

DV-3100

Architectural and Engineering Specifications

Version 1.0
(Aug. 13, 2021)

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

1. IDIS Co., Ltd.
IDIS Tower, 344 Pangyo-ro, Bundang-gu
Seongnam-si, Gyeonggi-do, 13493, Republic of Korea
Tel: +82 31 723 5400
Fax: +82 31 723 5100

2.2.0 General

2.2.1 Product Description

DV-3100 is a Video Analytics system (AI Box) designed and manufactured by IDIS. The AI Box is compatible with IDIS Deep-Learning Analytics (IDLA) supported by IDIS Solution Suite VA Service version 3.0.0 or higher up to 64 IP cameras. The IDLA is a superior accuracy deep-learning engine. The IDLA performs the object classification suitable for CCTV application with simple configuration and zero calibration. The AI Box supports up to 64ch in condition of 640x360@5ips video input. The AI Box is equipped with 2 Giga Lan ports, 5 internal HDD ports, and 1 eSATA port.

The AI Box is an integrated security system, capable of time division multiplexing and real time monitoring of multiple cameras and analyzing their digitized and compressed images on embedded hard disk drives for fast search and retrieval either locally at the unit, or from a remote workstation using a Graphical User Interface (GUI). The AI Box is equipped with technology that allows connected cameras to be discovered and configured automatically. The AI Box is video analysis purpose only, which does not guarantee performance for other functions besides video analysis.

2.2.2 General Specification

1. This AI Box is for "IDIS Solution Suite" with IDLA VA service.
 - You can also refer to "IDIS Solution Suite A&E Specification".
2. The AI Box shall be a Windows8 embedded
3. The AI Box shall support analytics up to 64ch in condition of 640x360@5ips video input.
4. The AI Box shall be equipped with 2 Gigabit Lan ports.
5. The AI Box shall have Intel i7-7700 3.6GHz, DDR4 PC-19200 8GB.
6. The AI Box shall have 1 internal SATA III (6.0 Gb/s) port and 1 eSATA port.
7. The AI Box shall have 1 VGA, 1 DP, and 1 HDMI output.
8. The AI Box shall have 2 GbE RJ-45 Ports (1000Base-T).
9. The AI Box shall have 4U rack mount chassis.
10. The AI Box shall have single power.

11. The AI Box shall have 1 Line input, 1 Line output (3.5mm), 1 HDMI audio output.
12. The AI Box shall have 6 USB ports (2 Front USB 2.0 + 2 Back USB 3.0 + 2 Back USB 2.0)

2.3.0 Technical Specification

2.3.1 Video Specification

1. Network Video Inputs: up to 64 IP cameras
 - A. The AI Box can connect the cameras up to up to 64ch in condition of 640x360@5ips video input.

2.3.2 Hardware, OS

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

2.3.3 Storage Specifications

1. Main Storage : Internal SATA x1 (Max. 5 HDDs)
2. Secondary Storage (Extension) : eSATA x1

The AI Box can mount and operate up to 5 HDDs, and each video analysis is separately operated through LAN1 and LAN2.

2.3.4 Network Specifications

1. Network Connection:
 - A. 2 Gigabit Ethernet RJ-45 ports (1000Base-T)
2. Remote Client Viewer application: IDIS Solution Suite
 - A. IDIS Solution Suite: Microsoft Windows OS

2.3.5 Analytics Specifications

1. Sampling Rate: per 5 fps
2. Events: Loitering, Intrusion.
 - A. The AI Box shall support alarm sensor trigger in and relay out functions in such event of loitering events, and intrusion events.
3. Detection Objects: Human, Vehicle, Bicycle.
4. Detection Color: Black, White, Gray, Red, Yellow, Green, Blue, Magenta, and Brown.
5. Event Notification:

- A. The AI Box shall include a system log report support that analytics information relating to alarm events, reboots, and other system information.

2.3.6 External Interface Specifications

1. Serial: RS232 (DB9 Terminal Block)
2. User Control Interface: Keyboard, Mouse, and RS232C Command Interface
3. USB Interface: USB 2.0 x 4, USB 3.0 x 2
4. Monitor : 1 x HDMI, 1 x DP, 1 x VGA
5. Ethernet : 2 RJ-45 (1 Gbps Ethernet)
6. Audio I/O : 1 AUX connector(3.5Φ) / 1 AUX connector(3.5Φ)

2.4.0 Mechanical Specifications

1. Operating System: Microsoft® Windows Embedded Standard 8
2. Unit Dimensions (W x H x D): 440 mm x 177 mm x 462 mm (17.3" x 7.0" x 18.2")
3. 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 100-240V, 50/60Hz, 5.5 ~ 2.5A
2. Power Consumption: Max. 350W
3. Regulatory Approvals:
 - A. Electrical: FCC, CE, CB, UL, KC

Version History

Version	Writer	Revision Date	Remarks
1.0	Tech support	Aug. 13, 2021	Initial Release