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# DC-D4236RX

# **Architectural and Engineering Specifications**

Version 1.0 (Feb. 18, 2020)

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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-D4236RX is Indoor 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 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.

#### 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 Motorized Vari-focal lens, F1.4(W)-F2.8(T).
- 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 on board micro SD/SDHC/SDXC, Smart Failover (Up to 256GB) backup storage slot as a safeguard against data loss during network interruptions.
- 11. 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.

- 12. The IP camera shall deliver maximum video resolution of 1920 x 1080 at rates up to 30ips (images per second).
- 13. The IP camera shall provide direct network connection using H.265, H.264 and M-JPEG compression.
- 14. The IP camera shall support Quadruple Streams in DirectIP 2.0 protocol mode.
- 15. The IP camera shall conform to the ONVIF ver.16.12.
- 16. The IP camera shall be equipped with embedded web server (IDIS Web) which works independently using a Web Browser with ActiveX plug-in.
- 17. The IP camera shall have IP filtering, HTTPS, SSL, IEEE 802.1X, and configurable Multi-user authority levels for greater security.
- 18. The IP camera shall have network bandwidth limitation and MAT features for more efficient use of network bandwidth.
- 19. The IP camera shall have Easy network access via UPnP (Universal Plug and Play) function and embedded mDNS (Multicast DNS) protocol.
- 20. The IP camera shall have Intelligent Video Analysis (VA): Motion Detection, Active Tampering Alarm 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 3<sup>rd</sup> 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.
- 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 M-JPEG compression.

#### 2.3.0 Technical Specification

#### 2.3.1 Video Specification

- 1. Image Sensor: 1/2.8" CMOS
- 2. Maximum Resolution: 1920 x 1080
- 3. Scanning Mode: Progressive Scan
- 4. Lens Type: Motorized Vari-focal (f= 2.8 12mm, F1.4(W) 2.8(T))

- 5. Iris Control: DC Iris
- 6. Angular Field of View (H: Horizontal, V: Vertical, D:Diagonal):
  - A. Wide : 98°(H), 51°(V), 116°(D)
  - B. Tele : 33°(H), 19°(V), 38°(D)
- 7. Pan/Tilt Range:
  - A. Pan: -175° ~ 175°
  - B. Tilt: 0° ~ 67°
  - C. Rotate: -177° ~ 177°
- 8. Minimum Illumination:
  - A. COLOR : 0.1 lux @ F1.4
  - B. B/W: 0 lux (IR LED ON)
- 9. S/N Ratio: more than 45 dB
- 10. Maximum Frame Rate: 30fps : 1920 x 1080(WDR)
- 11. Video Resolution: 1920x1080, 1280x720, 640x360, 352x240
- 12. Video Compression : H.265, H.264, M-JPEG
- 13. Video Compression Level: 4 levels: Basic, Standard, High, Very High
- 14. Multi-Video Streaming: Quadruple streams
- 15. Dynamic Range: 120 dB
- 16. True Day & Night: Yes (ICR)
- 17. IR Distance (The number of LEDs, IR wavelength): 30m / 98.4ft (6ea)
- 18. Intelligent Video Analytic: Video Motion Detection, Active Tampering Alarm and Trip Zone

# 2.3.2 Audio Specification

- 1. Audio Compression Algorithm: ADPCM 16K, G.726, G.711 u-Law, G.711 a-Law
- 2. Audio Input / Output: 1 / 1
- 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. Streaming Mode: Quadruple streaming

# 2.3.4 Security Specification

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

2. Maximum User Access: 10 (Live), 1 (Recording), 1 (Search), 2 (Admin)

#### 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. 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)

### 2.4.0 Environmental Specification

- Operating Temperature: -10°C ~ +50°C (+14°F ~ +122°F)
  \* Starting up at above 0°C (32°F)
- 2. Operating Humidity: 0% ~ 90%

### 2.5.0 Electrical Specification

- 1. Power Source: 12VDC, PoE(IEEE 802.3af class 3)
- 2. Power Consumption:
  - A. 12V=, 0.64A, 7.7W
  - B. PoE, IEEE 802.3af (Class 3), 7.6W
- 3. Regulatory Approvals: FCC

## 2.6.0 Mechanical Specification

- 1. Dimensions (Ø x H): Ø122 x 103.4mm
- 2. Unit Weight: 0.37kg(0.81lb)

# Version History

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Version	Writer	Revision Date	Remarks
1.0	TS Team	Feb. 18. 2020	Initial release