BOSCH

Invented for life

VIP X2 Dual-channel Video Encoder

- ▶ **Dual-channel encoder with dual streaming**
- ▶ **High quality MPEG-4 from QCIF to full D1**
- ▶ **USB and iSCSI recording**
- ▶ **Ultra-compact size**
- ▶ **Multicast and Internet streaming**
- ▶ **Alarm inputs and control output**

These ultra-compact IP video encoders support two video channels that can convert both PAL and NTSC signals into MPEG-4 video, at up to 30 frames per second on each channel. A web browser and/or the VIDOS video management software can receive and display the images.

The VIP X2 is available as an audio model, VIP X2A providing bi-directional audio communication in parallel to video. Besides the standard line-level interfaces for both audio channels, it has integrated amplifiers to connect a microphone and speaker to channel 1 directly.

Functions

Viewing

View the video on a PC using VIDOS, the Bosch comprehensive video management system, or in a web browser. Integrate it into other video management systems using the Bosch Video SDK.

Present images clearly on analog CCTVs, large, flat-screen monitors or on TVs by routing the IP video to a high-performance VIP XD video decoder, or a VIDOS monitor wall.

Recording

The VIP X2 has many recording options:

- locally on a USB hard disk,
- on network-attached iSCSI devices,
- centrally, using network video recorders.

If iSCSI RAID 5 storage is available, it enables the VIP X2 to act as a conventional DVR, as well as streaming high-performance live video across the network.

Dual Streaming

The VIP X2 uses dual streaming to generate two independent IP video streams per channel. This allows viewing and recording at two different quality levels, saving disk space and bandwidth. Program it to send out e-mail with JPEG images attached when triggered by an alarm.
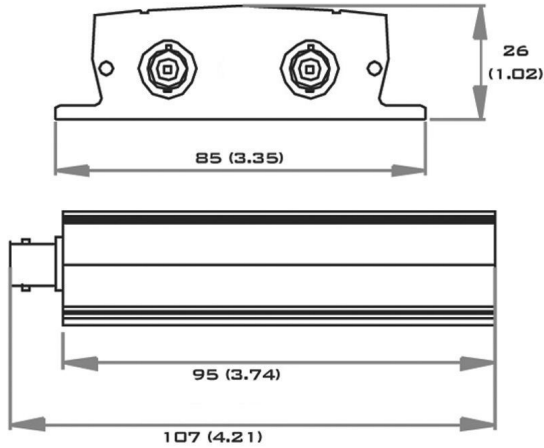
Increased intelligence

The VIP X2 supports increased intelligence at the edge that includes detection of video loss, masking, hooding, defocusing, and diverted camera. These detection features provide tamper detection for various unified picture causes. Bosch offers Intelligent Video Motion Detection (IVMD) as an additional licensable option. This provides video content analysis (VCA) directly at the video input for even more advanced VCA.

These powerful devices represent the cutting edge of high performance Video over IP for CCTV today.

Certifications and Approvals

Safety	EN 60950-1 (CE); UL 1950; AS/NZS 3548; EN 55103-1, -2
Immunity	EN 50130-4 (CE)
Emission	EN 50022 class B (CE); EN 55024; FCC 47 CFR Ch. 1 Part 15; EN 61000-3-2 (CE); EN 61000-3-3 (CE)

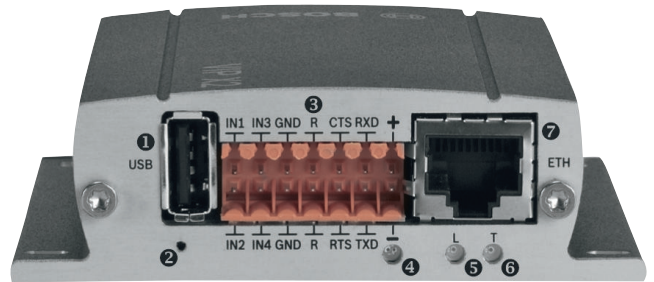## Installation/Configuration Notes

Dimensions in mm (in)

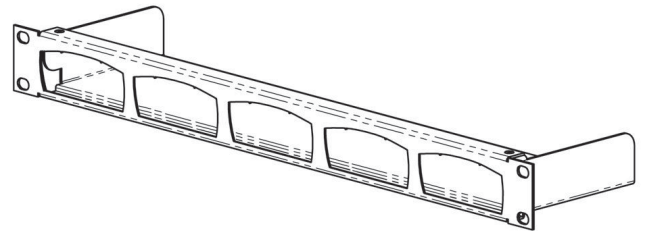*Front view VIP X2, non audio model*

1	Video in 1	2	Video in 2

Front view VIP X2 audio model

1	Video in 1	4	Line out
2	Line in	5	Video in 2
3	Mic in, speaker out		

Rear view all models

1	USB port	5	LED link
2	Reset: factory default	6	LED traffic
3	Alarm in, relay out, power, COM (RS-232/422/485)	7	10/100 Base-T Fast Ethernet
4	LED power		

Rack mount kit (optional)

Parts Included

Quantity	Component
1	VIP X2 Dual-channel Video Encoder, or VIP X2A Dual-channel Video Encoder
1	International plug-in PSU
1	RS-232 null modem cable
1	Quick Installation Guide
1	CD-ROM containing manual, software, and tools

Technical Specifications

Electrical

Video Standards	MPEG-4; JPEG
Power supply	12 to 24 VDC
PSU	VIP-X-PS
Power consumption	Approx. 10 VA
Video	Both models
Inputs	2 x

connector	BNC, 75 ohm, switchable 0.7/1.2 Vpp
signal	Analog composite, NTSC or PAL
Audio	VIP X2A only
Line in	1 x (dual channel)
connector	Stereo jack 3.5 mm
signal	9 kohm (typical), 5.5 Vpp (max)
Line out	1 x (dual channel)
connector	Clamp, not isolated, closure contact
signal	16 ohm (min), 3 Vpp (max)
Mic in	1 x
connector	CombiCon
signal	2 kohm (typical), 2.8 Vpp (max) at -20 dB, 2.3 Vpp (typical)
Speaker out	1 x (dual channel)
connector	CombiCon
signal	4 ohm (min), 6 Vpp (max), 1 W RMS
Interfaces	
Alarm inputs	4 x
connector	Clamp, not isolated, closure contact
activation resistance	10 ohm (max)
Control outputs	1 x
connector	Clamp
signal	30 Vpp, 2 A
Serial	RS-232/422/485, clamp
Ethernet	10/100 Base-T, auto sensing, half/full duplex, RJ45
Video	
Standards	MPEG-4; MJPEG
Data rates	9.6 kbps to 6 Mbps per channel
Resolution	Horizontal x vertical PAL/NTSC (fps)
4CIF/D1	704 x 576/480 (25/30 fps)
2CIF	704 x 288/240 (25/30 fps)
2/3 D1	464 x 576/480 (25/30 fps)
1/2 D1	352 x 576/480 (25/30 fps)
CIF	352 x 288/240 (25/30 fps)
QCIF	176 x 144/120 (25/30 fps)
GOP structure	I, IP
Overall IP delay	120 ms
Select. frame rate	1 to 50/60 (PAL/NTSC)
RAM recording	32 MB total, 8 MB per channel
Audio*	
Standards	G.711; 300 Hz to 3.4 kHz
Data rate	80 kbps
Sample rate	8 kHz

* Only the VIP X2A is equipped with audio

Software	
Network protocols	RTP, Telnet, UDP, TCP, IP, HTTP, IGMP v2/v3, ICMP, ARP, SNMP, SMTP, SNTP
Software update	Flash ROM, remotely programmable
Configuration	Configuration Manager, web browser
Mechanical	
Dimensions (HxWxD)	26 x 85 x 107 mm (1.02 x 3.35 x 4.21 in)
Weight	Approx. 0.2 kg (0.44 lb)
Mounting	Optional 19-inch rack
Color	Charcoal
Environmental	
Operating temperature	0 °C to +40 °C (+32 °F to +104 °F)
Storage temperature	0 °C to +40 °C (+32 °F to +104 °F)
Relative humidity	20% to 80%, non-condensing

Ordering Information

VIP X2 MPEG-4 dual-stream 2 ch encoder, USB, serial I/O, alarm in and relay	**VIPX2**
VIP X2A MPEG-4 dual-stream 2 ch encoder, USB, audio, serial I/O, alarm in, relay	**VIPX2A**
Accessories	
VIPRMK1HU VIP X/10/1000 Rack Mount Kit (5 units in 1HU)	**VIPRMK1HU**
VIP-X-PS Power supply	**VIP-X-PS**
DVA-12T-04050RA iSCSI RAID5, 12 bay 1.5 TByte net capacity (4 hard drives installed)	**DVA-12T-04050RA**
DVA-12T-12050RA iSCSI RAID5, 12 bay, 5.5 TByte net capacity (12 hard drives installed)	**DVA-12T-12050RA**
Software Options	
VIP-X2-FS1 VIP X2 IVMD 1.0 VCA Software License, valid for 2 channels	**VIP-X2-FS1**
SFT-VASA Hybrid IP - Analog/Matrix Video over IP Integration Software	**SFT-VASA**