

Z331-P1

**4MP Deep Learning AI ColorGuard f4.0mm
Fixed Bullet with IR LED 50m, White LED
50m, Smart Dual Light, WDR 120dB**



- 4 Megapixel, f4.0mm, Fixed Bullet
- Deep Learning AI, ColorGuard
- IR LED 50m, Superior WDR (120 dB)
- White LED 50m, Smart Dual Light, Color Min. Illumination 0.003 lux
- Smart Motion Detection
- DORI (90 / 36 / 18 / 9m)
- Weatherproof (IP68), Vandal proof (IK10), UL Listed

Specifications

Product Profile

Product Type	Fixed Bullet
Application Environment	Outdoor
Maximum Resolution	4MP
Image Sensor	Progressive Scan CMOS
Sensor Size	1/2.7 "
Day / Night	Yes
Low Light Sensitivity	Extreme
ColorGuard	Yes
Minimum Illumination	Color: 0.003 lux at F1.6 (AGC on); B/W: 0 lux (Light on)
Mechanical IR Cut Filter	Yes
IR LED	Adaptive IR LED (850 nm)
IR Working Distance	50m
White LED	Yes
White LED Working Distance	50m
Smart Dual Light	Yes. Default IR; White Light can be enabled through configuration.

Electronic Shutter	1-1/100000 second (manual mode); 1-1/100000 second (auto mode)
S/N Ratio	75 dB

Lens

Focal Length	Fixed focal, f4.0mm
Aperture	F1.6
Iris	Fixed iris
Focus	Fixed focus
Lens Mount	Board mount
Horizontal Viewing Angle	83.6°
Vertical Viewing Angle	41.9°
Viewing Angle Adjustment	Pan: 0°-360°, Tilt: 0°-90°, Rotation: 0°-360°

Video

Compression	H.265, H.264
Maximum Frame Rate vs. Resolution	25 fps at 2560 x 1440 30 fps at 2304 x 1296 30 fps at 1920 x 1080 30 fps at 1280 x 720 30 fps at 720 x 576 30 fps at 640 x 360 30 fps at 704 x 288 30 fps at 352 x 288
Bit Rate	128Kbps - 6Mbps
Multi-Streaming	Simultaneous dual streams
Digital Noise Reduction	2D + 3D DNR
Wide Dynamic Range	Superior WDR (120 dB)
Image Orientation	Flip, Mirror, Rotation (Corridor mode)(±90°, 180°)
Image Enhancement	White Balance, Backlight compensation (BLC), Highlight compensation (HLC), Defogging
Privacy Mask	4 configurable regions
Text Overlay	Yes
Built-in Analytics	Smart Motion Detection (People Detection, Vehicle Detection), Tampering Detection

Analytics

Deep Learning AI	1.0
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Audio

Audio Type	1-way, Built-in Microphone
Audio Compression	G.711

Network

Network Protocol & Service	IPv4, TCP, UDP, DHCP, HTTP, HTTPS, DNS, DDNS, NTP, RTP, RTSP, RTCP, RTMP, IGMP, ICMP, ARP, UPnP, SNMP, SSL/TLS, TLS 1.2, QoS, NFS
Ethernet Port	1 x Ethernet (10/100 Base-T), RJ-45 pigtail connector
Maximum User Connections	32
Security	IP address filtering, HTTPS encryption, Password protected user level, Password Strength Indicator

Detection Range

Observation Range	Detection: 90m Observation: 36m Recognition: 18m Identification: 9m
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Event

Event Trigger	Video motion detection, Tampering detection, Sound detection
Event Response	Save video to storage, Save video to NAS storage via NFS

Integration

ONVIF Compliant	Yes, Profile S, Profile T
Web Browser	IE 11, Google Chrome, Microsoft Edge, Firefox

Interface

Operating Button	Reset Button
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General

Power Source	DC 12V, PoE (IEEE802.3af)
Power Consumption	5.5 W (DC), 3.9 W (PoE)
Weight	210g (0.46lb)
Dimensions	(L x W x H): 162.1mm x 66.5mm x 66.6mm (6.3" x 2.6" x 2.6")
Environmental Casing	Weatherproof (IP68), Vandal proof metal casing (IK10)
Corrosion Protection	Optional for project request. Chassis corrosion resistance at the seashore approximately 3 years.
Starting Temperature	-30°C ~ 60°C (-22°F ~ 140°F)
Operating Temperature	-40°C ~ 60°C (-40°F ~ 140°F)
Operating Humidity	≤95% RH, non-condensing
Surge Protection	4KV
Approvals	CE Class A, FCC Class A, IP68, IK10 (metal casing), UL Listed, BSMI
Color	White
Material	Graphene Plastic
Real-time Clock (RTC)	No
Warranty	2 Year(s). For extended warranty offering, see http://www.acti.com/support/warranty

Related Products

Mounting Accessories - Camera Mount

PMAX-0409	 Corner Mount (for A7x, Z714, Z724, Z8x, Z9x, Z972, Q550, K3x, K5x, K7x)
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PMAX-0538	 Pole Mount (for Z3x, Z4x, Z5x, Z724, Z8x, Z9x, Z972, A7x, Q550, K3x, K5x, K7x) , supports 2.64" to 5" Poles
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PMA-0729



Junction Box (for Z39, Z310, Z48, Z49)

Note: Some mounting accessories may need additional accessories for installation. Please check www.acti.com/mountingselector for more information.

Power Supply Accessories - Power Adapter

PPBX-0013



Power Adapter AC 100~240V (EU), for A3x, A4x, A88, A9x, Z31, Z8x, Z9x

PPBX-0014



Power Adapter AC 100~240V (UK), for A3x, A4x, A88, A9x, Z31, Z8x, Z9x

PPBX-0026



Power Adapter AC 100~240V (US), for A3x, A4x, A7x, A88, A9x, Z3x, Z4x, Z7x, Z8x, Z9x

PPBX-0034



Power Adapter AC 100~240V (US) for A3x, A4x, A7x, A88, A9x, Z3x, Z4x, Z7x, Z8x, Z9x, Q550

Power Supply Accessories - PoE Injector

PPOE-0107



High PoE Injector IEEE 802.3at compliant, AC 100~240V, with universal connectors (for A416, A418, B913, B923, B934, Q450, Q75, VMGB-60X, Z37, Z71, Z952)

Network & Storage Peripherals - Data Switch

PPSW-0102



PLANET FGSD-1011HP 8-Port 802.3at PoE Switch (PoE Budget 120W)

PPSW-0108



8-Port Gigabit 802.3at Managed PoE Switch (PoE Budget 120W)

PPSW-0109



8-Port 802.3at Smart Managed PoE Switch (PoE Budget 120W)

PPSW-1101



PLANET GS-4210-24PL4C 24-Port Gigabit 802.3at Managed PoE Switch (PoE Budget 440W)

PPSW-1107



24-port 10/100/1000Mbps PoE, Smart Managed Gigabit Ethernet PoE Switch

PPSW-2105



4-Port 802.3at Smart Managed Gigabit PoE Switch

PPSW-3101



16-Port Gigabit 802.3at Managed PoE Switch (PoE Budget 240W)

PPSW-3103



16-Port 802.3at PoE Switch (PoE Budget 250W)

PPSW-3104



16-Port 802.3at Smart Managed PoE Switch (PoE Budget 250W)

PPSW-3402



16-Port 10/100/1000T 802.3bt PoE + 8-Port 10/100/1000T + 4-Port 10G SFP+ Managed Ethernet Switch

PPSW-4205



24-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Managed Switch (PoE Budget 300W)