TVN-2216P-16T

TruVision™ NVR 22P recorder, 16 IP channels, 16TB, H.265 NVR, 2U

Overview

TruVision NVR 22P (TVN 22) is a robust high performance H.264/H.265 network video recorder. With a total bandwidth of 256 Mbps (16-channel) or 320Mbps (32- and 64 channel) available, the TVN 22P is able to connect up to 16/32/64 IP cameras and provide real time recording (25/30 fps) at Full HD 1080p resolution on all channels simultaneously. With its fully flexible bandwidth allocation, the TVN 22P allows recording resolutions up to 8MPX at various frame rates.

Ease of use

TVN 22P was designed to make system configuration and overall use easier for both the installer and end-users through features such as: ezDDNS, start-up wizards, plug & play hard drives, auto discovery of natively supported cameras and is fully compatible with TruVision Navigator 6.0SP1 and TVRmobile 2.4.

H.265

The TVN 22P is supporting both H.264 and H.265 compression techniques. The H.265 compression is the next evolution of video encoding. Using H.265 will result in a reduced file size for the same video content and a reduced transmission bandwidth compared to H.264. This means that for the same storage capacity more video can be stored when using H.265 than H.264 encoding. To use the H.265 encoding in the TVN 22, H.265 cameras need to be used. H.265 will be available in the TruVision S4 IP cameras.

Ease of use

Thanks to its 2U housing, the maximum on-board storage capacity for the TVN 22P is 48TB, using eight six TB hard drives. The hard drives can be accessed via the lockable front panel door, allowing customers to easily expand storage as their system and/or requirements grow. Additionally, TVN 22P supports RAID 0,1,5,10 for storage redundancy (with FW 1.0 max 16TB of disk space can be used for RAID). Recording options include continuous, event and alarm. The three modes can be combined, to ensure that the most efficient recording is possible.

Details

- Linux embedded Plug and Play configuration
- Up to 256 Mbps camera recording bandwidth
- Up to 16 IP channels
- Up to 48TB embedded storage (4x 6TB)
- RAID 0, 1, 5, 10 support
- Flip-open front panel for easy HDD access, servicing and expansion
- New icon based front panel
- Real time Full HD recording
- Motion detection, VCA, privacy masking, tamper detection
- TruVision IP camera auto-discovery
- Third party camera support via ONVIF and PSIA
- IP camera configuration import/export
- Custom protocol configuration (RTSP streaming)
- Network redundancy
- Integration of UTC IP intrusion panels via SIA/XSIA reporting
- Recorder failover functionality (one failover unit per 4 operational recorders)
- TVK-800 IP Keypad support (no support for local display of H.265 cameras)
- USB DVD burner support
- Full browser-, OSD- and software-based access for live, recorded & configuration
- TVRmobile app for iOS and Android
- TruVision Navigator license-free client/host or standalone application
- External integration through SDK

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Technical Specifications

Video/audio input

Camera channels	16
IP camera channels	16
Max. bandwidth per channel	16
Camera bandwidth (Mbps)	256
Max. IP audio in	16
Supported video compression standards	H.264, H.265, MPEG-4
Supported video streaming standards	Onvif, PSIA, RTSP, RTSP Custom Protocols

Local viewing

Synchronous playback OSD (channels)	Up to 16 channels
Reverse playback OSD (channels)	1
HDMI output	1
VGA output	1
BNC output	1
HDMI version	2.0
Max. local output resolution	Full HD 1080p

Remote viewing

Total available viewing bandwidth (Mbps)	256
Max. live viewing streams	128
Max. playback viewing streams	128
Max. playback resolution web browser	8 MPX
Max. simultaneous playback web browser	Max. 16 tiles (4x4)
Reverse playback web browser (channels)	Up to 9 channels, depending on PC performance
Browser compatibility	Internet Explorer, Mozilla Firefox, Safari
Software compatibility	Advisor Manager, TruVision Navigator, TVRmobile, Web Browser

Storage

Storage capacity (TB)	16
Max. capacity per SATA HDD (TB)	6
SATA interfaces	8
Maximum recording resolution	8 MPX
Recording modes	Alarm, Event, Manual, Time-lapse high, Time-lapse low
Supported RAID levels	RAID 0, RAID 1, RAID 10, RAID 5
External storage	eSATA, NAS, SAN
SAS extension	No
Flip-open front panel	Yes
Hard drive redundancy	Yes
Hard drive grouping	Yes
Hot spare recorder	Yes
Edge failover recording	Yes

Networking

Network interface cards (NIC)	2
NIC type	RJ-45 10/100/1000 Mbps self-adaptive Ethernet interface
NIC mode	Network Redundancy
Network ports per NIC	1
DNS support	DDNS, ezDDNS, No-IP
HTTPS support	Yes
Network interface:	2 RJ-45 10/100/1000 Mbps self-adaptive Ethernet interface
Network redundancy:	Yes
NIC redundancy:	Yes
Multi-address mode	Yes
ezDDNS:	Yes
DDNS:	Yes
no-IP.com:	Yes
Total viewing bandwidth bandwidth available	256 Mbps
Total Live viewing streams available	128
Total playback viewing streams available	128
HTTPS support:	Yes

External interfaces

USB interface back	1
USB interface front	2
Max. analog audio outputs	1
Serial interface	RS-232
Alarm inputs	16
Alarm outputs	4

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Standards & regulation

Compliancy	CE, REACH, RoHS, UL

Video/Audio input

IP camera input:	Up to 16/32/64 channels
Total bandwidth available:	IN: 256/320/320 Mbps/OUT: 256 Mbps for all models
Maximum bandwidth per channel	16 Mbps
Average bandwidth per channel	10 Mbps
Video compression standards supported	H.264, H.265, MPEG-4
Audio input/output	In: 1-ch, RCA (2.0 Vp-p, 1 kohm); Out: 2-ch, RCA (2.0 Vp-p, 1 kohm)
RTSP streaming support:	Yes
Onvif support:	Yes

Viewing

OSD viewing resolutions:	8MPX/6MPX/5MPX/4MPX/3MPX/Full HD1080p/UXGA/HD 720p/VGA/4CIF/DCIF/2CIF/CIF/QCIF
Remote viewing resolutions	Up to 8 MPX - depending on remote client capabilities
HDMI output resolutions:	HDMI 1: 3840 × 2160/60Hz, 3840 × 2160/30Hz, 2560 × 1440/60Hz, 1920 × 1080/60Hz, 1600 × 1200/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz,1024 × 768/60Hz HDMI 2: 1920 x1080P/60 Hz, 1280 x 1024/60 Hz, 1280 x 720/60 Hz, 1024 x 768/60 Hz
VGA output resolutions	VGA 1: 2560 × 1440/60Hz, 1920 × 1080/60Hz, 1600 × 1200/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz VGA 2:1920 × 1080P/60 Hz, 1280 × 1024/60 Hz, 1280 × 720/60 Hz, 1024 × 768/60 Hz
HDMI version:	HDMI 2.0 (compatible with 1.4)
BNC output	Yes - alarm event only, no menu controls
Digital zoom	Up to 16x

Playback

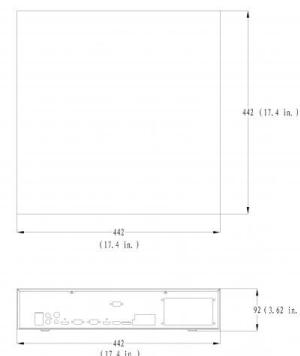|	
Playback resolution:	Up to 8 MPX
Synchronous playback OSD	Up to 8/16 channels
Simultaneous playback browser:	max. 16 tiles
Reverse playback OSD:	Up to 1 channel
Reverse playback browser:	Up to 9 channels, depending on PC performance
Playback transcoding:	Yes, using web browser

Recording

Recording resolution:	8MPX/6MPX/5MPX/4MPX/3MPX/Full HD 1080p, UXGA/HD 720p/VGA/4CIF/DCIF/2CIF/CIF/QCIF
Internal SATA slots:	8
Maximum capacity per SATA drive	6TB
Recording modes:	Time lapse High, Time lapse Low, Event, Alarm, Manual
External storage:	eSATA, NAS, SAN
RAID	0,1, 5, 6, 10 (With FW 1.0 max 16 TB can be used for RAID)

External interface

RS-232 interface:	Yes
RS-485 interface	Yes (not used)
USB interface:	2 x USB 2.0 (front), 1 x USB 3.0 (back)
Alarm interface:	16 alarm in (NO/NC), 4 alarm out (NO)

Operations

Local:	On screen display - VGA, HDMI or BNC (spot)
Remote:	Browser interface/TruVision Navigator/TVRmobile
Browser requirements:	IE 8 9 10 11, Firefox

442 (17.4 in.)

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92 (3.62 in.)

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United Technologies