DV-2116

Architectural and Engineering Specifications

Version 1.0

(May. 24, 2019)

**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**

## Manufacturer

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## General

### Product Description

DV-2116 is a Video Analytics system (AI Box) designed and manufactured by IDIS. The AI Box is a 16 Channel unit and supports up to 1920ips (images per second) with H.264/H.265 compression. The AI Box is equipped with 2 Giga Lan ports, 1 internal HDD port, 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 fully compatible with IDIS products across different platforms such as TVI solution and Video Management System.

### 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”.

1. The AI Box shall be a Windows8 embedded 64bit unit with 16 Channel IP network video in.
2. The AI Box shall be equipped with 2 Gigabit Lan ports.
3. The AI Box shall have Intel i7-7700 3.6GHz, DDR4 PC-19200 8GB.
4. The AI Box shall have 1 internal SATA port and 1 eSATA port.
5. The AI Box shall have 1 VGA, 1 DP, and 1 HDMI output.
6. The AI Box shall have 2 RJ-45 network ports.
7. The AI Box shall have 4U rack mount chassis.
8. The AI Box shall have single power.
9. The AI Box shall have 1 Line input, 1 Line output (3.5mm), 1 HDMI audio output.
10. The AI Box shall have 6 USB ports (2 Front USB 2.0 + 2 Back USB 3.0 + 2 Back USB 2.0)
11. The AI Box shall support up to live 1920ips (Image per Second).
12. The AI Box shall support H.264, and H.265 compression.
13. The AI Box shall support CBR and VBR.
14. The AI Box shall support FEN service (A name resolution service equivalent to DDNS).
15. The AI Box shall be equipped with dynamic multistream remote streaming option mode for enhanced remote access experience.

## Technical Specification

### Video Specification

1. Network Video Inputs: up to 16 IP cameras
   1. The AI Box can connect the cameras up to 16 by adjusting the network bandwidth for each camera.
2. Supported Camera protocol: IDIS, AXIS, PANASONIC, ONVIF™, Basler, Mobotix, Pelco, Sony, 360 Vision, RTP/RTSP
   1. The AI Box supports integrated third party cameras with IDIS, AXIS, PANASONIC, ONVIF™, Basler, Mobotix, Pelco, Sony, 360 Vision and RTP/RTSP protocol as well as IDIS cameras.
   2. Analog Encoder can be attached via network to work with analog cameras.
   3. Some third party cameras may not be compatible with the NVR even though the cameras support AXIS, PANASONIC, ONVIF™, Basler, Mobotix, Pelco, Sony, 360 Vision, RTP/RTSP protocol.

### Hardware, OS

1. Processor: Intel® I7-7700, 3.6GHz
2. Memory: DDR4 PC-19200 (PC-21300), 8GB
3. IDLA Processing Unit (VGA) : NVIDIA GTX1060, 8GB
4. OS : Microsoft® Windows Embedded Standard 8

### Storage Specifications

1. HDD: Internal SATA x1
2. Total Capacity: 1TB = 1 Internal x 1TB a
   1. The AI Box shall support increased storage capability if direct attached storage device such as eSATA storage unit is connected..

* Supported HDDs are continually updated.([Product Compatibility](https://partner.idisglobal.com/design_tool/product_compatibility.php?mode=hdd))

### Network Specifications

1. Network Connection:
   1. 2 Gigabit Ethernet RJ-45 ports (Intel + Realtek)
2. Remote Client Viewer application: IDIS Solution Suite
   1. IDIS Solution Suite: Microsoft Windows OS

### Analytics Specifications

1. Sampling Rate: per 5 fps
2. Events: Loitering, Intrusion.
   1. 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:
   1. The AI Box shall include a system log report support that analytics information relating to alarm events, reboots, and other system information.

### External Interface Specifications

1. Serial Interface: RS232 (DB9 Terminal Block)
2. User Control Interface: Mouse, and RS232C Command Interface
3. USB Interface: USB 2.0 x 4, USB 3.0 x 2.

## Mechanical Specifications

1. Operating System: Windows8 Embedded
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)

## Environmental Specifications

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

## Electrical Specifications

1. Power Input: AC 100-240V, 50/60Hz, 3.0 ~ 1.5A
2. Power Consumption: Max. 250W
3. Regulatory Approvals:
   1. Electrical: FCC, CE, CB, UL, KC

# Version History

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| --- | --- | --- | --- |
| **Version** | **Writer** | **Revision Date** | **Remarks** |
| 1.0 | Tech support | May. 24, 2019 | Initial Release |
| 1.1 | Tech support | June. 08. 2022 | Added Graphic Card info |