

DVR 630/650 Series

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Invented for life



- ▶ 8/16-Channel real-time recording with CIF resolution
- ▶ Flexible viewing with two monitor outputs
- ▶ Remote viewing, playback, control, and configuration
- ▶ Easy Pan/Tilt/Zoom camera control
- ▶ DVR viewer iPhone App

The Bosch Video Recorder 630/650 Series is an 8/16 channel digital recorder that uses the latest H.264 compression technology. With the supplied PC software and built-in web server, the 630/650 Series is a fully integrated, stand-alone video management solution that's ready to go, straight out of the box. Available with a variety of storage capacities, the 630/650 Series features a highly reliable embedded design that minimizes maintenance and reduces operational costs. The recorder is also available with a built-in DVD writer.

System overview

The 630/650 Series takes advantage of H.264 video compression technology to dramatically reduce the amount of storage and bandwidth needed while still producing a better image quality. The 630/650 Series records multiple video and audio signals while simultaneously providing live multi-screen viewing and playback. Comprehensive search and playback functions provide quick recall and viewing of recorded video.

Recording

Ease of use is a key feature of the 630/650 Series design. Simply connect the cameras, apply power, and the unit begins recording automatically. All recording takes place in the background with no operator intervention required.

The use of H.264 compression reduces the file size of recordings by as much as 30% compared to standard MPEG-4, without sacrificing image quality. The 630/650 Series can record at up to 25 (PAL) / 30 (NTSC) images per second, per channel at CIF resolution. Recording at 2CIF and 4CIF resolution is also possible by reducing the recording image rate settings. The recording rate and quality are individually configurable per channel for maximum flexibility. If required, alarm recordings (input and motion) and continuous recordings can be split over two partitions. An overwrite mode can then be selected separately for each partition.

Dome Control

The 630/650 Series can control pan/tilt/zoom (PTZ) equipment via RS-485 serial communications. PTZ devices, including the Bosch AutoDome and a number of third party domes, are supported.

Alarms

All models have extensive alarm handling functions and telemetry control. Alarm functions include local inputs and relay outputs as well as motion detection in user-defined areas. In addition, the 630/650_Series can send an e-mail notification with a short video clip on alarm.

Local control and operation

The unit can be easily operated and programmed via the on-screen display menu system using the front panel control keys, the mouse, an IntuiKey Series keyboard or the supplied remote control. Two monitor outputs provide full-screen, quad, multi-screen and sequenced viewing.

Looping auto-terminating video inputs and outputs, audio inputs and output, and alarm inputs and outputs are located on the rear panel.

Two VGA connectors provide an output for monitor A (main monitor) and monitor B (spot monitor).

Monitor A displays live and playback in full-screen, quad or multi-screen pictures that can be frozen and zoomed. Monitor B displays live full-screen, quad or multi-screen pictures.

Remote control and operation

Use the PC software or built-in web application via a network for live viewing, playback, and configuration. The PC application software can also be used with other Bosch products including the 400 Series and the 700 Series. Four users can control the 630/650 Series simultaneously.

The 630/650 Series includes an authenticity check for both local and remote playback, ensuring recording integrity. The 630/650 Series Archive Player is provided for playback of secure video files.

Mobile Devices

A Bosch DVR viewer App for Apple iOS devices is available for live viewing and PTZ control. This App lets you watch live video from cameras connected to the DVR from anywhere in the world. If a PTZ camera is connected, you can control focus, pan, tilt and zoom. Additionally, Real Time Streaming Protocol (RTSP) is supported in the 630/650 Series. This means that live video streamed from the unit over the internet can be displayed by suitably configured mobile devices.

Functions

The 630/650 Series has the following features:

- 8 or 16 looped-through, auto-terminating camera inputs
- 4 audio inputs and 2 audio outputs
- Simultaneous live viewing, recording, playback, and remote streaming
- 10/100Base-T Ethernet port for local or wide area network connection
- RS485 serial port for serial communication to control movable cameras

- IntuiKey Series keyboard support for Bosch dome control including loop-through to a maximum of 16 other 600 Series or 700 Series recorders
- VGA monitor outputs for main and spot monitors
- 16:9, 16:10 and 4:3 aspect ratio displays for main monitor
- 4:3 aspect ratio display for spot monitor
- Full-screen, quad and multi-screen display capabilities in live and playback modes for main monitor
- Spot monitor output with sequencing and full-screen, quad and multi-screen views
- Alarm picture pop-up on full-screen or sequence by multiple alarms simultaneously
- E-mail notification with 10-second video clip on alarm
- Playback one or more channels while showing live pictures of the other channels
- Motion detection
- Multiple search modes including smart search (search for motion within recorded images)
- 8 or 16 switching (alarm) inputs and 4 alarm outputs
- Video loss detection
- Audible alarm
- Bosch DVR viewer App for live and PTZ control on iPhone/iPad/iPod touch devices
- Live display support on mobile devices via RTSP
- Pan/tilt/zoom camera control via RS485
- Supports Bosch and Pelco protocols
- Local archiving via USB
- Local archiving via built-in DVD burner (specific models)

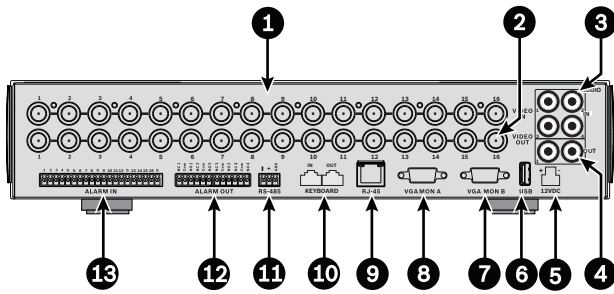
Certifications and approvals

Standards

| | |
|--|------------------------------------|
| | FCC Part 15, Class B |
| | EMC Directive 2004/108/EC |
| | Immunity: EN50130-4 |
| | Emission: EN55022 Class B |
| | Harmonics: EN61000-3-2 |
| | Voltage fluctuations: EN61000-3-3 |
| | UL60950-1 |
| | LV Directive 2006/95/EC, EN60950-1 |
| | CAN/CSA—C22.2 no. 60950-1 |
| | C-Tick |

| Region | Certification |
|--------|---------------|
| Europe | CE |
| USA | FCC |
| | UL |
| Canada | CSA |

Installation/configuration notes



Connections on back of DVR 630/650 (16-channel version)

- | | |
|------------------------|--|
| 1 Camera inputs | 8 Monitor A VGA output |
| 2 Camera outputs | 9 RJ45 network connector |
| 3 Audio inputs | 10 RJ11 connectors for IntuiKey keyboard |
| 4 Audio outputs | 11 RS485 connector for Dome control |
| 5 Power connector | 12 Alarm outputs |
| 6 USB connector | 13 Alarm inputs |
| 7 Monitor B VGA output | |

Recommended PC requirements for Web support

| | |
|-------------------|--|
| Operating system | Windows XP, Windows Vista or Windows 7 |
| Web browser | Internet Explorer 7, 8 or 9 |
| Processor | Intel Core Duo 2.0 GHz or comparable |
| RAM memory | 2048 MB |
| Free disk space | 10 MB |
| Graphics card | NVIDIA GeForce 8600 or better |
| Video memory | 256 MB |
| Network interface | 10/100-BaseT |

Technical specifications

Electrical

Rated Voltage and Power

| | |
|----------------------------------|------------------------------|
| External power adapter AC input | 110–240 VAC; 50/60 Hz; 1.8 A |
| External power adapter DC output | 12 VDC; 5 A |
| DVR Power input | 12 VDC; 3.5 A; 145 BTU/h |

Video Inputs

| | |
|--------|--|
| Inputs | Composite video 1 Vpp, 75 ohm, automatic termination; PAL / NTSC auto-detect |
| AGC | Automatic gain adjustment for each video input |

Video outputs

| | |
|-------------------------|---|
| Outputs | Monitor A: VGA RGB Monitor B: VGA RGB |
| Live Resolution (Mon.A) | 800x600 (4:3), 1024x768 (4:3) 1280x1024 (5:4) 1366x768 (16:9) 1440x900 (16:10) |
| Digital Zoom | 2 times |
| Streaming video | H.264 compression |

Audio

| | |
|-------------|--------------------|
| Inputs | Mono RCA, 1.0 Vpp |
| Output | Mono RCA, 1.0 Vpp |
| Compression | ADPCM |
| Sample rate | 16 kHz per channel |
| Bit rate | 8-bit |

Alarm Handling

| | |
|---------|--|
| Inputs | 8 or 16 inputs configurable NO/NC, max. input voltage 15 VDC |
| Outputs | 4 Relay outputs, configurable NO/NC, max. rated 30 VAC, 40 VDC 0.5 A continuous or 10 VA |

Control

| | |
|---------------|--|
| RS485 | Output signals according to RS485, max. signal voltage -8 to +12 V |
| RS485 Support | Bosch domes, and Pelco P and D |

Connectors

| | |
|------------------|---|
| Video Inputs | 8 or 16 looping BNC, auto termination |
| Monitor | 2 VGA D-SUB |
| Alarm connectors | Screw terminal inputs, cable diameter AWG26-16 (0.13-1.5 mm) |
| Audio Inputs | 4 RCA (CINCH) |
| Audio Output | 2 RCA (CINCH) |
| Ethernet | RJ45, 10/100 BaseT according to IEEE802.3 |
| RS485 | Screw terminal output, cable diameter AWG28-16 (0.08-1.5 mm) |
| USB 2.0 | One front and one rear USB connector for mouse or USB memory device |

Storage

| | |
|------------|--|
| Hard Disks | Supports up to 2 SATA hard drives maximum 2TB each (Third party hard disks are supported from firmware version 2.0.6 onwards. A list of tested disks is available in the instruction manual.)* |
|------------|--|

*Bosch cannot be held liable for any loss or damages or system malfunction resulting from the use of non-Bosch drives in DVR recorders.

Video recording

Record Rate (IPS)

| | |
|-------------------|--|
| NTSC | Max. 30 IPS per channel, configurable: 30, 15, 7.5, 5, 3, 1 |
| PAL | Max. 25 IPS per channel, configurable: 25, 12.5, 6.25, 5, 2.5, 1 |
| Recording Quality | Best, High, Normal, Low, Lowest |

Average Recording Capacity (16 channels, 500 GB)

| | |
|----------------------------|---------------------------------|
| CIF, Normal, 25/30 IPS | PAL: 138 hours, NTSC: 170 hours |
| CIF, Normal, 6.25/7.5 IPS | PAL: 350 hours, NTSC: 425 hours |
| 2CIF, Normal, 12.5/15 IPS | PAL: 115 hours, NTSC: 144 hours |
| 4CIF, Normal, 6.25/7.5 IPS | PAL: 93 hours, NTSC: 115 hours |

Maximum recording rates per channel

Local 16 channels

| | |
|------|-----------------------------|
| 4CIF | PAL: 6 IPS, NTSC: 7.5 IPS |
| 2CIF | PAL: 12.5 IPS, NTSC: 15 IPS |
| CIF | PAL: 25 IPS, NTSC: 30 IPS |

Local 8 channels

| | |
|------|-----------------------------|
| 4CIF | PAL: 12.5 IPS, NTSC: 15 IPS |
| 2CIF | PAL: 25 IPS, NTSC: 30 IPS |
| CIF | PAL: 25 IPS, NTSC: 30 IPS |

Local 4 channels

| | |
|------|---------------------------|
| 4CIF | PAL: 25 IPS, NTSC: 30 IPS |
| 2CIF | PAL: 25 IPS, NTSC: 30 IPS |
| CIF | PAL: 25 IPS, NTSC: 30 IPS |

Remote (network) 16 channels

| | |
|-----|------------------------------|
| CIF | PAL: 6.75 IPS, NTSC: 7.5 IPS |
|-----|------------------------------|

Remote (network) 8 channels

| | |
|-----|-----------------------------|
| CIF | PAL: 12.5 IPS, NTSC: 15 IPS |
|-----|-----------------------------|

Display Modes

| | |
|-----------|---|
| Monitor A | Full, quad, multi-screen (live and playback), full sequence, alarm call-up (live) |
| Monitor B | Full, quad, multi-screen, full sequence, alarm call-up (live) |

Recording Modes

| | |
|------------------|--|
| Normal partition | Continuous recording (with or without overwriting) |
| Event partition | Input and motion recording (with or without overwriting) |

Mechanical

| | |
|--------------------|--|
| Dimensions (WxDxH) | 355 x 362 x 78 mm (13.9 x 14.2 x 3.1 in) excluding cabling |
| Weight | 4.3 kg (9.46 lb) approx. |

Environmental**Temperature**

| | |
|-------------|----------------------------------|
| - Operating | +0°C to +40°C (+32°F to +104°F) |
| - Storage | -40°C to +70°C (-40°F to +158°F) |

Humidity

| | |
|-------------|---------------------|
| - Operating | <93% non-condensing |
| - Storage | <95% non-condensing |

Ordering information**DVR-630-08A 630 Series DVR**

630 Series DVR, 8-channel, base unit
Order number **DVR-630-08A**

DVR-630-16A 630 Series DVR

630 Series DVR, 16-channel, base unit
Order number **DVR-630-16A**

DVR-650-08A 650 Series DVR

650 Series DVR, DVD, 8-channel, base unit
Order number **DVR-650-08A**

DVR-650-16A 650 Series DVR

650 Series DVR, DVD, 16-channel, base unit
Order number **DVR-650-16A**

DVR-630-08A050 630 Series DVR

630 Series DVR, 8-channel, 500 GB
Order number **DVR-630-08A050**

DVR-630-16A050 630 Series DVR

630 Series DVR, 16-channel, 500 GB
Order number **DVR-630-16A050**

DVR-650-08A050 650 Series DVR

650 Series DVR, 8-channel, DVD writer, 500 GB
Order number **DVR-650-08A050**

DVR-650-16A050 650 Series DVR

650 Series DVR, 16-channel, DVD writer, 500 GB
Order number **DVR-650-16A050**

DVR-630-08A100 630 Series DVR

630 Series DVR, 8-channel, 1 TB
Order number **DVR-630-08A100**

DVR-630-16A100 630 Series DVR

630 Series DVR, 16-channel, 1 TB
Order number **DVR-630-16A100**

DVR-650-08A100 650 Series DVR

650 Series DVR, 8-channel, DVD writer, 1 TB
Order number **DVR-650-08A100**

DVR-650-16A100 650 Series DVR

650 Series DVR, 16-channel, DVD writer, 1 TB
Order number **DVR-650-16A100**

DVR-630-08A200 630 Series DVR

630 Series DVR, 8-channel, 2 TB
Order number **DVR-630-08A200**

DVR-630-16A200 630 Series DVR

630 Series DVR, 16-channel, 2 TB
Order number **DVR-630-16A200**

DVR-650-08A200 650 Series DVR

650 Series DVR, 8-channel, DVD writer, 2 TB
Order number **DVR-650-08A200**

DVR-650-16A200 650 Series DVR

650 Series DVR, 16-channel, DVD writer, 2 TB
Order number **DVR-650-16A200**

Accessories**DVR-XS050-A Storage Expansion Kit**

DVR 600 Series storage expansion 500 GB
Order number **DVR-XS050-A**

DVR-XS100-A Storage Expansion Kit

DVR 600 Series storage expansion 1 TB
Order number **DVR-XS100-A**

DVR-XS200-A Storage Expansion Kit

DVR 600 Series storage expansion 2 TB
Order number **DVR-XS200-A**

KBD-Digital Keyboard

IntuiKey Digital Keyboard for use with Divar Digital Video Recorders, System4 Multiplexers, Bosch VMS, and VIDOS

Order number **KBD-DIGITAL**

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