

## STR-1693

### 16-Channel Real Time DVR

- Real time recording of 16 camera inputs at 400 fps and D1 (720x576) resolution
- MPEG-4 video compression format
- 4 independent multi-screen monitor outputs
- Simultaneous recording, playback, networking and backup
- Up to 4 internal SATA HDD (2 detachable HDDs)
- Mirroring
- Storage capacity expansion over 30 TB using 8 STG-ES disk arrays
- Built-in DVD-RW
- Recording: Continuous, Schedule, Alarm, Motion, Pre-alarm, Panic
- Covert camera mode
- Date/Time, Calendar, Event, and Smart Search
- Full-featured Remote Administration Software VMS
- RS232/RS485 interfaces
- External Keyboard Controller (STT-3X)
- 16 audio channels (optional)
- Two-way audio transmission over the network

#### Uncompromised recording rate and quality

STR-1693 is able to record up to 16 camera inputs in real time (each at 25 ips), providing high D1 resolution (720x576) on each channel. Due to this feature the DVRs are effective in applications where rate and quality of recording are mission-critical (banks, casinos, etc.).

#### Independent multi-screen outputs

The unique feature of STR-1693 is availability of 4 independent multi-screen monitor outputs, each allowing to display different camera groups (live video or archive playback). Thus, one DVR permits to set up four independent viewing stations, allowing to display any camera group in multi-screen mode.



\* STG-ES disk array is optional

#### Storage Capacity Expansion

STR-1693 supports 4 SATA HDD, two of which are detachable. Further storage capacity expansion is possible by connecting STG-ES disk arrays, each supporting 4 detachable SATA hard disks.

Disk arrays with over 30 TB total capacity are chain-connected to a special gigabit port of DVR.

Additionally, DVR and disk arrays can work in Mirror Recording mode providing data duplication on allocated HDDs along with regular recording.

#### Remote control and PTZ

Operator can remotely control both the DVR and PTZ cameras via RS-232/485 using Smartec STT-3X keyboard controller. With multiple STT-3X and STR-1693, you can build large-scale multifunctional video surveillance systems.

#### Video recording and search modes

STR-1693 can perform continuous or panic video recording, as well as schedule, motion, and alarm recording. The DVR also supports pre-alarm recording (up to 5 s) and post-alarm recording (up to 60 s). Video search is possible by date/time, calendar (in graphic mode), or by event log. Additionally, SmartSearch is supported when using VMS software supplied with STR-1693. This function enables motion search in individual image areas.

## Data backup

DVR is equipped with built-in DVD-RW, which serves to backup desired video segments from archive in special format. Along with video segments, the system burns on DVD the player utility, allowing to playback video on any PC.

## VMS software for remote administration

The DVR is supplied with full-featured VMS software for remote administration and monitoring.

For VMS features, please refer to the following pages of this manual.

## Specifications

<b>Model:</b>	<b>STR-1693</b>
<b>Video Compression:</b>	MPEG-4
<b>Camera Inputs:</b>	16x BNC
<b>Monitor Outputs:</b>	4 BNC, 1 VGA
<b>Quadruplex:</b>	Simultaneous recording, playback, networking and backup
<b>Audio Inputs/Outputs:</b>	4 IN / 1 OUT (16 input optional)
<b>Audio Transmission:</b>	2-way
<b>Alarm Inputs/Outputs:</b>	16/4
<b>Resolution, pixel:</b>	720x576, 720x288, 360x288
<b>Recording Rate:</b>	400 ips (360x288) 400 ips (720x288) 400 ips (720x576)
<b>Average Image Size:</b>	1.7-17 KB
<b>Recording:</b>	Continuous, Schedule, Alarm, Motion, Pre-alarm, Panic
<b>Adjustable Recording Settings:</b>	Resolution, Frame Rate, Compression settings
<b>Alarm Recording:</b>	Pre-Alarm 5 s, Post-Alarm 60 s
<b>Event Notification:</b>	DVR Buzzer, Alarm Output, E-mail notification, Event Pop-Up
<b>HDD Type/Number:</b>	1 built-in 500 GB SATA HDD (supplied); 3 optional HDDs (2 nonremovable & 2 removable)
<b>Archive expansion:</b>	Support for up to 8 STG-ES disk arrays
<b>Access Levels:</b>	Local (Administrator, 5 Users), Remote (Administrator, 10 Remote Users)
<b>Watermark:</b>	Yes
<b>DVD-RW:</b>	Built-In
<b>USB:</b>	2 USB (Front Panel)
<b>PTZ Control:</b>	Front Panel buttons; IR Controller; over the network from VMS
<b>Control Interfaces:</b>	2 x RS-232, 2 x RS-485
<b>Network Interface:</b>	10/100Base-T Ethernet; VMS Software supplied with DVR (advanced administration, setup, video viewing and search, E-maps)
<b>Motion Detection:</b>	22x18 detection areas, 10 sensitivity levels
<b>IR Controller:</b>	Supplied with DVR
<b>Input Voltage:</b>	220 VAC
<b>Power Consumption:</b>	85 W (maximum), 60 W (standard)
<b>Dimensions:</b>	445 mm (D) x 388 mm (W) x 88 mm (H)
<b>Weight:</b>	11 kg

# STR-3293

## 32-Channel Real Time DVR

- Recording of 32 camera inputs at 800 fps and 2CIF (720x288) resolution
- MPEG-4 video compression format
- 4 independent multi-screen monitor outputs
- Simultaneous recording, playback, networking and backup
- Up to 4 internal SATA HDD (2 removable)
- Storage capacity expansion over 30 TB using 8 STG-ES disk arrays
- Built-in DVD-RW
- Recording: Continuous, Schedule, Alarm, Motion, Pre-alarm, Panic
- Covert camera mode
- Date/Time, Calendar, Event, and Smart Search
- Bundled fully functional VMS Remote Administration Software
- RS232/RS485 interfaces
- 16 audio channels (optional)
- Control via STT-3X external keyboard controller
- 2-way audio transmission over the network

### Uncompromised recording rate and quality

The STR-3293 is able to record up to 32 camera inputs in real time (each at 25 fps), with 2CIF resolution (720x288) for each channel. At 400 fps the DVR supports resolution of 720x576. Due to this feature the DVRs are effective in applications where framerate and quality of recording are mission-critical (banks, casinos, etc.).

### Independent multi-screen outputs

The unique feature of the STR-3293 is availability of 4 independent multi-screen monitor outputs, each allowing to display different camera groups (live video or archive playback). Monitor outputs № 1 & 3 are allocated to the first 16 channels, while outputs № 2 and № 4 are linked to the remaining 16 channels (from ch.17 to ch.32). Thus, one DVR permits to set up four independent viewing stations, allowing to display different camera groups in multi-screen mode.



\* STG-ES disk array is optional

### Storage Capacity Expansion

The STR-3293 supports 4 SATA HDD, two of which are removable. Further storage capacity expansion is possible by connecting STG-ES disk arrays, each supporting 4 removable SATA hard disks. Disk arrays with over 30 TB total capacity are chain-connected to a special gigabit port of the DVR.

Additionally, the DVR and disk arrays can work in Mirror Recording mode providing data duplication on allocated HDDs along with regular recording.

### Remote control and PTZ

Operator can remotely control both the DVR and PTZ cameras via RS-232/485 using Smartec STT-3X keyboard controller. With multiple STT-3X and STR-3293, you can build large-scale multifunctional video surveillance systems.

### Video recording and search modes

The STR-3293 can perform continuous or panic video recording, as well as schedule, motion, and alarm recording. The DVR also supports pre-alarm recording (up to 5 s) and post-alarm recording (up to 60 s). Video search is possible by date/time, calendar (in graphic mode), or by event log. Additionally, SmartSearch is supported when using VMS software bundled with the STR-3293. This function enables motion search in individual image areas.

# DIGITAL VIDEO RECORDERS

## Data backup

The DVR is equipped with a built-in DVD-RW, which serves to backup desired video segments from archive in special format. Along with video segments, the system burns on DVD the player utility, allowing to playback video on any PC.

## VMS software for remote administration

The DVR is bundled with full-featured VMS software for remote administration and monitoring.

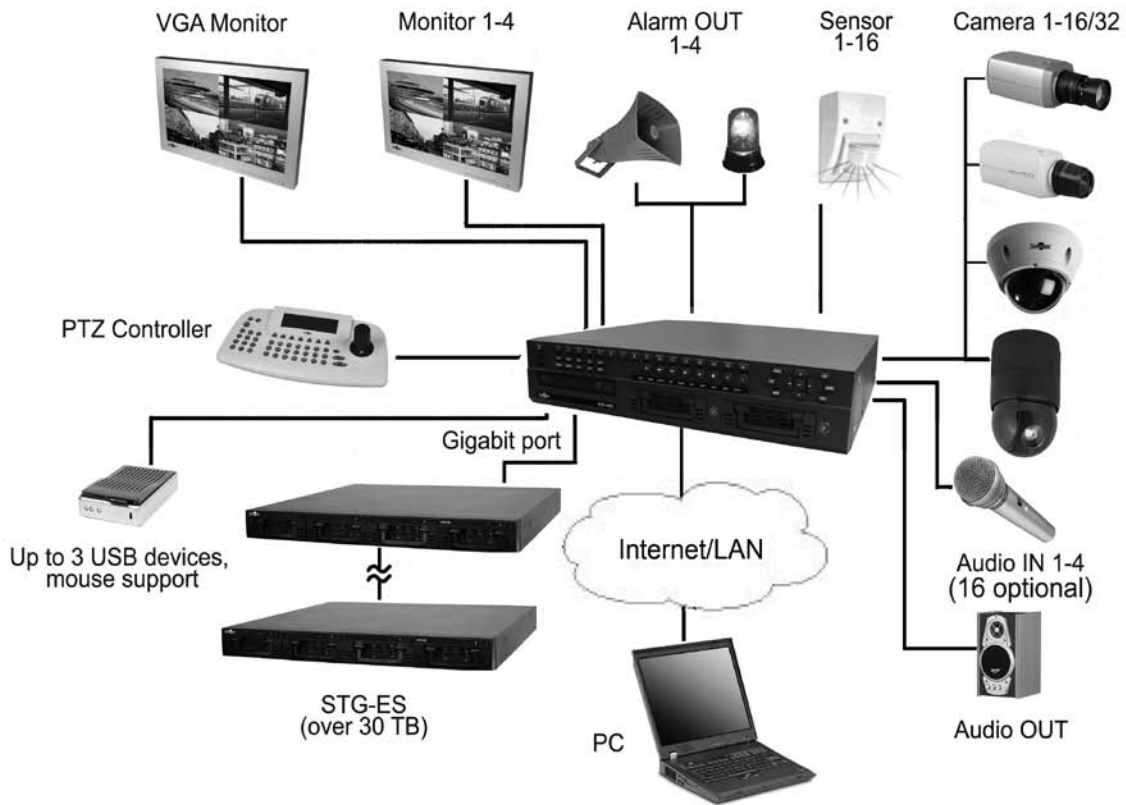
For VMS features, please refer to the following pages of this catalog.

## Specifications

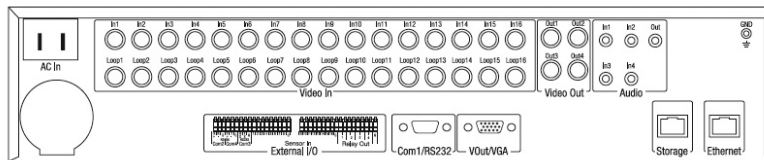
<b>Model:</b>	<b>STR-3293</b>
<b>Video Compression:</b>	MPEG-4
<b>Camera Inputs:</b>	32xBNC
<b>Monitor Outputs:</b>	4 BNC, 1 VGA
<b>Quadruplex:</b>	Simultaneous recording, playback, networking and backup
<b>Audio Inputs/Outputs:</b>	4 IN / 1 OUT (16 input optional)
<b>Audio Transmission:</b>	2-way
<b>Alarm Inputs/Outputs:</b>	16/4
<b>Resolution, pixel:</b>	720x576, 720x288, 360x288
<b>Recording Rate:</b>	800 ips (352x288) 800 ips (720x288) 400 ips (720x576)
<b>Average Image Size:</b>	1.7-17 KB
<b>Recording:</b>	Continuous, Schedule, Alarm, Motion, Pre-alarm, Panic
<b>Adjustable Recording Settings:</b>	Resolution, Frame Rate, Compression settings
<b>Alarm Recording:</b>	Pre-Alarm 5 s, Post-Alarm 60 s
<b>Event Notification:</b>	DVR Buzzer, Alarm Output, E-mail notification, Event Pop-Up
<b>HDD Type/Number:</b>	1 built-in 500 GB SATA HDD (supplied); 3 optional HDDs (2 nonremovable & 2 removable)
<b>Archive expansion:</b>	Support for up to 8 STG-ES disk arrays
<b>Access Levels:</b>	Local (Administrator, 5 Users), Remote (Administrator, 10 Remote Users)
<b>Watermark:</b>	Yes
<b>DVD-RW:</b>	Built-In
<b>USB:</b>	2 USB (Front Panel)
<b>PTZ Control:</b>	Front Panel buttons; IR Controller; over the network from VMS
<b>Control Interfaces:</b>	2 x RS-232, 2 x RS-485
<b>Network Interface:</b>	10/100Base-T Ethernet; VMS Software bundled with DVR (advanced administration, setup, video viewing and search, E-maps)
<b>Motion Detection:</b>	22x18 detection areas, 10 sensitivity levels
<b>IR Controller</b>	supplied with DVR
<b>Input Voltage:</b>	220 VAC
<b>Power Consumption:</b>	85 W (maximum), 60 W (standard)
<b>Dimensions:</b>	445 mm (D) x 338 mm (W) x 88 mm (H)
<b>Weight:</b>	11 kg

# DIGITAL VIDEO RECORDERS

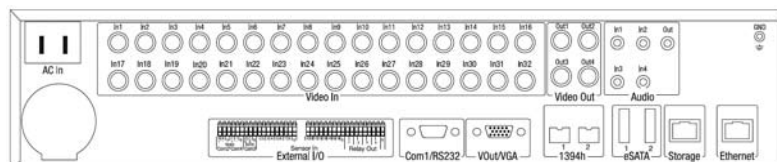
## STR-1693/3293 Typical Connection Diagram



### STR-1693 Rear View



### STR-3293 Rear View



## STG-ES Specifications

<b>Model:</b>	<b>STG-ES</b>
<b>HDD Type/Number:</b>	4 SATA HDD (hot-swappable)
<b>File Management:</b>	Data loss prevention in case of emergency shutdown
<b>Data Interface:</b>	Gigabit Port
<b>Input Voltage:</b>	220 VAC
<b>Dimensions:</b>	430 mm (D) x 362 mm (W) x 44 mm (H)
<b>Weight:</b>	5 kg

## STG-ES Rear View



## Accessories for STR-1693 & STR-3293

<b>STT-3X</b>	System Keyboard Controller; joystick, LCD display (16x4 symbols); RS-485 (PELCO-D/P etc.), control of up to 256 cameras, DVR control (STR-1693/3293); internal clock, 12VDC adapter supplied
---------------	--