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DC-D1223W

Architectural and Engineering Specifications

Version 1.0

(Feb. 13, 2016)

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-D1223W is a Network Camera (IP Camera) designed and manufactured by IDIS. This camera provides Full HD (1920 x 1080) resolution at 30ips (images per second) with H.264/MJPEG compression. This camera is equipped with vari-focal lens, True Day/Night, PoE (IEEE 802.3af Class 2), Vandal-proof dome enclosure design and IP66 rated, Audio I/O, Alarm I/O and microSD/SDHC card backup.

2.2.2 General Specification

1. The IP camera shall be equipped with 2 Megapixel 1/2.7” CMOS Sensor.
2. The IP camera shall be equipped with 3.3mm - 10mm vari-focal lens, F1.3 - F2.5.
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 (Digital WDR) for improved video quality in high-contrast situations (more than 70dB).
5. The IP camera shall utilize 2DNR (Dynamic Noise Reduction) technology to reduce the bitrate and storage requirements by removing noise artifacts.
6. The IP camera shall be vandal proof and IP rating 66 complied dome enclosure design.
7. The IP camera shall be equipped with 10/100 Base-T, auto-sensing, half/full duplex, RJ-45 Ethernet connection.
8. The IP camera shall support industry standard Power over Ethernet (PoE) IEEE 802.3af, Class 2 to supply power to the camera over the network and 12VDC input.
9. The IP camera shall have video out feature (NTSC/PAL).
10. The IP camera shall have on board microSD/SDHC card backup storage slot as a safeguard against data loss during network interruptions.
11. The IP camera shall be equipped with recording stream buffer memory (60MB) to counter pre/post event buffering and network delays for improved network recording reliability.
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.264 and MJPEG** compression. (** IDIS protocol only)
14. The IP camera shall support quadruple streams in DirectIP protocol mode.
15. The IP camera shall support triple streams in IDIS protocol mode.
16. The IP camera shall conform to the ONVIF** Profile S Ver.2.4.0 standard. (** IDIS protocol only)
17. The IP camera shall be equipped with embedded web server (IDIS Web**) which works independently using a Web Browser with ActiveX plug-in. (** IDIS Protocol only)
18. The IP camera shall have IP filtering, HTTPS, SSL, 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, Active Tampering Alarm and Trip Zone.

2.2.3 Protocol Specification: DirectIP and IDIS Protocol

1. The IP camera shall have 2 protocol modes, DirectIP and IDIS Protocol, and DirectIP is set as main protocol by default.
2. The protocol modes shall be selectable between DirectIP and IDIS protocol mode to meet specific needs with IDIS Discovery tool.
    - DirectIP Protocol
        A. DirectIP protocol shall provide easy connection to DirectIP NVR for automatic discovery and video streaming configuration.
        B. DirectIP protocol shall provide Quadruple streams.
        C. The bitrate shall be automatically adjusted by recording profile of DirectIP NVR.
        D. DirectIP protocol shall support H.264 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 triple streams.
        C. IDIS protocol shall support H.264 and MJPEG compression.

2.3.0 Technical Specification

2.3.1 Video Specification

1. Image Sensor: 1/2.7” CMOS
2. Maximum Resolution: 1920 x 1080
3. Scanning Mode: Progressive Scan
4. Lens Type: Vari-focal (f=3.3 - 10mm, F1.3 - 2.5)
5. Iris Control: DC Auto Iris
6. Angular Field of View (H: Horizontal, V: Vertical, D:Diagonal):
   A. Wide: 108.2º(H), 56.2º(V), 129.3º(D)
   B. Tele: 35.4º(H), 19.8º(V), 40.5º(D)
   C. Pan/Tilt Range: Pan: -167° ~ 167°, Tilt: 0° ~ 70°, Rotate: -176° ~ 176°
7. Minimum Illumination:
   A. Color: 0.1 lux @F1.3
   B. B/W: 0.002 lux @F1.3
8. S/N Ratio: More than 45dB
9. Maximum Frame Rate: 30ips @1920 x 1080
10. Video Resolution:
    A. DirectIP Protocol Mode: 1920 x 1080, 1280 x 720, 704 x 480, 640 x 360, 352 x 240
    B. IDIS protocol mode: 1920 x 1080, 1280 x 720, 704 x 480, 352 x 240
11. Video Compression : H.264, MJPEG** (** IDIS Protocol only)
12. Video Compression Level: 4 levels: Basic, Standard, High, Very High
13. Multi-Video Streaming:
    A. DirectIP Protocol Mode: Quadruple streams
    B. IDIS Protocol Mode: Triple streams
14. Dynamic Range: More than 70dB
15. True Day & Night: Yes (ICR)
16. IR Distance (number of LEDs, IR wavelength): N/A
17. Intelligent Video Analytic: Video Motion Detection, Active Tampering Alarm, Trip Zone
18. Analog Video Output: 1 Terminal Block

2.3.2 Audio Specification

1. Audio Compression Algorithm: G.726 (16kHz), G.711 u-Law (8kHz)
2. Audio Input / Output: Line-in 1ea / Line-out 1ea
3. Two-way Audio Communication: Yes
4. Pre-recorded Voice Alert: Yes

2.3.3 Network Specification

1. Port: RJ-45 10/100 Base-T 1 port
2. Network Protocols:
   A. DirectIP Protocol Mode: DirectIP Protocol
   B. IDIS Potocol Mode: RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/UDP RTSP/TCP, HTTP, HTTPS, FTP, SNTP, SMTP, FEN, mDNS, uPNP, 802.1x (EAP)
3. Streaming Mode: Unicast, Multicast

2.3.4 Security Specification

1. DirectIP Protocol Mode: SSL Encryption
2. IDIS Protocol Mode: Multi-User Authority, IEEE 802.1x, IP Filtering, HTTPS, SSL Encryption
3. Maximum User Access:
   A. DirectIP protocol mode: Direct camera access is unavailable.
   B. IDIS protocol mode: 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. 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, TripZone
3. Event Notification: Remote S/W, Email (with Image)
   A. Encryption Type: SSL, TLS

2.4.0 Environmental Specification

1. Operating Temperature: -10°C ~ +50°C (+14°F ~ +122°F)
2. Operating Humidity: 0% to 90% non-condensing
3. Vandal-proof Enclosure: Yes
4. Outdoor Ready: IP66

2.5.0 Electrical Specification

1. Power Source: 12VDC, PoE(IEEE 802.3af class 2)
2. Power Consumption: 4.8W
3. Regulatory Approvals: FCC, CE (50130-4), KC, RoHS

2.6.0 Mechanical Specification

1. Dimensions (Ø x H): Ø160 mm x 112 mm (Ø6.3" x 4.41")
2. Unit Weight: 0.87 kg (1.92 lb)

Version History

Version	Writer	Revision Date	Remarks
1.0	TS Team	Feb. 13, 2016	Initial Release