

DC-E4212WR

Architectural and Engineering Specifications

Version 1.1

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-E4212WRX is a bullet type Network Camera (IP Camera) designed and manufactured by IDIS. This camera provides Full HD (1920 x 1080) resolution at 30 ips (images per second) with H.265, H.264, and MJPEG compression. This camera is equipped with Fixed-focal lens(f=4.0mm), True Day/Night, WDR, PoE (IEEE 802.3af Class 2), IR LED, Vandal-proof dome enclosure, and IP66 rated.

2.2.2 General Specification

1. The IP camera shall be equipped with 2 Megapixel 1/2.9" CMOS Sensor.
2. The IP camera shall be equipped with 4.0mm Fixed-focal, F2.15.
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 for improved video quality in high-contrast situations (70 dB).
5. The IP camera shall be equipped with 2ea Infrared LED with range up to 20m (65.6ft).
6. The IP camera shall utilize 2DNR/3DNR (Dynamic Noise Reduction) technology to reduce the bitrate and storage requirements by removing noise artifacts.
7. IP camera shall be equipped with 10/100 Base-T, auto-sensing, half/full duplex, RJ45 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.
9. The IP camera shall have video out feature (NTSC/PAL).
10. Using IDIS NLTsrec(Non-Linear Time Shifting recording) technology, the IP camera can store the recording data to the internal recording memory buffer (10MB) 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.

11. The IP camera shall deliver maximum video resolution of 1920 x 1080 at rates up to 30ips (images per second), and 1920 x 1080 at rates up to 15ips with WDR.
12. The IP camera shall provide direct network connection using H.265, H.264 and MJPEG** compression (** IDIS Protocol only).
13. The IP camera shall support Quadruple Streams in DirectIP protocol mode.
14. The IP camera shall support Quadruple Streams in IDIS protocol mode.
15. The IP camera shall conform to the ONVIF** Profile S Ver 2.4.0 standard (** IDIS Protocol only).
16. The IP camera shall be equipped with embedded web server (IDIS Web**) which works independently using a Web Browser with ActivX plug-in (** IDIS Protocol only).
17. The IP camera shall have IP filtering, HTTPS, SSL, IEEE 802.1X, and configurable 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 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.265, 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 Quadruple streams.
 - C. IDIS protocol shall support H.265, H.264 and MJPEG compression.

2.3.0 Technical Specification

2.3.1 Video Specification

1. Image Sensor: 1/2.9" CMOS
2. Maximum Resolution: 1920 x 1080
3. Scanning Mode: Progressive Scan
4. Lens Type: Fixed-focal (f= 4.0mm, F2.15)
5. IRIS Control: Fixed Iris
6. Angular Field of View (H: Horizontal, V: Vertical, D:Diagonal):
 - A. 83°(H), 43°(V), 100.4°(D)
7. Minimum Illumination:
 - A. COLOR : 0.1 lux @ F2.15
 - B. B/W : 0 lux (IR LED ON)
8. S/N Ratio: more than 45dB
9. Maximum Frame Rate: 30ips @ 1920 x 1080, 15ips @ 1920 x 1080(WDR)
10. Video Resolution:
 - A. DirectIP protocol mode: 1920x1080, 1280x720, 704x480, 640x360, 352x240
 - B. IDIS protocol mode: 1920x1080, 1280x720, 704x480, 640x360, 352x240
11. Video Compression : H.265, 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: Quadruple streams
14. Dynamic Range: 70dB
15. True Day & Night: Yes (ICR)
16. IR Distance (The number of LEDs, IR wavelength): 20m (65.6ft) (2ea)
17. Intelligent Video Analytic: Video Motion Detection, Active Tampering Alarm, Trip Zone

2.3.2 Audio Specification

1. Audio Compression Algorithm: N/A
2. Audio Input / Output: N/A
3. Two-way Audio Communication: N/A
4. Pre-recorded Voice Alert: N/A

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
3. Streaming Mode: Quadruple streaming

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: N/A
2. Trigger Events: Motion Detection, Tampering, Trip Zone
3. Event Notification: Remote S/W, Email (with Image)
 - A. Encryption Type: SSL

2.4.0 Environmental Specification

1. Operating Temperature: -20°C ~ +55°C (-4°F ~ +131°F), Starting up at above 0°C (32°F)
2. Operating Humidity: 0% to 90%
3. Vandal-proof Enclosure: Yes
4. Outdoor Ready: IP66

2.5.0 Electrical Specification

1. Power Source: PoE (IEEE 802.3af Class 2)
2. Power Consumption: 4.7W, PoE (IEEE 802.3af Class 2).
3. Regulatory Approvals: FCC, CE, KC

2.6.0 Mechanical Specification

1. Dimensions (W x H): 70mm x 65mm x 186.8mm
2. Unit Weight: 0.335 kg (0.74 lb)

Version History

Version	Writer	Revision Date	Remarks
1.1	Suji Park	May. 29, 2019	Modified a value.
1.0	Suji Park	Oct. 14, 2018	Initial Release