



OTL- HP VC2075 HD Visible Light Telephoto Camera

Long-Range • High-Definition • Intelligent Surveillance



HD Long-Range Monitoring



DATASHEET

Product Overview

The OTL- HP VC2075 HD visible-light telephoto camera employs a 1/1.8-inch CMOS HD sensor with an effective resolution of **1920 × 1080** (2 megapixels), paired with a large-aperture lens (F3.5 – F8.3) and an ultra-long telephoto zoom lens (12.5 mm – 750 mm) featuring infrared correction. It provides high-definition, long-range surveillance and reliable performance in complex environments, and supports intelligent analysis functions for diverse security applications.



Full HD
1920 × 1080



12.5 – 750 mm
Telephoto Zoom



Dual Optical &
Electronic Fog Removal



Intelligent
Video Analysis



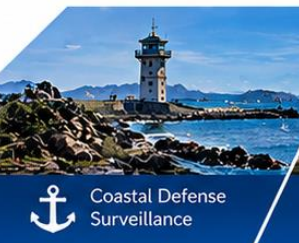
TCS Temperature
Compensation



Multiple Protocols
ONVIF / GB28181



Stable & Reliable
for Harsh Environments



Coastal Defense
Surveillance



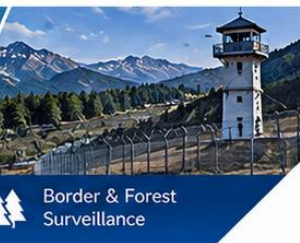
Airports &
Critical Infrastructure



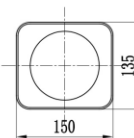
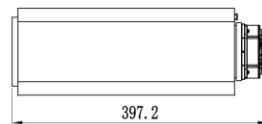
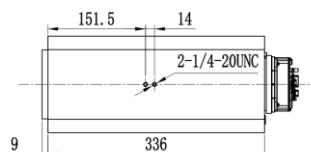
Oilfields &
Industrial Sites



Transportation
Monitoring



Border & Forest
Surveillance



1. PRODUCT OVERVIEW

The OTL-HP VC2075 HD visible-light telephoto camera employs a 1/1.8-inch CMOS HD visible-light sensor with an effective resolution of 1920 × 1080 (2 megapixels), paired with a large-aperture lens (F3.5–F8.3) and an ultra-long telephoto zoom lens. The overview section gives a focal-length range of 12.5 mm–750 mm and states that the lens features infrared correction.

The source describes the camera as intended for surveillance in remote and complex environments, including coastal defense zones, military bases, railways, forests, oilfields, rivers, and highways.

An internal industrial-grade embedded control electronic system provides control of lens zooming and focusing. The source lists dual optical and electronic fog-removal capabilities and says these can extend visible-light range by up to 1.7× under fog and haze. It also lists image enhancement features including wide dynamic range, backlight compensation, automatic white balance, digital noise reduction, electronic image stabilization, and strong-light suppression.

The source further describes TCS temperature compensation, H.265/H.264/MJPEG compression, and intelligent front-end analysis. The overview names zone intrusion detection, boundary crossing detection, unattended object detection, entry detection, and exit detection. It also refers to optimized autofocus and auto-exposure algorithms and low-light night-vision capability.

2. PRODUCT FEATURES

- The large-format high-definition visible-light camera, large-aperture ultra-long-focus lens, and high-magnification optical zoom are described as supporting surveillance in low-light environments and at long distances.
- A high-precision stepper motor unit is described as providing faster and more precise zoom-ratio changes and focusing, with extended service life.
- The intelligent front-end feature list includes mobile detection, zone-based intrusion detection, and boundary crossing detection.
- The source also lists target-behavior anomaly detection, including loitering, prolonged stays, counterflow movement, and clustering.
- An intelligent photoelectric linkage device combined with a dedicated image-processing enhancement algorithm is described as improving image detail in fog, water vapor, and dust.
- TCS temperature compensation is stated to support clear imaging during significant temperature changes.
- The listed video compression formats are H.265, H.264, and MJPEG, intended to reduce bitrate and bandwidth needs for a given image-quality requirement.
- Supported protocol families listed in the source include ONVIF, GB28181, HTTP, RTSP, RTP, TCP, and UDP.

3. DETAILED TECHNICAL SPECIFICATIONS

Model	OTL-HP VC2075 HD Visible Light Telephoto Camera
Sensor	1/1.8-inch CMOS, color-to-black conversion
Effective resolution	1920 × 1080 (2 MP)
Frame rate	25 fps
Auto aperture	Supported
Day/night switching	Automatic ICR infrared filter; source also lists automatic, manual, scheduled and alarm-triggered modes
Illuminance	Color: 0.001 lux; Black & White: 0.0005 lux
Lens focal length	12.5–775 mm in detailed specification table; overview text says 12.5–750 mm
Optical zoom	62×
Field of view	31.87° × 18.25° to 0.57° × 0.32°
Lens control	Electric zoom; auto/manual/semi-auto focus
Aperture	F3.5–F8.3
Lens diameter	107 mm
Minimum object distance	10 m
Fog penetration	Optical/electronic dual fog penetration
Image settings	Adjustable brightness, contrast, sharpness, and saturation
Image enhancement	3D digital noise reduction, strong-light suppression, electronic image stabilization, backlight compensation, wide dynamic range, and more
Video encoding	H.265 / H.264 / MJPEG; multiple bitstreams
Video bitrate	32 Kbps–16 Mbps
Audio encoding	G.711a / G.711u / G.726
Audio bitrate	64 kbps (G.711) / 16 kbps (G.726)
Electrical interfaces	Network port, power supply, Alarm In/Out, Line In/Out (optional)
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, RTP, RTSP, RTCP, NTP, SMTP, SNMP, IPv6, ONVIF (PROFILES, PROFILEG), GB28181-2016
Power supply	DC 12 V ± 10%
Power consumption	Static: 6 W; maximum: 15 W
Dimensions	397.2 × 150 × 135 mm (L × W × H)
Weight	≤ 6 kg
Operating temperature	-10 °C to +50 °C
Storage temperature	-40 °C to +70 °C

4. INTERFACE DEFINITIONS

Network interface definition (as shown in the source):

Pin number	1	2	3	4	5	6	7	8
Pin definition	D0+	D0–	D1+	D1–	D2+	D2–	D3+	D3–

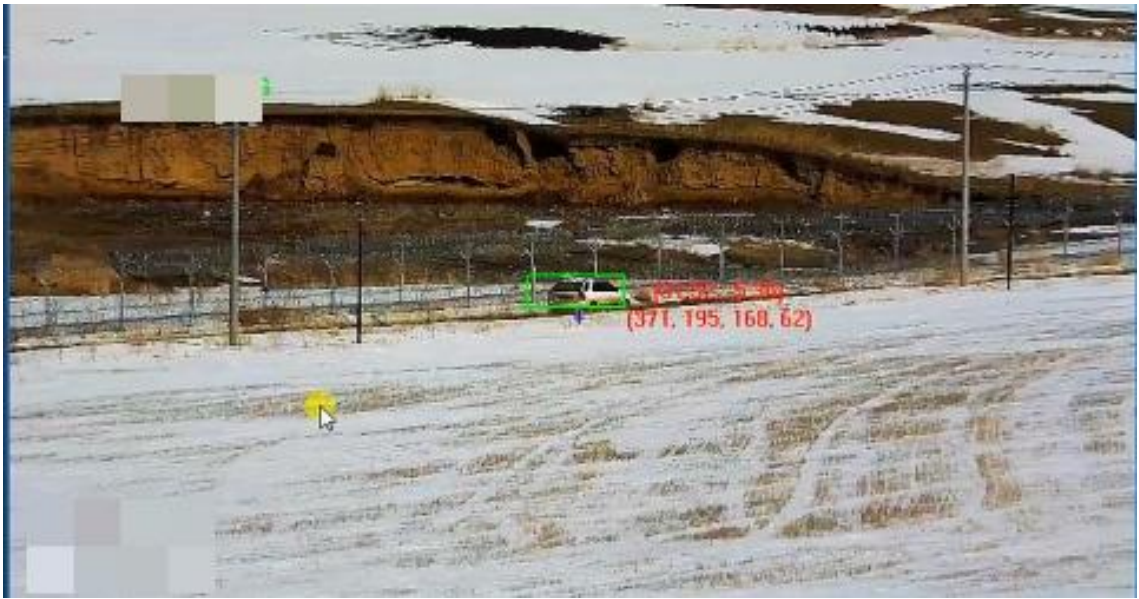
Power supply / serial interface definition (Serial port 2, 1-of-2 selection):

Pin number	1	2	3	4	5	6	7	8	9
Pin definition	12V+	12V+	GND	GND	RX (TTL)	TX (TTL)	RX (232)	TX (232)	GND

5. OUTLINE DIMENSIONAL DRAWING

The source includes an outline drawing showing side, front, rear and top views. The dimensional labels in the drawing include an overall length of 397.2 mm, a width of 150 mm and a height of 135 mm. Additional drawing labels include 336 mm, 151.5 mm, 14 mm and a 2-1/4-20UNC mounting thread.









6. COMMUNICATION PROTOCOL

The source directs the reader to the “HP Vision IPC Remote Configuration Protocol” for further communication-protocol details. The supplied specification does not reproduce the full command protocol in this document.

7. APPLICATION RESULTS

The source states that the product is suitable for development or integration into photoelectric devices such as rotary stages and pan-tilt units. It lists potential deployment contexts for intrusion alarms and monitoring in critical areas, including coastal defense zones, strategic sites, airports, prisons, transportation corridors, water conservancy facilities, financial centers, and nuclear, biological, and chemical defense bases. It also mentions mobile monitoring on vehicles, vessels, and ships.

The source’s application images are retained in this document to show the types of scenes illustrated by the manufacturer: key-area monitoring, border-area monitoring, and maritime monitoring / vessel tracking.

ADDITIONAL EXPLANATORY TEXT — REVIEW BEFORE PUBLICATION

Image visibility and enhancement

The combination of optical zoom, focus control, and the listed image-enhancement functions can be described as intended to help operators observe distant scenes and adjust images to different lighting conditions. This is explanatory catalog language based on the functions named in the source, not a separate performance guarantee.

Smart analytics

The source contains more than one list of analytics functions. The overview names zone intrusion, boundary crossing, unattended object, entry, and exit detection; the feature section also names mobile detection, loitering, prolonged stays, counterflow movement, and clustering. Confirm which functions are enabled in the delivered configuration.

Specification discrepancy to resolve

The source overview states a focal-length range of 12.5–750 mm, while the detailed specification table states 12.5–775 mm. This discrepancy is deliberately preserved and highlighted rather than silently corrected. Confirm the correct range with the manufacturer before publication.

