
A&E SPECIFICATION

A-28-Z

2 MEGAPIXEL SMART IP OUTDOOR BULLET CAMERA TECHNICAL SPECIFICATIONS

SECURITY SYSTEM

PART 2 - PRODUCTS

2.1 GENERAL

- A. This product shall be manufactured by a firm whose quality system is in compliance with the ISO-9001
- B. All equipment and materials used shall be standard components that are regularly manufactured and used in the manufacturer's system
- C. All systems and components shall have been thoroughly tested and proven in actual use.
- D. All systems and components shall be provided with comprehensive repair and spare parts replacement. The manufacturer on warranty and non-warranty items shall guarantee the spare parts and the repair
- E. All systems and components must be in compliance with FCC, CE, UL, REACH, RoHS, and WEEE requirements.
- F. All materials furnished under this item shall be compliant with 802.3 Ethernet standards

2.2 2 MEGAPIXEL SMART IP OUTDOOR BULLET CAMERA

- A. The network camera shall offer three video streams output and record and supports HD resolution up to 2MP (1920 × 1080) and frame rate up to 60fps in progressive scan CMOS format.
- B. The network camera shall be capable of true day & night (ICR) low light surveillance with sensitivity down to 0.005 Lux @ (F1.2, AGC ON), 0 Lux with IR on.
- C. The camera shall incorporate Wide Dynamic Range, 120dB.
- D. The camera shall offer video compression of H.265, H.264, and MJPEG.
- E. The network camera shall include embedded Linux OS and support IE and client software for network preview, and be capable of performing firmware upgrades through a network using a software-based device utility or through the web interface.
- F. The network camera shall be equipped with built-in password protection which is not dependent on a server.
- G. The network camera shall support standard IT protocols including: TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP™, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour.
- H. The camera shall provide the ability to take snapshot and record video clips from the web interface and store on the local computer.
- I. The camera shall support event detections. With arming schedule and linkage methods set, detected event can trigger email sending, surveillance center notification, FTP/memory card/NAS uploading and channel recording.
- J. The camera's web interface shall permit settings to be exported to and imported from a configuration file via the web interface, API and camera manufacturer's client software.
- K. The camera shall conform to ONVIF (PROFILE S, PROFILE G), PSIA, CGI and ISAPI standards for integration with 3rd party video management systems (VMS). The camera may also support custom firmware for specific integration with a 3rd party VMS.

2.4 CAMERA

A. Image Sensor	1/2.8" Progressive Scan CMOS
B. Min. Illumination	0.005 Lux @ (F1.2, AGC ON), 0.007 Lux @ (F1.4, AGC ON), 0 Lux with IR
C. Shutter Time	1/3 s to 1/100,000 s, support slow shutter
D. Iris Mode	DC drive
E. Lens	4.7 to 12 mm, F1.4, horizontal field of view: 70.5° to 3.03°,
F. Max. Image Resolution	1920 × 1080
G. Day & Night	Support IR cut with auto switch. Day, Night, Auto, Schedule, Triggered by alarm input are selectable in Day/night Switch; two groups of parameters can be set respectively for day and night
H. WDR	Wide dynamic range can be used when there is a high contrast of the bright area and the dark area of the scene, 120dB
I. Smart Supplement Light	On/off. When the function turned on, supplement light can be adjusted automatically or manually.
J. Backlight Compensation (BLC)	BLC area is the area that senses intensive light; OFF, Up, Down, Left, Right and Center are selectable
K. Digital Noise Reduction (DNR)	Support 3D DNR. Off, Normal Mode and Expert Mode are selectable. For normal mode, noise reduction level is adjustable; for expert mode, space DNR level and time DNR level are configurable
L. Electronic Image Stabilization (EIS)	Electronic image stabilization can be used for obtaining a more stable and clearer image
M. Region of Interest (ROI)	Defined ROI regions can be assigned with more encoding resource to increase their image quality. Four fixed regions and dynamic region of face tracking are supported
N. Image Adjustment	Saturation, brightness, contrast, sharpness
O. Rotation	On/off
P. Mirror	Left/right, up/down, center
Q. White Balance	MWB, AWB1, locked WB, fluorescent lamp, incandescent lamp, warm light lamp, natural light
R. Target Cropping	Provide more details of the target area in the third stream
S. Picture Overlay	LOGO picture can be overlaid on video with 128 × 128 24bit bmp format

2.5 VIDEO&AUDIO SPECIFICATIONS

A. Video Compression	Main stream: H.265/H.264 Sub stream: H.265/H.264/MJPEG Third stream: H.265/H.264/MJPEG
B. Three Streams	Main stream: up to 1920 × 1080 Sub stream: up to 704 × 576 Third stream: up to 1920 × 1080
C. Video Bit Rate	32 Kbps to 16 Mbps
D. Audio Compression	G.711/G.722.1/G.726/MP2L2
E. Audio Bit Rate	64Kbps(G.711)/16Kbps(G.722.1)/16Kbps(G.726)/32-192Kbps(MP2L2)
F. Rate Control	Constant, variable

- G. Users
 - a. Unicast Up to 20 simultaneous users
 - b. Multicast Unlimited H.264
- H. Security Access Password protected
- I. Software Interface Web browser view and remote client

2.6 NETWORK

- A. Alarm Trigger Motion detection, video tampering, network disconnected, IP address conflict, illegal login, HDD full, HDD error
- B. Protocols TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP™, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour
- C. Security User authentication, watermark, IP address filtering,
- D. System Compatibility ONVIF(PROFILE S,PROFILE G), PSIA, CGI, ISAPI
- E. Communication Interface 1 RJ45 10M/100M Ethernet port;
1 RS-485 interface
- F. Network and Local Storage Built-in microSD/SDHC/SDXC card slot, up to 256 GB, support NAS (NFS,SMB/CIFS), ANR (Auto Network Replenishment)

2.7 SMART ITEM

- A. Motion Detection Normal mode and expert mode are available. In expert mode, sensitivity and proportion of motion detection can be set for 8 regions and day or night
- B. Video Tampering An alarm will be triggered when the lens is covered.
- C. Exception Alarms will be triggered when certain exception events (HDD full, HDD error, network disconnected, IP address conflict, illegal login) happen.
- D. Face Detection Human face appears in the image can be detected and trigger linkage method
- E. Intrusion Detection 4 regions of rectangular area can be set with different threshold, sensitivity and percentage
- F. Line Crossing Detection 4 lines can be set with different sensitivity to detect line crossing behavior
- G. Region Entrance Detection Enter a pre-defined virtual region from the outside place
- H. Region Exiting Detection Exit from a pre-defined virtual region
- I. Unattended Baggage Objects left over in the pre-defined region such as the baggage, purse, dangerous materials
- J. Object Removal Objects removed from the pre-defined region, such as the exhibits on display
- K. Scene Change Detection Arming schedule can be set for scene change detection; alarm output can be linked
- L. Audio exception detection As the sound of environment is abnormal, the device can recognize it and trigger alarm output
- M. Scene Change Detection Arming schedule can be set for scene change detection; alarm output can be linked

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- N. Object Counting Entrance and Exit object number is accounted and showed on screen in real time (day/month/year based data chart can be exported)
 - O. Dual-VCA VCA information can be written in streams, and back-end devices can search for video clips contain specified type of events

2.8 WEB BROWSER REQUIREMENTS

- A. Operating System PC (Intel® Core® 2 Duo microprocessor, 2.6 GHz) with Microsoft® Windows® XP, Windows Vista®, or Windows® 7/8/10
- B. Web User Interface DirectX for Windows XP, Windows Vista, Windows 7/8/10
- C. RAM 2 GB
- D. Ethernet Card 100 Mbps
- E. Web Browser Internet Explorer® 7.0 or later; Firefox, Chrome
- F. Screen Resolution 1024 x 768 pixels or higher, 16- or 32-bit pixel color resolution

2.9 PHYSICAL

- A. Operating Conditions -30 °C to +60 °C (-22 °F to +140 °F)
- B. Humidity, all models 95% or less (non-condensing)
- C. Power Supply 12 VDC ± 20%, PoE (802.3at, class 4)
- D. Power Consumption 10.8W
- E. IR Range Up to 110 m
- F. Audio 1 input (line in), 1 output
- G. Alarm I/O 1 input, 1 output (up to 24 VDC 1A or 110 VAC 500mA)
- H. Dimension 100×103.9×311.8mm (3.94" × 4.09" × 12.28")
- I. Weight 2000 g (4.41 lb.)

2.10 CERTIFICATIONS AND RATINGS

- A. Regulatory
 - a. IEC/EN 61000
 - b. IEC/EN 55022
 - c. IEC/EN 55024
 - d. IEC/EN 60950-1
 - e. FCC Part 15, Class B
 - f. UL/cUL 60950-1
 - g. RoHS
 - h. Reach
 - i. WEEE
- B. Ratings
 - a. Ingress Protection IP67

2.11 MODELS

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