# **DUNLOP**

#### DP-22DP0818Z-D

### PanoVu series 180°Panoramic+PTZ Camera

















Dunlop PanoVu series DP-22DP0818Z-D panoramic + PTZ cameras, with its integration design, are able to capture panoramic images as well as close-up images to give consideration to both panorama and details. The panoramic images are captured by four sensors, which could realize 180° panorama monitoring. The design of integration model and high speed PTZ offers the function of fast detail positioning over panoramic area.

Furthermore, with its advanced video analysis and multiple targets tracking algorithm, PanoVu cameras also feature a wide range of smart functions for multiple targets within the panoramic view filed, including intrusion detection, line crossing detection, region entrance detection, region exiting detection. The cameras could also output alarm signals to linkage the PTZ for tracking, benefitting users with great improvement on security efficiency.

- 1/1.9" Progressive Scan CMOS
- Up to 4096 × 1800 @30fps
- Ultra-low illumination
- 180° View Angle
- 36X optical zoom, 16X digital zoom
- WDR
- Multiple targets tracking
- 36VDC power supply
- IP66



#### **Function Description**

#### **Panoramic Camera**

- Four 1/1.9" Progressive Scan CMOS, up to 4096 × 1800 resolution @30fps
- Horizontal angle of view: 180°, Vertical angle of view:80°
- Min. Illumination: 0.005Lux@(F2.2,AGC ON)(Color), 0.0005Lux@(F2.2,AGC ON)(B/W)

#### **Tracking Camera**

- 1/1.9" Progressive Scan CMOS, up to 1920 × 1080 resolution @30fps
- Min. Illumination: 0.002Lux@(F1.5,AGC ON)(Color), 0.0002Lux@(F1.5,AGC ON)(B/W)
- 36X optical zoom, 16X digital zoom
- 360° endless pan range and -15°~ 90° tilt range
- 540% Pan Preset Speed and 400% Tilt Preset Speed
- 0.1°~ 300°/s Manual Pan Speed and 0.1°~ 240°/s Manual Tilt Speed
- 300 presets programmable; preset image freezing capability
- 8 patrols, up to 32 presets per patrol
- Power-off memory: restore PTZ & Lens status after reboot

#### **Basic function**

- H.264/MJPEG video compression
- H.264 encoding with Baseline/Main/High profile
- Onboard storage, up to 128GB
- Multiple network protocols supported: IPv4/Ipv6, HTTP, HTTPS, 802.1X, QoS, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE
- 1 audio input and 1 audio output
- IP66 standard

#### **System function**

- Smart detection: support intrusion detection, line crossing detection, region entrance detection, and region exiting detection.
- Support detecting moving targets in a semicircular range in 300 m diameter. Up to 30 targets can be detected at the same time.
- Support one-touch link. By clicking the client or choosing region at any position on the panoramic image, the tracking camera will automatically adjust to place the region at the center of the image.
- Support automatic target tracking function. By setting the rules of smart events, the cameras will steadily tracking moving targets which triggers event in the setting time.
- Support manually choosing tracking targets and steadily tracking in the setting time.
- Support multiple target automatically switch tracking, switching time less than 1s.
- Smart image processing: support WDR, HLC, Defog.
- Support ONVIF(Open Network Video Interface Forum), PSIA(Physical Security Interoperability Alliance), to ensure
  greater interoperability between different platforms and compatibility.
- 7 alarm input and 2 alarm output.
- Optional fiber cable and RJ-45 cable.



## **Specifications**

System Function		
One-touch Link	Support	
Tracking mode	Manual/ Auto/ Mix	
Number of Targets	Up to 30 targets can be detected at the same time	
Multiple Targets Tracking	Support	
Target switch time	<1s	
Calibration	Manual/ Auto	
Smart Detection	Intrusion detection, Line crossing detection, Region entrance detection, Region exiting detection	
Tracking Time	Support	
Sensitivity	Support	
Panoramic Camera		
Image Sensor	1/1.9" Progressive Scan CMOS	
Max. Image Resolution	4096 × 1800	
Min. Illumination	Color: 0.005 Lux @ (F2.2, AGC ON), B/W: 0.0005Lux @ (F2.2, AGC ON)	
Lens	f5.0mm/ F2.2	
Angle of View	Horizontal angle of view: 180°, Vertical angle of view: 80°	
Main Stream	50Hz: 25fps (4096 × 1800, 3840 × 1680,2720×1192); 60Hz: 30fps (4096 × 1800, 3840 × 1680,2720×1192)	
Sub Stream	50Hz:25fps(176 × 144, 352 × 288, 704 × 320) 60Hz:30fps(176 × 144, 352 × 288, 704 × 320)	
Third Stream	50Hz:25fps(176 × 144, 352 × 288, 704 × 320, 1280 × 960, 1280 × 720, 1920 × 1080); 60Hz:30fps(176 × 144, 352 × 288, 704 × 320, 1280 × 960, 1280 × 720, 1920 × 1080)	
Image Compression	H.264(Baseline, Main, High Profile)/MJPEG	
Others	HLC, 3D DNR	
Tracking PTZ Camera		
Image Sensor	1/1.9" Progressive Scan CMOS	
Max. Image Resolution	1920 × 1080	
Min. Illumination	Color: 0.002 Lux @ (F1.5, AGC ON), B/W: 0.0002Lux @ (F1.5, AGC ON)	
Focal Length	5.7 - 205.2mm, 36X	
Zoom Speed	Approx.6.6s (Optical Wide-Tele)	
Angle of View	58.7° - 2.0° (Wide-Tele)	
Min. Working Distance	10-1500mm(Wide-Tele)	
White Balance	Auto / Manual /ATW/Indoor/Outdoor/Daylight lamp/Sodium lamp	
Day & Night	IR Cut Filter	
Privacy Mask	24 privacy masks programmable; optional multiple colors and mosaics	
Optical Defog	Support	
ROI encoding	Support 24 areas with adjustable levels	
Main Stream	50Hz: 25fps (1920 × 1080, 1280 × 960, 1280 × 720) 60Hz: 30fps (1920 × 1080, 1280 × 960, 1280 × 720)	
Sub Stream	50Hz:25fps (704×576, 352×288, 176×144) 60Hz:30fps (704×480, 352×240, 176×120)	
Third Stream	50Hz:25fps(1920×1080, 1280×960, 1280×720, 704×576, 352×288, 176×144) 60Hz:30fps(1920×1080, 1280×960, 1280×720, 704×480, 352×240, 176×120)	
Image Compression	H.264(Baseline, Main, High Profile)/MJPEG/MPEG4	
Others	120dB WDR, HLC, 3D DNR, EIS	



Range         Pan: 360° endless; Tilt: -15° 90° (Auto flip)           Speed         Pan Manual Speed: 0.1°-300°/s, Pan Preset Speed: 540°/s           Number of Preset         300           Patrol         8 patrols, up to 32 presets per patrol           Patrol         4 patterns, with the recording time not less than 10 minutes per pattern           Patrol         4 patterns, with the recording time not less than 10 minutes per pattern           Park Action         4 patterns, with the recording time not less than 10 minutes per pattern           Park Action         4 patterns, with the recording time not less than 10 minutes per pattern           Scheduled Task         Preset / Patrol / Pattern / Auto scan / Tilt scan / Random scan / Frame scan / Panorama scan/Dome reboot/Dome adjust/Aux output           Power-off memory         Support           Alarm 1/0         72           Alarm Trigger         Face detection, Audio exception detection, Motion detection, Dynamic analysis, Tampering all network disconnect, IP address conflict, Storage exception           Alarm Trigger         Face detection, Audio exception detection, Motion detection, Dynamic analysis, Tampering all network disconnect, IP address conflict, Storage exception           Alarm Trigger         Pace detection, Audio exception detection, Motion detection, Dynamic analysis, Tampering all network disconnect, IP address conflict, Storage exception           Alarm Trigger         Alarm Trigger         Alarm Trigger	Pan and Tilt (Tracking PTZ Can	nera)
Tilt Manual Speed: 0.1*~240*/s, Tilt Preset Speed: 400*/s  Number of Preset 300  Pattero 8 patrols, up to 32 presets per patrol  Pattern 4 patterns, with the recording time not less than 10 minutes per pattern  Park Action Preset / Patrol / Pattern / Auto scan / Tilt scan / Random scan / Frame scan / Panorama scan  Scheduled Task Preset / Patrol / Pattern / Auto scan / Tilt scan / Random scan / Frame scan / Panorama scan  Scheduled Task Preset / Patrol / Pattern / Auto scan / Tilt scan / Random scan / Frame scan / Panorama scan/Dome reboot/Dome adjust/Aux output  Power-off memory Support  Alarm Alarm I/O 7/2  Alarm Trigger Face detection, Audio exception detection, Motion detection, Dynamic analysis, Tampering ala Network disconnect, IP address conflict, Storage exception  Alarm Action Preset / Patrol / Pattern / SD card recording/ Aux output/ E-map on Client/ Send Email/ Upload to FTP Input / Output  Audio Input 1 Mic in/Line in interface, line leput: 2-2.4V[p-p]; output impedance: 1KO, ±10%  Audio Output 1 Audio output interface, line leput: 2-2.4V[p-p]; output impedance: 1KO, ±10%  Audio Compression G.7.11ulaw/G.7.11alaw/G.7.22/G.7.26/MP2L2/PCM  Protocols Phylipv6,HTTPHTTPS,802.1x,Qos,FTP,SMTP,UPnP,SNMP,DNS,DDNS,NTP,RTSP,RTP,TCP,UDP,IGMP,ICMP, DHCP, PPPOE  Application programming Open-meded API, Onvif, ISAPI, PSIA  System Intergration  Menu English Open-ended API, Onvif, ISAPI, PSIA  System Intergration  Web Browser IE*, chrome 18*, Firefox S.0*, Safari S.02*, support multi-language  Simultaneous Live View Up to 20 users  Fiber Cable 1 10M/1000M/1000M Fc interface, TX1310 / RX1550nm wavelength, 20 km transmission distance  Ethernet 1 R145 100M/1000M Ethernet interface  Fiber Cable 1 10M/1000M/1000M Fc interface, TX1310 / RX1550nm wavelength, 20 km transmission distance  Ethernet Cable 1 10M/100M/1000M Fc interface, TX1310 / RX1550nm wavelength, 20 km transmission distance  Ethernet 1 R145 100M/1000M Fc interface, TX1310 / RX1550nm wavelength, 20 km transmission distance  Fower DC S64, MAX. 70W (Heater 22W)	Range	Pan: 360° endless; Tilt: -15°~ 90° (Auto flip)
Patrol         8 patrols, up to 32 presets per patrol           Pattern         4 patterns, with the recording time not less than 10 minutes per pattern           Park Action         Preset / Patrol / Pattern / Auto scan / Tilt scan / Random scan / Frame scan / Panorama scan           Scheduled Task         Preset / Patrol / Pattern / Auto scan / Tilt scan / Random scan / Frame scan / Panorama scan/Dome reboot/Dome adjust/Aux output           Power-off memory         Support           Alarm Modern         Typest / Patrol / Pattern / Storage scaption           Alarm Mrigger         Face detection, Audio exception detection, Motion detection, Dynamic analysis, Tampering ala Network disconnect, IP address conflict, Storage exception           Alarm Action         Preset / Patrol / Pattern / SD card recording/ Aux output/ E-map on Client/ Send Email/ Upload to FTP Input / Output           Input / Output         1 Mic in/Line in interface, line input: 2-2.4V[p-p]; output impedance: 1KΩ, ±10%           Audio Input         1 Mic in/Line in interface, line level, impedance: 600Ω           Network         Audio compression         G-711ulaw/G-711alaw/G-722/G-726/MP212/PCM           Protocols         IPv4/IPv6/HTTPHTTPS,802.1x,Qos,FTP,SMTP,UPnP,SNMP,DNS,DDNS,NTP,RTSP,RTP,TCP,UDP,IGMP,ICMP,DHCP, PP0E           Application programming         Openeded API, Onvif, ISAPI, PSIA           System Integration         E 7*. Chrome 18 *, Firefox 5.0 *, Safari 5.02 *, safari 5.02 *, support multi-language           Sim	Speed	
Pattern         4 patterns, with the recording time not less than 10 minutes per pattern           Park Action         Preset / Patrol / Pattern / Auto scan / Tilt scan / Random scan / Frame scan / Panorama scan           Scheduled Task         Preset / Patrol / Pattern / Auto scan / Tilt scan / Random scan / Frame scan / Panorama scan/Dome reboot/Dome adjust/Aux output           Power-off memory         Support           Alarm         Alarm           Alarm I/O         7/2           Alarm Trigger         Face detection, Audio exception detection, Motion detection, Dynamic analysis, Tampering ala Network disconnect, IP address conflict, Storage exception           Alarm Action         Preset / Patrol / Pattern / SD card recording/ Aux output/ E-map on Client/ Send Email/ Upload to FTP Input/Output           Audio Input         1 Milc in/Line in interface, line input: 2-2.4V[p-p]; output impedance: 1KΩ, ±10%           Audio Output         1 Audio output interface, line level, impedance: 600Ω           Network         Value of Pattern / Pattern / Pattern / SD card recording/ Aux output/ E-map on Client/ Send Email/ Upload to FTP Input/Output           Protocols         G.711ulav/G.711alav/G.72/G.72G/MP2L2/PCM           Protocols         G.711ulav/G.711alav/G.72/G.72g/MP2L2/PCM           Protocols         Plv4/Pv6,HTTP,HTTPS,802.1x,Qos,FTP,SMTP,UPnP,SNMP,DNS,DDNS,NTP,RTSP,RTP,TCP,UDP,IGMP,ICMP, DVCP, PPICO,PP, PSIA           System Integration         English           User/Ho	Number of Preset	300
Park Action Preset / Patrol / Pattern / Auto scan / Tilt scan / Random scan / Frame scan / Panorama scan Scheduled Task Preset / Patrol / Pattern / Auto scan / Tilt scan / Random scan / Frame scan / Panorama scan/Dome reboot/Dome adjust/Aux output  Power-off memory Support  Alarm W  Alarm I/O 7/2  Alarm Trigger Face detection, Audio exception detection, Motion detection, Dynamic analysis, Tampering ala Network disconnect, IP address conflict, Storage exception  Alarm Action Preset / Patrol / Pattern / SD card recording/ Aux output/ E-map on Client/ Send Email/ Upload to FTP Input / Output  Audio Input 1 Mic in/Line in interface, line input: 2-2.4V[p-p]; output impedance: 1KΩ, ±10%  Audio Output 1 Audio output interface, line level, impedance: 600Ω  Network  Audio compression G.7.11ulaw/G.7.11alaw/G.7.21/G.7.26/MP2L2/PCM  Protocols Pv4(Pv6,HTTP,HTTPS,802.1x,Qos,FTP,SMTP,UPnP,SNMP,DNS,DDNS,NTP,RTSP,RTP,TCP,UDP,IGMP,ICMP, DHCP, PPPoE Den-ended API, Onvif, ISAPI, PSIA  System Integration  Menu English  User / Host Level Up to 32 users, 3 Levels: Administrator, Operator and User  Security Measures User authentication (ID and PW); Host authentication (MAC address); IP address filtering  Web Browser IE 7+, Chrome 18 +, Firefox 5.0 +, Safari 5.02 +, support multi-language  Simultaneous Live View Up to 20 users  Fiber Cable 1 10M/100M/1000M FC interface, TX1310 / RX1550nm wavelength, 20 km transmission distance  Ethernet 1 RJ45 100M/1000M Ethernet interface  RS485 Half duplex, DUNLOP, Pelco-P, Pelco-D, self-adaptive  Onboard Storage Built-in Micro SD/SDHC/SDXC card slot, up to 128GB, manual/alarm recording  General  Power DC 36V, MAX. 70W (Heater 22W)  Working Temperature/ Humidity  40°C-65°C, Humidity 90% or less  Horisons (MAC (Address)) and voltage transient protection  Dimensions(mm) Ф390(mm)×361.3(mm)  Weight 14kg (approx.)	Patrol	8 patrols, up to 32 presets per patrol
Scheduled Task         Preset / Patrol / Pattern / Auto scan / Tilt scan / Random scan / Frame scan / Panorama scan/Dome reboot/Dome adjust/Aux output           Power-off memory         Support           Alarm         Alarm I/O         7/2           Alarm Trigger         Face detection, Audio exception detection, Motion detection, Dynamic analysis, Tampering ala Network disconnect, IP address conflict, Storage exception           Alarm Action         Preset / Patrol / Pattern / SD card recording/ Aux output/ E-map on Client/ Send Email/ Upload to FTP Input / Output           Audio Input         1 Mic in/Line in interface, line input: 2-2.4V[p-p]; output impedance: 1KΩ, ±10%           Audio Output         1 Audio output interface, line level, impedance: 600Ω           Network           Audio compression         G.711ulaw/G.71alaw/G.722/G.726/MP2L2/PCM           Protocols         IPv4/IPv6/HTTPHTTPS,802.1x,Qos,FTP,SMTP,UPnP,SNMP,DNS,DDNS,NTP,RTSP,RTP,TCP,UDP,IGMP,ICMP,DHCP, PPPoE           Application programming         Open-ended API, Onvif, ISAPI, PSIA           System Integration         Up to 32 users,3 Levels: Administrator, Operator and User           Security Measures         User authentication (ID and PW); Host authentication (MAC address); IP address filtering           Web Browser         IE 7+, Chrome 18 +, Firefox 5.0 +, Safari 5.0 +, yasport multi-language           Simultaneous Live View         Up to 20 users           Eiber Cable         1 InM/LOMM	Pattern	4 patterns, with the recording time not less than 10 minutes per pattern
Power-off memory Support  Alarm V  Alarm V  Alarm Trigger Face detection, Audio exception detection, Motion detection, Dynamic analysis, Tampering ala Network disconnect, IP address conflict, Storage exception  Alarm Action Preset / Patrol / Pattern / SD card recording/ Aux output/ E-map on Client/ Send Email/ Upload to FTP Input / Output  Audio Input 1 Mic in/Line in interface, line input: 2-2.4V[p-p]; output impedance: 1KO, ±10%  Audio Output 1 Audio output interface, line level, impedance: 6000  Network  Audio compression G.711ulaw/G.711alaw/G.722/G.726/MP2L2/PCM  Protocols IPv4/IPv6,HTTP.HTTPS,802.1x,Qos,FTP,SMTP,UPnP,SNMP,DNS,DNS,NTP,RTSP,RTP,TCP,UDP,IGMP,ICMP, DHCP, PPPOE  Application programming Open-ended API, Onvif, ISAPI, PSIA  System Integration  Menu English  User Alfost Level Up to 32 users,3 Levels: Administrator, Operator and User  Security Measures User authentication (ID and PW); Host authentication (MAC address); IP address filtering  Web Browser IE 7+, Chrome 18 +, Firefox 5.0 +, Safari 5.02 +, support multi-language  Simultaneous Live View Up to 20 users  Fiber Cable 1 10M/100M/1000M FC interface, TX1310 / RX1550nm wavelength, 20 km transmission distance  Ethernet 1 RJ45 100M/1000M Ethernet interface  RS485 Half duplex, DUNLOP, Pelco-P, Pelco-D, self-adaptive  Onboard Storage Built-in Micro SD/SDHC/SDXC card slot, up to 128GB, manual/alarm recording  General  Power D C 36V, MAX. 70W (Heater 22W)  Working Temperature/  Humidity  Protection Level IP66 standard, TVS 6,000V lightning protection, surge protection and voltage transient protection  Dimensions(mm) Ф 390(mm)×361.3(mm)  Weight 14kg (approx.)	Park Action	Preset / Patrol / Pattern / Auto scan / Tilt scan / Random scan / Frame scan / Panorama scan
Alarm         Alarm I/O       7/2         Alarm Trigger       Face detection, Audio exception detection, Motion detection, Dynamic analysis, Tampering ala Network disconnect, IP address conflict, Storage exception         Alarm Action       Preset / Patrol / Pattern / SD card recording/ Aux output/ E-map on Client/ Send Email/ Upload to FTP Input / Output         Audio Input       1 Mic in/Line in interface, line input: 2-2.4V[p-p]; output impedance: 1KΩ, ±10%         Audio Output       1 Audio output interface, line level, impedance: 600Ω         Network       Audio compression         G.711ulaw/G.711alaw/G.722/G.726/MP2L2/PCM         Protocols       IPv4/IPv6,HTTP,HTTPS,802.1x,Qos,FTP,SMTP,UPnP,SNMP,DNS,DDNS,NTP,RTSP,RTP,TCP,UDP,IGMP,ICMP,DHCP,PPPE         Application programming       Open-ended API, Onvif, ISAPI, PSIA         System Integration       Up to 32 users,3 Levels: Administrator, Operator and User         Security Measures       User authentication (ID and PW); Host authentication (MAC address); IP address filtering         Web Browser       IE 7+, Chrome 18 +, Firefox 5.0 +, Safari 5.02 +, support multi-language         Simultaneous Live View       Up to 20 users         Fiber Cable       1 10M/100M/1000M FC interface, TX1310 / RX1550nm wavelength, 20 km transmission distance         Ethernet       1 R45 100M/1000M Ethernet interface         RS485       Half duplex, DUNLOP, Pelco-P, Pelco-D, self-adaptive	Scheduled Task	
Alarm I/O 7/2  Alarm Trigger Face detection, Audio exception detection, Motion detection, Dynamic analysis, Tampering ala Network disconnect, IP address conflict, Storage exception  Alarm Action Preset / Patrol / Pattern / SD card recording/ Aux output/ E-map on Client/ Send Email/ Upload to FTP Input / Output  Audio Input 1 Mic in/Line in interface, line input: 2-2.4V[p-p]; output impedance: 1KΩ, ±10%  Audio Output 1 Audio output interface, line level, impedance: 600Ω  Network  Audio compression G.711ulaw/G.711alaw/G.722/G.726/MP212/PCM  Protocols IPv4/IPv6,HTTP,HTTPS,802.1x,Qos,FTP,SMTP,UPnP,SNMP,DNS,DDNS,NTP,RTSP,RTP,TCP,UDP,IGMP,ICMP,DHCP, PPPoE  Application programming Open-ended API, Onvif, ISAPI, PSIA  System Integration  Menu English  User /Host Level Up to 32 users, 3 Levels: Administrator, Operator and User  Security Measures User authentication (ID and PW); Host authentication (MAC address); IP address filtering  Web Browser IE 7+, Chrome 18 +, Firefox 5.0 +, Safari 5.02 +, support multi-language  Simultaneous Live View Up to 20 users  Fiber Cable 110M/100M/1000M FC interface, TX1310 / RX1550nm wavelength, 20 km transmission distance  Ethernet 1 RJ45 100M/1000M Ethernet interface  SEASS Half duplex, DUNLOP, Pelco-P, Pelco-D, self-adaptive  Onboard Storage Built-in Micro SD/SDHC/SDXC card slot, up to 128GB, manual/alarm recording  General  Power DC 36V, MAX. 70W (Heater 22W)  Working Temperature/ Humidity 40 °C – 65 °C, Humidity 90% or less  Protection Level IP66 standard, TVS 6,000V lightning protection, surge protection and voltage transient protection  Dimensions(mm) Ф 390(mm)×361.3(mm)  Weight 14kg (approx.)	Power-off memory	Support
Face detection, Audio exception detection, Motion detection, Dynamic analysis, Tampering ala Network disconnect, IP address conflict, Storage exception  Alarm Action  Preset / Patrol / Pattern / SD card recording/ Aux output/ E-map on Client/ Send Email/ Upload to FTP Input / Output  Audio Input  1 Mic in/Line in interface, line input: 2-2.4V[p-p]; output impedance: 1KΩ, ±10%  Audio Output  1 Audio output interface, line level, impedance: 600Ω  Network  Audio compression  G.711ulaw/G.711alaw/G.722/G.726/MP2L2/PCM  Protocols  IPv4/IPv6,HTTP,HTTPS,802.1x,Qos,FTP,SMTP,UPnP,SNMP,DNS,DNS,NTP,RTSP,RTP,TCP,UDP,IGMP,ICMP,DHCP, PPPoE  Application programming  Open-ended API, Onvif, ISAPI, PSIA  System Integration  Menu  English  User /Host Level  Up to 32 users,3 Levels: Administrator, Operator and User  Security Measures  User authentication (ID and PW); Host authentication (MAC address); IP address filtering  Web Browser  IE 7+, Chrome 18+, Firefox 5.0+, Safari 5.02+, support multi-language  Simultaneous Live View  Up to 20 users  Fiber Cable  1 10M/100M/1000M FC interface, TX1310 / RX1550nm wavelength, 20 km transmission distance  Ethernet  1 RJ45 100M/1000M Ethernet interface  Ethernet  1 RJ45 100M/1000M Ethernet interface  Onboard Storage  Built-in Micro SD/SDHC/SDXC card slot, up to 128GB, manual/alarm recording  General  Power  DC 36V, MAX. 70W (Heater 22W)  Working Temperature/  Humidity  40 °C – 65 °C, Humidity 90% or less  Protection Level  IP66 standard, TVS 6,000V lightning protection, surge protection and voltage transient protection  Dimensions(mm)  Ф 390(mm)×361.3(mm)	Alarm	
Alarm Irrigger  Network disconnect, IP address conflict, Storage exception  Alarm Action  Preset / Patrol / Pattern / SD card recording/ Aux output/ E-map on Client/ Send Email/ Upload to FTP Input / Output  Audio Input  1 Mic in/Line in interface, line input: 2-2.4V[p-p]; output impedance: 1KΩ, ±10%  Audio Output  1 Audio output interface, line level, impedance: 600Ω  Network  Audio compression  G.711ulaw/G.711alaw/G.721a/G.726/MP2L2/PCM  Protocols  IPv4/IPv6,HTTP,HTTPS,802.1x,Qos,FTP,SMTP,UPnP,SNMP,DNS,DDNS,NTP,RTSP,RTP,TCP,UDP,IGMP,ICMP,DHCP, PPPoE  Application programming Open-ended API, Onvif, ISAPI, PSIA  System Integration  Menu  English User/Host Level Up to 32 users, 3 Levels: Administrator, Operator and User  Security Measures User authentication (ID and PW); Host authentication (MAC address); IP address filtering  Web Browser IE 7+, Chrome 18 +, Firefox 5.0 +, Safari 5.02 +, support multi-language  Simultaneous Live View Up to 20 users  Fiber Cable 1 10M/100M/1000M FC interface, TX1310 / RX1550nm wavelength, 20 km transmission distance  Ethernet 1 R145 100M/1000M Ethernet interface  RS485 Half duplex, DUNLOP, Pelco-P, Pelco-D, self-adaptive  Onboard Storage Built-in Micro SD/SDHC/SDXC card slot, up to 128GB, manual/alarm recording  General  Power DC 36V, MAX. 70W (Heater 22W)  Working Temperature/ Humidity -40 °C – 65 °C, Humidity 90% or less  Protection Level IP66 standard, TVS 6,000V lightning protection, surge protection and voltage transient protection Dimensions(mm)  Ф 390(mm)×361.3(mm)	Alarm I/O	7/2
Input /Output           Audio Input         1 Mic in/Line in interface, line input: 2-2.4V[p-p]; output impedance: 1KΩ, ±10%           Audio Output         1 Audio output interface, line level, impedance: 600Ω           Network           Audio compression         G.711ulaw/G.711alaw/G.722/G.726/MP2L2/PCM           Protocols         IPv4/IPv6,HTTP,HTTPS,802.1x,Qos,FTP,SMTP,UPnP,SNMP,DNS,DDNS,NTP,RTSP,RTP,TCP,UDP,IGMP,ICMP,DCP, PPPOE           Application programming         Open-ended API, Onvif, ISAPI, PSIA           System Integration         Open-ended API, Onvif, ISAPI, PSIA           Wenu         English           User/Host Level         Up to 32 users,3 Levels: Administrator, Operator and User           Security Measures         User authentication (ID and PW); Host authentication (MAC address); IP address filtering           Web Browser         IE 7+, Chrome 18 +, Firefox 5.0 +, Safari 5.02 +, support multi-language           Simultaneous Live View         Up to 20 users           Fiber Cable         1 10M/100M/1000M FC interface, TX1310 / RX1550nm wavelength, 20 km transmission distance           Ethernet         1 RJ45 100M/100M Ethernet interface           RS485         Half duplex, DUNLOP, Pelco-P, Pelco-D, self-adaptive           Onboard Storage         Built-in Micro SD/SDHC/SDXC card slot, up to 128GB, manual/alarm recording           General           Power </td <td>Alarm Trigger</td> <td>Face detection, Audio exception detection, Motion detection, Dynamic analysis, Tampering alarm Network disconnect, IP address conflict, Storage exception</td>	Alarm Trigger	Face detection, Audio exception detection, Motion detection, Dynamic analysis, Tampering alarm Network disconnect, IP address conflict, Storage exception
Audio Input1 Mic in/Line in interface, line input: 2-2.4V[p-p]; output impedance: 1KΩ, ±10%Audio Output1 Audio output interface, line level, impedance: 600ΩNetworkAudio compressionG.711ulaw/G.711alaw/G.722/G.726/MP2L2/PCMProtocolsIPv4/IPv6,HTTP,HTTPS,802.1x,Qos,FTP,SMTP,UPnP,SNMP,DNS,DDNS,NTP,RTSP,RTP,TCP,UDP,IGMP,DMP,DMP,DMP,DMP,DMP,DMP,DMP,DMP,DMP,D	Alarm Action	Preset / Patrol / Pattern / SD card recording/ Aux output/ E-map on Client/ Send Email/ Upload to FTP
Audio Output1 Audio output interface, line level, impedance: 600ΩNetworkAudio compressionG.711ulaw/G.711alaw/G.722/G.726/MP2L2/PCMProtocolsIPv4/IPv6,HTTP,HTTPS,802.1x,Qos,FTP,SMTP,UPnP,SNMP,DNS,DDNS,NTP,RTSP,RTP,TCP,UDP,IGMP,ICMP, DHCP, PPPoEApplication programming System IntegrationOpen-ended API, Onvif, ISAPI, PSIAMenuEnglishUser/Host LevelUp to 32 users, 3 Levels: Administrator, Operator and UserSecurity MeasuresUser authentication (ID and PW); Host authentication (MAC address); IP address filteringWeb BrowserIE 7+, Chrome 18 +, Firefox 5.0 +, Safari 5.02 +, support multi-languageSimultaneous Live ViewUp to 20 usersFiber Cable1 10M/100M/1000M FC interface, TX1310 / RX1550nm wavelength, 20 km transmission distanceEthernet1 RJ45 100M/1000M Ethernet interfaceRS485Half duplex, DUNLOP, Pelco-P, Pelco-D, self-adaptiveOnboard StorageBuilt-in Micro SD/SDHC/SDXC card slot, up to 128GB, manual/alarm recordingGeneralPowerDC 36V, MAX. 70W (Heater 22W)Working Temperature/ Humidity-40 °C - 65 °C, Humidity 90% or lessProtection LevelIP66 standard, TVS 6,000V lightning protection, surge protection and voltage transient protectionDimensions(mm)Φ 390(mm)×361.3(mm)Weight14kg (approx.)	Input /Output	
Network         Audio compression       G.711ulaw/G.711alaw/G.722/G.726/MP2L2/PCM         Protocols       IPv4/IPv6,HTTP,HTTPS,802.1x,Qos,FTP,SMTP,UPnP,SNMP,DNS,DDNS,NTP,RTSP,RTP,TCP,UDP,IGMP,ICMP,DHCP, PPPoE         Application programming       Open-ended API, Onvif, ISAPI, PSIA         System Integration       Web Image: State Integration         Menu       English         User JHost Level       Up to 32 users, 3 Levels: Administrator, Operator and User         Security Measures       User authentication (ID and PW); Host authentication (MAC address); IP address filtering         Web Browser       IE 7+, Chrome 18 +, Firefox 5.0 +, Safari 5.02 +, support multi-language         Simultaneous Live View       Up to 20 users         Fiber Cable       1 10M/100M/1000M FC interface, TX1310 / RX1550nm wavelength, 20 km transmission distance         Ethernet       1 RJ45 100M/1000M Ethernet interface         RS485       Half duplex, DUNLOP, Pelco-P, Pelco-D, self-adaptive         Onboard Storage       Bullt-in Micro SD/SDHC/SDXC card slot, up to 128GB, manual/alarm recording         General       Power       DC 36V, MAX. 70W (Heater 22W)         Working Temperature/ Humidity       -40 °C -65 °C, Humidity 90% or less         Protection Level       IP66 standard, TVS 6,000V lightning protection, surge protection and voltage transient protection         Dimensions(mm)       Φ 390(mm)×3	Audio Input	1 Mic in/Line in interface, line input: 2-2.4V[p-p]; output impedance: 1KΩ, ±10%
Audio compressionG.711ulaw/G.711alaw/G.722/G.726/MP2L2/PCMProtocolsIPv4/IPv6,HTTP,HTTPS,802.1x,Qos,FTP,SMTP,UPnP,SNMP,DNS,DDNS,NTP,RTSP,RTP,TCP,UDP,IGMP,ICMP,DHCP, PPPoEApplication programmingOpen-ended API, Onvif, ISAPI, PSIASystem IntegrationStyles (Up to 32 users,3 Levels: Administrator, Operator and User)Security MeasuresUser authentication (ID and PW); Host authentication (MAC address); IP address filtering)Web BrowserIE 7+, Chrome 18 +, Firefox 5.0 +, Safari 5.02 +, support multi-languageSimultaneous Live ViewUp to 20 usersFiber Cable1 10M/100M/1000M FC interface, TX1310 / RX1550nm wavelength, 20 km transmission distanceEthernet1 RJ45 100M/1000M Ethernet interfaceRS485Half duplex, DUNLOP, Pelco-P, Pelco-D, self-adaptiveOnboard StorageBuilt-in Micro SD/SDHC/SDXC card slot, up to 128GB, manual/alarm recordingGeneralPowerDC 36V, MAX. 70W (Heater 22W)Working Temperature/Humidity-40 °C - 65 °C, Humidity 90% or lessProtection LevelIP66 standard, TVS 6,000V lightning protection, surge protection and voltage transient protectionDimensions(mm)Φ 390(mm)×361.3(mm)Weight14kg (approx.)	Audio Output	1 Audio output interface, line level, impedance: $600\Omega$
Protocols         IPv4/IPv6,HTTP;HTTPS,802.1x,Qos,FTP,SMTP,UPnP,SNMP,DNS,DDNS,NTP,RTSP,RTP,TCP,UDP,IGMP,ICMP, DHCP, PPPoE           Application programming System Integration         Open-ended API, Onvif, ISAPI, PSIA           Menu         English           User/Host Level         Up to 32 users,3 Levels: Administrator, Operator and User           Security Measures         User authentication (ID and PW); Host authentication (MAC address); IP address filtering           Web Browser         IE 7+, Chrome 18 +, Firefox 5.0 +, Safari 5.02 +, support multi-language           Simultaneous Live View         Up to 20 users           Fiber Cable         1 10M/100M/1000M FC interface, TX1310 / RX1550nm wavelength, 20 km transmission distance           Ethernet         1 RJ45 100M/1000M Ethernet interface           RS485         Half duplex, DUNLOP, Pelco-P, Pelco-D, self-adaptive           Onboard Storage         Built-in Micro SD/SDHC/SDXC card slot, up to 128GB, manual/alarm recording           General           Power         DC 36V, MAX. 70W (Heater 22W)           Working Temperature/Humidity         -40 °C – 65 °C, Humidity 90% or less           Protection Level         IP66 standard, TVS 6,000V lightning protection, surge protection and voltage transient protection           Dimensions(mm)         Φ 390(mm)×361.3(mm)           Weight         14kg (approx.)	Network	
Application programming System Integration  Menu English User/Host Level Up to 32 users,3 Levels: Administrator, Operator and User Security Measures User authentication (ID and PW); Host authentication (MAC address); IP address filtering Web Browser IE 7+, Chrome 18+, Firefox 5.0+, Safari 5.02+, support multi-language Simultaneous Live View Up to 20 users Fiber Cable 1 10M/100M/1000M FC interface, TX1310 / RX1550nm wavelength, 20 km transmission distance Ethernet 1 RJ45 100M/1000M Ethernet interface RS485 Half duplex, DUNLOP, Pelco-P, Pelco-D, self-adaptive Onboard Storage Built-in Micro SD/SDHC/SDXC card slot, up to 128GB, manual/alarm recording  General  Power DC 36V, MAX. 70W (Heater 22W)  Working Temperature/ Humidity -40 °C - 65 °C, Humidity 90% or less  IP66 standard, TVS 6,000V lightning protection, surge protection and voltage transient protection Dimensions(mm) Ф 390(mm)×361.3(mm)  Weight 14kg (approx.)	Audio compression	G.711ulaw/G.711alaw/G.722/G.726/MP2L2/PCM
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User/Host Level  Up to 32 users,3 Levels: Administrator, Operator and User  Security Measures  User authentication (ID and PW); Host authentication (MAC address); IP address filtering  Web Browser  IE 7+, Chrome 18+, Firefox 5.0+, Safari 5.02+, support multi-language  Simultaneous Live View  Up to 20 users  Fiber Cable  1 10M/100M/1000M FC interface, TX1310 / RX1550nm wavelength, 20 km transmission distance  Ethernet  1 RJ45 100M/1000M Ethernet interface  RS485  Half duplex, DUNLOP, Pelco-P, Pelco-D, self-adaptive  Onboard Storage  Built-in Micro SD/SDHC/SDXC card slot, up to 128GB, manual/alarm recording  General  Power  DC 36V, MAX. 70W (Heater 22W)  Working Temperature/ Humidity  Protection Level  IP66 standard, TVS 6,000V lightning protection, surge protection and voltage transient protection  Dimensions(mm)  Ф 390(mm)×361.3(mm)  Weight	System Integration	
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Web Browser  IE 7+, Chrome 18 +, Firefox 5.0 +, Safari 5.02 +, support multi-language  Simultaneous Live View  Up to 20 users  Fiber Cable  1 10M/100M/1000M FC interface, TX1310 / RX1550nm wavelength, 20 km transmission distance  Ethernet  1 RJ45 100M/1000M Ethernet interface  RS485  Half duplex, DUNLOP, Pelco-P, Pelco-D, self-adaptive  Onboard Storage  Built-in Micro SD/SDHC/SDXC card slot, up to 128GB, manual/alarm recording  General  Power  DC 36V, MAX. 70W (Heater 22W)  Working Temperature/ Humidity  Protection Level  IP66 standard, TVS 6,000V lightning protection, surge protection and voltage transient protection  Dimensions(mm)  Φ 390(mm)×361.3(mm)  Weight	User/Host Level	Up to 32 users,3 Levels: Administrator, Operator and User
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Ethernet 1 RJ45 100M/1000M Ethernet interface  RS485 Half duplex, DUNLOP, Pelco-P, Pelco-D, self-adaptive  Onboard Storage Built-in Micro SD/SDHC/SDXC card slot, up to 128GB, manual/alarm recording  General  Power DC 36V, MAX. 70W (Heater 22W)  Working Temperature/ Humidity -40 °C - 65 °C, Humidity 90% or less  Humidity Protection Level IP66 standard, TVS 6,000V lightning protection, surge protection and voltage transient protection  Dimensions(mm) Ф 390(mm)×361.3(mm)  Weight 14kg (approx.)	Simultaneous Live View	Up to 20 users
RS485 Half duplex, DUNLOP, Pelco-P, Pelco-D, self-adaptive  Onboard Storage Built-in Micro SD/SDHC/SDXC card slot, up to 128GB, manual/alarm recording  General  Power DC 36V, MAX. 70W (Heater 22W)  Working Temperature/ Humidity -40 °C - 65 °C, Humidity 90% or less  Protection Level IP66 standard, TVS 6,000V lightning protection, surge protection and voltage transient protection  Dimensions(mm) Ф 390(mm)×361.3(mm)  Weight 14kg (approx.)	Fiber Cable	1 10M/100M/1000M FC interface, TX1310 / RX1550nm wavelength, 20 km transmission distance
Onboard Storage  Built-in Micro SD/SDHC/SDXC card slot, up to 128GB, manual/alarm recording  General  Power  DC 36V, MAX. 70W (Heater 22W)  Working Temperature/ Humidity  -40 °C - 65 °C, Humidity 90% or less  Protection Level  IP66 standard, TVS 6,000V lightning protection, surge protection and voltage transient protection  Dimensions(mm)  Ф 390(mm)×361.3(mm)  Weight	Ethernet	1 RJ45 100M/1000M Ethernet interface
General         Power       DC 36V, MAX. 70W (Heater 22W)         Working Temperature/ Humidity       -40 °C − 65 °C, Humidity 90% or less         Protection Level       IP66 standard, TVS 6,000V lightning protection, surge protection and voltage transient protection         Dimensions(mm)       Φ 390(mm)×361.3(mm)         Weight       14kg (approx.)	RS485	Half duplex, DUNLOP, Pelco-P, Pelco-D, self-adaptive
Power       DC 36V, MAX. 70W (Heater 22W)         Working Temperature/ Humidity       -40 °C - 65 °C, Humidity 90% or less         Protection Level       IP66 standard, TVS 6,000V lightning protection, surge protection and voltage transient protection         Dimensions(mm)       Φ 390(mm)×361.3(mm)         Weight       14kg (approx.)	Onboard Storage	Built-in Micro SD/SDHC/SDXC card slot, up to 128GB, manual/alarm recording
Working Temperature/ Humidity  -40 °C − 65 °C, Humidity 90% or less  Protection Level  IP66 standard, TVS 6,000V lightning protection, surge protection and voltage transient protection  Dimensions(mm)  Φ 390(mm)×361.3(mm)  Weight  14kg (approx.)	General	
Humidity  -40 °C - 65 °C, Humidity 90% or less  Protection Level IP66 standard, TVS 6,000V lightning protection, surge protection and voltage transient protection  Dimensions(mm)	Power	DC 36V, MAX. 70W (Heater 22W)
Dimensions(mm)         Φ390(mm)×361.3(mm)           Weight         14kg (approx.)		-40 °C – 65 °C, Humidity 90% or less
Weight 14kg (approx.)	Protection Level	IP66 standard, TVS 6,000V lightning protection, surge protection and voltage transient protection
Mount Option Wall mount: DP-1603ZJ; Long-arm Pendant mount: DP-1668ZJ (20); Pendant Mount: DP-1668ZJ	Weight	14kg (approx.)
	Mount Option	Wall mount: DP-1603ZJ; Long-arm Pendant mount: DP-1668ZJ (20); Pendant Mount: DP-1668ZJ