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DC-B1803

Architectural and Engineering Specifications

Version 1.1

(Aug. 25, 2020)

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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-B1803 is a Network Camera (IP Camera) designed and manufactured by IDIS. This camera provides 4K (3840 x 2160) resolution at 15 IPS (DirectIP Mode) with H.264/MJPEG compression. This camera is equipped with Optional (C/CS mount) lens, True Day/Night, PoE (IEEE 802.3af Class 3), Audio I/O, Alarm I/O and microSD/SDHC/SDXC card backup.

2.2.2 General Specification

1. The IP camera shall be equipped with 8 Megapixel 1/2.3” CMOS Sensor.
2. The IP camera shall be equipped with Optional (C/CS mount) lens.
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.
5. The IP camera shall utilize 2DNR and 3DNR (Dynamic Noise Reduction) technology to reduce the bitrate and storage requirements by removing noise artifacts.
6. IP camera shall be equipped with 10/100/1000 Base-T, auto-sensing, half/full duplex, RJ45 Ethernet connection.
7. 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.
8. The IP camera shall have built-in heater for continued use in subzero temperature conditions and utilize 12 VDC input to provide power.
9. The IP camera shall have video out feature (NTSC/PAL).
10. The IP camera shall have onboard microSD/SDHC/SDXC card 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 (100MB) 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 3840 x 2160 at rates up to 30 images per second (Compatibility Mode).
13. The IP camera shall provide direct network connection using H.264 and MJPEG** compression
14. The IP camera shall support Quadruple Streams in DirectIP protocol mode.
15. The IP camera shall support Quadruple 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 ActivX 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 and MJPEG 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 and MJPEG compression.

2.3.0 Technical Specification

2.3.1 Video Specification

1. Image Sensor: 1/2.3" CMOS
2. Maximum Resolution: 3840 x 2160
3. Scanning Mode: Progressive Scan
4. Lens Type: Optional (C/CS mount)
5. IRIS Control: P-Iris / DC Auto Iris / Manual Iris
6. Minimum Illumination:
   A. COLOR : 0.4 lux @ F1.6
   B. B/W : 0.04 lux F1.6
7. S/N Ratio: more than 45dB
8. Maximum Frame Rate
   A. DirectIP protocol mode: 15ips @ 3840 x 2160
   B. IDIS protocol mode: 30ips @ 3840 x 2160 / 60ips @ 1920 x 1080
9. Video Resolution:
   A. DirectIP protocol mode: 3840 x 2160 (8MP), 1920x1080, 1280x720, 704x480, 640x360, 352x240
   B. IDIS protocol mode: 3840 x 2160 (8MP), 1920x1080, 1280x720, 640x360, 704x480, 352x240
10. Video Compression : H.264, MJPEG**
11. Video Compression Level: 4 levels - Basic, Standard, High, Very High
12. Multi-Video Streaming:
    A. DirectIP protocol mode: Quadruple streams
    B. IDIS protocol mode: Quadruple streams
13. Dynamic Range: more than 70dB
14. True Day & Night: Yes (ICR)
15. IR Distance (The number of LEDs, IR wavelength): N/A
16. Intelligent Video Analytic: Video Motion Detection, Active Tampering Alarm, Trip Zone
17. Analog Video Output: 1 RCA

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 10/100/1000 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) / *Starting up at above 0°C (32°F)
2. Operating Humidity: 0% to 90% non-condensing

2.5.0 Electrical Specification

1. Power Source: 12VDC, PoE(IEEE 802.3af class 3)
2. Power Consumption: 8.4W
3. Regulatory Approvals: FCC, CE (50130-4), KC, UL

2.6.0 Mechanical Specification

1. Dimensions (W x H x D): 75.6mm x 61mm x 129.3mm (2.98" x 2.4" x 5.09")
2. Unit Weight: 0.4 kg (0.89 lb)

Version History

Version	Writer	Revision Date	Remarks
1.0	Roy Lee	Feb. 11, 2016	Initial Release
1.1	TS Team	Aug. 25, 2020	Spec Update