# DLA-AIOL0 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 4 TB (4 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-AIOL0 is a 1U 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 system-wide 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 hot-swap redundant power supplies, as well as hot-swap SATA-II hard drives providing 4 TB of gross storage capacity. All system software is pre-installed and pre-activated—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 provide 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-AIOL0 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 |
|----------------|--------------|-----------|----------------|
| 4 x 1 TB | 2690 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.

ℹ️ **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).

ℹ️ **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.

ℹ️ **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) |

| | |
|---|---|
| Socket | 1 |
| Cache memory | 1 x 3 MB Level 2 cache |
| Memory protection | ECC Unbuffered |
| Max front side bus | 1333 MHz |
| **Memory** | |
| Memory Installed | 4 GB, DDR3-1333 ECC UNB (2 x 2 GB) |
| **Storage** | |
| Storage Type | 4 Trays: 3.5-inch SATA |
| Hard Drives Installed | 4 TB, WD 1.0 TB 7.200 RPM 32 M 3.5" |
| SAS RAID Card | AOC-SASLP-H8iR (8-Ports LSI 1078 SAS Controller) |

## Technical specifications

| Electrical | |
|---|---|
| 120 VAC Input | |
| Actual output wattage from power supply | 202.72 W |
| Efficiency of power supply | 88% |
| Total system power consumption | 230.37 W |
| Total BTU/h | 786.24 |
| Power Factor | .95 |
| System AC input VA requirement | 242.49 VA |
| Input current | 2.02 A |
| | |
| 240 VAC Input | |
| Actual output wattage from power supply | 256.44 W |
| Efficiency of power supply | 90% |
| Total system power consumption | 225.25 W |
| Total BTU/h | 768.77 |
| Power Factor | .92 |
| System AC input VA requirement | 244.83 VA |
| Input current | 1.02 A |

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

| Mechanical | |
|---|---|
| Form Factor | 1 U Rack Mount (815TQ-R700) |

| | |
|---|---|
| Power Supply | 700 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 (H x W x D) | 437 x 44.5 x 648 mm (17.2 x 1.7 x 25.5 in) |
| Weight | 16.3 kg (36 lb) |

| Environmental | |
|---|---|
| Operating Temperature | +10 ℃ to +35 ℃ (+50 ℉ to +95 ℉) |
| Non-operating Temperature | -40 ℃ to +70 ℃ (-40 ℉ to +158 ℉) |
| Operating Relative Humidity | 8 to 90% (non-condensing) |
| Non-Operating Relative Humidity | 5 to 95% (non-condensing) |

## Ordering information

**DLA-AIOL0-04AT**
1400 Series IP Video Storage Array, 4 x 1 TB
Order number **DLA-AIOL0-04AT**

**DLA-AIOL0-000N**
1400 Series IP Video Storage Array, Empty Chassis (Asia-Pacific-Region only)
Order number **DLA-AIOL0-000N**

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

**Accessories**

**DLA-LDTK-100A**
1000 GB HDD
Order number **DLA-LDTK-100A**