

VP194-BC Series

Dual Channel Thermal/HD Camera

Infinova[®]
The Integrator's Manufacturer



- **Major components:** HD camera/lens, thermal camera, pan/tilt positioner
- **Applications:** sea/airport security, border surveillance, critical infrastructure, oil and gas facilities and perimeter security
- **Thermal camera:** the VP194-BC thermal camera is available in 17 μ 640 x 480 resolution
- **Day CMOS camera:** VP194-BC includes a 1/2.8" CMOS camera for day/night time threat detection and assessment. The imager is a high sensitivity, high zoom magnification visible camera providing High resolution 2MP color video for daytime operation
- **Pan/tilt positioner:** the variable speed Pan/Tilt unit provides continuous 360° rotation of the cameras at up to 45°/sec (pan/tilt)

VP194-BC Series Dual Channel Thermal/HD camera is a powerful around the clock, night and day multisensor observation system developed for security applications. It allows long range observation and detection using state of the art Thermal and HD imaging technology.

VP194-BC Series Dual Channel Thermal/HD camera features a 1/2.8" CMOS sensor 2MP camera for day/night time operation and the choice of 17 μ 640x480 thermal engine paired with one of several athermalized lens options: 35mm or 50mm which offer threat detection beyond 2km. The thermal camera provides superior threat detection performance day or night including identifying the threats from as close as 1m to 1km and beyond depending on the potential threat perception and weather conditions.

VP194-BC Series Dual Channel Thermal/HD camera is designed and constructed to withstand the harshest environmental conditions, including rain, direct sunlight, humidity and dust.

Technical specifications

Power Requirements

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|-------------------|------------------------|
| Power Input | POE++, 24VAC or 120VAC |
| Power Consumption | Upto 70W Maximum |

Environmental

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|-----------------------|---|
| Operating Temperature | -40°C to +75°C -40° F to +167° F |
| Humidity | Upto 100% |
| Protection Rating | Camera IP67, Pressurized with Dry Nitrogen, 3.5 psi. Positioner Body- IP66 |

Mechanical Parameters

| | |
|-------------------|---|
| Weight | 30lbs (13.61 kg max) |
| Construction | Powder Coated Aluminium |
| Faceplate Wiper | Visible Camera Only (On/Off, Dwell, Timeout settings) |
| Sunshield | Included as standard |
| Inverted Mounting | Yes. Software Selectable |

Thermal Camera

| | |
|-------------------------|---------------------------|
| Imager Type | Uncooled Microbolometer |
| Spectral Band | 8-14µm |
| Pixel Size / Resolution | 17µ / 640 x 480 |
| NETD | <50° mK @F1.0 |
| Frame Rate | 30Hz or 9Hz |
| Digital Zoom | 4x [640 x 480] |
| Image | Brightness/contrast |
| Optics : 35mm F1.6 | 17.4° X 13.3° |
| Optics : 50mm F1.6 | 12.4° X 9.3° |
| Lens Type | Athermalized, Hard Carbon |
| Focus Type | Manual [Near, Far] |

Day/Night HD Camera

| | |
|---------------------|--|
| Imager Type | 1/2.8" CMOS |
| Image Scanning | Progressive |
| Focal Length | 30x, 4.4 to 132mm |
| Resolution | 1,920 x 1,080 |
| Digital Formats | 1080p, 1080i, 720p |
| Frame Rate | 30 fps |
| Camera Format | Day/Night (IR Cut Filter) |
| Day/Night Modes | Auto, Color, B/W |
| Aperture | f1.4 -> f4.6 |
| HAFOV | 63.4° to 2.1° |
| Focus | Auto/Manual [Near, Far] |
| Focus Search | Normal, Bright, Point Source |
| Focus Sensitivity | Low, Normal, High |
| Iris | Auto/Manual [Open/Close] |
| Digital Zoom | 12x, Off/On [Depth] |
| Defog Mode | Off/Auto/Manual [3 Levels, Strength and Color Adj.] |
| Image Stabilization | Off/On |
| Enhanced Intensity | Off, Enhanced, Whiteout Reduction |
| Dynamic Range | >90dB Off/On [3 Levels, Normal, Combo, Contrast] |
| Back Light Comp | Off/On [Level Setting] |
| Shutter (AES) | Auto/Manual [1/2-30,000] |
| Slow Shutter | Off/On [1/15-1/2] with Limit Setting |
| IR Correction | Off/On [850nm] |
| White Balance | Auto/Manual [Red/Blue Adjustment] |
| (WB) Modes | Normal, Mercury, Sodium Vapor |
| AGC | 1 to 48dB, Adjustable |
| Sharpness | Soft, Normal, Sharp, Sharpest |
| Noise Reduction | 4 Levels [Normal, Medium, Strong, Fixed] |
| Privacy Masks | Up to 16 Rectangular Masks (Use of Mosaic reduces capacity upto 8 Masks) |
| Mask Color | Selectable from available palette |
| Mask Transparency | 0 to 100% |
| Mosaic | Off, Fine, Medium and Coarse settings |
| S/N Ratio | <50dB |

Video Format

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|-------------------|--|
| Video Streams | 5 or more video streams dependent on available processing budget |
| Video Codec | H.264 Base, Main and High Profiles, MJPEG |
| Video Protocols | RTSP/RTP, RTSP Interleave, HTTP Tunneling, RTP Multicast |
| Video Resolution | 1080p, 720p, D1, VGA, QVGA, QQVGA |
| Video Frame Rate | 1 to 30 fps, 30 fps default |
| Video Data Rate | 64Kbps to 8Mbps |
| Bite Rate Control | Variable or Constant |
| Video GOV | 1 to 600, 30 default |
| Video Latency | Four frames (0.133 sec.) |
| Video Trans. | 99.999% error free |
| Web Page Display | Side by side or single view of visible and thermal video streams |

Network Interface

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|------------------|--|
| Network Format | 802.3u 100Base-T, MDI-X auto-sensing, full duplex |
| Network Protocol | TCP, UDP, IPv4, IGMP, ICMP, DNS, DHCP, RTP, RTSP, RTCP, NTP, HTTP, SOAP, HTTPS ARP, FTP, SMTP, Telnet. ONVIF Profile S |
| Media Players | VLC, Quick Time or any media player compliant with RFC 2326, 3984, 3550, 2435, ISO/IEC 13818-1 |
| Camera Protocols | ONVIF, NTCIP 1205, CoHuT, CoHuHD legacy |
| Security | 4 Levels: Admin, Operator, User, Anonymous [User Name + Password], Digest Authentication |
| Updates | File upload over network using camera web server interface |

Analog Interface

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|---------------------|---|
| Video | NTSC, single channel, switch between |
| Serial PTZ | RS422, full/half duplex, 1,200 to 115k baud adjustment, data, stop and parity bit configuration |
| Camera Protocols | CohuHD Legacy, NTCIP 1205, Pelco D, Ultrak, AD |
| Pan/Tilt Unit | |
| Pan/Tilt Speed | Variable Speed, 0.05° - 45°/sec |
| Pan Range | 360° continuous |
| Tilt Range | 360° |
| Speed Resolution | 16 or 64 Variable Speeds |
| Preset Speed | 180° < 2 Seconds |
| Accuracy/Resolution | +/- 0.05° |
| Holding Torque | Maintains position and operates in winds up to 100 mph |
| Presets | Up to 256, Includes pan, tilt, zoom, focus, preset ID, I/O output state |
| Tours | Up to 256, Includes presets with dwell, speed, direction and recurrence properties |
| Auto Park | Returns to a preset or tour after timer expires, Timer Value [Off, 1 Minute to 999 Hours] |
| Features | Auto focus/iiris on PTZ, Proportional PTZ, Video Freeze on Preset, High Wind/Vibration mode |

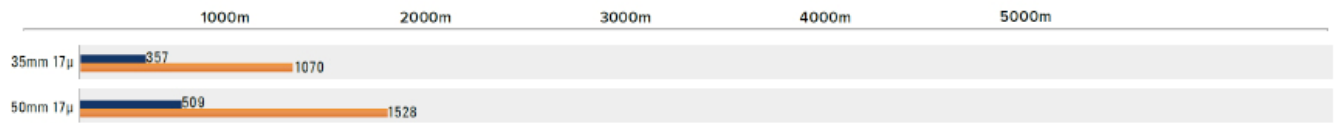
Certifications and Approval

| | |
|------------------------|---------------------|
| Product Certifications | CE, FCC, RoHS, IP67 |
|------------------------|---------------------|

Ordering information

| Model | HD Camera/Lens | Thermal Lens | Thermal Engine | Video Type |
|--------------------|------------------------------|----------------------|--------------------|------------|
| VP194-BC35A17X-PHD | 4.4-132mm Continuous Zoom | 35mm Athermalized | 17 μ 640 x 480 | IP |
| VP194-BC50A17X-PHD | 4.4-132mm Continuous Zoom | 50mm Athermalized | 17 μ 640 x 480 | IP |

Performance



Legend

D/N Detection - 2 PoT

D/N Recognition - 6 PoT



Human Subject Size
1.8m x 0.6m

Detection: 2 pixels on target
Recognition: 6 pixels on target

100m = 328ft

1000m = .62mi

500m = 1640ft

1610m = 1mi

* Performance depends on atmospheric conditions