# DH-IPC-T2B20-L-ZS

2MP IR Turret Network Camera



- · 1/2.7" 2Megapixel progressive CMOS
- · H.265+ & H.265 dual-stream encoding
- · 20fps@1080P(1920×1080)
- · DWDR, Day/Night(ICR), 3DNR, AWB, AGC, BLC
- $\cdot$  Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- · 2.8~12mm varifocal lens
- · Max IR LEDs Length 40m
- · Micro SD card memory, IP67, PoE









#### **System Overview**

ALPS 2.0 is perfect for small to medium size applications like home/ residential security, small retail shops, and other typical SMB applications. It offers a perfect alternative to migrate from analog to an IP system with its easy to use nature and cost effectiveness.

ALPS 2.0 is fully in line with Dahua's quality. Stable and reliable components are utilized and Various tests such as anti-vibration, water resistance, and aging tests are performed to ensure Dahua quality standards.

#### **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.

### True Day/Night

A day/night mechanical IR cut filter makes this camera ideal for applications with fluctuating lighting conditions, delivering color images during the day and automatically switching to monochrome as the scene darkens

#### Regions of interest

Regions of Interest (ROI) is a user defined feature that allows the operator to monitor specific areas of a scene while still maintaining overall situational awareness of less important areas

#### Smart IR

With IR illumination, detailed images can be captured in low light or total darkness. The camera's Smart IR technology adjusts to the intensity of camera's infrared LEDs to compensate for the distance of an object. Smart IR technology prevents IR LEDS from whiting 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 40m (131ft).

#### Image flip

Capturing unnecessary data such as surrounding hallway walls can increase storage requirements without any added value. The image flip feature allows the camera's image to be rotated in 90° increments for better video optimization.

#### 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.

#### 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) .

#### Interoperability

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



| Camera Image Sensor 1/2.7" 2Megapixel progresive CMOS White Balance Auto/Natural/Street Lamp/Outdoor/Manual  Effective Pixels 1920(H)x1080(V) Gain Control Auto/Manual  RAM/ROM 64MB/16MB Noise Reduction 3D DNR  Scanning System Progressive Motion Detetion Off / On (4 Zone, Rectangle)  Electronic Shutter Speed Auto/Manual, 1/3"1/100000S Region of Interest Off / On (4 Zone)  Minimum Illumination 0.3Lux/F1.8( Color, 1/30s, 30IRE) 0.3Lux/F1.8( Color, 1/30s, 30IRE) 0.3Lux/F1.8( Ron)  S/N Ratio More than 40dB EIR Distance Distance up to 40m(131ft)  IR On/Off Control Auto/ Manual  IR LEDS 2  Lens  Lens Type Motorized Motorized Motorized Off / On (4 Area, Rectangle)  Mount Type Board-in  Max. Aperture F1.8  |                          |          |   |                  |             |             | - 60.1              |  |
|--|--------------------------|----------|---|------------------|-------------|-------------|---------------------|--|
| Mining Sension   |                          | ресіпса  | tion  |                  |             |             | Day/Night           | Auto(ICR) / Color / B/W  |
| ## RAM/ROM   |                          |          |   |                  |             |             |                     |  |
| Many Many   Many Many   Many Many Many Many Many Many Many Many  | Image Sensor             |          |   |                  |             |             |                     |  |
| Monte   Mon  | Effective Pixels         |          | 1920(H)x1080(V)                               |                  |             |             | Gain Control        | Auto/Manual  |
| Restroine Shuter   Special   Anni Amanua   1/3*1/100000  | RAM/ROM                  |          | 64MB/16MB                                     |                  |             |             | Noise Reduction     | 3D DNR   |
| Dectronic image Stabilization   Ng/A   | Scanning System          |          | Progressive                                   |                  |             |             | Motion Detetion     | Off / On (4 Zone, Rectangle)   |
| Minimum   Min  | Electronic Shutter Speed |          | Auto/Manual, 1/3~1/100000s                    |                  |             |             | Region of Interest  | Off / On (4 Zone)  |
| So N Action   More Hum 4048   More Hum 4048  | Minimum Illumination     |          | 0.3Lux/F1.8( Color,1/30s,30IRE)               |                  |             |             | (EIS)               |  |
| IR Datace   Distance up to 40m(1214ft)   | S/N Ratio                |          | More than 40d                                 | В                |             |             | Smart IR            | Support  |
| Mirror   | IR Distance              |          |   | 40m(131ft)       |             |             | Digital Zoom        | 16x  |
| Privacy Masking  | IR On/Off Contr          | ol       | Auto/ Manual                                  |                  |             |             | Flip                | 0°/90°/180°/270°   |
| Lens Type  | IR LEDs                  |          | 2   |                  |             |             | Mirror              | Off / On   |
| Motoritype   | Lens                     |          |   |                  |             |             | Privacy Masking     | Off / On (4 Area, Rectangle)   |
| Compression   Ny/A   |                          |          | Materiaed                                     |                  |             |             | Audio               |  |
| Network  |                          |          |   |                  |             |             | Compression         | N/A  |
| Ethernet   |                          |          |   |                  |             |             | Network             |  |
| Protocol   Protocol  |                          |          |   |                  |             |             | Ethernet            | RJ-45 (10/100Base-T)   |
| Close Focus Distance   Close Focus Distance Distance Distance   Close Focus Distance Distance Distance Distance   Close Focus Distance Distance Distance Distance Distance   Close Focus Distance Dist |                          |          |   |                  |             |             | Protocol            | HTTP;HTTPS;TCP;ARP;RTSP;RTP;RTCP;UDP;FTP;DHCP;DNS;IPV4;NTP;Multicast;ICMP;IGMP;TLS |
| Lens   | Focus Control            |          | Motorized                                     |                  |             |             | Interoperability    | ONVIF Profile S  |
| DORI Distance  | Close Focus Dist         | tance    |   |                  |             |             | Streaming Method    | Unicast / Multicast  |
| Frame Rate   W   44ff (144.41)   17.6m   17.7m   8.8m   8.8m   8.8m   8.9m   4.4m    |                          | Lens     | Detect  | Observe          | Recognize   | Identify    | Max. User Access    | 10 Users/20 Users  |
| PTZ Pan/Tilt Range Pan:0° ~360° ;Tilt:0° ~90° ;Rotation:0° ~360° Intelligence  Event Trigger Motion detection, Video tampering, Network disconnection , Scene change, IP address conflict, Illegal Access, Storage anomaly  Video  Compression H.265/H.264/H.264B/MJPEG(Sub Stream)  Smart Codec Support H.265+/H.264+  Streaming Capability 2 Streams  Resolution 1080P(1920×1080)/1.3M(1280×960)/720P(1280×720)/VGA(640×280)/01(704×576/704×480)/CIF(352×288/352×240)  Bit Rate Control CBR/VBR  Bit Rate Control CBR/VBR  Main Stream: 1.3M(1~25/30fps)  Web Viewer Management Software Smart PSS, DSS, DMSS  Smart PSS, DSS, DMS  Smart PSS, DAS, DMS  Smart PS, DAS, DAS, DMS  Smart PSS, DAS, DMS  Certifications  CErtifications  CErtifications  Scentifications  CErtifications  CErtifications  Scentifications  CErtifications  Addio Interface  N/A  Adio Interface  N/A  Alarm  N/A  Alarm  N/A  Power Consumption  DC12V, PoE (802.3af)(Class O)  Poet: 2.1W, 6.6W(IR On)  Poet: 2.1W, 6.6W(IR On)   | DORI Distance            |          |   |                  |             |             | Edge Storage        | Local PC for instant recording   |
| Pan/Tilt Range       Pan:0° ~360°; Tilt:0° ~90°; Rotation:0° ~360°       Management Software       Smart PSS, DSS, DMSS         Intelligence       Smart Phone       IOS, Android         Event Trigger       Motion detection, Video tampering, Network disconnection, Scene change, IP address conflict, Illegal Access, Storage anomaly       Certifications         Main Scale Miles Mil   |                          | Т        | 133m(436.4ft)                                 | 53m(173.9ft)     | 27m(88.6ft) | 13m(42.7ft) | Web Viewer          | IE, Chrome, Firefox, Safari  |
| Pan/Tilt Range   |                          |          |   |                  |             |             | Management Software | Smart PSS, DSS,DMSS  |
| Intelligence  Event Trigger  Motion detection, Video tampering , Network disconnection , Scene change, IP address conflict, Illegal Access, Storage anomaly  Video  Compression  H.265/H.264/H.264B/MJPEG(Sub Stream)  Smart Codec  Support H.265+/H.264+  Streaming Capability  2 Streams  Resolution  1080P(1920×1080)/1.3M(1280×960)/720P(1280×720)/VGA(640×480)/D1(704×576/704×480)/CIF(352×288/352×240)  Frame Rate  Main Stream: 1.3M(1~25/30fps)  Bit Rate Control  CBR/VBR  Motion detection, Video tampering , Network disconnection , Scene change, IP address, Storage anomaly  Certifications  CE: (EN 60950:2000)  CE: (EN 60950:2000)  FCC: FCC Part 15 Subpart B  Certifications  CE: (EN 60950:2000)  FCC: FCC Part 15 Subpart B  N/A  N/A  Addio Interface  N/A  RS485  N/A  Alarm  N/A  Electrical  Frame Rate  DC12V, PoE (802.3af)(Class 0)  DC12V, PoE (802.3af)(Class 0)  DC12V: 1.8W, 5.6W(IR On) PoE: 2.1W, 6.6W(IR On) PoE: 2.1W, 6.6W(IR On)   |                          |          | Pan:0° ~360° ;Tilt:0° ~90° ;Rotation:0° ~360° |                  |             |             | -                   |  |
| Event Trigger  | Intelligence             | <u>:</u> |   |                  |             |             |                     | ,,   |
| Video         FCC: FCC Part 15 Subpart B           Compression         H.265/H.264/H.264B/MJPEG(Sub Stream)         Interface           Smart Codec         Support H.265+/H.264+         Video Interface         N/A           Streaming Capability         2 Streams         Audio Interface         N/A           Resolution         1080P(1920×1080)/1.3M(1280×960)/720P(1280×720)/VGA(640×480)/DI(704×576/704×480)/CIF(352×288/352×240)         RS485         N/A           Alarm         N/A           Frame Rate         Main Stream: 1080P(1 ~ 20fps)         Electrical           Sub Stream: 1.3M(1 ~ 25/30fps)         Power Supply         DC12V, PoE (802.3af)(Class 0)           Bit Rate Control         CBR/VBR         Power Consumption         DC12V: 1.8W, 5.6W(IR On) PoE: 2.1W, 6.6W(IR On)  | Event Trigger            |          | , Scene change,                               |                  |             |             |                     |  |
| Smart Codec         Support H.265+/H.264+         Video Interface         N/A           Streaming Capability         2 Streams         Audio Interface         N/A           Resolution         1080P(1920×1080)/1.3M(1280×960)/720P(1280×720)/<br>VGA(640×480)/D1(704×576/704×480)/CIF(352×288/352×240)         RS485         N/A           Frame Rate         Main Stream: 1080P(1 ~ 20fps)         Electrical           Sub Stream: 1.3M(1 ~ 25/30fps)         Power Supply         DC12V, PoE (802.3af)(Class 0)           Bit Rate Control         CBR/VBR         Power Consumption         DC12V: 1.8W, 5.6W(IR On) PoE: 2.1W, 6.6W(IR On)           Bit Rate         H.264: 32K~6144K         Power Consumption         DC12V: 1.8W, 5.6W(IR On)   | Video                    |          |   |                  |             |             | certifications      | FCC: FCC Part 15 Subpart B   |
| Streaming Capability         2 Streams         Audio Interface         N/A           Resolution         1080P(1920×1080)/1.3M(1280×960)/720P(1280×720)/VGA(640×480)/D1(704×576/704×480)/CIF(352×288/352×240)         RS485         N/A           Frame Rate         Main Stream: 1080P(1 ~ 20fps)         Electrical           Sub Stream: 1.3M(1 ~ 25/30fps)         Power Supply         DC12V, PoE (802.3af)(Class 0)           Bit Rate Control         CBR/VBR         Power Consumption         DC12V: 1.8W, 5.6W(IR On) PoE: 2.1W, 6.6W(IR On)  | Compression              |          | H.265/H.264/H.264B/MJPEG(Sub Stream)          |                  |             |             | Interface           |  |
| Resolution   2   Streams   2   | Smart Codec              |          | Support H.265+                                | -/H.264+         |             |             | Video Interface     | N/A  |
| Resolution   1080P(1920x1080)/1.3M(1280x960)/720P(1280x720)/ VGA(640x480)/D1(704x576/704x480)/CIF(352x288/352x240)   Alarm   N/A   | Streaming Capability     |          | 2 Streams                                     |                  |             |             | Audio Interface     | N/A  |
| Frame Rate         Main Stream: 1080P(1 ~ 20fps)         Electrical           Sub Stream: 1.3M(1 ~ 25/30fps)         Power Supply         DC12V, PoE (802.3af)(Class 0)           Bit Rate Control         CBR/VBR         Power Consumption         DC12V: 1.8W, 5.6W(IR On) PoE: 2.1W, 6.6W(IR On)   |                          |          | · · · · · · · · · · · · · · · · · · ·         |                  |             |             | RS485               | N/A  |
| Frame Rate Sub Stream: 1.3M(1 ~ 25/30fps) Power Supply DC12V, PoE (802.3af)(Class 0)  Bit Rate Control  CBR/VBR Power Consumption PoE: 2.1W, 6.6W(IR On) PoE: 2.1W, 6.6W(IR On)  |                          |          |   |                  |             |             | Alarm               | N/A  |
| Sub Stream: 1.3M(1~25/30fps)  Power Supply  DC12V, PoE (802.3af)(Class 0)  Bit Rate Control  CBR/VBR  Power Consumption  PoE: 2.1W, 6.6W(IR On)  PoE: 2.1W, 6.6W(IR On)  | Frame Rate               |          | Main Stream: 1080P(1 ~ 20fps)                 |                  |             |             | Electrical          |  |
| Power Consumption PoE: 2.1W, 5.6W(R On)  Bit Rate H.264: 32K~6144K   |                          |          | Sub Stream: 1.3                               | BM(1 ~ 25/30fps) |             |             | Power Supply        | DC12V, PoE (802.3af)(Class 0)  |
| Bit Rate H.264: 52K 6144K  | Bit Rate Control         |          |   |                  |             |             | Power Consumption   |  |
|  | Bit Rate                 | Bit Rate |   |                  |             |             |                     | , ,  |

#### Environmental

| Operating Conditions | -30° C $^{\sim}$ +60° C (-22° F $^{\sim}$ +140° F) / Less than 95% RH |
|----------------------|---|
| Strorage Conditions  | -30° C $^{\sim}$ +60° C (-22° F $^{\sim}$ +140° F) / Less than 95% RH |
| Ingress Protection   | IP67  |
| Vandal Resistance    | N/A   |

#### Construction

| Casing       | Metal+Plastic            |  |
|--------------|--------------------------|--|
| Dimensions   | Ф122mm×100mm(4.8"x3.94") |  |
| Net Weight   | 0.397Kg(0.875lb)         |  |
| Gross Weight | 0.576Kg(1.27lb)          |  |

| Ordering Information      |                    |                                       |  |  |  |
|---------------------------|--------------------|---------------------------------------|--|--|--|
| Туре                      | Part Number        | Description                           |  |  |  |
| 200 6                     | DH-IPC-T2B20P-L-ZS | 2MP IR turret Network Camera,<br>PAL  |  |  |  |
| 2MP Camera                | DH-IPC-T2B20N-L-ZS | 2MP IR turret Network Camera,<br>NTSC |  |  |  |
|                           | PFA130-E           | Junction box                          |  |  |  |
|                           | PFA152-E           | Pole mount                            |  |  |  |
| Accessories<br>(optional) | PFA151             | Corner mount                          |  |  |  |
| (-)                       | PFB203W            | Wall mount                            |  |  |  |
|                           | PFA106             | Ceiling mount                         |  |  |  |
|                           | PFB220C            | Ceiling mount                         |  |  |  |

## **Accessories**

# **Optional:**







PFA130-E Junction Box



PFB203W



Cornermount

PFA106

PFB220C Ceiling mount Ceiling mount

| Junction Mount | Ceiling Mount    | Pole Mount         |
|----------------|------------------|--------------------|
| PFA130-E       | PFA106 + PFB200C | PFB203W + PFA152-E |
|                |                  |                    |
| Wall Mount     | Corner Mount     |                    |
| PFB203W        | PFA151 + PFB203W |                    |
|                |                  |                    |

# Dimensions (mm/inch)



