



### Product Data Sheet

Model : OPT-HS-8MD3630D2P

4K SMART HYBRID NETWORK DOME CAMERA

- High quality imaging with 8 MP resolution
- Clear imaging against strong back light due
- Efficient H.265+ compression technology
- -U: Built-in microphone for real-time audio security
- Water and dust resistant (IP67)"



## Camera

|                   |                                                      |
|-------------------|------------------------------------------------------|
| Image Sensor      | 1/1.8" Progressive Scan CMOS                         |
| Max. Resolution   | 3840 × 2160                                          |
| Min. Illumination | Color: 0.0005 Lux @ (F1.0, AGC ON), 0 Lux with light |
| Shutter Time      | 1/3 s to 1/100,000 s                                 |
| Day & Night       | IR cut filter                                        |
| Angle Adjustment  | Pan: 0° to 355°, tilt: 0° to 75°, rotate: 0° to 355° |

## Lens

|                    |                                                   |
|--------------------|---------------------------------------------------|
| Lens Type          | Fixed focal lens, 3.6 mm                          |
| Focal Length & FOV | 3.6 mm, horizontal FOV 106.1°, vertical FOV 56.4° |
| Lens Mount         | M16                                               |
| Iris Type          | Fixed                                             |
| Aperture           | F1.0                                              |

## Illuminator

|                     |                 |
|---------------------|-----------------|
| Supplement IR Type  | IR, White Light |
| Supplement IR Range | Up to 30 m      |
| IR Wavelength       | 850 nm          |

|                   |                                                                                                                                                                                        |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Main Stream       | "50 Hz:<br>25 fps (3840 × 2160, 3200 × 1800, 2688 × 1520, 1920 × 1080, 1280 × 720)<br>60 Hz:<br>24 fps (3840 × 2160)<br>30 fps (3200 × 1800, 2688 × 1520, 1920 × 1080, 1280 × 720)"    |
| Sub-Stream        | "50 Hz: 25 fps (1280 × 720, 640 × 480, 640 × 360)<br>60 Hz: 30 fps (1280 × 720, 640 × 480, 640 × 360)"                                                                                 |
| Third Stream      | "50 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360)<br>60 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360)<br>*Third stream is supported under certain settings." |
| Video Compression | "Main stream: H.265/H.264/H.264+/H.265+, Sub-stream: H.265/H.264/MJPEG,<br>Third stream: H.265/H.264,<br>*Third stream is supported under certain settings."                           |

|                             |                                               |
|-----------------------------|-----------------------------------------------|
| Video Bit Rate              | 32 Kbps to 16 Mbps                            |
| H.264 Type                  | Baseline Profile, Main Profile, High Profile  |
| H.265 Type                  | Main Profile                                  |
| Bit Rate Control            | CBR, VBR                                      |
| Scalable Video Coding (SVC) | H.264 and H.265 encoding                      |
| Region of Interest (ROI)    | 1 fixed region for main stream and sub-stream |

## Audio

|                             |                                                                                                                                              |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Audio Type                  | -U: Mono sound                                                                                                                               |
| Audio Compression           | -U: G.711/G.722.1/G.726/MP2L2/PCM/MP3/AAC-LC                                                                                                 |
| Audio Bit Rate              | "-U: 64 Kbps (G.711ulaw/G.711alaw)/16 Kbps (G.722.1)/16 Kbps (G.726)/16 Kbps to 64 Kbps (AAC-LC)/32 to 192 Kbps (MP2L2)/8 to 320 Kbps (MP3)" |
| Audio Sampling Rate         | -U: 8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz                                                                                                      |
| Environment Noise Filtering | -U: Yes                                                                                                                                      |

## Network

|                        |                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protocols              | "TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, NTP, UPnP, SMTP, IGMP, 802.1X, QoS, IPv4, IPv6, UDP, Bonjour, SSL/TLS, PPPoE, SNMP, WebSocket, WebSockets, SRTP, SFTP"                                                                                                                                                                                               |
| Simultaneous Live View | Up to 6 channels                                                                                                                                                                                                                                                                                                                                                                        |
| API                    | Open Network Video Interface (Profile S, Profile G, Profile T), ISAPI, SDK, ISUP                                                                                                                                                                                                                                                                                                        |
| User/Host              | "Up to 32 users<br>3 user levels: administrator, operator, and user"                                                                                                                                                                                                                                                                                                                    |
| Security               | "Password protection, complicated password, HTTPS encryption, 802.1X authentication (EAP-TLS, EAP-LEAP, EAP-MD5), watermark, IP address filter, basic and digest authentication for HTTP/HTTPS, WSSE and digest authentication for Open Network Video Interface, RTP/RTSP over HTTPS, control timeout settings, security audit log, TLS 1.1/1.2/1.3, host authentication (MAC address)" |
| Web Browser            | "Plug-in required live view: IE 10, IE 11,<br>Plug-in free live view: Chrome 57.0+, Firefox 52.0+, Edge 89+,<br>Local service: Chrome 57.0+, Firefox 52.0+, Edge 89+"                                                                                                                                                                                                                   |

## Image

|                          |                                                                                                                               |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Image Parameters Switch  | Yes                                                                                                                           |
| Image Settings           | "Rotate mode, saturation, brightness, contrast, sharpness, gain, white balance, adjustable by client software or web browser" |
| Day/Night Switch         | Day, Night, Auto, Schedule                                                                                                    |
| Image Enhancement        | BLC, HLC, 3D DNR                                                                                                              |
| SNR                      | ≥ 52 dB                                                                                                                       |
| Wide Dynamic Range (WDR) | 130 dB                                                                                                                        |
| Privacy Mask             | 4 programmable polygon privacy masks                                                                                          |

## Interface

|                     |                                                                                                                                                                                                                                                                                   |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ethernet Interface  | 1 RJ45 10 M/100 M self-adaptive Ethernet port                                                                                                                                                                                                                                     |
| Built-in Microphone | -U: Yes                                                                                                                                                                                                                                                                           |
| Audio               | "-S: 1 input (line in), two-core terminal block, max. input amplitude: 3.3 Vpp, input impedance: 4.7 KΩ, interface type: non-equilibrium, 1 output (line out), two-core terminal block, max. output amplitude: 3.3 Vpp, output impedance: 100 Ω, interface type: non-equilibrium" |

## Event

|             |                                                     |
|-------------|-----------------------------------------------------|
| Basic Event | Motion detection , video tampering alarm, exception |
|-------------|-----------------------------------------------------|

## General

|                    |                                                                                                                                   |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Power              | "12 VDC ± 25%, 0.66 A, max. 8 W, Ø5.5 mm coaxial power plug, reverse polarity protection, PoE: IEEE 802.3af, Class 3, max. 9.5 W" |
| Material           | Base: aluminum alloy, cover: aluminum alloy                                                                                       |
| Dimension          | Ø89.2 mm × 78.7 mm                                                                                                                |
| Weight             | Approx. 420 g                                                                                                                     |
| Storage Conditions | -30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing)                                                         |