

DC-I6212WRX

Architectural and Engineering Specifications

Version 1.1
(Feb. 26, 2025)

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-I6212WRX is an Outdoor Network Intercom Camera with IR LED designed and manufactured by IDIS. Also it supports SIP(VoIP) protocol. This camera provides 2MP Full HD (1920x1080) resolution at 30ips with H.265, H.264, and MJPEG compression. This camera is equipped with Fixed-focal lens, IR LEDs, PoE IEEE 802.3af(class 3), Alarm I/O, Audio I/O, micro SD/SDHC/SDXC card backup(up to 512GB), Vandal-proof casing IK10, IP66 rated and NEMA4X. And it also provides continuous operation in subzero temperature.

2.2.2 General Specification

1. The IP camera shall be equipped with 1/2.8" CMOS Sensor.
2. The IP camera shall be supported with SIP protocol.
3. The IP camera shall be equipped with 1.85mm fixed-focal lens, F2.3.
4. 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).
5. The IP camera shall have wide dynamic range compensation (True WDR) for improved video quality in high-contrast situations (120dB).
6. The IP camera shall have 1 IR LED looming 5m(16 ft).
7. The IP camera shall support Fixed-Iris.
8. The IP camera shall utilize Echo Cancellation which makes voice communication clear.
9. The IP camera shall utilize 2DNR/3DNR (Dynamic Noise Reduction) technology to reduce the bitrate and storage requirements by removing noise artifacts.
10. The IP camera shall be IK10 complied vandal proof, IP rating 66 and NEMA4X complied.
11. The IP camera shall be equipped with 10/100Base-T, auto-sensing, half/full duplex, RJ-45 Ethernet connection.
12. The IP camera shall support industry standard Power over Ethernet (PoE) IEEE 802.3af, Class 2.

13. The IP camera shall have on board microSD/SDHC/SDXC card backup storage slot as a safeguard against data loss during network interruptions(Up to 512GB).
14. 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.
15. The IP camera shall deliver maximum video resolution of 1920x1080 at rates up to 30ips (images per second).
16. The IP camera shall provide network connection using H.265, H.264 and MJPEG compression.
17. The IP camera shall support quadruple streams in DirectIP 2.0 protocol mode.
18. The IP camera shall conform to the ONVIF Profile S&T verified by ONVIF.
19. The IP camera shall be equipped with embedded web server (IDIS Web) which works independently using a Web Browser with Active-X plug-in.
20. The IP camera shall have IEEE 802.1X(EAP-TLS), Chained fingerprint, HTTPS, SSL Encryption 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): Video Motion Detection, Active Tampering Alarm and Trip Zone.
24. 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 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 as 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
3. Scanning Mode: Progressive Scan
4. Lens Type: Fixed-focal (f=1.85mm, F2.3)
5. Iris Control: Fixed Iris
6. Angular Field of View (H: Horizontal) :
 - A. 180°(H)
7. Minimum Illumination:
 - A. COLOR : 0.1 lux @ F2.3
 - 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:
11. 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 (LEDs): 5m / 16ft (1ea)
18. Intelligent Video Analytic: Video Motion Detection, Active Tampering Alarm and Trip Zone
19. Analog Video Output: None

2.3.2 Audio Specification

1. Audio Compression Algorithm: G.726, G.711 u-Law, G.711 a-Law, G.722
2. Audio Input / Output: 1 (Built In MIC with Echo Cancellation) / 1 (Built In SPK)
3. Two-way Audio Communication: Yes

2.3.3 Network Specification

1. Port: RJ-45, 10/100Base-T, 1 port
2. Network Protocols: DirectIP 2.0 Protocol, IPv4, IPv6, RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/UDP RTSP/TCP, HTTP, HTTPS, FTP, SNMP, SMTP, FEN, mDNS, uPNP, SNMPv2, SIP
3. Security: Digest authentication, Password Protection, User access log, IP Filtering, IEEE802.1x(EAP-TLS), Chained Fingerprint, SSL Encryption, HTTPS Encryption

4. Remote Access Client: DirectIP NVR Connection, IDIS Web, IDIS Mobile, IDIS Solution Suite
5. Recording Session Buffer (NLTsrec): Up to 60MB
6. Edge Storage: micro SD/SDHC/SDXC, Smart Failover (Up to 512GB)

2.3.4 Security Specification

1. Digest authentication, Password Protection, User access log, IP Filtering, IEEE802.1x(EAP-TLS), Chained Fingerprint, SSL Encryption, HTTPS 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 / 2
 - A. ALARM OUT : 1 TTL open collector, 30mA @ 5 VDC, 1 Relay out, 1A @ 12VDC
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: -30°C ~ +55°C (-22°F ~ +131°F) * Starting up at above 0°C (32°F)
2. Operating Humidity: 0% to 90%
3. Vandal-proof Enclosure: IK10
4. Outdoor Ready: IP66, NEMA4X

2.5.0 Electrical Specification

1. Power Source: 12VDC, PoE IEEE 802.3af (Class 3)
2. Power Consumption: 12V=, 1.87A, 22.4W
PoE, (IEEE 802.3af Class 3), 9.5W
(DC Output : 12V=, 1A MAX with Adaptor)
3. Regulatory Approvals: FCC, CE, KC

2.6.0 Mechanical Specification

1. Dimensions (W x H x D): 52mm x 165mm x 46mm (2.05" x 6.50" x 1.81")
2. Unit Weight: 0.52 kg (1.15lb)

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

Version History

Version	Writer	Revision Date	Remarks
1.0	TS Team	Dec, 07 2023	Initial Release
1.1	GT Team	Feb, 26 2025	Modified the specification