reception only)	
• Frequency range	300 Hz to 6.4 kHz
• Data rate	640 kbps at 16 kHz sampling rate
Signal-to-noise ratio	> 50 dB

Network	
Ethernet	10/100/1000 Base-T, auto-sensing, half/full duplex, RJ45
Protocols	IPv4, UDP, TCP, HTTP, HTTPS, RTP/RTCP, IGMP V2/V3, ICMP, ARP, DHCP, APIPA (Auto-IP, link local address), NTP (SNTP), digest authentication
Encryption	TLS 1.0, SSL, 3DES, AES

Control	
Software update	remote programmable
Configuration	Configuration Manager
Operation	Bosch Video Management System, Video Client

Mechanical	
Dimensions w/o stands (H x W x D)	47.3 x 150.6 x 186 mm (1.862 x 5.929 x 7.323 in)
Weight	Approx. 1.7 kg (3.7 lb)
VESA mount	100 x 100 mm (3.937 x 3.937 in)

Environmental	
Operating temperature	0 °C to +50 °C (+32 °F to +122 °F) ambient temperature
Relative humidity	0 to 90% atmospheric humidity, non-condensing
Thermal value	Approx. 51 BTU/h, 221 BTU/h max

Ordering information

VIDEOJET decoder 8000

High-performance video decoder. H.264 up to 4K UHD and MP; MPEG-4; audio; up to 60 fps per stream; 2 Mini DisplayPort monitor outputs.

Order number **VJD-8000**

VIDEOJET decoder 8000

High-performance video decoder. H.264 up to 4K UHD and MP; MPEG-4; audio; up to 60 fps per stream; 2 Mini DisplayPort monitor outputs.

No TPM

Order number **VJD-8000-N**

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