



## M1 Fanless & Mobile NVRs

# Small, Powerful and Travel-ready

With the **M1 Series**, GVD brings performance and mobility to NVRs. The **M1 Series** is GVD's brand new line of rugged NVRs to look after the safety of urban living from general business to critical missions. The whole series are fanless to allow quiet and clean thermal mechanism to make the system reliable and flexible-to-install.

- Fanless design for location-flexibility and reliable running
- 2, 4 or 8 IP cameras supported, with PoE LAN ports
- 3G, 4G, and WiFi for real-time video monitor and alarm notice (3G/4G for **Mobile NVRs** only)
- Railway transportation standard EN50155/EN50121-3-2 certificated (**Mobile NVRs** only)
- European banking standard UVV-Kassen certified (**Fanless NVRs** only)



# 2 Markets

## Mobile NVRs & Fanless NVRs

To answer the rugged needs, the **M1 Series** presents two different groups of NVRs, one is the **Mobile NVRs** for vehicle transportation, and the other is the **Fanless NVR** designed for ATM banking and city surveillance on outdoor streets. Both groups are ruggedized by both hardened external housing and selected internal components. These two groups of NVRs will be deliberated in the following.

### Mobile NVRs -

The **M1121, M1142 & M1184/M1284** are the **Mobile NVRs** featured by **M1 Series**. Exactly as the name suggests, they are able to work on the go. They support 2 to 8 camera channels, with PoE LAN ports to facilitate in-car camera installation. Rich data connections are on option to tether the mobile NVR perpetually to the business headquarters or the control center. Intelligent power management is also implemented for the **Mobile NVRs** to prevent startup failure and let the car battery usage be monitored. Isolated DIO is also there to let you add in-car devices without much trouble. These NVRs spread the protection beyond conventional business floor and hence are particularly helpful for the business with itinerant activities, such as a CIT car's bank pickup for banking business and the fleet management needed by transportation business.

With a GPS receiver opted for a mobile NVR, a vehicle can be pinpointed in real time by the control center hundreds of miles away. And, with a G sensor opted for, the NVR can instantly alert the control center once serious vibration or car crash happens. Close and seamless collaboration between an NVR and the control center is so easy to get.

Each **Mobile NVR** model meets the standards of **E-Mark** and **EN50155/EN50121-3-2** and passes the 5 Grms vibration and 50 Grms shock tests of **IEC60068-2-64 / IEC60068-2-27**.

### Design Concept

#### ■ Hardened Structure -

increases the ruggedness



PoE LAN ports with M12 connectors are featured on the **M1284** to withstand intensive industrial uses, especially in moving vehicles.

#### ■ Fanless Cooling -

dust-free & noise-free for clean, quiet and reliable system running

#### ■ Wide-Range DC-in Support -

prevents incorrect voltage input that damages the system



#### ■ Wide Temperature Design -

withstands harsh environment

#### ■ Anti Vibration/Shock -

certified by world-wide organization IEC







# 2 Markets

## Mobile NVRs & Fanless NVRs

### Fanless NVRs

Alongside the **Mobile NVRs**, there is a highly rugged NVR called the “**Fanless NVR**” to come with two models, i.e. the **M1021** and **M1001**. This **Fanless NVR** is designed with 1) **fanless cooling system**, 2) **wide-temperature (-25~70°C) tolerance** and 3) a very **small footprint** of only 6” x 4” to make itself withstand harsh environment and tolerate constraint space.

Although housed within a compact form, the dapper NVR has everything needed for an powerful embedded system. It has rich I/O ports, including USB 3.0 and serial COM, digital I/O, DVI and VGA ports, and it carries a 2.5” HDD/SSD inside to bring you large storage. The ruggedness of this NVR make itself good choice for mission-critical street control and ATM.

For street control, the **Fanless NVR** is applicable to “**Smartcity**”, in which NVRs are installed disparately in a city to collect and transmit video to a government entity for analysis to deter crimes or manage traffic. For ATM, the NVR supports all brands of ATM to video-document each transaction at an ATM, by the help with only an additional protocol converter box. And the NVR is certified by UVV-Kassen (EU) to guarantee high quality for digital recording devices used in financial institutions.

### Design Concept

- **Fanless Cooling -**  
dust-free & noise-free for clean, quiet and reliable system running



- **Tiny Form Factor -**  
for space limited applications  
Small but powerful

- **Wide Temperature Design -**  
withstands harsh environment



Rugged design that fit's all environment's need



# Product Highlights

## ■ Book-sized Form - small but powerful

Although taking only a small footprint close to a 3.5" HDD, the **Fanless NVR** has everything needed for a powerful embedded system. It includes rich IO and 2.5" storage inside. The **Mobile NVRs** are equally attractive in terms of size. Except for the extra powerful **M1184/M1284**, the **Mobile NVRs** come in small book size to make it easier for installation.

## ■ Power over Ethernet – efficient and cost-effective

Except for **Fanless NVR M1001**, the full **M1** lineup features PoE LAN ports. Cameras can tap power from the NVR through Ethernet cables. Each port delivers power up to 25.5W and simultaneously transfers data up to 1000 Mb/s over a single CAT-5e/CAT-6 cable. This saves the need to get extra power source and makes the camera installation easy.

## Available for Mobile NVRs only

## ■ Touch-enabled - for driver alarm and in-car video display

The **VMS** is exclusively tailor-made to meet mobile needs. It features an expanded set of intuitive GUI to support touch control for a vehicle driver to view video or to launch an alarm in a more simple way. The system also features an unique onscreen panic alarm button for the driver to hit to react to an incident without any delay. And a reduced set of patterns with 1x1 view and 2x2 view is featured for a bus or truck driver to quickly grasp what is going on in his motor.



## ■ GPS Receiver & G-sensor - instant location discovery & accident alert

If you opt for a GPS receiver inside the mobile NVR, the mobile NVR can be tracked and located on a map tool featured by the **VMS** so the control center can make sure whether the vehicle is off-route or existing the designated area. If you opt for a G-sensor inside the mobile NVR, the vibration of the vehicle can be detected provided the G-sensor has been set to measure vehicle vibration at a regular time interval, e.g. every 2 seconds or so. The control center can be alerted in case of so serious vibration that puts the vehicle in the danger of car crash.



## ■ Video Wall at Control Center – maximum coverage at one glance

A video wall with dozens of synchronous live videos on multiple monitors can help the control center quickly cover as many conditions and situations as possible going on with its fleet. Despite of vast video traffic, the video quality needs not to be compromised since GVD's video management platform **VMS** is sophisticated with the techniques to optimize the live video streams. Besides, the video wall management is so enhanced that the management tool can be defined to reflect the relative positions of the physical video-wall monitors.

## ■ Control Center Solution – manages up to 8000 channels and 1200 vehicles

For enterprise- and multi-site projects, the full **M1** lineup can be scaled up to GVD's centralized video management platform, **CMS (Control Management System)** or **VMS (Video Management System)**, simply through your flexible add-ons of GVD products. **CMS** allows up to 600 channels while **VMS** supports up to 8000 channels. A control center solution is available with **VMS**. Through stable network connection, an mobile NVR can relentlessly tied to the control center hundreds of miles away to keep the security operators aware of any suspicious event. **VMS** can help you manage up to 8000 channels and 1200 vehicles.

## ■ Ignition Power Management – prevents startup failure and monitors car battery level

The mobile NVR features ignition power management, with definable power-on/off delays, both for 12V car battery power and 24V bus/truck battery power. System administrator can manage the timing between ignition signal and system power on/off, and the control center can be alerted once the battery gets low as long as the system is stably running and the network connection is steady.

## ■ Easy-Swappable Storage – facilitates data exchange

Each model of the series features at least one outside-accessible storage drive slot to facilitate the data exchange between the mobile NVR and the control center.





# Software Features

## Powerful Alarm Management -Alarm Setup

For the **Mobile NVRs**, you can define a critical hardware state, such as CPU overheat, or a channel state, such as video loss, to trigger an alarm. For the **Fanless NVR**, you can define either a text or a number in a transaction data to trigger an alarm. You can also define which action to take to call the attention of the security operators to that alarm – by a video pattern or a text message that pops up, or a command to make the NVR start recording video.

## Two-way Audio

Some of the sophisticated IP cameras that feature 2-way audio have got the support from GVD **VMS**. By using two-way audio enabled IP cameras, the security operators in the control center can communicate with the security guard around an IP camera.

## Adaptive Video Streams

The **Adaptive Video Streams** detects real-time network bandwidth and CPU capacity to make the system send the lower-profile sub stream instead of the higher main stream in case the accessing viewer is small enough to compensate for display quality. Except viewing economy, sub streams can be recorded and stored in reduced size of storage.

## Fisheye Dewarp & ePTZ

The system has a software dewarp technique to bring the different dewarp features of various camera manufacturers to an established standard of GVD's. Users can easily get the dewarp from their fisheye cameras without taking additional settings. GVD's software dewarp is the total solution to fisheye dewarp.



## VCA (Video Content Analysis)

The system integrates sophisticated **VCA** (including **VMD**, **E-Fence**, etc.) to analyze the transaction at an ATM or a teller window. **VCA** also helps the system to launch an alarm when something unusual is going on in the monitored area. It helps to deter crimes and reduce the time and money needed on the investigation of a case, and of course in the worst cases it provides you with the evidence needed by the police to track down the criminals.

## Available for Mobile NVRs only

### Touch-enabled Onscreen Panic Alarm Button

The system features an onscreen panic alarm button in an enlarged and conspicuous graphical form factor for a car driver or bus/trunk driver to react to a threat to persons or property that comes up in his motor.



### GPS-integrated Map & G-sensor Alarm

The **VMS** features a map tool that offers global satellite imagery and street maps. If you opt for a GPS receiver inside the mobile NVR, through stable network connection, the mobile NVR can be tracked and pinpointed by the control center real-time on the said map tool. Except for watching over the fleet, such a map tool is also helpful for GPS analysis and speed detection. If you opt for a G-sensor inside the mobile NVR, the control center is able to detect and monitor the vibration and rotation of a vehicle, so a G-sensor alarm can be launched to the control center when a serious vibration or car crash happens.

### Video Backup

The mobile NVR is running on a sophisticated **NVR Manager**, which allows IT professionals to export video data onto some other external storage such as a USB disk. The **NVR Manager** also has a powerful tool to make the storage management easier. IT professionals can perform video backup once a CIT car or trunk arrives at the bank depot. Up to 30 Mbps is supported for backup throughput.

### Powerful Alarm Management -Alarm Snapshot

The **Mobile NVR** features an **Alarm Mode** that lists all the alarms triggered. When an alarm is launched, the control center will see an alarm screen on the management computer and also on one of the video-wall monitors. An alarm screen is displayed with a brief description and a number of snapshots of the alarm event to convey the clearest message of an incident.



### Optimized In-car Video Display

To facilitate in-car use, the **VMS** features a reduced set of patterns with 1x1, 2x2 and 3x3 view for a bus driver or truck driver to flip through so he/she can quickly grasp what is going on in his motor, with ease and without much distraction.



1x1 and 2x2 layout switch



3x3 layout switch

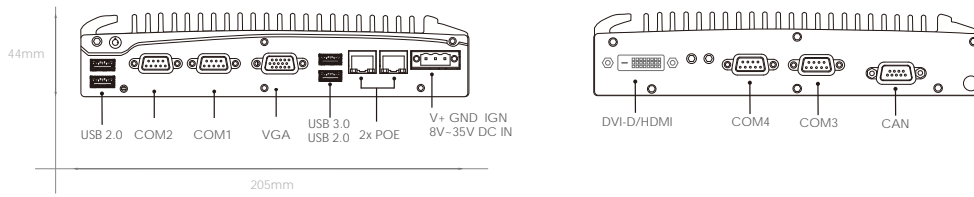
Available for Fanless NVR only

### -Transaction Data Retrieval and Export

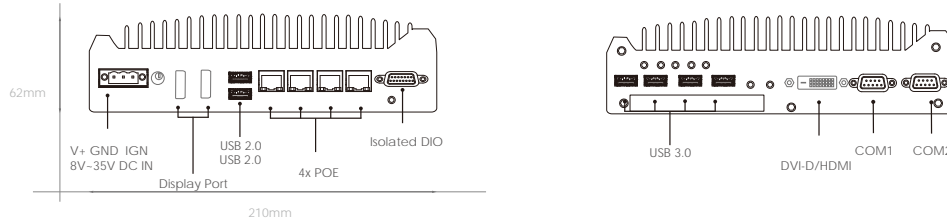
With the **Alarm Mode**, you only have to define which NVR, which ATM, which keyword, which value and/or which time period to search. The **Fanless NVR** will run the search across hundreds or thousands sites to seek the match(es), with the relevant video viewable. The system also allows you to export a transaction to a PDF, with the relevant screenshots, or to a video pattern, with the relevant video(s).

# Dimensions

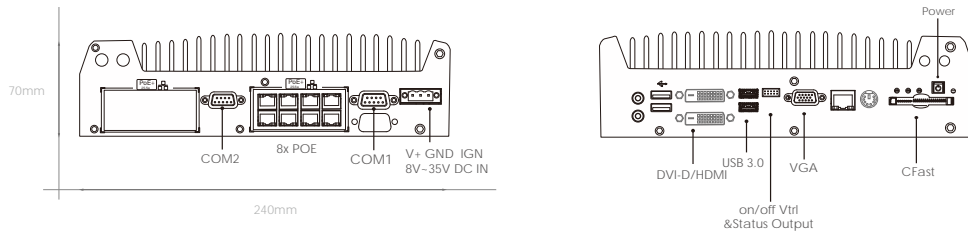
## M1121



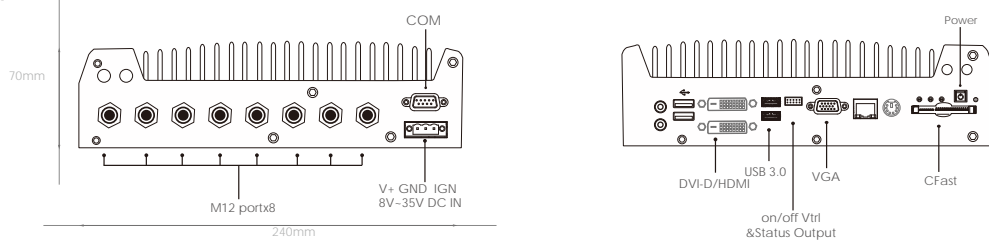
## M1142



## M1184



## M1284



# System Architecture

## --Mobile Solutions



# Specification

## --Mobile NVRs



| Product |                       | M1121                                                                                                                                    | M1142                | M1184/M1284           |
|---------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------|
| System  | Item                  | Mobile NVR (Anti-Vibration)                                                                                                              |                      |                       |
|         | CPU                   | Intel® Atom™ Bay Trail E3845 Quad-core                                                                                                   | Intel® Celeron™1020E | Intel® Core™i5-3610ME |
|         | Memory                | DDR3 4G                                                                                                                                  |                      |                       |
|         | Operation System (OS) | Windows 7 Embedded                                                                                                                       |                      |                       |
|         | Network Protocols     | TCP/IP ,UDP, HTTP, HTTPs, SMTP,SNMPv3, DNS, DHCP, NTP, ARP, ICMP, FTPc, FTPs, DDNS, RTP (RTCP, RTSP), IGMPv3, UPnP, CIFS, NFS, IEC802.1x |                      |                       |
|         | Language              | English, Spanish, French, German, Italian, Japanese, Chinese, etc.                                                                       |                      |                       |
|         | Watchdog              | Hardware and Software Watchdog                                                                                                           |                      |                       |
|         | System Update         | Supports NVR Software Update                                                                                                             |                      |                       |
|         | Certification         | CE, FCC Class A, eMark, EN 50155 (M1184/M1284 is comply)                                                                                 |                      |                       |

|                   |                                 |                                          |            |            |
|-------------------|---------------------------------|------------------------------------------|------------|------------|
| Video & Recording | IP Camera License               | 2ch                                      | 4ch        | 8ch        |
|                   | Local Video Display Fram Rate   | D1@60fps                                 | D1@120fps  | D1@240fps  |
|                   | Live Video Stream Output Number | 4                                        | 16         | 32         |
|                   | Video Recording Rate            | Max.6Mbps                                | Max.12Mbps | Max.24Mbps |
|                   | Recording Resolution            | D1, 1.3~20 Megapixel                     |            |            |
|                   | Video Codec                     | H.264 High Profile, MPEG4, M-JPEG, MxPEG |            |            |
|                   | Audio Codec                     | Two-Way Audio, G. 711, G.726, AAC        |            |            |
|                   | Streaming Type                  | Unicasting, Multicasting                 |            |            |

### Touch Panel Software (T10)

|         |                   |                                                          |
|---------|-------------------|----------------------------------------------------------|
| Display | Display Pattern   | 1x1, 2x2 and 3X3                                         |
|         | Viewing Operation | 1x1 ,2x2 and 3X3 switch                                  |
| Alarm   | Panic Button      | Panic Button                                             |
|         | G sensor          | Vehicle Rollover Detection                               |
|         | GPS Detection     | Vehicle out-of-route, Vehicle Overspeed, Vehicle Arrival |

### HD NVR Software

|               |                             |                                                                                                                                         |
|---------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Setting       | Configurations              | Configurations of NVR, Camera, Event, Alarm, Device, DI/DO, etc.                                                                        |
|               | User Authority              | Export Video Clip, PTZ Control, Live View, Playback, Alarm Search, Configuration, Remote System Control, etc.                           |
|               | Recording Mode              | Full Time Recording, Recording by Schedule, Event, Alarm, Motion Detection                                                              |
| E-map         | E-map                       | Mapping Cameras and DI/DO Points, Map Hyperlink                                                                                         |
|               | Route Editor                | Start, Stop and Sestination Points, Route Plan                                                                                          |
| PTZ           | PTZ Control                 | Preset Point, Patrol, Digital PTZ                                                                                                       |
| Live View     | Display Pattern             | 1, 2, 3, 4, 5, 6, 8, 9, 12, 13, 16, 18, 24, 25, 36, 48, 64                                                                              |
|               | Viewing Operation           | ROI (Region of Interest), Tour                                                                                                          |
| Playback      | Video Search                | Time, Event, Alarm                                                                                                                      |
|               | Synchronous Playback        | up to 4ch                                                                                                                               |
|               | Video Playback              | Time Slider Control Panel (Forward, Backward, Speed Control, Sync, Playback)                                                            |
|               | Video Export                | Video Export via USB (Supports .avi and .ava Format), Digital Watermark                                                                 |
| VCA           | Intelligent Search          | Missing Object, Foreign Object                                                                                                          |
|               | Intelligent Video Analytics | E-fence, Video Motion Detection, People Counting, License Plate Recognition *M1184/1284 are supported                                   |
| Event         | Event Log                   | Event logs of System, Cameras, User, etc.Video Loss, Sensor Triggered, HDD Crashed, System Crashed,                                     |
| Alarm         | Alarm Event / Search        | Abnormal Trandaction, E-fence, GPS Alarm,Video Motion Detection, Panic Button, Vehicle out-of-route, Vehicle Overspeed Vehicle Rollover |
|               | Alarm Notification          | Pop-up, E-mail, DI/DO, Trigger Recoding                                                                                                 |
|               | Alarm In / Alarm Out        | DI/DO Control, Modbus (Master, Slave)                                                                                                   |
| Remote Client | VMS/CMS Client              | VMS(E300), CMS(E150), Thin Clinet(E90-Windows XP/7/8)                                                                                   |
|               | Supports Client Numbers     | 5                                                                                                                                       |

### Hardware

|               |                          |                                                          |                                        |                                                                     |
|---------------|--------------------------|----------------------------------------------------------|----------------------------------------|---------------------------------------------------------------------|
| Network       | Lan Port                 | Gigabit Lan (RJ45) with POE x 2                          | Gigabit Lan (RJ45) with POE x4         | M1184: RJ45 with POE x 8 / LANx1<br>M1284: M12 with POE x 8 / LANx1 |
|               | Ethernet                 | 10/100/1000M Auto Negotiation                            |                                        |                                                                     |
| Communication | Mobile                   | Support 3G, 4G by Region (Optional accessory)            |                                        |                                                                     |
|               | Wi-Fi                    | Support Wi-Fi (Accessory)                                |                                        |                                                                     |
| Sensor        | GPS                      | Optional accessory (Bundle with 3G module)               |                                        |                                                                     |
|               | G-Sensor                 | Built in G-Sensor                                        |                                        | *M1184/1284 (Optional accessory)                                    |
| Display       | Local Display            | DVIx1,VGAx1                                              | DVIx1, DPx2                            | DVI x 2, ,VGAx1                                                     |
|               | Local Display Resolution | 1920x1200                                                |                                        |                                                                     |
| Storage       | Hard Disk Drive          | SATA/SSD                                                 |                                        |                                                                     |
|               | Hard Disk Trays (Bays)   | 1pcs internal                                            | 1pcs (Easy-Swap), 1pcs internal        | 2pcs (Easy-Swap), 2pcs internal                                     |
|               | Storage Capacity         | 1TB (2.5" HDDx1) or 256GB (2.5" SSDx1)                   | 1TB (2.5" HDDx1) or 256GB (2.5" SSDx1) |                                                                     |
| Port          | USB Port                 | USB3.0 x1, USB 2.0 x3                                    | USB3.0 x 4, USB 2.0 x2                 | USB3.0 x 2, USB 2.0 x2                                              |
|               | Communication Port       | RS232x1, LHF 60-pin x 1                                  | RS232 x1, RS232/422/485x1              |                                                                     |
|               | Audio Port               | Rear: Mic-in and Line-out (terminal Block MIO Connector) |                                        |                                                                     |
|               | CAN Bus                  | 1x DB-9 connetcor for CAN Bus comm                       | NA                                     |                                                                     |
| Power         | Power Voltage            | 9~36Vdc (Vehicle Ignition Power Management)              |                                        |                                                                     |
|               | Power Consumption        | 20W (Without POE Consumption)                            |                                        |                                                                     |
| Environment   | Operation Temperature    | -25°C ~ 70°C                                             |                                        |                                                                     |
|               | Storage Temperature      | -40°C ~ 85°C                                             |                                        |                                                                     |
|               | Humidity                 | 10%-90%                                                  |                                        |                                                                     |
|               | Dimensions (W)x(H)x(D)   | 205x 146 x 44 mm                                         | 210x 165 x 62 mm                       | 240x 255 x 70 mm/240x295x70mm                                       |
|               | Net Weight               | 1.9 kg                                                   | 2.8 kg                                 | 3.8 kg / 4.6 kg                                                     |
|               | Mounting                 | Wall mount (Standard)                                    |                                        |                                                                     |

\*All specifications are subject to change without notice

# Specification

## --Fanless NVRs



| Product                         |                             | M1021                                                                                                                                     | M1001                                  |  |
|---------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--|
| System                          | Item                        | Mini Standalone NVR                                                                                                                       |                                        |  |
|                                 | CPU                         | Intel® Atom™ E3845 quad-core processor                                                                                                    | Intel® Atom™ E3825 dual-core processor |  |
|                                 | Memory                      | DDR3-1600 2G                                                                                                                              |                                        |  |
|                                 | Operation System (OS)       | Windows 7 Embedded                                                                                                                        |                                        |  |
|                                 | Network Protocols           | TCP/IP, UDP, HTTP, HTTPS, SMTP, SNMPv3, DNS, DHCP, NTP, ARP, ICMP, FTPc, FTPs, DDNS, RTP (RTCP, RTSP), IGMPv3, UPnP, CIFS, NFS, IEC802.1x |                                        |  |
|                                 | Language                    | English, Spanish, French, Dutch, Italian, Japanese, Chinese, etc.                                                                         |                                        |  |
|                                 | Watchdog                    | Supports Hardware Watchdog, Software Watchdog                                                                                             |                                        |  |
|                                 | System Update               | Supports NVR Software Update                                                                                                              |                                        |  |
|                                 | Video & Recording           | IP Camera License                                                                                                                         | 2ch                                    |  |
|                                 |                             | Video Recording Rate                                                                                                                      | Max.72Mb                               |  |
| Local Video Display Fram Rate   |                             | D1@60fps                                                                                                                                  |                                        |  |
| Live Video Stream Output Number |                             | 4                                                                                                                                         |                                        |  |
| Recording Resolution            |                             | D1, 1.3~20 Megapixel                                                                                                                      |                                        |  |
| Video Codec                     |                             | H.264 High Profile, MPEG4, M-JPEG, MxPEG                                                                                                  |                                        |  |
| Audio Codec                     |                             | Two-Way Audio, G. 711, G.726, AAC                                                                                                         |                                        |  |
| Streaming Type                  |                             | Unicasting, Multicasting                                                                                                                  |                                        |  |
| Onvif Supports                  |                             | Onvif 2.2, Profile-S                                                                                                                      |                                        |  |
| Recording Capacity              |                             | 1TB x 2.5"HDD                                                                                                                             |                                        |  |
| <b>Software</b>                 |                             |                                                                                                                                           |                                        |  |
| Setting                         | Configurations              | Configurations of NVR, Camera, Event, Alarm, Device, DI/DO, etc.                                                                          |                                        |  |
|                                 | User Authority              | Export Video Clip, PTZ Control, Live View, Playback, Alarm Search, Configuration, Remote System Control, etc.                             |                                        |  |
|                                 | Recording Mode              | Full Time Recording, Recording by Schedule, Event, Alarm, Motion Detection                                                                |                                        |  |
| E-map                           | E-map                       | Mapping Cameras and DI/DO Points, Map Hyperlink                                                                                           |                                        |  |
| PTZ                             | PTZ Control                 | PTZ Control, Preset Point, Patrol, Digital PTZ                                                                                            |                                        |  |
| Live View                       | Display Pattern             | 1, 2, 3, 4, 5, 6, 8, 9, 12, 13, 16, 18, 24, 25, 36, 48, 64                                                                                |                                        |  |
|                                 | Viewing Operation           | ROI (Region of Interest), Tour                                                                                                            |                                        |  |
| Playback                        | Video Search                | Time, Event, Alarm                                                                                                                        |                                        |  |
|                                 | Synchronous Playback        | 4ch                                                                                                                                       |                                        |  |
|                                 | Video Playback              | Time Slider Control Panel (Forward, Backward, Speed Control, Sync.Playback)                                                               |                                        |  |
|                                 | Video Export                | Video Export via USB (Supports .avi and .ava Format), Digital Watermark                                                                   |                                        |  |
| VCA                             | Intelligent Search          | Missing Object, Foreign Object                                                                                                            |                                        |  |
|                                 | Intelligent Video Analytics | E-fence, Video Motion Detection                                                                                                           |                                        |  |
| Event                           | Event Log                   | Event logs of system, Cameras, User, etc.                                                                                                 |                                        |  |
| Alarm                           | Alarm Event / Search        | Video Loss, Sensor Triggered, HDD Crashed, System Crashed, Abnormal, Transaction, E-fence, Video Motion Detection                         |                                        |  |
|                                 | Alarm Notification          | Pop-up, E-mail, DI/DO, Trigger Recording                                                                                                  |                                        |  |
|                                 | Alarm In / Alarm Out        | DI/DO Control, Modbus (Master, Slave)                                                                                                     |                                        |  |
| Remote Client                   | Web Client                  | Support Browser IE 9.0                                                                                                                    |                                        |  |
|                                 | APP Client                  | iOS (iPhone, iPad), Android                                                                                                               |                                        |  |
|                                 | VMS/CMS Client              | VMS(E300), CMS(E150)                                                                                                                      |                                        |  |
|                                 | Supports Client Numbers     | 5                                                                                                                                         |                                        |  |
| POS                             | POS Integration             | Integration with all brands via GVD POS Editor                                                                                            |                                        |  |
|                                 | Transaction Viewing         | Live Viewing with Transaction data                                                                                                        |                                        |  |
|                                 | Search / Playback           | Time, Item (Keyword), Price with Transaction data and Video                                                                               |                                        |  |
|                                 | Abnormal Transaction        | Alarm Rule (Item, Value), Alarm Popup, Alarm Search                                                                                       |                                        |  |
| <b>Hardware</b>                 |                             |                                                                                                                                           |                                        |  |
| Network                         | Lan Port                    | Gigabit Lan PoE (RJ45) x2                                                                                                                 | Gigabit Lan(RJ45) x2                   |  |
|                                 | Ethernet                    | 10/100/1000M Auto Negotiation                                                                                                             |                                        |  |
| Display                         | Local Display               | DVI x1                                                                                                                                    |                                        |  |
|                                 | Local Display Resolution    | 1920x1200                                                                                                                                 |                                        |  |
| Storage                         | Hard Disk Drive             | SATA                                                                                                                                      |                                        |  |
|                                 | Hard Disk Trays (Bays)      | 1 pcs (2.25")                                                                                                                             |                                        |  |
|                                 | Storage Capacity            | 1 TB (2.25")                                                                                                                              |                                        |  |
| Port                            | USB Port                    | USB 2.0 x1; USB 3.0 x3                                                                                                                    |                                        |  |
|                                 | Communication Port          | 2 x RS232 ; 2 x RS232/422/485                                                                                                             | 1 x RS232/422/485; 1 x RS232           |  |
|                                 | Audio Port                  | Speaker-out x1                                                                                                                            |                                        |  |
| Power                           | Power Voltage               | 100~240 Vac, 50-60 Hz                                                                                                                     |                                        |  |
|                                 | Power Consumption           | 15W                                                                                                                                       |                                        |  |
| Environment                     | Operation Temperature       | -10°C ~ 50°C (13°F ~ 158°F)                                                                                                               |                                        |  |
|                                 | Storage Temperature         | -40°C ~ 85°C (-40°F ~ 185°F)                                                                                                              |                                        |  |
|                                 | Operation Humidity          | 0%~ 90%                                                                                                                                   |                                        |  |
|                                 | Storage Humidity            | 0% ~ 95%                                                                                                                                  |                                        |  |
| Appearance                      | Dimensions                  | 149(W)x105(H)x57(D)mm                                                                                                                     |                                        |  |
|                                 | Net Weight                  | 1.1 Kg (Including one 2.5"HDD)                                                                                                            |                                        |  |
| Expansion                       | POS Box                     | A0003-POS (RS-232)                                                                                                                        |                                        |  |

\*All specifications are subject to change without notice

## Dimensions

