

H6A AND H6X BULLET CAMERAS

2 MP

4 MP

6 MP

8 MP

The Avigilon **H6A camera line** elevates your situational awareness to new heights by combining onboard video analytics with audio analytics. It comes with a built-in mic to alert you of auditory disturbances, allowing you to not only see, but also hear what's happening. If you need to meet certain privacy and/or cybersecurity requirements, the AI-powered **H6X camera line** has been designed with no built-in mic nor wireless technology for easy compliance. See farther distances and secure more ground with the **bullet** form factor that's available on both camera lines.



FEATURES



ADAPTAI VIDEO ANALYTICS

Be a step ahead of incidents with the camera's ability to flag unusual crowds or a person crawling under a fence. Classify more objects such as a commercial van, pick-up truck or box truck with analytics event support.¹



AUDIO ANALYTICS & RECORDING

Expand your awareness with alerts for gunshots², breaking glass, screaming and more. Review video from the triggering camera to investigate the sound. Have the option to record audio when you need it.



DYNAMIC PRIVACY MASKING³

Easily meet privacy requirements with the ability to track and blur people and vehicles appearing in video, but have the flexibility for authorized personnel to lift it during investigations.



OUTDOOR-READY DESIGN

Safeguard the outdoors with the bullet's exceptionally tough exterior that is rated IK10/11, IP66/67 and NEMA Type 4X⁴ to withstand impact, water, corrosion and more.



LOW-LIGHT CLARITY

Never miss a moment in low-light or completely dark conditions with IR illumination built into the bullet camera. Achieve 24/7 visibility of your site at all times.



SECURE & COMPLIANT

Trust that your data is well-protected with advanced cybersecurity features such as an onboard FIPS 140-2 level 3 compliant TPM and Secure Boot.

¹ Crowd detection and additional truck subclasses to be available post-launch via a firmware upgrade.

² Separate license required.

³ Dynamic privacy masking to be available post-launch via a firmware upgrade.

⁴ Environmental ratings will vary by models.

SPECIFICATIONS

| IMAGE PERFORMANCE | | 2.0 MP | 4.0 MP | 6.0 MP | 8.0 MP (4K ULTRA HD) |
|---|--------------------|---|--|---|---|
| Image Sensor | | 1/2.8" progressive scan CMOS | 1/1.8" progressive scan CMOS | | |
| Max Resolution (H x V) and Aspect Ratio | Primary | (16:9) 1920 x 1080 | (16:9) 2688 x 1520, 2560 x 1440, 1920 x 1080 (4:3) 1984 x 1488 | (16:9) 3328 x 1872, 3200 x 1800, 2688 x 1520, 2560 x 1440, 1920 x 1080 (4:3) 2880 x 2160, 2304 x 1728, 2048 x 1536 | (16:9) 3840 x 2160, 3328 x 1872, 3200 x 1800, 3072 x 1728 (4:3) 2880 x 2160, 2560 x 1920 |
| | Secondary | (16:9) 1920 x 1080*, 1280 x 720, 768 x 432, 640 x 360, 512 x 288 | (16:9) 2688 x 1520*, 1920 x 1080, 1280 x 720, 768 x 432, 640 x 360, 512 x 288 (4:3) 1984 x 1488*, 1920 x 1440, 1600 x 1200, 1280 x 960, 768 x 576, 640 x 480, 512 x 384, 384 x 288; | (16:9) 3328 x 1872*, 1920 x 1080, 1280 x 720, 768 x 432, 640 x 360, 512 x 288 (4:3) 2880 x 2160*, 1920 x 1440, 1600 x 1200, 1280 x 960, 768 x 576, 640 x 480, 512 x 384, 384 x 288 | (16:9) 3840 x 2160*, 2560 x 1440, 1920 x 1080, 1280 x 720, 768 x 432, 640 x 360, 512 x 288 (4:3) 2880 x 2160*, 2560 x 1920, 2304 x 1728, 1920 x 1440, 1600 x 1200, 1280 x 960, 768 x 576, 640 x 480, 512 x 384 |
| | Tertiary | (16:9) 1280 x 720, 768 x 432, 640 x 360, 512 x 288, 384 x 216 | (16:9) 1280 x 720, 768 x 432, 640 x 360, 512 x 288, 384 x 216 (4:3) 1280 x 960, 800 x 600, 640 x 480, 512 x 384, 368 x 264 | (16:9) 1280 x 720, 768 x 432, 640 x 360, 512 x 288, 384 x 216 (4:3) 1280 x 960, 768 x 576, 640 x 480, 512 x 384, 384 x 288, 368 x 264 | (16:9) 1920 x 1080, 1280 x 720, 768 x 432, 640 x 360, 512 x 288, 384 x 216 (4:3) 1920 x 1440, 1600 x 1200, 1280 x 960, 800 x 600, 640 x 480, 512 x 384, 384 x 288, 368 x 264 |
| Dynamic Range | WDR Off | Up to 83 dB | | | |
| | WDR On (IEC 62676) | Up to 126 dB (dual exposure, 30 fps) Up to 144 dB (triple exposure, 20 fps or less) | Up to 106dB (dual exposure, 30 fps) Up to 136dB (triple exposure, 20 fps or less) | Up to 130dB (dual exposure, 30 fps) | |
| | WDR On | Up to 130 dB (dual exposure, 30 fps) Up to 150 dB (triple exposure, 20 fps or less) | Up to 120dB (dual exposure, 30 fps) Up to 144dB (triple exposure, 20 fps or less) | Up to 144 dB (dual exposure, 20 fps or less) | |
| Max Image Rate ¹ | | (50 Hz/60 Hz): 50 fps/60 fps in High Frame Rate Mode ² , otherwise 25 fps/30 fps | | (50 Hz/60 Hz): 25 fps/30 fps | |
| Bandwidth Management | | HDSM SmartCodec technology; Idle scene mode | | | |

*Only available at half frame rate of the primary stream.

¹ Max Frame Rate of 15 fps when classified object privacy masking is enabled.

² Max Frame Rate of 60 fps is only achievable with High Frame Rate mode enabled. High Frame Rate mode will disable analytics.

| LENS AND IR ILLUMINATION | | 2.8 - 12 MM | 4.4 - 9.3 MM |
|--|-------------|---|--|
| IR Illumination Max Distance ¹ (high power 850 nm LEDs) | | 50 m (164 ft), full tele 30 m (98 ft), full wide | 70 m (229 ft), full tele 30 m (131 ft), full wide |
| Minimum Illumination | 2 MP | With IR: 0 lux in monochrome mode Without IR: 0.003 lux in monochrome mode; 0.01 in color mode | N/A |
| | 4 MP | N/A | With IR: 0 lux in monochrome mode Without IR: 0.003 lux in monochrome mode; 0.008 lux in color mode |
| | 6 MP & 8 MP | N/A | With IR: 0 lux in monochrome mode Without IR: 0.006 lux in monochrome mode; 0.02 lux in color mode |
| Horizontal Angle of View Based on Aspect Ratio | 2 MP | (16:9) 27° – 118° | N/A |
| | 4 MP | N/A | (16:9) 47° – 111° (4:3) 35° – 78° |
| | 6 MP & 8 MP | N/A | (16:9) 47° – 109° (4:3) 35° – 78° |

| LENS AND IR ILLUMINATION | | 2.8 - 12 MM | 4.4 - 9.3 MM |
|--|-------------|---|-------------------------------------|
| Vertical Angle of View Based on Aspect Ratio | 2 MP | (16:9) 15° – 64° | N/A |
| | 4 MP | N/A | (16:9) 26° – 57° (4:3) 26° – 57° |
| | 6 MP & 8 MP | N/A | (16:9) 26° – 57° (4:3) 26° – 57° |
| Max Aperture | | F1.4 | F1.3 |
| Control | | Remote Zoom and Focus, Autofocus, IR Cut Filter | |

† IR illumination power may be reduced at higher operating temperatures.

| IMAGE CONTROL | |
|----------------------------|---|
| Image Compression Method | H.264 HDSM SmartCodec, H.265 HDSM SmartCodec, Motion JPEG |
| Streaming | Multi-stream H.264, Multi-stream H.265, Motion JPEG |
| Motion Detection | Pixel motion: Selectable sensitivity and threshold. Classified object detection |
| Camera Tamper Detection | Yes |
| Electronic Shutter Control | Automatic, Manual (1/7.5 to 1/15000 sec) |
| Iris Control | Automatic, Open, Closed |
| Day/Night Control | Automatic, Manual, External |
| Flicker Control | 60 Hz, 50 Hz |
| White Balance | Automatic, Manual |
| Backlight Compensation | Adjustable |
| Image Rotation | 0°, 90°, 180°, 270° including Corridor Mode |
| Privacy Zones | Up to 64 zones |

| NETWORK | |
|-----------------------------|--|
| Network | 100BASE-TX for H6A, 1000BASE-T for H6X |
| Cabling | CAT5e |
| Connector | RJ-45 |
| ONVIF | ONVIF® compliance Profile S, Profile T, Profile M and Profile G (www.onvif.org) |
| Security | Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication, FIPS 140-2 L1 (with optional camera license), onboard FIPS 140-2 L3 certified TPM, Secure Boot |
| Protocols | IPv6, IPv4, HTTP, HTTPS, SOAP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, Zeroconf, ARP, HSTS |
| Streaming Protocols | RTP/UDP, RTP/UDP multicast, RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/RTSP/HTTPS/TCP, HTTP |
| Device Management Protocols | SNMP v2c, SNMP v3 |

| PERIPHERALS | |
|-----------------|---|
| USB Port | USB 2.0 |
| Onboard Storage | Two microSD/microSDHC/microSDXC slots – video speed class card required. Class V10 or better recommended. |

| AUXILIARY I/O | |
|--------------------------|---|
| Audio Compression Method | G.711 PCM 8 kHz, Opus |
| Audio Input/Output | Line level input and output |
| External I/O Terminals | 1 x Relay In, 1 x Relay Out, 1 x 12 VDC out at 50 mA |
| Microphone | Built-in microphone for audio analytics, for certain variants, with physical disable switch |

| MECHANICAL | | H6A-B01 |
|--------------------|------------|---|
| Dimensions (LxWxH) | | 311 mm x 133 mm x 133 mm; 12.23" x 5.23" x 5.23" |
| Weight | Camera | 2.11 kg; 4.65 lbs |
| | Wall Plate | 0.15 kg; 0.33 lbs |
| Body | | Polycarbonate and aluminum |
| Housing | | Backbox Mount |
| Finish | | High polished plastic injection mold; Powdercoat grey, pantone 427C |
| Adjustment Range | | Hinge +/- 90°, Rotation +/- 175° |

| ELECTRICAL | | |
|-------------------------|-------------------|--|
| Power Consumption | | 25W Max |
| Power Source | PoE | IEEE 802.3af Class 3 |
| | PoE+ | IEEE 802.3at Class 4 |
| IR Illuminator Behavior | PoE | Above 60 °C (140 °F), IR will be disabled. Between -5 °C (23 °F) and 55 °C (131 °F), IR operates at 30% power. Below -20 °C (-4 °F), IR operates at 10% power. Hysteresis at 5 °C (9 °F). |
| | PoE+ or Aux Power | Above 60 °C (140 °F), IR will be disabled. Between 50 °C (122 °F) and 60 °C (140 °F), IR operates at 50% power. Below -20 °C (-4 °F), IR operates at 50% power. Hysteresis at 5 °C (9 °F). |
| External Power | | 12-24 VDC +/-10% |
| RTC Backup Battery | | 3V manganese lithium |
| Memory | | 4GB RAM, 4GB Flash |
| Redundant Power | | Seamless failover between PoE and Aux and back without interrupt in camera operation (for H6X only) |

| ENVIRONMENTAL | | |
|------------------------------|--|--|
| Operating Temperature | | -50°C to +65°C (-40°F to 149°F) |
| Startup Temperature | | -40°C to +65°C (-40°F to 149°F) |
| Absolute Maximum Temperature | | 74°C (165°F) per NEMA TS2 (Temp.) para 2.2.7.2 - 2.2.7.7 |
| Storage Temperature | | -10°C to +70°C (14°F to 158°F) |
| Humidity | | 0 - 100% non-condensing |

| CERTIFICATIONS | | |
|-------------------------------------|-----|---|
| Certifications/Approvals | | UL, cUL, CE, ROHS, RCM, UKCA, NOM, KC, BIS |
| Safety Standards | | UL 62368-1, CSA 62368-1, IEC/EN 62368-1, IEC 62471 |
| Environmental Standards/Ratings | H6A | IEC 60529 IP66, IP67, IP68 (1.8m depth for 2 hours), NEMA 4X, IEC 60068-2 Shock & Vibration, NEMA TS2 Sec 2.2.7-2.2.9, IK10 |
| | H6X | IEC 60529 IP66, IP67, IP68 (1.8m depth for 2 hours), IPX9K, NEMA 4X, IEC 60068-2 Shock & Vibration, NEMA TS2 Sec 2.2.7-2.2.9, IK10 |
| Electromagnetic Emissions Standards | | FCC Part 15 Subpart B Class B, ICES-003 Class B, EN 55032 Class B, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 50121-4, EN 50130-4 |
| Electromagnetic Immunity Standards | | EN 55035, EN 61000-6-1, EN 50121-4, EN 50130-4 |
| Warranty | | Limited 5 Year Warranty (avigilon.com/warranty) |

ANALYTICS SPECIFICATIONS

SUPPORTED ANALYTICS EVENTS

| | |
|-------------------------------|--|
| Objects in Area | The event is triggered when the selected object type moves into the region of interest. |
| Object Loitering | The event is triggered when the selected object type moves into the region of interest and then stays for an extended amount of time. |
| Objects Crossing Beam | The event is triggered when the specified number of objects have crossed the directional beam that is configured over the camera's field of view. The beam can be unidirectional or bidirectional. |
| Object Appears or Enters Area | The event is triggered by each object that enters the region of interest. This event can be used to count objects. |
| Object Not Present in Area | The event is triggered when no objects are present in the region of interest. |
| Objects Enter Area | The event is triggered when the specified number of objects have entered the region of interest. |
| Objects Leave Area | The event is triggered when the specified number of objects have left the region of interest. |
| Object Stops in Area | The event is triggered when an object moves into a region of interest and then stops moving for the specified threshold time. |
| Direction Violated | The event is triggered when an object moves in the prohibited direction of travel. |
| Smart Motion Rule | Events are sent for person (including crawling) and vehicle present, against default unchangeable parameters. |
| Tamper Detection | The event is triggered when the scene unexpectedly changes. |

Analytics capabilities, including detection range, may vary by camera line. Please consult the Avigilon Self-Learning Video Analytics Design Guide for details

SUPPORTED CLASSIFIED OBJECT TYPES

| | |
|------------------------------|--|
| Object Types in Outdoor Mode | Vehicle, sub-types: Car, Truck, Bicycle, Motorcycle, Bus Person |
| Object Types in Indoor Mode | Person |

TEACH BY EXAMPLE

| | |
|------------------|--|
| Teach By Example | Yes, when used with Avigilon Control Center™ or Avigilon Unity Video |
|------------------|--|

SUPPORTED AUDIO ANALYTICS EVENTS

| | |
|-------------------------------------|------------------|
| Gunshot ¹ | Up to 100 meters |
| Scream | Up to 15 meters |
| Glass Break | Up to 15 meters |
| Car Alarm | Up to 30 meters |
| Smoke Alarm | Up to 15 meters |
| Dog Bark | Up to 15 meters |
| Loud Noise | Up to 40 meters |
| Ultrasonic Panic Alarm ² | Up to 40 meters |

¹ Optional add-on license required.

² The detection range is influenced by the quality and power of the device used to create the panic alarm.

AVIGILON SOFTWARE SUPPORTED FEATURES

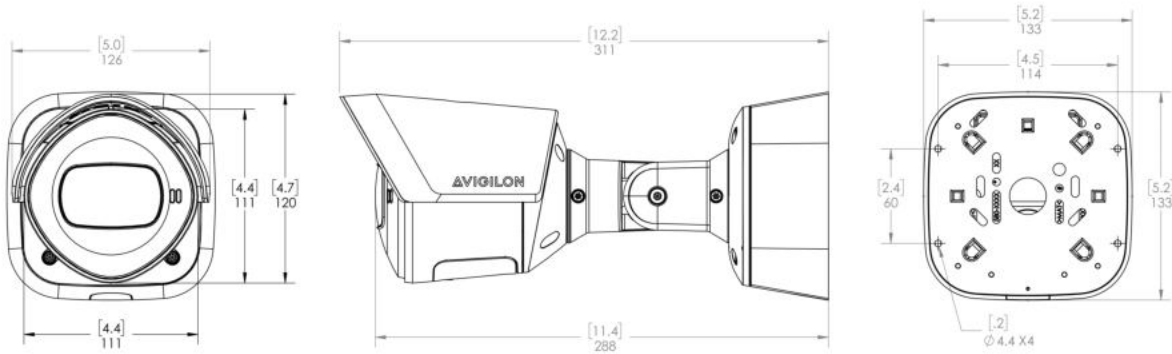
| | |
|------------------------------------|---|
| Avigilon Unity Video 8.0 or higher | All supported analytic events with people and vehicles and all vehicle sub-types as classified objects. Appearance search when paired with appropriate server hardware. Unusual Activity Detection. H.265 supported. Audio analytics. Crowd analytics. Classified object privacy masking. |
| ACC Version 7.2 or higher | All supported analytic events with people and vehicles as classified objects. Appearance search when paired with appropriate server hardware. Unusual Activity Detection. H.265 supported. |

OUTLINE DIMENSIONS

BULLET CAMERA

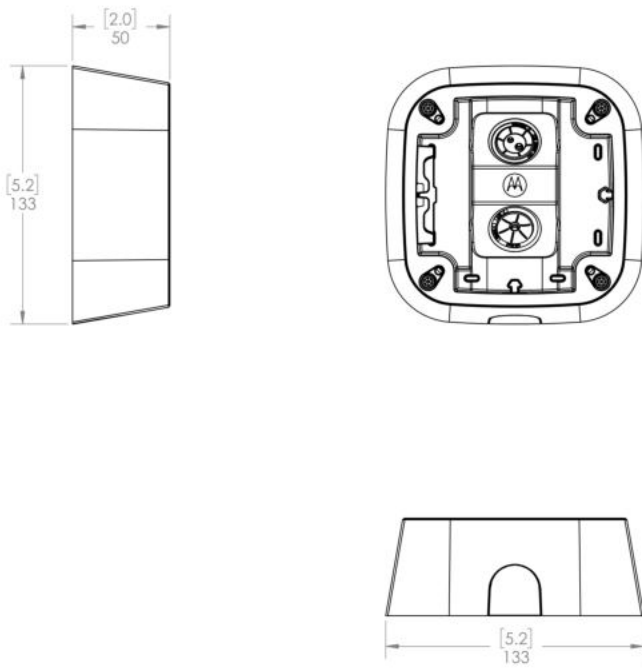
(H6A-B01-IR)

| [X.X] | INCHES |
|-------|--------|
| X | MM |



JUNCTION BOX

(H4-B0-JBOX1)



ORDERING INFORMATION

BULLET CAMERA

| | MP | WDR | LIGHTCATCHER TECHNOLOGY | LENS | IR | ANALYTICS | HDSM SMARTCODEC | MICROPHONE | SEAMLESS FAILOVER |
|-----------------|-----|-----|-------------------------|--------------|----|-----------|-----------------|------------|-------------------|
| 2.0C-H6A-B01-IR | 2.0 | ✓ | ✓ | 2.8 - 12 mm | ✓ | ✓ | ✓ | ✓ | |
| 4.0C-H6A-B01-IR | 4.0 | ✓ | ✓ | 4.4 - 9.3 mm | ✓ | ✓ | ✓ | ✓ | |
| 6.0C-H6A-B01-IR | 6.0 | ✓ | ✓ | 4.4 - 9.3 mm | ✓ | ✓ | ✓ | ✓ | |
| 8.0C-H6A-B01-IR | 8.0 | ✓ | ✓ | 4.4 - 9.3 mm | ✓ | ✓ | ✓ | ✓ | |
| 4.0C-H6X-B01-IR | 4.0 | ✓ | ✓ | 4.4 - 9.3 mm | ✓ | ✓ | ✓ | | ✓ |
| 8.0C-H6X-B01-IR | 8.0 | ✓ | ✓ | 4.4 - 9.3 mm | ✓ | ✓ | ✓ | | ✓ |

BULLET CAMERA ACCESSORIES

| | |
|---------------------|---|
| H6A-B0-SHLD1 | Replacement B01 bullet sunshield |
| CBLKIT-1011 | USB adapter cable, for use with USB-AC56 Wifi install kit |
| USB-AC56-NA-MSI | USB Wifi adapter install kit (North America) |
| USB-AC56-EU-MSI | USB Wifi adapter install kit (Europe) |
| PLMT-1001 | Pole mount adapter |
| CRNMT-1001 | Corner mount adapter |
| CAM-AA-GUNSHOT | Avigilon Camera Gunshot Audio Analytics Channel, one per camera |
| CAM-AA-GUNSHOT-180D | Avigilon Camera Gunshot Audio Analytics Channel, 180 day demo license. Please contact Avigilon Technical Support. |
| CAM-FIPS | Camera license to enable FIPS cryptographic module. |

SUPPORT

Learn more and find additional documentation at [avigilon.com](https://www.avigilon.com) or email sales@avigilon.com for specific product support.



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