

MPEG4 IP Streaming Surveillance System

Longeye Product Series

2006 Catalog

Sanyan provides a wide range of products for remote/centralized IP network streaming surveillance system. The products include (1) Encoder servers with NDVR (Networking Digital Video Recorder) to compress video/audio digital format, (2) Decoder servers to decode the compress digital back to analog video/audio, (3) Distribution & Middle Servers to enable a concentrated storage to store encoder video/audio data, and (4) Playback Console and management system to provide a complete control center display and switching capabilities in a box. (5) Digital IO with 8 Sensor input/ 8 Alarm output modules for manual or automated remote control of external devices, such as lights, gates and other devices, etc.

All of our hardware encoder/ hardware decoder server products are based-on embedded Linux (NO need of KB/MOUSE/VGA) with fan-less CPU. The power consumption is much lower (33W) compare with PC base (250W) solution.

Comprehensive Hardware Encoder/Decoder Server with Networking DVR for embedded and industrial applications

Overview / Industrial Grade Networking DVR Solutions

As a leading system/solution the Sanyan SL521/511 "Longeye" series features the most powerful and flexible industrial-grade hardware/software/system, to provide rugged and reliable networking Digital Video Recorders (DVR)

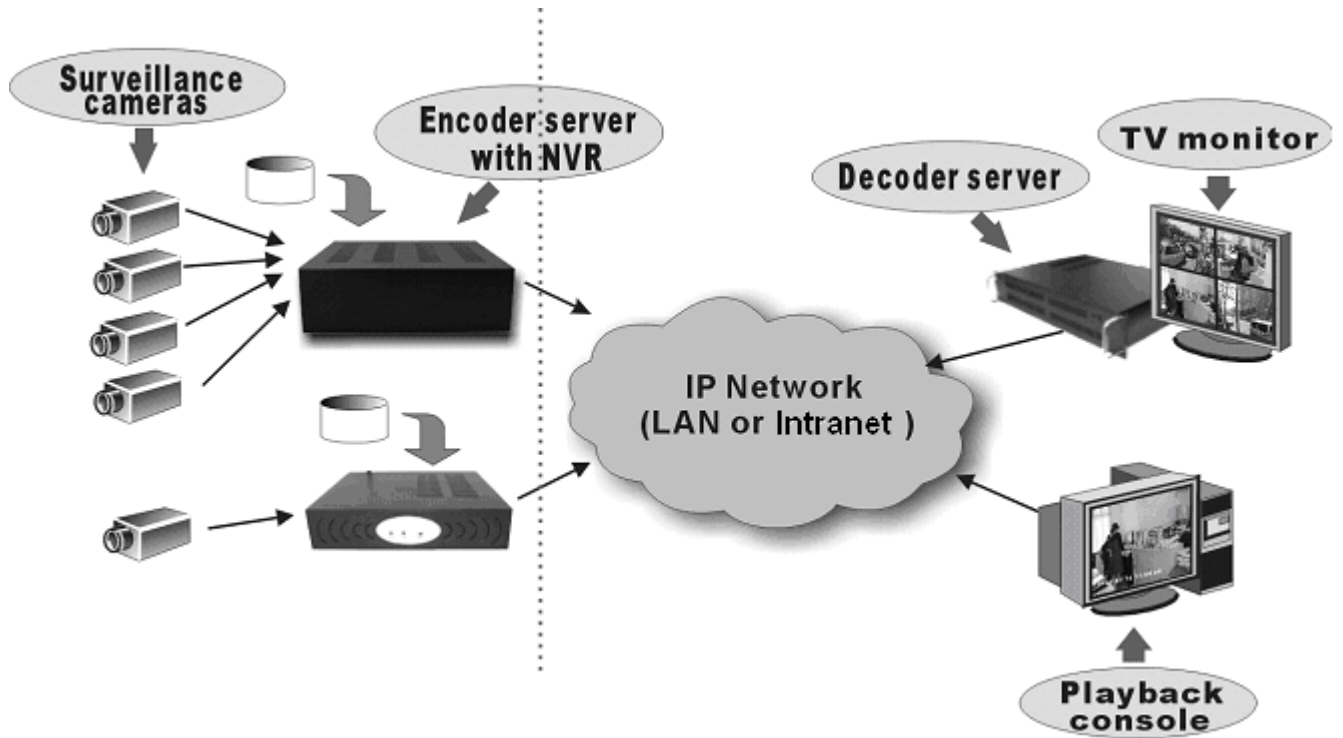
The SL521/511 series offers state-of –the –art industrial grade digital video recording that form a robust, reliable and scalable security solution for: multiple sites distributed remote /centralized and unmanned location, process control, SCADA system, building automation, facility automation, environment surveillance, and traffic video monitoring application requirement. The system is easy to use, and has remarkable networking and integration capabilities.

With centralize management software and Ethernet connectivity. Sanyan "Longeye" surveillance system can deliver high-quality video and audio streams securely over both the intranet and/or LAN. With easy installation and configuration. It is a professional DVR system that can be setup in minutes.

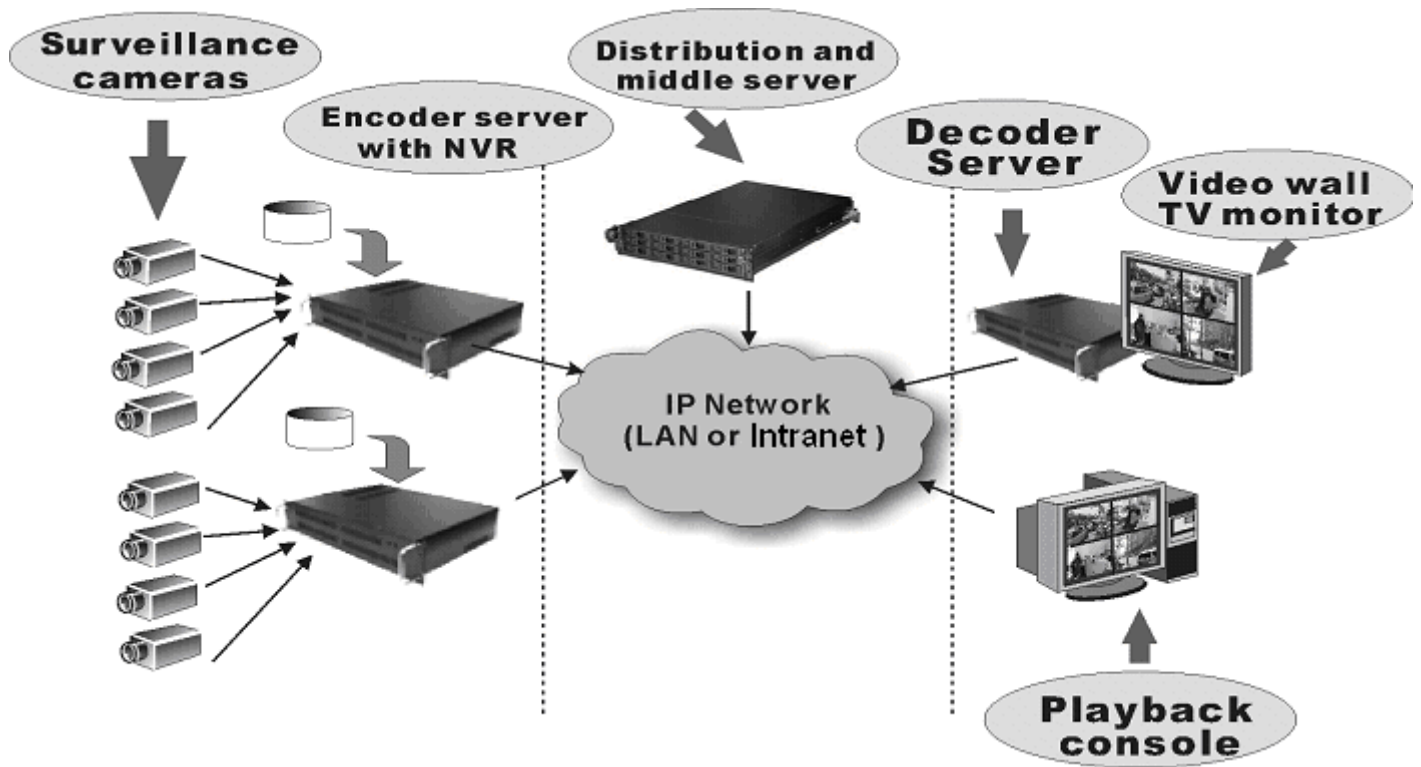
The SL521/511 series delivers advanced visual security management through advanced motion detection, centralize surveillance management and digital video recording by client/server access, and application level integration with other control and monitoring systems.

- **System Architecture:**

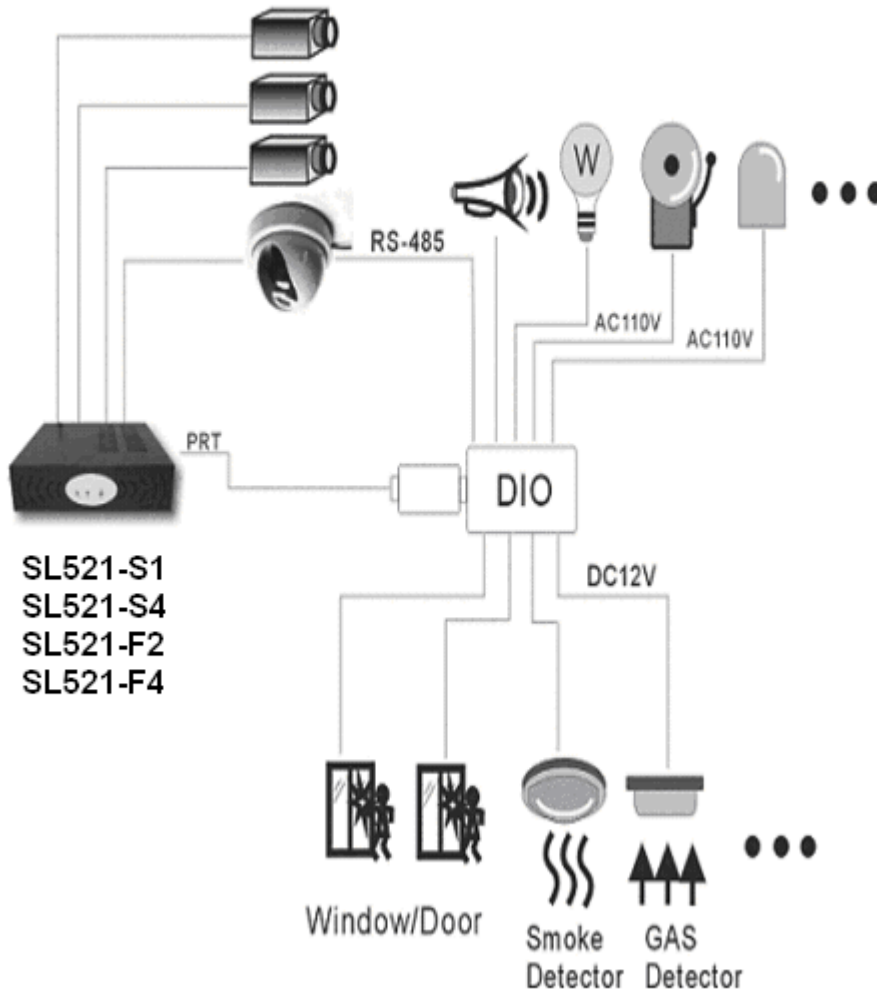
(A) 2 Tier Basic NDVR Surveillance System Configuration



(B) 3 Tier Advanced NDVR Surveillance System Configuration



Encoder W / Digital I/O



- **Encoder Servers with NDVR 2.5" Hard-Disk Module:**

- SL521-S1 1CH, 1*D1 MPEG-4 Encoder Servers (NDVR)
- SL521-S4 4CH, 1*D1 QUAD MPEG-4 Encoder Servers (NDVR)
- SL521-F2 2CH, 2*D1 MPEG-4 Encoder Servers (NDVR)
- SL521-F4 4CH, 4*D1 MPEG-4 Encoder Servers (NDVR)

Option :

- SL521-DIO-8, 8 Digital inputs & 8 outputs

Accessories :

- SL521-HD-40GB, 2.5" removable hard-disk module
- SL521-WM-Kit, Wall Mount kit for SL521-S1/S4/F2
- SL521-DIN-Kit, Din Rail kit for SL521-S1/S4/F2
- SL521-RS-PTZ, RS232 to RS485 converter for PTZ camera
- DR-4512, 45W/12V Din Rail power for SL521-S1/F2
- D60A, 60W/12V, 5V Dual power outputs for SL521-S4

- **Decoder Servers:**

- SL511-V1 1CH, 1*D1 MPEG-4 Decoder Servers
- SL511-V2 2CH, 2*D1 MPEG-4 Decoder Servers
- SL511-V4 4CH, 4*D1 MPEG-4 Decoder Servers
- SL511-VS MPEG-4 Software Decoder & Surveillance Management Systems

- **Distribution and Middle Servers:** (Customization Development)

- SL521-M4 Distribution & Middle Servers

- **Playback Console and Management Systems:**

- SL521-PM Playback Console & Management Systems

The NDVR encoder products can compress the remote video into digital video in MPEG-1, MPEG-2, MPEG-4, formats & audio in MPEG-1, MPEG-2, MP3, AAC, AC3 formats. SL521-S1/S4/F2/F4 Encoder Servers support a variety of communication links including 100 Mbps Ethernet, 1000 Mbps Gigabit Ethernet, 802.11 a/b/g wireless, Satellite, ATM, Lease Line, Fiber. This enables the compressed video to be transmitted to every corner of the world or even outside of this world. A small IDE DVR Hard-Disk 40GB is built inside the Encoder Servers. It handles 4 jobs (1) Capture image (2) Compress (3) Network streaming (4) Storage

• **SL521-S1 MPEG-4, 1CH Video/Audio Encoder Server NDVR:**



- 1 Channel Broadcast Quality D1 MPEG-4 Encoder
- Desktop or Din-Rail or wall mount installation.
- Embedded Linux system. Max power 18W
- 1 video, 1 audio input.
- Hardware OSD-time code, Watchdog
- CCTV local display
- Record speed 30 frames (NTSC), 25 frames (PAL)
- Optional 40GB 2.5" Hard-disk
- Optional 8 digital input/output
- Broadcast quality D1 resolution video at 2 Mbps audio at 384Kbps
- Support UDP protocol Multicast or Unicast
- 9.8" W x 9.1" D x 2.0" H



• **SL521-S4 MPEG-4, QUAD Video/Audio Encoder Server NDVR:**



- 4 Channel Broadcast CIF MPEG-4 Encoder
- Desktop or Din-Rail or wall mount installation
- Embedded Linux system. Max power 23W
- 4 video, 1 audio input.
- Hardware OSD-time code, Watchdog
- CCTV local display
- Record speed 30 frames (NTSC), 25 frames (PAL)
- Optional 40GB 2.5" Hard-disk
- Optional 8 digital input/output
- Broadcast CIF resolution video at 2Mbps audio at 384Kbps
- Support UDP protocol Multicast or Unicast
- 10.7" W x 9.1" D x 3.7" H



• **SL521-F2 MPEG-4, 2CH Video/Audio Encoder Server NDVR:**



- 2 Ch Broadcast Quality (2*D1) MPEG-4 Encoder
- Desktop or Din-Rail or wall mount installation
- Embedded Linux system. Max power 23W
- 2 video, 2 audio inputs.
- Hardware OSD-time code, Watchdog
- CCTV local display
- Record speed 60 frames (NTSC), 50 frames (PAL)
- Optional 40GB 2.5" Hard-disk



- Optional 8 digital input/output
- Broadcast quality each D1 resolution video at 2Mbps, audio at 384Kbps
- Support UDP protocol Multicast or Unicast
- 9.6" W x 9.0" D x 4.2" H

• **SL521-F4 MPEG-4,4CH Video/Audio Encoder Server NDVR : (Preliminary)**



- 4 Ch Broadcast Quality (4*D1) MPEG4-Encoder
- Embedded Linux system. Max power 33W
- 4 video, 4 audio inputs.
- Hardware OSD-time code, Watchdog
- CCTV local display
- Record speed 120 frames (NTSC), 100 frames(PAL)
- Optional 80,100 GB 2.5" Hard-disk
- Optional 8 digital input/output
- Broadcast quality each D1 resolution video at 2Mbps, audio at 384Kbps
- Support UDP protocol Multicast or Unicast
- 19" 2U 12.2" D x 3.5" H



Optional:

SL521-DIO-8 8 Sensor input and 8 Alarm output:

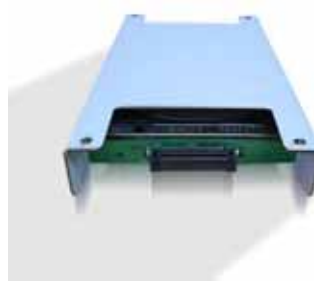
- Support SL521-S1/S4/F2 Encoder servers series
- 8 Digital input, 8 Digital output
- Photo couple isolator, Relay output
- Configured by the "Longeye" software
- Digital input
 - For state "0": 0.8V max, 2.0mA max
 - For state "1": 2.0V min
- Digital output
 - For state "0": 0.5V max, 24mA max
 - For state "1": 1.2V min
- Max. input current: 80mA for each isolated input
- Max. contact rating for relay: 120V AC/DC @1A



Accessories:

SL521-HD-40GB module:

- 2.5" IDE interface
- for the SL521-S1/S4/F2 model



SL521-WM-Kit:

- Wall Mount KIT for SL521-S1/S4/F2



SL521-DIN-Kit:

- Din Rail kit for SL521-S1/S4/F2



SL521-RS-PTZ, RS232 to RS485 convert for PTZ camera:

- Port : RS-232C and RS-485
- Max. Baud Rate :



Distance (M)	Transmission speeds
300M	115.2KBPS
1200M	19.2KBPS
2400M	9600KBPS
3000M	2400KBPS

- Max. distance : 5KM(1200bps)
- Size : 88 X 33 X 17 mm
- Operation Temperature: 0-70
- Operation Humidity : 5%~95%

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DR-4512:

- **45W/12V Din Rail Power supply**
- **for SL521-S1/F2**



D60A:

- **60W/12V, 5V Dual Power outputs**
- **for SL521-S4**



All of our compressed video/audio can be viewed with a software decoder. The only requirement is a Windows XP, or 2000 system with a standard Internet Explorer browser. However, we also produces hardware decoders to provide direct video/audio decoding and display on video monitors with speakers.

The SL511-V1/V2/V4 hardware decoder is used to convert MPEG-4 video/audio stream from the SL521-S1/F2/F4 encoder servers. The input MPEG-4 data from Ethernet port is converted into full motion analog video output to be displayed on TV.

- **SL511-V1 MPEG-4, 1CH Video/Audio Decoder Server:**



- 1 Channel Broadcast Quality (1*D1) MPEG-4 Decoder
- Desktop or Din-Rail or wall mount installation.
- Embedded Linux system. Max power 18W
- Display speed 30 frames (NTSC), 25 frames (PAL)
- Decoder MPEG-4 video and display on TV
- Decode D1 quality video stream on IP Network
- Analog video out to monitor (NTSC or PAL)
- 9.8" W x 9.1" D x 2.0" H



- **SL511-V2 MPEG-4, 2CH Video/Audio Decoder Server:**



- 2 Channel Broadcast Quality (2*D1) MPEG-4 Decoder
- Desktop or Din-Rail or wall mount installation.
- Embedded Linux system. Max power 23W
- Display speed 60 frames (NTSC), 50 frames (PAL)
- Decoder MPEG-4 video and display on TV
- Decode each D1 quality video stream on IP Network
- Analog video out to monitor (NTSC or PAL)
- 9.6" W x 9.0" D x 4.2" H

- **SL511-V4 MPEG-4, 4CH Video/Audio Decoder Server: (Preliminary)**



- 4 Channel Broadcast Quality (4*D1) MPEG-4 Decoder
- Embedded Linux system. Max power 33W
- QUAD screen view
- Display format: Full, 2, 4-split, PIP and POP
- Display speed 120 frames (NTSC), 100 frames (PAL)
- Decoder MPEG-4 video and display on TV
- Decode each D1 quality video stream on IP Network
- Analog video out to monitor (NTSC or PAL)
- 19" 2U 12.2" D x 3.5" H

- **SL511-VS MPEG-4 Software Decoder and Surveillance Management System :**



P4 1.6Ghz (3Ghz required for F4 model),
512 MB Memory, ATI/ nVIDIA 8X AGP or above
WIN XP or 2000 OS.

DirectX 9.0

- View/Playback/Download/IP Configuration Management
- PTZ/Event/Log/Motion Detection/Snapshot
- Continuous/Event/Schedule Recording
- Local CCTV display
- Streaming/File Media Player
- 1/2/4/9/16 Split Display
- Digital I/O Configuration



In order to provide interface to large number of external cameras, the SL521-M4 Distribution and Middle Server (1) provides streaming of both live MPEG-4 video as well as prerecorded MPEG-4 video. (2) allows recording of live video while the video is been multicasted on the IP network. (3) enables the video management center to acquire large number of camera signals, convert into IP packet, send to Decode Servers SL511-V4/V2/V1 for processing and display. (4) provide video point-to- multipoint multicast for certain compressed video mode to enable low bandwidth video to be viewed by large member of viewers at the same time.

- [SL521-M4 Distribution and Middle Server:](#)



- Live streaming for S1/F2/S4/F4 Encoder Servers
- Record and view video/audio
- Use as Storage & Playback Server
- Hardware Raid
- Support hot swap, 6TB HD storage (12 x 500GB)
- Embedded Linux File system
- 19" 2U 19 " x 25" D

Sanyan produces one of the most complete solutions in the industry for remote video management. Beside point-to-point video encoding and decoding, we also produces the SL521-PM product to provide a complete management center in-a-box.

- **SL521-PM Playback console and Management System:**



- Encoder/decoder servers configuration
- View/Playback/Download/Backup
- Remote camera mapping system
- Use as IP management & Playback console
- Windows XP system
- P4 3Ghz, 512 MB Memory, PCI express AGP
- 500GB X2, SATA2 Raid storage
- 19" 2U 12.2" D x 3.5" H



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