

DV-2232

Architectural and Engineering Specifications

Version 1.0
(Nov. 30, 2020)

PART 2 - PRODCUTS

Division 28 – Electric Safety and Security

Section 28.23.19 – Video Surveillance – Digital Video Recorder and Analog Recording Devices

Section 28.23.12 - Video Surveillance – System Infrastructure

2.1.0 Manufacturer

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2.2.0 General

2.2.1 Product Description

DV-2232 is a Video Analytics system (AI Box) designed and manufactured by IDIS. The AI Box is a 32 Channel IP camera with H.264/H.265 compression and it is specialized in DirectIP NVRs. The AI Box is equipped with Gigabit Ethernet x 1 (1000Base-T)

The AI Box is easy to use and to install application for monitoring and reporting specific Video Analytics events and behaviors which is powered by the most advanced IDIS Deep-Learning Analytics (IDLA). It supports People Counting and Occupancy Control, Crowd Detection, Social Distancing Violation, Mask Rule Violation. It generates real-time event notifications with high accuracy. It also supports Live Occupancy Dashboard for display to keep capacity limits and Dashboard Reporting of visitor flow and compliance levels.

2.2.2 General Specification

1. The AI Box shall be powered with the most advanced IDIS Deep-Learning Analytics (IDLA).
2. The AI Box shall support DirectIP™ Protocol.
3. The AI Box supports max. 32 channel IP cameras.
4. The AI Box shall be operated at a Microsoft® Windows Embedded Standard 8.
5. The AI Box shall be equipped with Gigabit Ethernet x 1 (1000Base-T).
6. The AI Box shall have Intel i7-7700 3.6GHz, DDR4 PC-19200 8GB.
7. The AI Box shall have 2 RJ-45 network ports (1 Gbps Ethernet).
8. The AI Box shall have 1 internal SATA port and 1 eSATA port.
9. The AI Box shall have 1 VGA, 1 DP, and 1 HDMI output.
10. The AI Box shall have single power.
11. The AI Box shall have 6 USB ports (2 Front USB 2.0 + 2 Rear USB 3.0 + 2 Rear USB 2.0).
12. The AI Box shall support H.264, and H.265 compression.

2.3.0 Technical Specification

2.3.1 Hardware, OS

1. CPU: Intel® I7-7700, 3.6GHz
2. RAM: DDR4 PC-19200 (PC-21300), 8GB
3. IDLA Processing Unit (VGA) : NVIDIA RTX2060 SUPER, 8GB
4. OS : Microsoft® Windows Embedded Standard 8

2.3.2 Video Specification

1. Network Video Inputs: up to 32 IP cameras
 - A. The AI Box can connect the cameras up to 32 by adjusting the network bandwidth for each camera.
2. Supported Camera protocol : DirectIP
3. Codec: H.264, H.265

2.3.3 Network Specifications

1. Network Connection: Gigabit Ethernet x 1 (1000Base-T)

2.3.4 Analytics Specifications

1. Channel Analysis Performance: Max. 32 channels
2. Image Analysis Performance : 9IPS/Channel
3. Image Decoding : 1920 x 1080 @ 10IPS/Channel
4. The AI Box shall support various image analysis function such as People Counting, Crowd Detection, Social Distancing Violation, Mask Rule Violation.
 - A. People Counting: Counts the number of people passing through the line on the live screen.
 - * Occupancy Limit : By collecting the set People Counting results, an event occurs when the total number of people entering is equal to or greater than the specified number.
 - B. Crowd Detection: Alarm occurs according to the analysis of the number of people detected in the set area of the image.
 - C. Social Distancing Violation: Alarm occurs when the distance between detected people in the set area of the image is estimated and analyzed and the distance is less than the set interval.
 - D. Mask Rule Violation: Selected camera detects a face and an event occurs according to the mask wearing rule set on the face.
5. Configuration of device settings and integrated management of multiple AI Boxes on the NVR

2.3.5 External Interface Specifications

1. Monitor : 1 x HDMI, 1 x DP, 1 x VGA
2. Ethernet : 2 RJ-45 (1 Gbps Ethernet)
3. Audio I/O : 1 AUX connector(3.5Φ) / 1 AUX connector(3.5Φ)

4. USB : 6 USB ports (2 Front USB 2.0 + 2 Rear USB 3.0 + 2 Rear USB 2.0)
5. Serial: RS232 (DB9 Terminal Block)
6. User Control Interface: Keyboard, Mouse, and RS232C Command Interface

2.3.6 Supported Devices

1. DirectIP NVR models
 - A. DR-6316P v7.3.0 or higher
 - B. DR-6332PS v7.3.0 or higher
2. DirectIP Cameras
 - A. All IDIS network cameras which support DirectIP protocol.

2.3.7 Supported Protocol

Supports only DirectIP Protocol.

** Be aware that IDIS Protocol, Onvif or Third party protocol does not work along with DV-2232.

2.4.0 Mechanical Specifications

1. Unit Dimensions (W x H x D): 440mm x 462mm x 177mm (17.3" x 18.2" x 7.0")
2. Unit Weight: 14.0 kg (30.9 lb)

2.5.0 Environmental Specifications

1. Working Temperature: 0°C to 40°C (32°F ~ 104°F)
2. Operating Humidity: 0% ~ 90%

2.6.0 Electrical Specifications

1. Power Input: AC 100-240 V, 50/60Hz, 5.5 - 2.5A
2. Power Supply : Single Power
3. Power Consumption: Max. 350W
4. Regulatory Approvals:
 - a. Electrical: FCC, CE, CB, UL, KC

Version History

| Version | Writer | Revision Date | Remarks |
|---------|--------------|---------------|-----------------|
| 1.0 | Tech support | Nov. 30, 2020 | Initial Release |