

Hanwha Techwin is a leading supplier of advanced video surveillance solutions for IP-video, analog and hybrid systems. Building on the company's history of innovation, Hanwha Techwin is dedicated to providing systems solutions with the highest levels of performance, reliability and cost-efficiency. Hanwha Techwin is committed to the continued development of innovative systems products for professional security applications.

For additional information, visit <http://security.hanwhatechwin.com/>

1. **PRODUCTS**
   1. **EQUIPMENT**
      1. Manufacturer : Hanwha Techwin (http://security.hanwhatechwin.com/)
      2. Model : ANV-L7082R
      3. Alternates : None
   2. **GENERAL DESCRIPTION**
      1. Video Compression and Transmission – The camera shall have the following properties relating to the video signals it produces.
         1. H.265, H.264 and MJPEG compression, each derived from a dedicated encoder and capable of being streamed independently and simultaneously
            1. H.265 and H.264 – frame rates 30fps at 4M all resolution
            2. MJPEG – frame rates to 15fps
         2. The camera shall be able to configure up to 3 independent video stream profiles with differing encoding, quality, frame rate, resolution, and bit rate settings.
         3. Resolution selections

2560x1440, 1920x1080, 1280x960, 1280x720, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240

* + - 1. Simultaneous unicast access by up to 6 users
      2. Multicast or unicast capable
      3. Dynamic DNS (DDNS) support.
      4. WiseStream and Dynamic GOV to efficiently manage bitrate of the video stream.
    1. Camera – The camera device shall have the following physical and performance properties:
       1. IP66, IK10 rated for protection against impacts
       2. Auto day/night operation with removable IR cut filter
       3. 2D and 3D digital noise reduction
       4. Integral IR illumination, providing effective visibility of 30m(98.43ft) at 0 Lux when activated in Black & White mode
       5. 6 privacy masking regions utilizing quadrangle
    2. Intelligence and Analytics – The camera shall have a suite of integral intelligent operations and analytic functions to include:
       1. Motion detection with 4 definable detection areas, minimum / maximum object size definition that ignores false alarms such as trees and waves on water.
       2. Detection of logical events of specified conditions from the camera’s video input
          1. Analytics events: Defocus detection, Motion detection, Tampering, Virtual area(Appear/Disappear), Virtual line(Crossing/Direction)
    3. Interoperability – The camera shall be ONVIF Profile S / G / T compliant.
    4. The camera shall possess the following further characteristics:
       1. Built-in web server, accessed via standard browsers including MS Edge, Firefox, Chrome and Safari
       2. Micro SD/SDHC/SDXC memory card and NAS recording options, with configurable pre-alarm and post-alarm recording intervals
       3. Alarms and notifications
          1. alarm notification triggers:

video analytics

network disconnect

alarm input via optional Network I/O box

* + - * 1. available notification means upon trigger:

file upload via FTP and e-mail

notification via e-mail

record to local storage (SD/SDHC/SDXC card)

Handover(PTZ Preset, Send message by HTTP/HTTPS/TCP)

* + - 1. Pixel Counter available in the plug-in web viewer.
      2. POE capable
  1. **DETAILED SPECIFICATIONS**
     1. Video
        1. Image
           1. Sensor : 1/2.8" 4M CMOS

pixels per sensor : 2560 (H) x 1440 (V)

scanning : progressive

* + - * 1. Minimum illumination

Color mode : 0.1Lux(F1.6, 1/30sec)

Black & white mode (IR LED off) : 0.01Lux(F1.6, 1/30sec)

Black & white mode (IR LED on) : 0Lux

* + - * 1. The following features with control settings shall be available:

Camera Title

Off / On (Displayed up to 85 characters)

English / Numeric / Special characters

Day/night : Auto (ICR)

Backlight compensation : BLC, WiseDR

WDR : 120dB

Digital Noise Reduction (DNR) : SSNR

Motion Detection : Off / On (4ea, polygonal zones)

Privacy Masking : Off / On (6ea, quadrangle zones)

Gain Control : Low / Middle / High

White Balance : ATW / AWC / Manual / Indoor / Outdoor

Lens Distortion Compensation(LDC) : Support

Electronic shutter speed : Minimum / Maximum / Anti flicker (1/5 ~ 1/12,000sec)

Image flip : Off / On

Image mirror : Off / On

Hallway view : Off / On (90° / 270°)

Analytics

Defocus detection, Motion detection, Tampering, Virtual area(Appear/Disappear), Virtual line(Crossing/Direction)

Alarm I/O : Support Alarm via optional Network I/O box

Alarm Triggers : Analytics, Network disconnect, \*Alarm input(with NW I/O box)

Alarm Events

File upload via FTP and e-mail

Notification via e-mail

SD/SDHC/SDXC or NAS recording at Event Triggers

Handover

* + - * 1. Lens : 3.3~10.3mm(3.1x) motorized varifocal

Max. Aperture Ratio : F1.6(Wide) ~ F3.3(Tele)

FoV

H : 94.8˚(Wide) ~ 28.1˚(Tele) / V : 50.2˚(Wide) ~ 15.8˚(Tele)

D : 112.9˚(Wide) ~ 32.2˚(Tele)

Min. Object Distance : 0.5m (1.64ft)

Focus Control : Simple focus

Lens Type : DC Auto Iris

* + - * 1. Pan /Tilt / Rotate

0 ~ 350 ˚ / 0 ~ 67 ˚ / 0 ~ 355 ˚

* + - * 1. DORI (EN62676-4 standard)

Detect : Wide: 47.1m(154.46ft) / Tele: 204.6m(671.23ft)

Observe : Wide: 18.8m(61.79ft) / Tele: 81.8m(92.24ft)

Recognize : Wide: 9.4m(30.89ft) / Tele: 40.9m(134.25ft)

Identify : Wide: 4.7m(15.45ft) / Tele: 20.5m(67.12ft)

* + - 1. IR Viewable Length : 30m (98.43ft)
      2. Video Streams
         1. The camera shall be able to produce 3 video profiles, each of which may have the following properties:

Encoding type : H.265, H.264, MJPEG

Resolution:

2560x1440, 1920x1080, 1280x960, 1280x720, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240

Frame rate

H.265 and H.264 : Max. 30fps at 4M all resolution

MJPEG : Max. 15fps

Smart Codec : Manual(5ea area), WiseStream Ⅱ

Bit rate control

H.265 and H.264 : target bitrate level control, constant bit rate (CBR) or variable bit rate (VBR)

MJPEG : quality level control, variable bit rate (VBR)

* + - 1. Number of multi-streaming profiles : 3 profiles
      2. Simultaneous users (total) : 6 maximum (unicast)
      3. Storage and Recording
         1. The camera shall have onboard SD card storage.

Card type : Micro SD/SDHC/SDXC

Capacity : Up to 128GB (1 slot)

Image content on the card shall have the ability to be downloaded to a selected destination.

* + - * 1. NAS
      1. Interoperability - Video streams shall be capable of supporting ONVIF protocol, profiles S / G / T.
      2. Single Images - The camera shall support jpg file image screenshot and export.
      3. Memory : 512MB RAM, 256MB Flash
    1. Network
       1. Connectivity : RJ-45(10/100/1000BASE-T)
       2. Protocols supported :
          1. Transmission Control Protocol (TCP), Internet Protocol (IP) v4 and v6, User Datagram Protocol (UDP)
          2. Configuration: Dynamic Host Configuration Protocol (DHCP)
          3. Web services: Hypertext Transfer Protocol (HTTP), Secure HTTP (HTTPS)
          4. Security: Secure Sockets Layer(SSL)/Transport Layer Security(TLS)
          5. Network services: Address Resolution Protocol (ARP), Bonjour, Domain Name System (DNS), Internet Control Message Protocol (ICMP), Link Layer Discovery Protocol(LLDP), Network Time Protocol (NTP), Protocol Independent Multicast-Sparse Mode (PIM-SM), Simple Network Management Protocol (SNMP v1/2c/3 – MIB-2), Universal Plug and Play (UPnP)
          6. Media: Real-Time Transport Protocol (RTP), Real-Time Control Protocol, Real-Time Streaming Protocol (RTSP), Secure Real-Time Transport Protocol(SRTP)
          7. Multicast: Internet Group Management Protocol (IGMP)
          8. Notifications: File Transfer Protocol (FTP), Simple Mail Transfer Protocol (SMTP)
       3. DDNS
          1. The camera shall support DDNS services offered by the Manufacturer and other publicly available service offerings.
       4. Quality of Service (QoS)
          1. Layer 3 DSCP
       5. Security features
          1. HTTPS(SSL) Login Authentication
          2. Digest Login Authentication
          3. IP Address Filtering
          4. User access log
          5. 802.1X Authentication
       6. Application Programming Interface
          1. ONVIF Profile S / G / T, SUNAPI(HTTP API)
       7. Discovery
          1. Manufacturer shall offer a discovery program to identify all devices of his manufacture on the network.
    2. Electrical
       1. Input Voltage : PoE (IEEE802.3af, Class3)
       2. Power consumption
          1. PoE : Max 8.0W, Typical 6.0W
    3. Mechanical And Environmental
       1. Material : Plastic, Aluminum
       2. Dimensions : Ø 137.8 x 107.1mm (Ø 5.43 x 4.22”)
       3. Weight : 550g (1.21lb)
       4. Temperature And Humidity
          1. Operating : -30°C ~ +55°C(-22°F ~ +131°F) / Less than 90% RH (Non-condensing) \* Start up should be done at above -20°C(-4°F)
          2. Storage : -30°C ~ +60°C(-22°F ~ +140°F) / Less than 90% RH (Non-condensing)
       5. Environmental Rating
          1. IP66
          2. IK10
       6. RAL Code
          1. RAL9003
       7. Compatible Conduit hole / Gangbox
          1. None / Single, Double, 4" Octagon
    4. EMC & Safety
       1. FCC 47 CFR Part 15 Subpart B
          1. ANSI C63.4-2014 Class A
       2. IC Regulation ICES-003 Issue 7
          1. ANSI C63.4a-2017 Class A
       3. UL listed

END OF SECTION