

Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, based on *MasterFormat 2016* and *The Project Resource Manual—CSI Manual of Practice*. *The Manufacturer is responsible for technical accuracy.*

The section must be carefully reviewed and edited by the Architect or Engineer to meet the requirements of the project and local building code. Words and sentences within brackets [] are choices to include or exclude a particular item or statement. Coordinate this section with other specification sections and the Drawings. Delete all “Specifier Notes” after editing this section.

Electronic Safety and Security Common Work Results for Electronic Safety and Security Network Video Recorders

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. Storage Area Network Electronic Safety and Security
 - 2. Cloud Based Storage for Electronic Safety and Security
 - 3. Storage Management Software for Electronic Safety and Security
 - 4. Communications Equipment for Electronic Safety and Security
- B. Related Sections
 - 1. [Security Detection, Alarm and Monitoring – Security Monitoring and Control – Security Monitoring and Control Software].

*****Specifier’s note: Include those standards referenced elsewhere in this SECTION.

1.2 REFERENCES

STANDARD	NA
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1.3 SYSTEM DESCRIPTION

- A. Section Includes
 - 1.

1.4 SUBMITTALS

- A. Product Data:
 - 1. Manufacturer's data, user and installation manuals for all equipment and software programs including computer equipment and other equipment required for complete video management system.
- B. Dimensional Drawings; include
 - 1. Overall device dimensions.
 - 2. Dimensions specific for installation.
- C. Closeout Submittals
 - 1. User manual.
 - 2. Parts list.
 - 3. Maintenance requirements.

1.5 QUALITY ASSURANCE

- A. Manufacturer:
 - 1. Minimum of [10] years of experience in manufacture and design Video Surveillance Devices.
- B. Video Surveillance System:
 - 1. List certifying bodies (FCC,CE, etc.)
 - 2. Provide evidence of compliance upon request.
- C. Installer:
 - 1. Minimum of [5] years of experience installing Video Surveillance System.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Comply with requirements.
- B. Deliver materials in manufacturer's original, unopened, undamaged containers; and unharmed original identification labels.
- C. Protect store materials from environmental and temperature conditions following manufacturer's instructions.
- D. Handle and operate products and systems according to manufacturer's instructions.

1.7 WARRANTY

- A. Provide manufacturer's warranty covering [3] years for replacement and repair of defective equipment. Warranty varies country to country.

1.8 MAINTENANCE

- A. Make ordering of new equipment for expansions, replacements, and spare parts available to dealers and end users.
- B. Provide factory direct technical support via phone and e-mail.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer:

Zhejiang Dahua Vision Technology Co., Ltd.

Address: No.1199 Bin'an Road, Binjiang District, Hangzhou, China

Tel: +86-571-87688883

Fax: +86-571-87688815

Email:overseas@dahuasecurity.com

B. Substitutions:

1. [All proposed substitutions must be approved by the Architect or Engineer professional.]
2. [Proposed substitutions must provide a line-by-line compliance documentation.]

2.2 Ethernet Switch | DH-AS4300-24GT4GF

Hardware	Modular Switch/Fixed Switch	Fixed
Hardware	Included Power Adapter	Yes
Hardware	PoE	No
Hardware	Ethernet Port	24
Hardware	Optical Port	4 × SFP 100 Mbps/1 Gbps
Hardware	Ethernet Port Speed	10/100/1000 Mbps
Hardware	Optical Port Uplink Speed	100/1000 Mbps
Hardware	Description of Function Slots	Port 1-24:24 × RJ-45 10/100/1000 Mbps;Port 25-28:4 × SFP 100 Mbps/1 Gbps
Hardware	Debugging	1 × Console port
Hardware	Power Supply	100–240 VAC, 50/60 Hz, 1.0 A
Hardware	Operating Temperature	–5 °C to +45 °C (+23 °F to +113 °F)
Hardware	Operating Humidity	5%–95% (RH)
Hardware	Storage Temperature	–40 °C to +70 °C (–40 °F to +158 °F)
Hardware	Storage Humidity	5%–95% (RH)
Hardware	Power Consumption	Idle: 9 W Full load: 23 W
Performance	Layer	Layer 2
Performance	Management Type	Yes
Performance	MTBF	150.86 years
Performance	Switching Capacity	56 Gbps

Performance	Packet Forwarding Rate	41.7 Mpps
Performance	Packet Buffer Size	12 Mbit
Performance	Jumbo Frame	10,000 Byte
Performance	MAC Table Size	8K
Performance	VLAN Number	4K
Performance	Dynamic ARP	128
Performance	Communication Standard	802.3x; 802.3ad; 802.1p; 802.1q; 802.1x; 802.1d; 802.1w; 802.1s
Ethernet Ring Protection Protocol	Spanning Tree Protocol	STP/RSTP/MSTP PVST
VLAN	VLAN Function	Port-based VLAN MAC-based VLAN
Link Aggregation	Link Aggregation	Static link aggregation; Dynamic link aggregation
Port	IEEE 802.3x Flow Control	Yes
Multicast	Multicast	IGMP Snooping PIM Snooping
Reliability	Reliability	LLDP
ARP	ARP	ARP, Gratuitous ARP; Dynamic ARP Inspection; ARP anti-attack; ARP source suppression; ARP Detection
DHCP	DHCP Function	DHCP Client DHCP Relay
Security	Security	802.1X, centralized MAC address authentication Port isolation Dynamic ARP detection, preventing man-in-the-middle attack and ARP denial-of-service IP/Port/MAC binding
QoS/ACL	QoS/ACL	Packet filtering (Layer 2 to Layer 4) Source MAC-, destination MAC-, Source IP (IPv4/IPv6)-, destination IP (IPv4/IPv6)-, TCP/UDP port number-, VLAN-based traffic classification Time-based ACL Two-way ACL policy (ingress and egress)
IPv6	IPv6	ND IPv6-Ping IPv6-Tracert IPv6-Telnet
Management & Maintenance	Equipment Management	Load update files and update using FTP Configure through CLI, Telnet, and Console port SNMPv1/v2/v3 NTP Ping and Tracert LLDP Port loopback detection
General	Statics Protection	Air discharge: 8 kV Contact discharge: 6 kV
General	Lighting Protection	Common mode: 1 kV Differential mode: 0.5 kV
General	Net Weight	2.5 kg (5.51 lb)
General	Gross Weight	2.87 kg (6.33 lb)
General	Product Dimensions	440 mm × 160 mm × 44 mm (17.32" × 6.30" × 1.73") (L × W × H)

General	Packaging Dimensions	540mm × 280mm × 86mm (21.26" × 11.02" × 3.39") (L × W × H)
General	Casing Material	Sheet metal
General	Installation	Desktop mount; rack mount

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PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive devices and notify adverse conditions affecting installation or subsequent operation.
- B. Do not begin installation until unacceptable conditions are corrected.

3.2 PREPARATION

- A. Protect devices from damage during construction.

3.3 INSTALLATION

- A. Install devices in accordance with manufacturer's instruction at locations indicated on the floor drawings plans.
- B. Perform installation with qualified service personnel.
- C. Install devices in accordance with the National Electrical Code or applicable local codes.
- D. Ensure selected location is secure and offers protection from accidental damage.
- E. Location must provide reasonable temperature and humidity conditions, free from sources of electrical and electromagnetic interference.

3.4 FIELD QUALITY CONTROL

- A. Test snugness of mounting screws of all installed equipment.
- B. Test proper operation of all video system devices.
- C. Determine and report all problems to the manufacturer's customer service department.

3.5 ADJUSTING

- A. Make proper adjustment to video system devices for correct operation in accordance with manufacturer's instructions.
- B. Make any adjustment of camera settings to comply with specific customer's need.

3.6 DEMONSTRATION

- A. Demonstrate at final inspection that video management system and devices functions properly.

END OF SECTION