DC-D4223RX

Architectural and Engineering Specifications

Version 1.1

(Nov. 16, 2020)

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

2.1.0 Manufacturer

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2.2.0 General

2.2.1 Product Description

DC-D4223RX is a Dome type IP Camera designed and manufactured by IDIS. This camera provides Full HD (1920 x 1080) resolution at 30ips (images per second) with H.265, H.264, and M-JPEG compression. This camera is equipped with Manual Focus/Zoom lens, IR LEDs, True Day/Night, PoE (IEEE 802.3af Class 3), Audio I/O, Alarm I/O and microSD/SDHC/SDXC card backup (up to 256GB).

2.2.2 General Specification

1. The IP camera shall be equipped with 2 Megapixel 1/2.8" CMOS Sensor.

2. The IP camera shall be equipped with 2.8mm - 12mm manual vari-focal lens, F1.4 - F2.8.

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 be equipped with 6ea Infrared LED with range up to 30m (98.4ft).

6. The IP camera shall support DC-Iris.

7. The IP camera shall utilize 2DNR/3DNR (Dynamic Noise Reduction) technology to reduce the bitrate and storage requirements by removing noise artifacts.

8. The IP camera shall be equipped with 10/100 Base-T, auto-sensing, half/full duplex, RJ-45 Ethernet connection.

9. 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.

10. The IP camera shall have video out feature (NTSC/PAL).

11. The IP camera shall have on board microSD/SDHC/SDXC card backup storage slot as a safeguard against data loss during network interruptions.

12. 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

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transmission due to the instantaneous load of the recorder or network, and then transmits the stored data to IDIS recorder safely.

13. The IP camera shall deliver maximum video resolution of 1920 x 1080 at rates up to 30ips (images per second).

14. The IP camera shall provide direct network connection using H.265, H.264 and MJPEG compression.

15. The IP camera shall support quadruple streams

16. The IP camera shall conform to the ONVIF Profile S Ver.2.4.0 standard.

17. The IP camera shall be equipped with embedded web server (IDIS Web) which works independently using a Web Browser with ActiveX plug-in.

18. The IP camera shall have IP filtering, HTTPS, SSL Encryption, IEEE 802.1X, and configurable user authority levels for greater security.

19. The IP camera shall have network bandwidth limitation and MAT features for more efficient use of network bandwidth.

20. The IP camera shall have Easy network access via UPnP (Universal Plug and Play) function and embedded mDNS (Multicast DNS) protocol.

21. The IP camera shall have Intelligent Video Analysis (VA): Motion Detection, Alarm in, Audio detection, Tampering and Trip Zone.

2.2.3   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.

2.3.0 Technical Specification

2.3.1   Video Specification

1. Image Sensor: 1/2.8" CMOS

2. Maximum Resolution: 1920 x 1080

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3. Scanning Mode: Progressive Scan

4. Lens Type: Manual Vari-focal (f=2.8 - 12mm, F1.4 - 2.8)

5. Iris Control: DC-Iris

6. Angular Field of View (H: Horizontal, V: Vertical, D:Diagonal):

   A. Wide: 98º(H), 51º(V), 116º(D)

   B. Tele: 33º(H), 19º(V), 38º(D)

   C. Pan/Tilt Range: Pan: -175° ~ 175°, Tilt: 0° ~ 67°, Rotate: -177° ~ 177°

7. Minimum Illumination:

   A. COLOR : 0.1 lux @ F1.4

   B. B/W: 0 lux (IR LED On)

8. S/N Ratio: more than 45 dB

9. Maximum Frame Rate:

   A. 30fps : 1920 x 1080(WDR)

10. Video Resolution:

   A. 1920 x 1080, 1280 x 720, 704 x 480, 640 x 360, 352 x 240

11. Video Compression : H.265, H.264, MJPEG.

12. Video Compression Level: 4 levels: Basic, Standard, High, Very High

13. Multi-Video Streaming: Quadruple streams

14. Dynamic Range: 120dB

15. True Day & Night: Yes (ICR)

16. IR Distance (The number of LEDs, IR wavelength): 30m (98.4ft.) (6ea)

17. Intelligent Video Analytic: Motion Detection, Alarm in, Audio detection, Active Tampering and Trip Zone

2.3.2 Audio Specification

1. Audio Compression Algorithm: ADPCM 16K, G.726 (16kHz), G.711 u-Law (8kHz), G.711 a-Law

2. Audio Input / Output: Built-in Mic 1ea + Line-in 1ea / Line-out 1ea

3. Two-way Audio Communication: Yes

4. Pre-recorded Voice Alert: On / Off

2.3.3 Network Specification

1. Port: RJ-45 10/100 Base-T 1 port

2. Network Protocols: DirectIP 2.0 Protocol, RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/UDP RTSP/TCP, HTTP, HTTPS, FTP, SNTP, SMTP, FEN, mDNS, uPNP

3. Security: Multi-user Authority, IEEE 802.1x, IP Filtering, HTTPS, SSL Encryption

4. Remote Access Client: DirectIP NVR Connection, IDIS Web, IDIS Mobile, IDIS Solution Suite

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5. Recording Session Buffer (NLTSrec): Up to 60MB

6. Edge Storage: micro SD/SDHC/SDXC, Smart Failover (Up to 256GB)

2.3.4 Security Specification

1. Multi-user Authority, IEEE 802.1x, IP Filtering, HTTPS, SSL Encryption

2. Maximum User Access: 10 sessions for (Admin, Watch, etc.), 1 session for Recording, 1 session for Searching the recorded data in SD card

2.3.5 Alarm and Event Specification

1.Alarm Input / Output: 1 / 1

   A. Alarm Input: TTL, NC/NO Programmable, 4.3V(NC) or 0.3V(NO) threshold, 5V DC

   B. Mechanical or electrical switches can be wired to the Alarm-In and GND connectors. The maximum voltage should not exceed 5V.

   C. Alarm Output: 1 TTL open collector, 30mA @ 5 VDC

2.Trigger Events: Motion Detection, Alarm in, Audio detection, Tampering and Trip Zone

3.Event Notification: Remote S/W, Email (with Image)

   A. Encryption Type: SSL

2.4.0 Environmental Specification

1.Operating Temperature: -10°C ~ +50°C (+14°F ~ +122°F)

   *Starting up at above 0°C (32°F)

2.Operating Humidity: 0% to 90% non-condensing

2.5.0 Electrical Specification

1.Power Source: 12VDC, PoE(IEEE 802.3af class 3)

2.Power Consumption: 6.84W

3.Regulatory Approvals: FCC, CE, KC

2.6.0 Mechanical Specification

1.Dimensions (Ø x H): Ø122 x 103.4mm

2.Unit Weight: 0.35Kg (0.77lb)

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Version History

Version	Writer	Revision Date	Remarks
1.1	TS Team	Nov. 16, 2020	Spec Update
1.0	Ray Sun	Dec. 03, 2018	Initial Release