

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-AS5500-24GT4XF

Hardware	Modular Switch/Fixed Switch	Fixed
Hardware	Included Power Adapter	Yes
Hardware	Ethernet Port	24
Hardware	Optical Port	4 × SFP+ 1/10 Gbps
Hardware	Ethernet Port Speed	10/100/1000 Mbps
Hardware	Optical Port Uplink Speed	1/10 Gbps
Hardware	Description of Function Slots	Port 1-24: 24 × RJ-45 10/100/1000 Mbps; Port 25-28: 4 × SFP+ 1/10 Gbps
Hardware	Debugging	1 × Micro-USB port 1 × Console port
Hardware	Power Supply	Built-in power supply: 100–240 VAC, 50/60 Hz, 1 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: 10 W Full load: 24 W
Performance	Layer	Layer 3
Performance	Management Type	Yes
Performance	MTBF	131.97 years
Performance	Switching	128 Gbps

	Capacity	
Performance	Packet Forwarding Rate	95.232 Mpps
Performance	Packet Buffer Size	12 Mbit
Performance	Jumbo Frame	10K Byte
Performance	MAC Table Size	16K
Performance	VLAN Number	4K
Performance	VLAN Interface	512
Performance	IPv4 Routes	1K
Performance	Dynamic ARP	1K
Performance	Communication Standard	IEEE 802.3; IEEE 802.3u; IEEE 802.3X; IEEE 802.3ab; IEEE 802.3z; IEEE 802.3ad; IEEE 802.3ae
Ethernet Ring Protection Protocol	Spanning Tree Protocol	STP/RSTP/MSTP PVST RRPP ERPS
VLAN	VLAN Function	Port-based VLAN MAC-based VLAN Protocol-based VLAN Subnet-based VLAN QinQ, flexible QinQ VLAN Mapping Voice VLAN MVRP
Link Aggregation	Link Aggregation	Static link aggregation Dynamic link aggregation Cross-device link aggregation Gigabit Ethernet port aggregation 10 Gigabit Ethernet port aggregation
Port	IEEE 802.3x Flow Control	Yes
Multicast	Multicast	IGMP Snooping v1/v2/v3 PIM Snooping Multicast VLAN IGMP v1/v2/v3
Reliability	Reliability	IRF; VRRP; DLDP; LLDP; VCT
ARP	ARP	ARP source suppression Dynamic ARP source detection ARP anti-attack ARP detection ARP rate limit
DHCP	DHCP Function	DHCP Client DHCP Snooping DHCP Relay DHCP Server DHCP Snooping option 82 DHCP Relay option 82 DHCP Snooping Trust DHCP Snooping entry backup
Security	Security	Multi-level user management and password protection 802.1X RADIUS SSH 2.0 Port isolation HWTACACS IP/Port/MAC binding IP Source Guard HTTPS Triple
QoS/ACL	QoS/ACL	802.1p/DSCP priority tag Packet filtering SP/WRR/SP+WRR queue scheduling Port-based rate limit Traffic-based redirection Time range
IPv6	IPv6	ICMPv6 Traceroute v6 Telnet v6 SSH2 v6 ND/ND snooping/ND proxy/ND detection SAVI IPv6 Portal DNS Client for IPv6 SNMP for IPv6 RIPNG and OSPFv3 IPv6 policy routing MLD Snooping

		v1/v2 VRRP V3 DHCPv6 snooping/DHCPv6 client/DHCPv6 relay/DHCPv6 server IPv6 port binding
Management & Maintenance	Equipment Management	Load update files and update using Xmodem/FTP/TFTP Configure through CLI, Telnet, and Console port SNMPv1/v2/v3 Web network management RMON alarm, RMON event, and RMON history System logs, multi-level alarms, and debug information HGMPv2 NTP Ping and Tracert VCT DLDP Port loopback detection Power supply, fan, and temperature alarms BFD
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	≤ 2.6 kg (5.62 lb)
General	Gross Weight	≤ 3.0 kg (6.61 lb)
General	Product Dimensions	440 mm × 160 mm × 43.6 mm (17.32" × 6.30" × 1.72") (L × W × H)
General	Packaging Dimensions	540 mm × 280 mm × 86 mm (21.26" × 11.02" × 3.39") (L × W × H)
General	Casing Material	Sheet metal
General	Installation	Desktop mount; rack mount

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