TVN-2216S-18T

TruVision™ NVR 22 recorder, 16 IP channels, integrated PoE switch, 18TB, H.265 NVR

Overview

TruVision NVR 22S (TVN 22S) is a robust high performance H.264/H.265 network video recorder with 8 or 16 embedded plug & play PoE ports. With a total bandwidth of 80/160 Mbps available, the TVN 22S is able to connect up to 8/16 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 22S allows recording resolutions up to 8MPX at various frame rates.

Plug-&-play functionality

Setting up TVN 22S is easy. Its embedded PoE ports allow you to connect TruVision IP cameras as they were analog cameras. When plugged in, cameras are automatically assigned IP addresses, added to the recorder and set up at default configuration. Each IP camera can also be set up individually to ensure full flexibility. The fully flexible PoE allocation feature ensures an optimally efficient use of the PoE power available.

Ease of use

TVN 22S allows users full flexibility in the way they want to configure, manage and monitor their video surveillance solution. In addition to management of the unit through its browser interface or TruVision Navigator, the TVN 22S allows users to also operate the recorder locally using its front panel controls, local VGA or HDMI outputs and its intuitive on screen display.

H.265

The TVN 22S 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 22S, H.265 cameras need to be used. H.265 will be available in the TruVision S4 IP cameras.

Details

- Linux embedded Plug and Play configuration
- Up to 160 Mbps camera recording bandwidth
- Up to 16 IP channels
- Up to 16 embedded PoE camera ports
- PoE-af & PoE-at support
- Up to 24TB embedded storage (4x 6TB)
- 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-detection
- Third party camera support via ONVIF and PSIA
- IP camera configuration import/export
- Custom protocol configuration (RTSP streaming)
- 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 display of H.265 cameras possible on LCD display)
- 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
- TVRmobile app for Android and iOS

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Technical Specifications

Video/audio input

Camera channels	16
IP camera channels	16
Max. bandwidth per channel	16
Camera bandwidth (Mbps)	160
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	4K

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)	18
Max. capacity per SATA HDD (TB)	6
SATA interfaces	4
Maximum recording resolution	8 MPX
Recording modes	Alarm, Event, Manual, Time-lapse high, Time-lapse low
External storage	eSATA, NAS, SAN
SAS extension	No
Flip-open front panel	Yes
Hard drive redundancy	No
Hard drive grouping	No
Hot spare recorder	Yes
Edge failover recording	Yes

Networking

Network interface cards (NIC)	1
NIC type	RJ-45 10/100/1000 Mbps self-adaptive Ethernet interface
Network ports per NIC	1
PoE ports	16
Total PoE budget (W)	200 W
PoE standards supported	PoE-af, PoE-at
DNS support	DDNS, ezDDNS, No-IP
Plug & Play PoE support	Yes
Flexible PoE allocation	Yes
HTTPS support	Yes
Network interface:	1 RJ-45 10/100/1000 Mbps self-adaptive Ethernet interface
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

General

Rack stacking size	1.5 U
Removable fan	No
Redundant power supply	No
Rack mountable	Yes
Power supply:	AC 100V~240V
Power consumption (without hard disk)	20 W (without enabling PoE)
Operating temperature:	-10 ℃ ~ +55°C(14°°F ~131°F)
Operating humidity	10% - 90%
Chassis:	1.5U rack mountable or desk-based chassis
Dimensions (W x D x H):	442 x 371 x 74 mm (17.4 x 14.61 x 2.91")
Weight (without hard disk):	Less than 5 kg

Electrical

Power consumption without HDD (W)	20 W (without enabling PoE)
Power supply type	100 to 240 VAC

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Standards & regulation

Compliancy	CE, REACH, RoHS, UL

Video/Audio input

IP camera input:	Up to 8/16 channels
Total bandwidth available:	IN: 80/160 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
Bi-directional audio:	1-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:	3840 × 2160/60Hz, 3840 × 2160/30Hz, 1920 × 1080/60Hz, 1600 × 1200/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz
VGA output resolutions	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 (4x4)
Reverse playback OSD:	Up to 1ch
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 HD1080p/UXGA/HD 720p/VGA/4CIF/DCIF/2CIF/CIF/QCIF
Internal SATA slots:	4
Maximum capacity per SATA drive	6TB
Recording modes:	Time lapse High, Time lapse Low, Event, Alarm, Manual
External storage:	eSATA, NAS, SAN

External interface

IP camera interface	8/16 PoE IP camera ports
PoE support	PoE-af/PoE-at
PoE budget	200W
Plug-&-Play functionality	Yes, TruVision cameras
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

United Technologies