

VIDEOJET decoder 7000

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Invented for life



- ▶ HD 1080p and 720p decoding
- ▶ Flexible monitor layouts
- ▶ Directly drives up to two HD monitors
- ▶ Displays VCA metadata
- ▶ Compact size and VESA mount

VIDEOJET decoder 7000 displays High Definition (HD) and Standard Definition (SD) video from cameras and encoders using H.264 or MPEG-4 encoding at up to 30 images per second over IP networks.

It can flawlessly decode four 1080p30 streams, or four H.264 720p60 streams, or six H.264 720p30 streams, all at 10 Mbps. Alternatively, it can simultaneously decode twelve H.264 SD streams at up to 6 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 20 streams can be displayed.

VIDEOJET decoder 7000 can drive two HD 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 7000 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 7000 is based on the latest Intel H77 Express Chipset on a Mini-ITX board with a Core i3 CPU running at 3.1 GHz. The system has a 16 GB Flash module as boot medium for operating system and application. It uses a Gigabyte Ethernet port.

The system runs a tailored and Bosch-branded Microsoft Windows 7 Embedded operating system, and Monitor Wall software based on HD-capable VideoSDK 5, both fine-tuned for HD video decoding support.

VIDEOJET decoder 7000 provides three monitor outputs, DVI-I, HDMI, and DP; two of these can be used at the same time.

The system is enclosed in a specially designed housing that comes with a pleasant silver appearance. It can be directly mounted to the back of a monitor, using the VESA mount options of 75 mm (2.953 in) or 100 mm (3.937 in).

Functions

High performance

Transmit HD IP video to a high-performance VIDEOJET decoder 7000 and present it with ultimate clarity on large, flat-screen HD monitors, for example, high-performance 32" or 55" Bosch HD LCD monitors.

VIDEOJET decoder 7000 is capable of flawlessly decoding four full HD 1080p30 streams or four 720p60 streams or six 720p30 streams, for example, displayed in one of the pre-defined and on-the-fly switchable layouts. It can handle up to twelve SD streams at up to 6 Mbps with full resolution and frame rate, and display it in e.g. 1+5 views on both 16:9 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 7000 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
H.264 HD	4	1080p30	10 Mbps
	6	1080p30	5 Mbps
	8	1080p30	2.5 Mbps
	4	720p60	10 Mbps
	6	720p60	5 Mbps
	8	720p60	2.5 Mbps
H.264 SD	6	720p30	10 Mbps
	10	720p30	5 Mbps
	14	720p30	2.5 Mbps
	12	4CIF/432p	5 Mbps
	20	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.

For total data protection, the decoder supports SSL where each video communication channel is independently encrypted with up to 256-bit keys.

Malware resistance

VIDEOJET decoder 7000 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

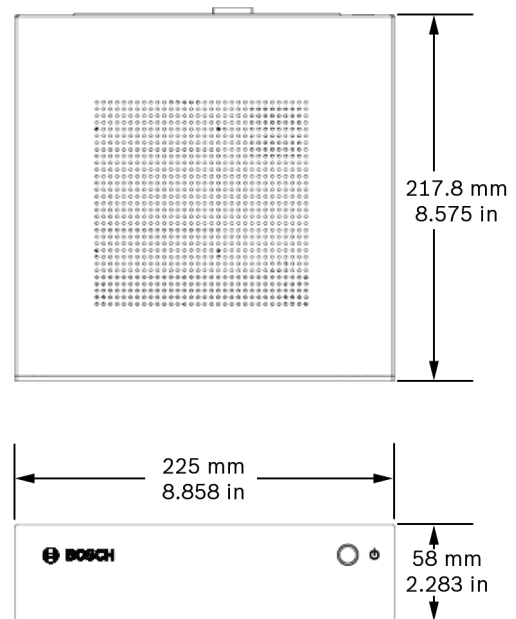
Region	Number
EU	EN55022 ITE
	EN55024 ITE
US	FCC 47 CFR Chapter 1 Part 15

Approvals

Region	Certification
Europe	CE VIDEOJET decoder 7000
USA	UL VIDEOJET decoder 7000
	UL Bosch UL online certifications directory (link)

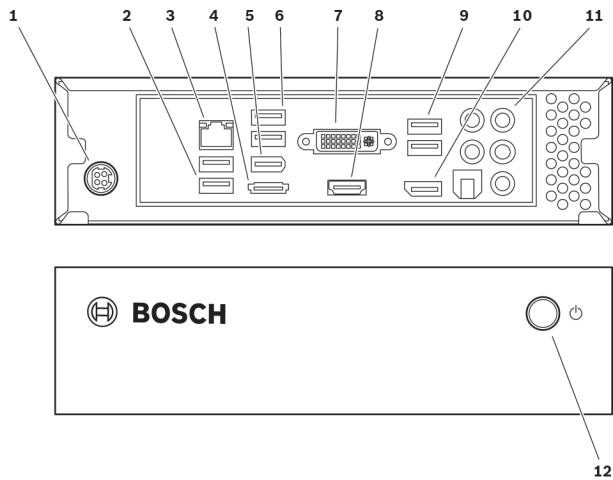
Installation/configuration notes

Dimensions



Dimensions without stands

Connectors and indicators



- | | | | |
|----|--------------------------------|----|----------------------------------|
| 1 | Power connector | 2 | 2x USB |
| 3 | Ethernet port with status LEDs | 4 | eSATA, disabled |
| 5 | IEEE 1394a, disabled | 6 | 2x USB |
| 7 | DVI-I monitor output | 8 | HDMI monitor output |
| 9 | 2x USB | 10 | DP monitor output |
| 11 | Audio connectors | 12 | Power switch with integrated LED |

Parts included

Quantity	Component
1	VIDEOJET decoder 7000, HD video decoder
1	International power supply unit with EU and US power cord
4	Screw-on stands
1	Monitor mounting kit
1	Quick Installation Guide
1	Safety Hints document
	Adhesive MAC address labels

Technical specifications

Electrical	
Power supply	Wide-range, external, included in the box
Input voltage	100 to 240 VAC, 50/60 Hz
Power consumption	Approx. 60 W, 135 W max
Video	
Video outputs	2 of 3 simultaneously
• connector	DVI-I, HDMI, DP, no VGA support
Standards	H.264 (ISO/IEC 14496-10)

Video	
	MPEG-4
Data rates	
• HD	up to 20 Mbps, single stream
• SD	up to 6 Mbps per stream
GOP structure	I, IP, IBBP
Monitor resolutions	
• DVI-I	1920 x 1200 max (WUXGA) at 60 Hz
• HDMI	1920 x 1200 max (WUXGA) at 60 Hz
• DP	2560 x 1600 max (WQXGA) 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, SNTP, digest authentication
Encryption	TLS 1.0, SSL, DES, 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)	58 x 225 x 217.8 mm (2.283 x 8.858 x 8.575 in)
Weight	Approx. 3 kg (6.6 lb)
VESA mount	75 x 75 mm or 100 x 100 mm (2.953 x 2.953 in or 3.937 x 3.937 in)

Environmental	
Operating temperature	0 °C to +40 °C (+32 °F to +104 °F) ambient temperature
Relative humidity	0 to 90% atmospheric humidity, non-condensing
Thermal value	Approx. 210 BTU/h, 460 BTU/h max

Ordering information

VIDEOJET decoder 7000

High performance HD video decoder, H.264 and MPEG-4

Order number **VJD-7000**

Accessories

UML-273-90 27-inch High Performance HD LED Monitor

Order number **UML-273-90**

UML-323-90 32-inch High Performance HD LED Monitor

32-in. 1080p LED monitor with RGB, DVI, and HDMI inputs

Order number **UML-323-90**

UML-423-90 42-inch High Performance HD LED Monitor

42-in. 1080p LED monitor with RGB, DVI, and HDMI inputs

Order number **UML-423-90**

UML-553-90 55-inch High Performance HD LED Monitor

55-in. 1080p LED monitor with RGB, DVI, and HDMI inputs

Order number **UML-553-90**

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