SHOGUN Technology Solution

IPC-HDBW2531T-ZS

5MP WDR Dome Network Camera





Overview

The IR Megapixel Vari-focal camera delivers 5MP resolution with a 2.7mm \sim 13.5mm varifocal lens.The camera's elegant blend of aesthetics combined with a range of easy mounting solutions provides an excellent choice for a variety of small to mid-size applications at an affordable price.

Functions

Smart Codec (H.265+ & H.264+)

Smart Codec is the optimized implementation of standard video compression (H.265 & H.264) that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart Codec technology reduces bit rate and storage requirements by up to 70% when compared to the standard video compression.

Starlight Technology

For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.006lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

Intelligent Video analysis (IVS)

Dahua camera is equipped with a built-in intelligent analytic algorithm based on video, which can realize intelligent functions like Tripwire and Intrusion, to quickly and accurately respond to monitoring events in specific area, It can enhance monitoring efficiency. In addition, the camera supports intelligent tamper detection, which is to generate warning message via detecting dramatic scene change and to guarantee effective video surveillance.

Wide Dynamic Range (WDR)

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, true WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Smart IR Technology

With IR illumination, detailed images can be captured in low light or total darkness. The camera's Smart IR technology adjusts the intensity of camera's infrared LEDs to compensate the distance of an object. Smart IR technology prevents IR LEDs from whitening out images as they come closer to the camera. The camera's integrated infrared illumination provides high performance in extreme low-light environments up to 60m (197ft).

Protection (IP67, wide voltage)

The camera allows for $\pm 25\%$ input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 2KV lightning rating provides effective protection for both the camera and its structure against lightning. Subjected and certified to rigorous dust and immersion tests (IP67), the camera is the choice for installation in even the most unforgiving environments.

Environmental

Dahua cameras operate in extreme temperature environments, rated for use in temperatures from-30° C to +60° C (-22° F to +140° F) with 95% humidity.

Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.

Technical Specification

Camera

| Image Sensor | 1/2.7" 2Megapixel progressive CMOS |
|--------------------------|--|
| Effective Pixels | 2592(H) x1944(V) |
| RAM/ROM | 512MB/32MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual, 1/3~1/100000s |
| Minimum Illumination | 0.02Lux/F1.6(Color,1/3s,30IRE) 0.2Lux/F1.6(Color,1/30s,30IRE) 0Lux/F1.6(IR on) |
| S/N Ratio | More than50dB |
| IR Distance | Distance up to 30m(98ft) |
| IR On/Off Control | Auto/ Manual |
| IR LEDs | 2 |
| Lens | |
| Lens Type | Motorized (-ZS), Manual (-VFS) |
| Mount Type | Board-in |
| Focal Length | 2.7mm~13.5mm |
| Max. Aperture | F1.6 |
| Angle of View | H:95°~27°, V:70°~20° |
| Focus Control | Motorized (-ZS), Manual (-VFS) |
| Close Focus Distance | 0.3m |



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PTZ

| Pan/Tit RangePan:0* -355* ; Tit: 0* -90* ; Rotation:0* -355*IntelligenceEvent TriggerMotion detection, Video tampering, Scene changing / Retwork disconnection , IP address conflict, illegal / Retwork disconnection, IP address conflict, illegal / Retwork discon | | |
|--|----------------------|--|
| Event Trigger Motion detection, Video tampering, Scene changing Network disconnection, IP address conflict, Illegal Access, Storage anomaly IVS Tripwire, Intrusion Video Video Compression H.265/H.264H/MJPEG(Sub Stream) Smart Codec Support H.265+/H.264+ Streaming Capability 2 Streams Streaming Capability Sind(2592×1944)/4M(2688x1520)/ (2560×1440)/(2204x2296)/D080P(13920×1080)/ Sys2(1280×1224)/14M(2688x1520)/ (2560×1440)/(2204x21296)/D080P(13920×1080)/ Sys2(1280×1224)/14M(12808x1520)/ (2560×1440)/(2204x21296)/D080P(13920×1080)/ Sys2(1280×1224)/14M(12808x1520)/ (2560×1440)/(2208×12296)/D080P(13920×1080)/ Sys2(1280×1224)/D080P(13920×1080)/ Sys2(1280×1224)/D080P(13920×1080)/ Sys2(1280×1224)/D080P(13920×1080)/ Sys2(1280×1224)/D080P(13920×1080)/ Sys2(1280×1224)/D080P(13920×1080)/ Sys2(1280×1224)/D080P(13920×1080)/ Sys2(1280×1224)/D080P(13920×1080)/ Sys2(1280×124)/D08 | Pan/Tilt Range | Pan:0° ~355° ;Tilt:0° ~90° ;Rotation:0° ~355° |
| Event TriggerNetwork disconnection , IP address conflict, Illegal Access,Storage anomalyIVSTripwire, IntrusionVideoVideoCompressionH.265/H.264H/MJPEG(Sub Stream)Smart CodecSupport H.265+/H.264+Streaming Capability2 StreamsResolutionSM(2592×1944)/4M(2688x1520)/ (2560×1440)/(2304x1296)/10800/13920×1080)/ Syst(1280x12291/20800/12920×1080)/ Syst(1280x12291/20800)/209(1280x720)/ Di(704×576/704×480)/VGA(640×480)/ (2560×1440)/(2304x1296)/10800/13920×1080)/ Syst(1280x12296)/10800/13920×1080)/ Syst(1280x12296)/10800/13920×1080)/ Syst(1280x12296)/10800/13920×1080)/ Syst(1280x12296)/10800/13920×1080)/ Syst(1280x12296)/10800/13920×1080)/ Syst(1280x12296)/10800/13920×1080)/ Syst(1280x12296)/10800/13920×1080)/ Syst(1280x12296)/10800/13920×1080)/ Syst(1280x12296)/10800/13920×1080)/ Syst(1280x1296)/10800/1280x7200/ Syst(1280x1296)/10800/1280x7200/ Syst(1280x1296)/10800/1280x7200/ Syst(1280x1296)/10800/1280x7200/ Syst(1280x1296)/1080/1280x7200/ Syst(1280x1296)/1080/1280x7200/ Syst(1280x1296)/1080/1280x7200/ Syst(1280x298)/352×240)Bit Rate ControlCBK/VBRBit Rate ControlAuto(ICR) / Color / B/WBit Rate ControlAuto(ICR) / Color / B/WBit RateSystem: Di/LiF / 1264 32K ~ 10240KbpsControlAuto/ManualGain ControlAuto/Natural/Street Lamp/Outdoor/ManualNoise ReductionOff / On (4 Zone, Rectangle)Noke ReductionSystem:System:NAStabilization(EIS)NASinger IISystem:Giptal ZoomIskFipiOff / OnFipi AutoO | Intelligence | |
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| CompressionH.265/H.264H/MJPEG(Sub Stream)Smart CodecSupport H.265+/H.264HStreaming Capability2 StreamsFesolutionSM(2592x1944)/44(280452520)/ (2560x1440)/(2304x1296)/18001/1920x1080)/ SSGA(1280x1024)/1.3M(1280x 960)/720P(1280x720)/ DI(704x576/704x480)/(CB(542x480)/CG)/12007201/280x720)/ DI(704x576/704x480)/(CB(542x480)/CG)/12007201/280x720)/ DI(704x576/704x480)/(CB(542x68))Frame RateMain Stream: SM (1~15fps)/3M(1~25/30fps)Bit Rate ControlCBR/VBRBit Rate ControlAuto(ICR) / Color / B/WBit ChiceAuto(ICR) / Color / B/WBuc ModeBLC / HLC / WDR(120dB)Vhite BalanceAuto/ManualGain ControlAuto/ManualNoise Reduction3D DNRNotion DetectionOff / On (4 Zone)Fachilization(EIS)N/ASimart IRSupportJoigtal ZoomIfsFlip0'90'/180'/270*MirorOff / OnPrivacy MaskingOff / On (4 Area, Rectangle)AutoinSupportStreame Rectangle)SupportSint IROff / OnSint IROff / On <t< td=""><td>IVS</td><td>Tripwire, Intrusion</td></t<> | IVS | Tripwire, Intrusion |
| American Support H.265+/H.264+ Streaming Capability 2 Streams Streaming Capability 2 Streams Resolution \$\frac{2592x1944}{2568x1520}/2560x1440}{2560x1440}/(2304x1296)/1080P(1920x1080)/25X64(1280x502)/25X6/25X6/25X6/25X6/25X6/25X6/25X6/25X6 | Video | |
| Streaming Capability 2 Streams Streaming Capability 2 Streams Resolution SM(2592×1944)/4M(2688×1520)/ (256×1440)/(2304×1296)/1080P(1920×1080)// SSG04/1280×1204)/13M(1280×60)/730P(1280×720)/ DI(704×576/704×480)/VGA(640×480)/ CIF(352×288/352×240) Frame Rate Main Stream: SM (1~15fps)/3M(1~25/30fps) Bit Rate Control CBK/VBR Bit Rate Control Auto(ICR) / Color / B/W Bit Rate Auto(ICR) / Color / B/W Bit Rate Bit / HLC / WDR(120dB) Capy/Night Auto/Manual Gain Control Auto/Manual Noise Reduction Off / On (4 Zone, Rectangle) Region of Interest Off / On (4 Zone) Stabilization(EIS) N/A Sing I Zoom Infa Miror Off / On (4 Zone) Flip o'y90*/180*/270* Miror Off / On Privacy Masking Off / On (4 Area, Rectangle) | Compression | H.265/H.264H/MJPEG(Sub Stream) |
| Resolution FM(2592x1944)/4M(2688x1520)/ (2560x1440)/(2304x1296)/1080P(1920x1080)/ SXGA(1280x1024)/1.3M(1280x 960)/720P(1280x720)/ D1(704x576/704x480)/VGA(640x480)/ CF(352x288/352x240) Frame Rate Main Stream: 5M (1 ~ 15fps)/3M(1 ~ 25/30fps) Bit Rate Control CBR/VBR Bit Rate H.265: 12K ~ 8448kbps H.264: 32K ~ 10240Kbps Day/Night Auto(ICR) / Color / B/W BLC Mode BLC / HLC / WDR(120dB) White Balance Auto/Manual Gain Control Auto/Manual Moitoin Detection Off / On (4 Zone) Electronic Image Support Signat I R Support Fip 16x Fip Off / On (4 Zone) Filip 0/90°/180°/270° Mirror Off / On (4 Area, Rectangle) Mirror Off / On (4 Area, Rectangle) | Smart Codec | Support H.265+/H.264+ |
| Resolution (2550×1440)/(2304×1290/)1080P(1920×1080)/ SXGA(1280×1024)/1.3M(1280×960)/720P(1280×720)/ SXGA(1280×1024)/I.3M(1280×960)/720P(1280×720)/ CF(552×288/352×240) Frame Rate Main Stream: SM (1~15fps)/3M(1~25/30fps) Bit Rate Control CBR/VBR Bit Rate h.265: 12K ~ 8448Kbps Day/Night Auto(ICR) / Color / B/W BLC Mode BLC / HLC / WDR(120dB) White Balance Auto/Manual Gain Control Auto/Manual Noise Reduction Off / On (4 Zone, Rectangle) Region of Interest Off / On (4 Zone) Bitarta Support Digital Zoom Ifo Mirror Off / On (4 Zone) Mirror Off / On (4 Zone) Mirror Off / On (4 Zone) Privacy Masking Off / On (4 Zone) | Streaming Capability | 2 Streams |
| Frame Rate Sub Stream: D1/CIF(1 ~ 25/30fps) Bit Rate Control CMR/VBR Bit Rate ALSS: 12K ~ 84.48Kbps 1.264: 32K ~ 10240Kbps Day/Night Auto(ICR) / Color / B/W BLC Mode BLC / WDR(120dB) White Balance Auto/Natural/Street Lamp/Outdoor/Manual Gain Control Auto/Manual Noise Reduction SD DNR Region of Interest Off / On (4 Zone, Rectangle) Ratar IR Support Sigital Zoom Isk Miror Off / On Flip Off / On Privacy Masking Off / On Autoin Support | Resolution | (2560×1440)/(2304x1296)/1080P(1920x1080)/ SXGA(1280×1024)/1.3M(1280×960)/720P(1280×720)/ D1(704×576/704×480)/VGA(640×480)/ |
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| Gain ControlAuto/ManualNoise Reduction3D DNRMotion DetectionOff / On (4 Zone, Rectangle)Region of InterestOff / On (4 Zone)Electronic Image Stabilization(EIS)N/ASmart IRSupportDigital ZoomIskFlip0'/90'/180'/270'MirorOff / On (4 Area, Rectangle)Privacy MaskingOff / On (4 Area, Rectangle)AudioIst | BLC Mode | BLC / HLC / WDR(120dB) |
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| Notion Detection Off / On (4 Zone, Rectangle) Region of Interest Off / On (4 Zone) Electronic Image Stabilization(EIS) N/A Smart IR Support Digital Zoom 16x Flip 0*/90*/180*/270* Mirror Off / On (4 Area, Rectangle) Privacy Masking Off / On (4 Area, Rectangle) | Gain Control | Auto/Manual |
| Region of Interest Off / On (4 Zone) Electronic Image Stabilization(EIS) N/A Smart IR Support Digital Zoom 16x Flip 0'/90'/180'/270° Mirror Off / On (4 Area, Rectangle) Audio Yes | Nois e Reduction | 3D DNR |
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| Stabilization(EIS) N/A Smart IR Support Digital Zoom 16x Flip 0*/90*/180*/270* Mirror Off / On Privacy Masking Off / On (4 Area, Rectangle) Audio | Region of Interest | Off / On (4 Zone) |
| Digital Zoom 16x Flip 0*/90*/180*/270* Mirror Off / On Privacy Masking Off / On (4 Area, Rectangle) Audio | 8 | N/A |
| Flip 0*/90*/180*/270* Mirror Off / On Privacy Masking Off / On (4 Area, Rectangle) Audio Image: Comparison of the sector of the s | Smart IR | Support |
| Mirror Off / On Privacy Masking Off / On (4 Area, Rectangle) Audio Image: Comparison of the sector o | Digital Zoom | 16x |
| Privacy Masking Off / On (4 Area, Rectangle) Audio | Flip | 0°/90°/180°/270° |
| Audio | Mirror | Off / On |
| | Privacy Masking | Off / On (4 Area, Rectangle) |
| Compression N/A | Audio | |
| | Compression | N/A |

| Ethernet | RJ-45 (10/100Base-T) |
|----------------------|--|
| Protocol | HTTP;HTTPs;TCP;ARP;RTSP;RTP;RTCP;UDP;SMTP; SNMP; FTP;DHCP;DNS;DDNS;PPPoE;IPv4/v6;QoS; UPnP;NTP;Bonjour;IEEE 802.1x;Multicast;ICMP; IGMP;TLS |
| Interoperability | ONVIF Profile S&G, API |
| Streaming Method | Unicast / Multicast |
| Max. User Access | 10 Users / 20 Users |
| Edge Storage | NAS Local PC for instant recording Micro SD Card 128GB |
| Web Viewer | IE, Chrome, Firefox, Safari |
| Management Software | Smart PSS, DSS, DMSS |
| Smart Phone | IOS, Android |
| Certifications | |
| Certifications | CE (EN 60950:2000) UL:UL60950-1 FCC: FCC Part 15 Subpart B |
| Interface | |
| Video Interface | N/A |
| Audio Interface | N/A |
| RS485 | N/A |
| Alarm | N/A |
| Electrical | |
| Power Supply | DC12V,PoE (IEEE 802.3af)(Class 0) |
| Power Consumption | <9.5W(-ZS), <7.5W(-VFS) |
| Environmental | |
| Operating Conditions | -30° C $^{\sim}$ +60° C (-22° F $^{\sim}$ +140° F) / Less than 95% RH |
| Storage Conditions | -30° C $^{\sim}$ +60° C (-22° F $^{\sim}$ +140° F) / Less than 95% RH |
| Ingress Protection | IP67 |
| Vandal Resistance | IK10(Optional) |
| Construction | |
| Casing | Metal |
| Dimensions | 122mm×88.9mm(4.80''x3.50'') |
| Net Weight | 0.4Kg (0.88lb) |
| Gross Weight | 0.54Kg(1.19lb) |

Network

