DC-S3583HRX-A

Architectural and Engineering Specifications

Version 1.0

(May. 18, 2021)

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

PART 2: PRODUCTS

Division 28 – Electric Safety and Security

Level 1 - 28.20.00 – Video Surveillance

Level 2 - 28.21.00 – Surveillance Cameras

Level 3 - 28.21.13 – IP Cameras

2.1.0   Manufacturer

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2.2.0   General

2.2.1   Product Description

DC-S3583HRX-A is an Outdoor Network WDR PTZ Camera (IP Camera) with IR LED designed and manufactured by IDIS. This camera provides 5MP (3072 x 1728) resolution at 30ips (images per second) with H.265, H.264, MJPEG compression. This camera is equipped with 31x Auto Focus Zoom lens, IR LEDs, High-PoE, Alarm I/O, microSD/SDHC/SDXC card backup, Vandal-proof dome enclosure with heater and IP66 rated.

2.2.2   General Specification

1. The IP camera shall be equipped with 2 Megapixel 1/1.7" CMOS Sensor.

2. The IP camera shall be equipped with 6.5mm – 202mm auto-focus zoom lens, F1.55 – F4.8

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 (120dB).

5. The IP camera shall support wide pan (360°) and tilt (0° ~ 190°) range as well as zoom up to 31x.

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

7. The IP camera shall be IK10 complied vandal proof and IP rating 66 complied dome enclosure design.

8. The IP camera shall be equipped with 10/100/1000Base-T, auto-sensing, half/full duplex, RJ-45 Ethernet connection.

9. The IP camera shall support High-PoE (Power over Ethernet) input to receive the power over network and 24VAC input via an external power adapter.

10. The IP camera shall have built-in heater for continued use in subzero temperature conditions and

utilize 24VAC input to provide power.

11. The IP camera shall have video out feature (NTSC/PAL) to preview the image only.

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

13. 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.

14. The IP camera shall deliver maximum video resolution of 3840 x 2160 at rates up to 30ips (images per second).

15. The IP camera shall provide direct network connection using H.265, H.264 and M-JPEG** compression. (** except for DirectIP 1.0)

16. The IP camera shall support quadruple streams in DirectIP protocol mode.

17. The IP camera shall support quadruple streams in IDIS protocol mode.

18. The IP camera shall conform to the ONVIF** Profile S verified by ONVIF device test tool version 19.06. (** except for DirectIP 1.0)

19. The IP camera shall be equipped with embedded web server (IDIS Web**) which works independently using a Web Browser with ActiveX plug-in. (** except for DirectIP 1.0)

20. The IP camera shall have IP filtering, HTTPS, SSL, IEEE 802.1X, and configurable user authority levels 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): Motion Detection, Active Tampering Alarm and Auto Tracking.

24. The IP camera shall have Digital Image Stabilization (DIS) to reduce the effect of camera shake or vibration.

25. The IP camera shall support Smart Failover feature that the camera's SD card instantly begins recording and automatically transfers the data to the NVR or ISS after recovery, leaving no incident unrecorded, when the camera and NVR or ISS are disconnected.

2.2.3   Protocol Specification: DirectIP and IDIS Protocol

1. The IP camera shall support the different DirectIP Protocol version depending on the firmware version

   - 2.0.0 or greater firmware version: DirectIP 2.0 is supported

   - Lesser than 2.0.0 firmware version: DirectIP 1.0 and IDIS Protocol are supported and DirectIP 1.0 is set as main protocol by default.

      A. The protocol modes shall be selectable between DirectIP and IDIS protocol mode to meet specific needs with IDIS Discovery tool. If the protocol is changed, the camera will be rebooted.

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2. Protocol Information

- DirectIP 2.0 Protocol

    A. DirectIP 2.0 protocol shall provide both feature of DirectIP 1.0 Protocol and IDIS Protocol without changing protocol mode.

- DirectIP 1.0 Protocol

    A. DirectIP 1.0 protocol shall provide easy connection to DirectIP NVR for automatic discovery and video streaming configuration.

    B. DirectIP 1.0 protocol shall provide Quadruple streams.

    C. The bitrate shall be automatically adjusted by recording profile of DirectIP NVR.

    D. DirectIP 1.0 protocol shall support H.264 and H.265 only as primary compression.

- IDIS Protocol

    A. IDIS protocol shall provide the compatibility with IDIS Solution Suite VMS or ONVIF for third-party software solutions.

    B. IDIS protocol shall provide Quadruple streams.

    C. IDIS protocol shall support H.264, H.265 and MJPEG compression.

2.3.0   Technical Specification

2.3.1   Video Specification

1. Image Sensor: 1/1.7" CMOS

2. Maximum Resolution: 3072 x 1728

3. Scanning Mode: Progressive Scan

4. Lens Information: AF(Auto Focus) Zoom Lens, IR Corrected Lens

    A. f=6.5mm – 202mm

    B. F1.55 – F4.8

5. Iris Control: DC Auto Iris with hall sensor

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

    A. Wide: 58.2º(H), 34.4.º(V), 65.2º(D)

    B. Tele: 1.99º(H), 1.13º(V), 2.3º(D)

    C. Pan Range, Speed: 360°, 0.02~180°/sec (preset 240°/sec)

    D. Tilt Range, Speed: 200° (-10° ~ 180°), 0.02~180°/sec (preset 240°/sec)

    E. Zoom Range: x31

7. Minimum Illumination:

    A. Color: 0.1 lux @ F1.55

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

8. S/N Ratio: more than 45dB

9. Maximum Frame Rate: 30ips @ 3072 x 1728 (WDR)

10. Video Resolution: 3072 x 1728 (5MP), 1920x1080, 1280x720, 640x360

11. Video Compression: H.265, H.264, MJPEG** (** IDIS Protocol only)

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

13. Video Bitrate Control: H.264 - CBR / VBR, H.265 - CBR / VBR

14. Intelligent Codec: Off (Default) / On

15. Motion Adaptive Transmission (MAT): Off (Default) / On

16. Multi-Video Streaming: Quadruple streams

17. Dynamic Range: 120dB (True WDR)

18. Electronic Shutter Speed: Auto / Manual (1/30 ~ 1/10000), Anti-Flicker, Slow Shutter (1~1/5, 1/7.5, 1/15)

19. True Day & Night: Yes (ICR)

20. IR Distance (number of LEDs): 200m, 656.2ft (2ea)

21. Image Setting: Configurable Exposure, White Balance, Sharpness

22. Digital Noise Reduction: Configurable 2DNR/3DNR

23. Backlight Compensation: On / Off / HSBLC

24. Mirroring / Pivot : Horizontal / Vertical

25. Image Stabilizer: Yes (DIS)

26. Privacy Masking: 8 Zones

27. Intelligent Video Analytic: Video Motion Detection, Active Tampering Alarm

28. Auto Tracking: Yes

29. Analog Video Output: 1 Terminal Block

30. Advanced PTZ options: 256 presets

2.3.2   Network Specification

1. Port: RJ-45, 10/100/1000Base-T, 1 port

2. Network Protocols:

   A. DirectIP 2.0 Protocol Mode: DirectIP Protocol, RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/UDP RTSP/TCP, HTTP, HTTPS, FTP, SNTP, SMTP, FEN, mDNS, uPNP

   B. DirectIP 1.0 Protocol Mode: DirectIP Protocol

   C. IDIS Protocol Mode: RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/UDP RTSP/TCP, HTTP, HTTPS, FTP, SNTP, SMTP, FEN, mDNS, uPNP

3. Remote Access Client

   A. DirectIP 2.0 Protocol Mode: DirectIP NVR Connection, IDIS Web, IDIS Mobile, IDIS Solution Suite

   B. DirectIP 1.0 Protocol Mode: DirectIP NVR Connection

   C. IDIS Protocol Mode: 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)

2.3.3   Security Specification

1. DirectIP 2.0 or IDIS Protocol Mode: Multi-user Authority, IEEE 802.1x, IP Filtering, HTTPS, SSL Encryption

2. DirectIP 1.0 Protocol Mode: SSL Encryption

3. Maximum User Access:

   A. DirectIP 2.0 or IDIS protocol mode: 10 sessions for (Admin, Watch, etc.), 1 session for Recording, 1 session for Searching the recorded data in SD card

   B. DirectIP 1.0 protocol mode: Direct camera access is unavailable.

2.3.4   Alarm and Event Specification

1. Alarm Input / Output: 8 / 2

   A. Alarm Input: 8 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.

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C. Alarm Output: 2 TTL open collector, 30mA @ 5 VDC

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

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

4. Pre-recorded Voice Alert (DirectIP 2.0 or IDIS Protocol Mode): Off (Default) / On

2.4.0 Environmental Specification

1. Operating Temperature: -40°C ~ +60°C (-40°F ~ +140°F), starting up at above -20°C (-4°F)

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

3. Vandal-proof Enclosure: IK10

4. Outdoor Ready: IP66, Heater

2.5.0 Electrical Specification

1. Power Source: 24VAC, PoE (75W)

2. Power Consumption: Max 68.6W (Heater On)

   A. Heater Off

      i. 24VAC: 2.1A, 38.2W, 50/60Hz

      ii. High-PoE (50-57V): 29.7W

   B. Heater On

      i. 24VAC: 3.7A, 68.58W, 50/60Hz

      ii. High-PoE (50-57V): 58.6W

3. PoE signature resistance: 25K ohm

   Caution) PoE supplier or injector should detect 25K ohm signature resistance.

4. Regulatory Approvals: FCC, CE(50130-4), KC

2.6.0 Mechanical Specification

1. Dimensions (Ø x H): Ø242mm x 401.8mm (Ø9.52" x 15.82")

2. Unit Weight: 7.4 kg (16.31 lb)

2.7.0 Software Specification

1. Supported Language: English, French, German, Italian, Spanish, Dutch, Polish, Portuguese, Hungarian, Czech, Russian, Danish, Swedish, Finnish, Turkish, Croatian, Korean, Japanese, Chinese-PRC, Chinese-Taiwan

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Version History

Version	Writer	Revision Date	Remarks
1.0	TS Team	May. 18, 2021	Initial Release