# DLA-AIOL1 1400 Series IP Video Storage Array

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- ► RAID-5 protected, all-in-one recording solution for up to 64 channels
- ► Pre-installed, pre-configured IP storage solution with 8 TB (8 x 1 TB) storage capacity
- Dedicated storage operating system delivers robust, secure operation
- ► Hot-swappable hard drives
- Remote monitoring via desktop application or browser

The 1400 Series IP Video Storage Appliance is an affordable, simple and reliable all-in-one recording management solution for network surveillance systems of up to 64 cameras. Powered by Bosch VRM (Video Recording Manager) software, the 1400 Series is an intelligent IP storage device that eliminates the need for separate NVR (Network Video Recorder) server and storage hardware, reducing the total cost of ownership by as much as 45%.

DLA-AIOL1 is a 2U rack mount unit that combines advanced recording management and state-of-the-art iSCSI storage into a single cost-effective, plug and play IP recording appliance for IT-minded customers which are seeking for a state-of-the-art "second generation" NVR recording solution.

## **System overview**

The 1400 Series IP Video Storage Appliance utilizes an energy efficient, embedded design which reduces possible points of failure and boasts Bosch quality through-and-through. Utilizing "surveillance-rated" hard drives in a fault tolerant RAID-5 configuration, redundant Gigabit Ethernet network interfaces, 4 GB

system memory and an Intel® Pentium Dual Core Processor, the DLA 1400 Series delivers high-end performance at a very affordable price. Easy to install, the DLA 1400 Series features wizard-based set-up and centralized configuration to reduce installation times by as much as 50%. All components are pre-installed and pre-configured. Simply connect to the network and power the unit up—the 1400 Series

is ready to begin recording straight out of the box.

To create a complete video management solution, just add either Bosch Video Client or Bosch Video Management System (VMS). Bosch VMS Lite—for up to 64 cameras—or Bosch VMS Professional Edition—for up to 128 cameras. Adding Bosch Video Management System or Bosch Video Client software turns the 1400 Series into a scalable IP video management solution.

Bosch Video Management System manages all IP and digital video and audio, plus all the security data being transmitted across your IP network. It seamlessly combines IP cameras and encoders, provides systemwide event and alarm management, system health monitoring, user and priority management.

Bosch Video Client may be used as playback client only or to create an entry-level complete video management solution of up to 64 channels.

#### **Functions**

The 1400 Series features a single-socket-system, server-class motherboard, highly energy-efficient hotswap redundant power supplies, as well as hot-swap SATA-II hard drives providing 8 TB of gross storage capacity. All system software is pre-installed and preactivated-creating an out-of-the-box ready-to-use recording appliance. The DLA 1400 Series utilizes Microsoft Windows Storage Server 2008. Windows Storage Server is a proven operating system platform that has been specifically optimized for storage applications. The Microsoft implementation of iSCSI is a reference in the industry. It delivers the highest possible quality and reliability, and is a field-proven technology installed on millions of servers worldwide. This next generation of Windows Storage Server is focused on providing a secure platform:

- · Hardened platform with reduced high risk layers
- Prevent abnormal activity in the file system and registry
- Re-architected platform to reduce corruption and compromise of the system
- · Windows Service Hardening
- · Windows Firewall with Advanced Security
- · Enhanced and improved TCP/IP Stack

Windows Storage Server is a **dedicated OS** for Storage that has a significantly reduced attack surface than a normal Windows Server. It does not run any exposed applications like email, browser or media player and has a reduced set of services.

### Management

Microsoft Windows Storage Server 2008 provides a simple, intuitive user interface for system configuration and unified storage appliance management. Administrators and IT professionals will appreciate the ability to manage the Bosch 1400 Series using the built-in Microsoft System Center Suite. The ability to use one central tool for configuration and operations management reduces installation and training requirements, and helps keep ongoing system management costs low.

## Monitoring

The 1400 Series provides SNMP, Remote Desktop and HTTP monitoring support for the Bosch VRM recording management application and the system's hardware. Increased reliability of high-availability hardware, embedded design as well system-wide monitoring and management ensure maximum uptime.

#### **Bosch Quality**

Bosch subjects all its products to the most comprehensive and rigorous battery of quality endurance tests in the industry. Our recording products are subjected to extreme temperatures, voltages and vibrations to determine true operating

limits, so you can be assured of years of reliable operation. And Bosch firmly stands behind every product it sells with an end-to-end 3 year warranty backed by technical support.

## **Certifications and approvals**

| Region | Certification |                       |
|--------|---------------|-----------------------|
| Europe | CE            | DLA-AIOxxx            |
| USA    | UL            | DLA-AIOL1 1400 Series |

## Installation/configuration notes

The 1400 Series comes pre-configured in a RAID-5 standard configuration with 4 LUNs and provides the following specifications:

| Gross Capacity | Net Capacity | Bandwidth  | iSCSI Sessions |
|----------------|--------------|------------|----------------|
| 8 x 1 TB       | 6415 GB      | 200 Mbit/s | 64+            |

These values refer to the Bosch recording applications; Net capacity for a RAID-5 configuration without hot spare; 64+ concurrent iSCSI sessions indicate the number of concurrent recording sessions plus 8 sessions for replay. The 1400 Series may be upgraded once with an additional 64 channel license. The respective upgrade license has to be purchased. The upgrade allows for a maximum of 128+ sessions: 128 sessions for recording, 8 sessions for replay.



#### **Notice**

The 1400 Series only supports Divar 700 if an Uninterruptable Power Supply (UPS) is used. We strongly recommend using an "Online UPS" with an always active battery. The UPS must support Windows Storage Server 2008 and must be sufficient to allow time to bring an auxiliary power source on line, or to properly shut down the 1400 Series disk array(s).



## Notice

The 1400 Series is an all-in-one recording solution and does not include any video management or viewing application. Video management or viewing software must be installed on separate hardware.



#### **Notice**

Bosch is not liable for system failures of DLA 1400 Series units without internal hard drives (available in the Asia-Pacific-Region only).

## Parts included

## Processor

Processor Intel® Pentium G6950 Dual Core (3M Cache, 2.8 GHz)

# 3 | DLA-AIOL1 1400 Series IP Video Storage Array

Socket 1

Cache memory 1 x 3 MB Level 2 cache

Max front side bus 1333 MHz

Memory

Memory Installed 4 GB, DDR3-1333 ECC UNB (2 x 2 GB)

Storage

Storage Type 8 Trays: 3.5-inch SATA

Hard Drives Installed  $\,$  8 TB, WD 1.0 TB 7.200 RPM 32 M 3.5  $^{\circ}$ 

SAS RAID Card AOC-SASLP-H8iR (8-Ports LSI 1078 SAS

Controller)

# **Technical specifications Electrical** 120 VAC Input Actual output wattage 256.44 W from power supply Efficiency of power 88% supply Total system power 291.41 W consumption Total BTU/h 994.59 Power Factor .95 System AC input VA 306.75 VA requirement 240 VAC Input Actual output wattage 256.44 W from power supply Efficiency of power 90% supply Total system power 284.94 W consumption Total BTU/h 972.49 Power Factor .92 System AC input VA 309.71 VA requirement

The 1400 Series comes fully loaded and fully functional with Microsoft Operating System and Bosch recording application pre-installed

| Mechanical   |                             |
|--------------|-----------------------------|
| Form Factor  | 2 U Rack Mount (825TQ-R720) |
| Power Supply | 720 W Gold Level Redundant  |

| USB Ports                          | 4 USB 2.0: 2 in rear, 2 in front, (1 Type-A Onboard) |
|------------------------------------|--|
| Network                            | Dual Intel® 82573 Gigabit LAN                        |
| Dimensions<br>(H x W x D)          | 648 x 437 x 89 mm (25.5 x 17.2 x 3.5 in)             |
| Weight                             | 23.6 kg (52 lb)                                      |
| Environmental                      |  |
| Operating<br>Temperature           | +10 °C to +35 °C (+50 °F to +95 °F)                  |
| Non-operating<br>Temperature       | -40 °C to +70 °C (-40 °F to +158 °F)                 |
| Operating Relative<br>Humidity     | 8 to 90% (non-condensing)                            |
| Non-Operating<br>Relative Humidity | 5 to 95% (non-condensing)                            |

# **Ordering information**

## **DLA-AIOL1-08AT**

1400 Series IP Video Storage Array, 8 x 1 TB Order number **DLA-AIOL1-08AT** 

#### **DLA-AIOL1-000N**

1400 Series IP Video Storage Array, Empty Chassis (Asia-Pacific-Region only)
Order number **DLA-AIOL1-000N** 

## DLA-XVRM-064

AlO-upgrade license for 64 cameras (e-license)
Order number **DLA-XVRM-064** 

## Accessories

# DLA-LDTK-100A

1000 GB HDD

Order number DLA-LDTK-100A

## Represented by:

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