DC-D3C33HRX

Architectural and Engineering Specifications

Version 1.2

(Aug. 29, 2022)

**PART 1: PLEASE REFER TO ATTACHED DOCUMENTS - OVERVIEW & FORMAT SAMPLES**

**PART 2: PRODUCTS**

**Division 28 – Electric Safety and Security**

**Section 28 23 29 – Video Surveillance Remote Devices and Sensors**

## Manufacturer

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## General

### Product Description

DC-D3C33HRX is a Dome type IP Camera designed and manufactured by IDIS. This camera provides 12MP (4000x3000) resolution at 15ips (images per second) or 8MP (3840x2160) resolution at 30ips with H.265, H.264, and M-JPEG compression. This camera is equipped with Motorized Vari-focal lens, IR LEDs, True Day/Night, PoE (IEEE 802.3af Class 3), Audio I/O, Alarm I/O, microSD/SDHC/SDXC card backup, Vandal-proof dome enclosure design, IK10 / IP67 rated and heater to provides continuous operation in subzero temperature.

### General Specification

1. The IP camera shall be equipped with 12 Megapixel 1/1.7” CMOS Sensor.
2. The IP camera shall be equipped with 4.5mm - 10mm motorized vari-focal lens, F1.6 - F2.6.
3. The IP camera shall be a true day/night camera with a mechanical filter for low light performance.  
   The filter can be switched remotely, or automatically via a light level sensor or contact input (ICR).
4. The IP camera shall have wide dynamic range compensation (True WDR) for improved video quality in high-contrast situations (120 dB).
5. The IP camera shall have 6 IR LEDs looming 30m (98.4 ft).
6. The IP camera shall support P-Iris.
7. The IP camera shall utilize configurable 2DNR/3DNR (Dynamic Noise Reduction) technology to reduce the bitrate and storage requirements by removing noise artifacts.
8. The IP camera shall be Vandal-Proof IK10 and IP rating 67 complied dome enclosure design.
9. The IP camera shall be equipped with 10/100/1000 Base-T, auto-sensing, half/full duplex, RJ-45 Ethernet connection.
10. The IP camera shall support industry standard Power over Ethernet (PoE) IEEE 802.3af, Class 3 to supply power to the camera over the network and 12VDC input.
11. The IP camera shall have video out feature (NTSC/PAL).
12. The IP camera shall have built-in heater for continued use in subzero temperature conditions and utilize 12 VDC input to provide power.
13. The IP camera shall have on board microSD/SDHC/SDXC card backup storage slot as a safeguard against data loss during network interruptions.
14. Using IDIS NLTSrec(Non-Linear Time Shifting recording) technology, the IP camera can store the recording data to the internal recording memory buffer (60MB) in camera if there is a delay in data transmission due to the instantaneous load of the recorder or network, and then transmits the stored data to IDIS recorder safely.
15. The IP camera shall deliver maximum video resolution of 4000x3000 at rates up to 15ips (images per second) or 3840x2160 at rates up to 30ips.
16. The IP camera shall provide direct network connection using H.265, H.264 and MJPEG compression.
17. The IP camera shall support quadruple streams
18. The IP camera shall conform to the ONVIF Profile S Ver.2.4.0 standard.
19. The IP camera shall be equipped with embedded web server which works independently using a Web Browser with ActiveX plug-in.
20. The IP camera shall SSL Encryption, Multi-user Authority, IEEE 802.1x IP Filtering and HTTPS for greater security.
21. The IP camera shall have network bandwidth limitation and MAT features for more efficient use of network bandwidth.
22. The IP camera shall have Easy network access via UPnP (Universal Plug and Play) function and embedded mDNS (Multicast DNS) protocol.
23. The IP camera shall have Intelligent Video Analysis (VA): Video Motion Detection, Active Tampering Alarm, Trip Zone.

### Protocol Specification: DirectIP 2.0

1. The IP camera shall have DirectIP 2.0 mode.
2. DirectIP 2.0 protocol shall provide easy connection to DirectIP NVR for automatic discovery and video streaming configuration.
3. DirectIP 2.0 shall provide the compatibility with IDIS Solution Suite VMS or ONVIF for third-party software solutions.
4. DirectIP 2.0 shall support camera can be linked to IDIS software solution such ad IDIS Center and IDIS Solution Suite, or 3rd party solution while it is being connected to a DirectIP NVR.
5. DirectIP 2.0 camera shall be compatible with DirectIP 1.0 NVR as well as DirectIP 2.0 NVR.
6. DirectIP 2.0 camera shall be unavailable for No-password login when connecting to DirectIP 2.0 NVR and IDIS Software Solutions.
7. DirectIP 2.0 protocol shall provide Quadruple streams.
8. DirectIP 2.0 protocol shall support H.264 and H.265 and MJPEG compression.

## Technical Specification

### Video Specification

1. Image Sensor: 1/1.7” CMOS
2. Maximum Resolution: 4000x3000
3. Scanning Mode: Progressive Scan
4. Lens Type: Motorized Vari-focal (f=4.5 - 10mm, F1.6 - 2.6)
5. Iris Control: P-Iris
6. Angular Field of View (H: Horizontal, V: Vertical, D:Diagonal):

[8MP Mode]

* 1. Wide: 90.2º(H), 48.5º(V), 106.2º(D)
  2. Tele: 41.6º(H), 23.3º(V), 47.8º(D)

[12MP Mode]

* 1. Wide: 94.6º(H), 68.5º(V), 125.2º(D)
  2. Tele: 43.4º(H), 32.4º(V), 54º(D)

1. Pan/Tilt Range: Pan: -176° ~ 176°, Tilt: 0° ~ 65°, Rotate: -90° ~ 90°
2. Minimum Illumination:
   1. COLOR : 0.3 lux @ F1.6
   2. B/W: 0 lux (IR LED ON)
3. S/N Ratio: more than 48 dB
4. Maximum Frame Rate:
   1. 30fps : 3840x2160 (WDR)
   2. 15fps : 4000x3000 (WDR)
5. Video Resolution:
   1. 12MP mode : 4000x3000, 2592x1944, 1280x960, 640x480, 320x240
   2. 8MP mode : 3840 x 2160 , 1920x1080, 1280x720, 640x360, 320x180
6. Video Compression : H.265, H.264 and MJPEG
7. Video Compression Level: Basic, Standard, High, Very High
8. Multi-Video Streaming: Quadruple streams
9. Dynamic Range: 120 dB (True WDR)
10. True Day & Night: Yes (ICR)
11. IR Distance (The number of LEDs, IR wavelength): 30m / 98.4 ft (6ea)
12. Intelligent Video Analytic: Video Motion Detection, Active Tampering Alarm, Trip Zone
13. Analog Video Output: 1 BNC (Accessory)

### Audio Specification

1. Audio Compression Algorithm: ADPCM 16K, G.726, G.711 u-Law, G.711 a-Law
2. Audio Input / Output: Line-in 1ea / Line-out 1ea
3. Two-way Audio Communication: Yes
4. Pre-recorded Voice Alert: Yes

### Network Specification

1. Port: RJ-45 10/100/1000 Base-T 1 port
2. Network Protocols: DirectIP 2.0 Protocol, IPv4, IPv6, RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP,RTP/UDP RTSP/TCP, HTTP, HTTPS, FTP, SNTP, SMTP, FEN, mDNS, uPNP, SNMPv2
3. Remote Access Client: DirectIP NVR Connection, IDIS Web, IDIS Mobile, IDIS Solution Suite
4. Recording Session Buffer (NLTSrec): Up to 60MB
5. Edge Storage: micro SD/SDHC/SDXC, Smart Failover (Up to 256GB)

### Security Specification

1. Multi-user Authority, IEEE 802.1x, IP Filtering, HTTPS, SSL Encryption
2. Maximum User Access: 10 (Live), 1 (Recording), 1 (Search), 2 (Admin)

### Alarm and Event Specification

1. Alarm Input / Output: 1 / 1
   1. Alarm Input: 1 TTL, NC/NO Programmable, 4.3V(NC) or 0.3V(NO) threshold, 5V DC
   2. Alarm Output: 1 TTL open collector, 30mA @ 5 VDC
2. Trigger Events: Motion Detection, Alarm in, Audio detection, Tampering, Trip Zone
3. Event Notification: Remote S/W, Email (with Image)
   1. Encryption Type: SSL, TLS

## Environmental Specification

1. Operating Temperature: -40°C ~ +60°C (-40°F ~ +140°F)
2. Operating Humidity: 0% to 90% non-condensing
3. Vandal-proof Enclosure: Yes (IK10)
4. Outdoor Ready: IP67, Heater

## Electrical Specification

1. Power Source: 12VDC, PoE(IEEE 802.3af class 3)
2. Power Consumption: 12W
3. Regulatory Approvals: FCC, CE, KC

## Mechanical Specification

1. Dimensions (Ø x H): Ø160mm x 128.5mm (Ø6.30" x 5.06")
2. Unit Weight: 1.21Kg (2.67lb)

# Version History

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| --- | --- | --- | --- |
| **Version** | **Writer** | **Revision Date** | **Remarks** |
| 1.0 | Ray Sun | Jun. 05, 2018 | Initial Release |
| 1.1 | Everett Lee | Jun. 15, 2020 | Modifying Power Consumption |
| 1.2 | TS Team | Aug. 29, 2022 | Spec Update |