### HWT-M2120-10-EI

1T 2MP IR AI Bullet Camera



# **%**≣ Features

- ▶1 TOPS computing power
- Supports behavior analysis, crowd flow analysis, target detection, person detection, object (motor vehicle, non-motorized vehicle, and pedestrian) classification, vehicle recognition, vehicle event detection, and traffic flow statistics
- ▶ Supports backlight adaptation, overcast adaptation, and speed adaptation
- ▶1/2.7" CMOS sensor
- Online loading and upgrade of algorithms
- ▶ 120 dB super wide dynamic range (WDR), ensuring that both foreground and background objects are clearly identified in environments with sharp light contrast
- ▶ Supports auto iris





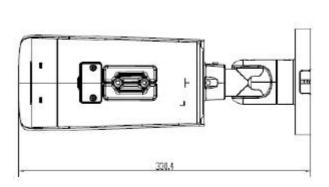
| Model                | HWT-M2120-10-EI                |                                                                         |                |                                  |                |                           |  |
|----------------------|--------------------------------|-------------------------------------------------------------------------|----------------|----------------------------------|----------------|---------------------------|--|
| Major Specifications |                                |                                                                         |                |                                  |                |                           |  |
| Main control         | Computing power                | 1 TOPS                                                                  |                |                                  |                |                           |  |
|                      | Memory                         | DDR3 0.5 GB                                                             |                |                                  |                |                           |  |
|                      | Flash type                     | SPI NAND Flash 512.0 MB                                                 |                |                                  |                |                           |  |
|                      | Focal length                   | 2.8-12mm                                                                |                |                                  |                |                           |  |
|                      | Max Aperture                   | F1.6 (W) to F3.4 (T)                                                    |                |                                  |                |                           |  |
|                      | Image sensor                   | 1/2.7" CMOS/2MP 1920(H)*1080(V)                                         |                |                                  |                |                           |  |
|                      | Lens aperture type             | DC-Iris                                                                 |                |                                  |                |                           |  |
|                      | Angle of view                  | Horizontal: 42° (T) to 95.5° (W); vertical: 24° (T) to 52° (W)          |                |                                  |                |                           |  |
| Camera               | IR range                       | 50m                                                                     |                |                                  |                |                           |  |
|                      | Digital Zoom/Optical<br>Zoom   | Not Supported/4X                                                        |                |                                  |                |                           |  |
|                      | DORI                           |                                                                         | D(m)           | O(m)                             | R(m)           | I(m)                      |  |
|                      | (Complied to the EN            | W                                                                       | 48.3           | 19.5                             | 9.7            | 4.8                       |  |
|                      | 62676-4)                       | Т                                                                       | 132.4          | 53.4                             | 26.5           | 13.2                      |  |
| Intelligence         |                                |                                                                         |                |                                  |                |                           |  |
| Target/Body          | Target                         | Target detection/Target attribute recognition                           |                |                                  |                |                           |  |
| ,                    | Person                         | Person detection                                                        |                |                                  |                |                           |  |
| Vehicle              |                                | ·                                                                       |                | Chinese Mainla                   |                |                           |  |
|                      | Vehicle analysis               | Vehicle color/Vehicle type/Vehicle model                                |                |                                  |                |                           |  |
|                      |                                | Motor vehicle/Non-motorized vehicle/Pedestrian                          |                |                                  |                |                           |  |
| Other intelligences  |                                | Fast movement/Tripwire crossing/Intrusion/Area entry or exit /Loitering |                |                                  |                |                           |  |
|                      | -                              | Queue length/Head counting/Crowd flow statistics                        |                |                                  |                |                           |  |
|                      | Non-motorized vehicle  Defocus | Supported                                                               |                |                                  |                |                           |  |
| _                    | Delocus                        | Supported                                                               |                |                                  |                |                           |  |
| Open ecosystem       |                                |                                                                         |                |                                  |                |                           |  |
| Algorithm openness   | Open OS                        | Supported                                                               |                |                                  |                |                           |  |
| Data openness        | Data openness                  | - 1                                                                     | , ,            | ol)/REST API (<br>2016) /ONVIF P |                | otocol)/GA/T              |  |
| lmage                |                                | ,                                                                       |                |                                  |                |                           |  |
| Codec                | Video encoding format          | MJPEG/H.264/H.265                                                       |                |                                  |                |                           |  |
|                      | Video encoding channels        | Triple streams                                                          |                |                                  |                |                           |  |
|                      | Intelligent encoding           | Extra265/264                                                            |                |                                  |                |                           |  |
|                      | Video frame rate               |                                                                         |                | fps, 30 fps, oi                  | r 25 fps)      |                           |  |
| Image Al             | 3 (17 17 17                    |                                                                         |                | lantation                        |                |                           |  |
| age / ii             | Min illumination               | Color: 0.00                                                             | 5 lux (F1.2, A | •                                | shutter speed) | ); B/W: 0.0005 lu         |  |
|                      | Day/Night mode                 |                                                                         | evel: high (de | CR)/Color/B/V<br>efault), mediur |                | omatic)<br>age triggering |  |

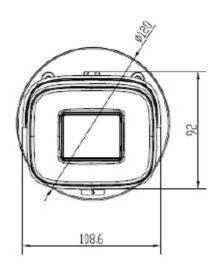
|                                             | Image ICD                          | WDR                                                 | 120db                                                                                                                                                                                                                                                                                                                                                                 |  |  |
|---------------------------------------------|------------------------------------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Image ISP White balance Auto/Manual/OnePush |                                    |                                                     | Auto/Manual/OnePush                                                                                                                                                                                                                                                                                                                                                   |  |  |
|                                             |                                    | HLC/BLC                                             | Supported/Supported                                                                                                                                                                                                                                                                                                                                                   |  |  |
|                                             |                                    | Digital noise reduction                             | 2D/3D noise reduction                                                                                                                                                                                                                                                                                                                                                 |  |  |
|                                             |                                    | Signal-to-Noise Ratio(SNR                           | Signal-to-Noise Ratio >45 dB                                                                                                                                                                                                                                                                                                                                          |  |  |
| -                                           | Shutter speed                      |                                                     | Supports slow shutter. Slow shutter speed levels: 1/3, 1/4, 1/8, 1/12, 1/15 Non-slow shutter speed levels: 1/25,1/30,1/50,1/60,1/90,1/100,1/120,1/125,1/180,1/250,1/350,,1/500,1/725,1/1000,1/1500,1/2000,1/3000,1/4000,1/6000,1/10000,1/30000,1/100000, custom  Default: 1/25                                                                                        |  |  |
|                                             |                                    | Primary stream resolution                           | 1920×1080(1080P),1280×720(720P)                                                                                                                                                                                                                                                                                                                                       |  |  |
|                                             |                                    | Secondary stream resolution                         | Secondary stream 1: 1920×1080(1080P), 1280×720(720P), 720×576(PAL), 720×480(NTSC); Secondary stream 2: 720×576(PAL), 720×480(NTSC), 352×288(PAL), 352×240(NTSC)                                                                                                                                                                                                       |  |  |
|                                             |                                    | Video bit rate                                      | Only for H.264 and H.265:<br>1080P~4K 512Kbps ~ 16Mbps<br>720P 384Kbps ~ 8Mbps<br>D1 256K ~ 4Mbps<br>CIF 32K ~ 1Mbps                                                                                                                                                                                                                                                  |  |  |
|                                             |                                    | Smart Illumination                                  | Not Supported                                                                                                                                                                                                                                                                                                                                                         |  |  |
|                                             |                                    | Optical Defogging/Algorithm- assisted Defogging EIS | Not Supported/Supported Supported Sensitivity levels are not supported.                                                                                                                                                                                                                                                                                               |  |  |
| i                                           |                                    |                                                     |                                                                                                                                                                                                                                                                                                                                                                       |  |  |
|                                             | Audio                              | Audio Encoding Format                               | G.711a/G.711u/G.726/OPUS                                                                                                                                                                                                                                                                                                                                              |  |  |
|                                             |                                    | Audio sampling rate                                 | G.711a/G.711u/G.726: 8K                                                                                                                                                                                                                                                                                                                                               |  |  |
|                                             | Audio                              |                                                     | OPUS: 8K/12K/16K/24K/48K<br>G.711a/G.711u:64kbps;G.726:16、24、32、40kbps                                                                                                                                                                                                                                                                                                |  |  |
| _                                           |                                    | Audio bit rate                                      | OPUS:16/24/32/40/64/96/128/160/192/224/256/288Kbps                                                                                                                                                                                                                                                                                                                    |  |  |
|                                             | Networking<br>Network transmission | IPv4                                                | TCP, UDP, IPv4, DHCP, DNS, ICMP, IGMP, HTTPS, FTP, SFTP, RTP, RTSP, RTCP, SIP, ARP, SSL, NTP, SNMP (V1/V2/V3), 802.1x, QoS, SMTP, and PPPoE. Note: The northbound protocol needs to adapt to the PPPoE dialup scenario.                                                                                                                                               |  |  |
|                                             |                                    | Protocols supported by IPv6                         | HTTPS,RTP,RTCP,RTSP,Onvif,IPv6,ICMPv6,DHCPv6                                                                                                                                                                                                                                                                                                                          |  |  |
|                                             | Security                           | 11 V                                                |                                                                                                                                                                                                                                                                                                                                                                       |  |  |
|                                             | Data security                      |                                                     | Supports web- or SDK-based media stream encryption. By default, RTSP uses MD5 digest authentication. Supports encrypted storage of up to two channels of streams. By default, RTSP uses MD5 digest authentication. Supports encrypted storage of data in SD cards. By default, RTSP uses MD5 digest authentication . By default, RTSP uses MD5 digest authentication. |  |  |
|                                             | Service security                   | -                                                   | Three user roles: administrator, advanced operator, and common operator                                                                                                                                                                                                                                                                                               |  |  |
|                                             |                                    |                                                     | User name and password authentication, 802.1X authentication, and HTTPS digital certificate                                                                                                                                                                                                                                                                           |  |  |
|                                             |                                    |                                                     | Supported                                                                                                                                                                                                                                                                                                                                                             |  |  |
|                                             |                                    | System intrusion<br>detection                       | Supported                                                                                                                                                                                                                                                                                                                                                             |  |  |

| Port                      |                                                                                              |
|---------------------------|----------------------------------------------------------------------------------------------|
| Storage port              | MicroSD card slot that supports microSDHC/microSDXC; maximum memory card capacity: 256 GB    |
| Alarm port                | 2 input ports and 1 output port                                                              |
| Network port              | One RJ45 10M/100M adaptive Ethernet port                                                     |
| Communication serial port | RS-485 port                                                                                  |
| Audio port                | Supported (one-channel LINE IN or one-channel external MIC)/Supported (one-channel LINE OUT) |

| General Specifications      |                                                                                    |  |
|-----------------------------|------------------------------------------------------------------------------------|--|
| Power type                  | 12 V DC and PoE (IEEE 802.3af)                                                     |  |
| Power consumption           | Maximum: 13 W; typical: 5 W                                                        |  |
| Operating temperature       | −30°C to +60°C                                                                     |  |
| Operating humidity          | 5% to 95% (non-condensing)                                                         |  |
| Surge protection            | 4 kV                                                                               |  |
| IP rating                   | IP67                                                                               |  |
| Equipment Anti<br>Corrosion | Class C corrosion resistance                                                       |  |
| IK rating                   | IK10                                                                               |  |
| Weight                      | Weight Net weight 1.4 kg;Gross weight 1.8 kg                                       |  |
| Dimensions                  | Device dimensions 330.4mm×108.6mm×92mm;Package dimensions 182 mm x 376 mm x 139 mm |  |

## © Dimensions





### Recommended Accessories



ACC3213



ACC3231



**HOLOWITS** Contact

Address: 6 Temasek Boulevard, 29th Floor, Suntec Tower Four, Singapore

038986

Web: www.holowits.com

Copyright 2022. All rights reserved © HOLOWITS TECHNOLOGIES PTE. LTD. No part of this document may be reproduced or transmitted in any form or by any means without prior writen consent of HOLOWITS TECHNOLOGIES PTE. LTD.

General Disclaimer

The information in this document may contain predictive statements including, without

limitation, statements regarding the future financial and operating results, future product

portfolio, new technology, etc. There are a number of factors that could cause actual

results and developments to differ materially from those expressed or implied in the

predictive statements. Therefore, such information is provided for reference purposes only and constitutes neither an offer nor an

acceptance. HOLOWITS may change the information at any time without notice.



#### Product selector

Scan the QR code on the right to view and compare specifications of HOLOWITS products and select the best camera for you.