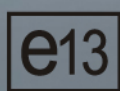# HOYAT

MR411

| Anti-Vibration | Anti-Shock | Heat-Resistant Fanless Design |

Real-Time Recording, Live GPS Tracking and Vehicle Fleet Management

The New Definition of a True Rugged *you could GET* Mobile DVR

FC e13 **US MILITARY CERTIFIED** MIL-STD-810F/G

**US Military Standard MIL-STD-810F/G Certified**

| Aluminum Heat-Sink Structure | Optimizing Heat-Dissipation Performance

Heat could be Dissipated through the Entire Aluminum Case at its Maximum Surface Area of the Heat-Sink Structure Design for Lowering its Temperature for the Best Performance.
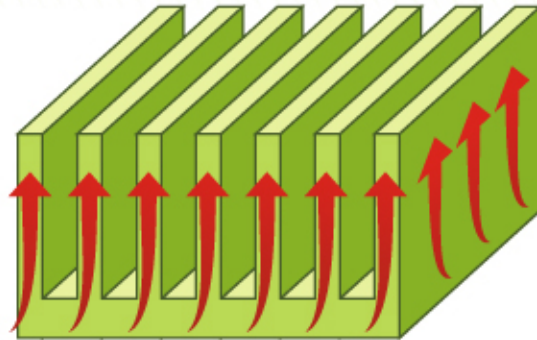
| Anti-Destruction One-Piece Superstructure | Preventing Damages from Brute-Force Attack

The Superstructure is Formed around 1 cm Thickness in One-Piece Method, it is very Strong so that it could Avoid the Serious Damages from the Purposely Brute-Force Attack.
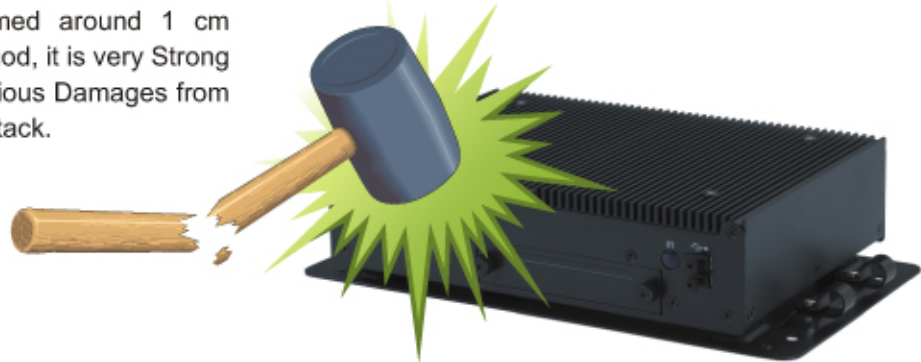
| Heat-Resistant Fanless Design | Wherever Tough Environment you could Install

Wide Operation Temperatur -10 ~ 60°C Allowed. Fanless Design is also free from the potential Internal Heating Problem caused by the Fan itself with Dust Remained. (Patent No. US7,468,555 B2)

**Fanless**

PATENTED
PATENT NO. US7,468,555 B2

| True Anti-Vibration, Anti-Shock | US Military Standard MIL-STD-810F/G Certified

For Mobile Application, the Stable Performance is the Foundation. With the US Military Standard Certified Design, we do provide you a True Anti-Vibration / Anti-Shock DVR.

±Z axis

±Y axis

±X axis
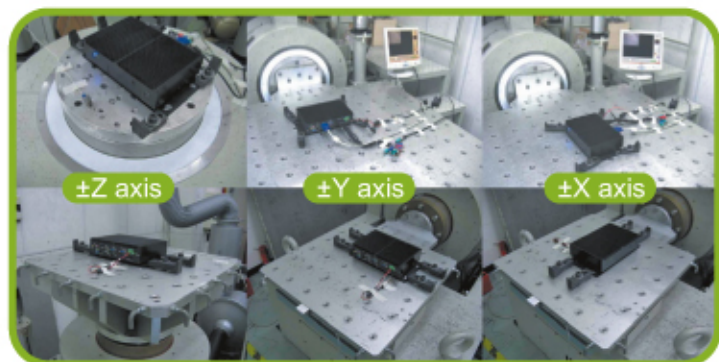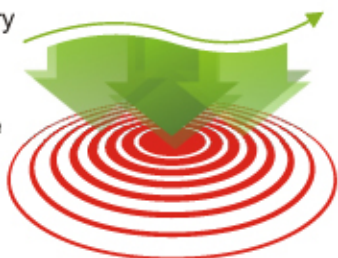
| Power ON/OFF with Time Delay Built-in | For Surge Protection and Extending Record

For Avoiding Sudden High Voltage from Engine Start, there is 10 sec Time Delay when Power ON. There is also 180 sec Time Delay when Power OFF for continuing recording while Driver is still there.
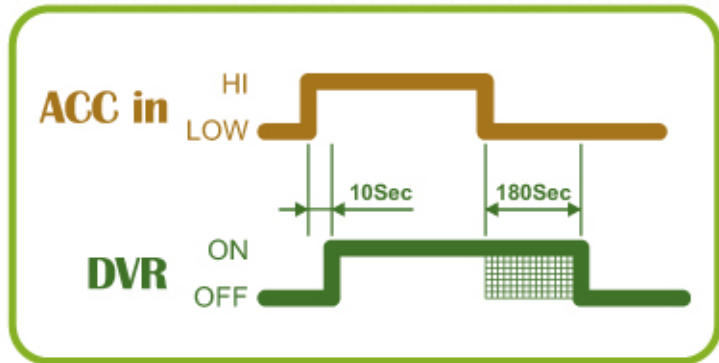
| Removable HDD Tray | Easy Change, Efficient Management

For Fleet Management, Time is Money for every On-Duty Vehicle, you could take out the Recorded HDD easily for Exchanging or for other Purpose based on the Removable HDD Tray Design.

| Cable Holding Rings | Stable Performance and Favorable Follow-Up Care

Cables could be Fixed Tight with Cable Holding Rings for Stable Performance during Vibration. It could also make the Installation Neat and Tidy for easier Maintenance within limited space inside a Vehicle.
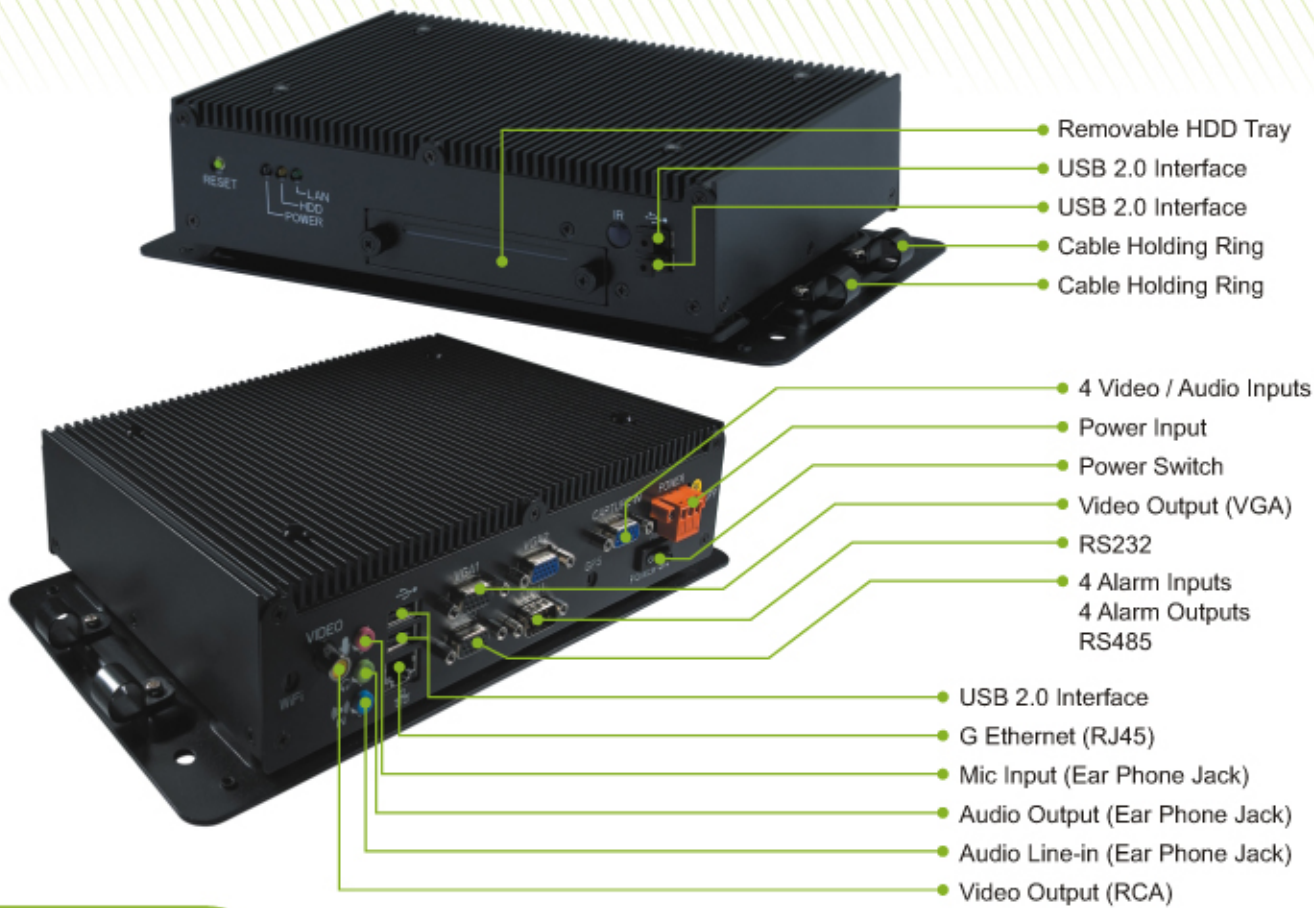

(Optional)

| Customized Application Power Box | Supplying 12V DC to Cameras and Recording at Ignition OFF

Together with the Optional Power Box, you could Power 4 Cameras with Stable 12V DC for Better Performance and as well as continually Record after the Ignition OFF with Adjustable Time Delay (Max. 12hrs).

- Removable HDD Tray
- USB 2.0 Interface
- USB 2.0 Interface
- Cable Holding Ring
- Cable Holding Ring

RESET
LAN
HDD
POWER
IR

- 4 Video / Audio Inputs
- Power Input
- Power Switch
- Video Output (VGA)
- RS232
- 4 Alarm Inputs
  4 Alarm Outputs
  RS485
- USB 2.0 Interface
- G Ethernet (RJ45)
- Mic Input (Ear Phone Jack)
- Audio Output (Ear Phone Jack)
- Audio Line-in (Ear Phone Jack)
- Video Output (RCA)

VIDEO
WiFi

SYSTEM STRUCTURE

Control Center
Desktop PC
NoteBook
Mobile Phone
16 E-Mail

4 Camera

4 Microphone

4 Alarm In

4 Alarm Out

4 PTZ Control

TV Monitor

Speaker

VGA Monitor

Mouse

Network
3G / WiFi / G Ethernet
(Wireless)

Optional

POS

Vehicle Data Recorder

Keyboard
GPS Modem
3G Modem
WiFi Modem

Mouse
Flash Drive
Portable HDD
External DVD Burner

| Advanced 3G/GPRS Support Compatibility | Matching all kinds of Local Dialing Services

Only with Complete Open-Format Setting Options for connecting well with Your Own 3G Service of the Local Dialing System, you could then be real beneficial from the 3G Remote View supported by the DVR.

- Available Settings of
    Account / Password / Modem Model
    Baud / Phone / APN / 3G Service Type
- Support 3GPP2(CDMA) and 3GPP(UMTS)
- Support 2.5G / 2.75G / 3G / 3.5G / 3.75G

| Effective GPS Tracking Intergrated with Video | Know where they are, See what they See

With Licensed Central Management System, You could know where the Current Position is for each of the vehicle, and you could also check the Live View Remotely of the Selected Vehicle through the 3G Connection.

- Up to 64 Live GPS Tracking Markers Supported
- Video, the Moving GPS Marker and the GPS Tracking Route over the Map could be Displayed Simultaneously.

| Flexible GPI Snapshots | Making your Own Applications

You could define your own Snapshots for certain situations with GPI from an Alarm Trigger or a Quick Button.

- Each Channel could have an independent Snapshot to be stored inside the HDD.
- The GPI Trigger itself could be also considered as a Mark for doing further Search / Playback for Video Clips.
- It is even more convenient that you could Export all the Snapshots within a selected period into your USB Flash Disk in one time.

| Video Previews with Thumbnail Browse | Quick and Accurate Frame Search with Time Zoom IN

For quickly Search the Video of the Interested Subjects or more accurately Locate some Specific Point, it is very convenient the Previews could be displayed at its First Frame for each Time Unit from the Selected Period. You could then Judge very easily by Taking a Glance and also do the Time ZOOM IN for getting into more Details during Each Section.

| Efficient Configuration File Upload | Easy, Consistency and Time Saving

You can Backup the System Configuration into a File for further Restore in case of something wrong that cause loss of Configuration Settings. Or you could Upload it into another DVR for having exactly the same Settings as efficient Fleet Management.

(Optional)

| Automatic File Synchronization | Convenient Fleet Management Back-up

With the Third Party FileSync Application, the File Server will do the File Synchronization automatically over the WiFi Network. The Management could investigate the Recorded Files at the File Server when necessary instead of go to each Vehicle for downloading the Files separately.

(Optional)

| Integration with Mobile POS | Text Search for the Interested Video Clips

The Text Messages from the Mobile POS including Customer's Name or Delivery Details could be recorded into the DVR. So you could have your Video with the Text Message overlaid. Furthermore, you could easily find the Required Video Clips for Managements by just searching the Keywords.

25th September 2010 -- 10:30a.m. -- Mr. Jan Onning -- Goods Delivered

(Optional)

| Data Record with Digital Tachograph | Customized Fleet Management Application

The Collected Data from a Digital Tachograph (also called In-Vehicle Data Recorder) including the Speed Information and Car Status etc. could be recorded into the DVR as well. You could even playback both the Video and the Recorded Data together for better evaluation on One's Driving Behavior.

| Know where they are, See what they See |

3G

3G

3G

3G

3G

3G

3G

3G / GPRS / GPS
Network

IE Browser

IE Browser

iLiveView Plus

SecuTrack

| CMS: SecuTrack |

Alarm Video Pop-up
Screen

Live Monitoring
Screen

Vehicle Tracking
Screen

Model No.		**Rugged Mobile DVR MR411**

Video		
Video Mode		SEVENFOLD (Live, Record, Playback, Backup, Network, WiFi and 3G)
Video Input		BNC 4 INPUTS **CHANGEABLE / CUSTOMIZED AVAILABLE**
Video Output	Main Monitor	RCA 1 OUTPUT
	VGA	VGA 1 OUTPUT **OPTIONAL WITH THE SECOND VGA OUTPUT**
	Dual	YES (Both RCA and VGA Outputs can be Displayed at the Same Time)
Performance Adjustable		YES (Image Performance per Channel can be Adjusted)
Image Rotate		YES (Flip-Vertical or Mirror-Horizontal per Channel can be Adjusted)

Audio		
Audio Input	Main Board	EAR PHONE JACK 1 INPUT, MIC INPUT
	External	RCA 4 INPUTS **CHANGEABLE / CUSTOMISED AVAILABLE**
Audio Record Channels		MAX. 4 CHANNELS
Audio Output		EAR PHONE JACK 1 OUTPUT
Audio Backup		YES
Audio Format		8Kx16bit ADPCM Mono
Two Way Communication		YES (Two Way Audio Communication can be Supported with Remote Site.)

Display			
Image System	NTSC		NTSC	
Frame Rate / Resolution	up to 120fps	640x480	up to 100fps	640x480
Full Screen Display	YES (Full Screen Display can be Supported.)			

Record			
Video Format	MPEG 4			
Image System	NTSC		PAL	
Record Frame Rate (Max.)	120fps		100fps	
Frame Rate / Resolution	up to 120fps	320x240	up to 100fps	320x240
	up to 60fps	640x480	up to 50fps	640x480
Record Adjustable	YES (Frame Rate / Resolution / Image Quality per Channel can be Adjusted)			
Power-On Auto Record	YES			
Schedule Record	YES (Normal, Record, Motion Detect, GPI Trigger, MD+GPI)			
Pre-Alarm Record	YES			
GPS Tracking Record	YES			
Weight Record	YES			
Mutual Record **OPTIONAL**	Outside Data from POS / Digital Tachograph / Others can be Recorded			
Water Mark	YES (Water Mark Supported for Preventing Fraud Image Modification)			

Storage / Playback / Backup	
Local Storage	Built-in with Removable HDD Tray, for 1 x 2.5" HDD (SSD also Supported)
Remote Site Storage	YES
Playback Method	Searched by Time, Motion Area or Events
Playback Adjustable	For Snapshot Capture Only, Brightness and Color can be Adjusted
Thumbnail Browse	Quick and Accurate Frame Search with Time Zoom IN
Backup Format	Propirtavy **AVI FORMAT CONVERTER AVAILABLE**
Flash Drive Backup	USB 2.0 Interface, Support Flash Drive / Pen Drive
HDD Backup	USB 2.0 Interface, Support Portable HDD
DVD Backup	USB 2.0 Interface, Support External DVD Burner
Remote Site Backup	YES
Network Neighbor	Video Files inside DVR HDD can be Visited via Network Neighborhood

Event	
Event Method	Supported with Motion Detection, Video Loss Detection and GPI Trigger
Sensor Input	ALARM 4 INPUTS
Sensor Output	ALARM 4 OUTPUTS
Sensor Type	N/O, N/C
Motion Detection	YES (15x20 Individual Sections per Channel can be Defined)
Motion Detection Sensitivity	YES (Sensitivity with 5 Levels can be Adjusted)
Buzzer	YES (System Buzzer Warns when Alarm is Triggered)
Remote Event Notification	YES
Upload	YES
Event List Export	YES
Flexible GPI Snapshots	Snapshots per Channel can be Captured with GPI Trigger and Stored
Snapshots Batch Export	Snapshots within a Selected Period can be Exported in One Time

Communication	
Network Interface	USB PORT: Support 3G / GPRS / WiFi; RJ45 PORT: 10M/100M/1Gbps
Network Protocol	3G, GPRS, WiFi, TCP/IP, DHCP, NTP, HTTP, FTP and E-MAIL
3G Technology Support	3G (3GPP2: CDMA; 3GPP: UMTS)
Multiple E-Mail Receivers	YES (up to 16 Accounts Allowed)
Two Way Audio	YES (Two Way Audio Communication can be Supported with Remote Site)
Mobile Phone Surveillance	YES (Support iPhone and Windows Mobile Phone etc.)
GPS Tracking Support	YES (up to 64 Vehicles can be tracked at the same time)

Remote	
CMS Software	Licensed Central Management System Application Bundled
IE Browser Support	YES
FTP Support	YES
Remote Live View	YES (Supported from CMS or IE Browser)
Remote Playback	YES (Supported from CMS or IE Browser)
Remote Event Alerting	YES (Supported from CMS)
Max. Channels Display	up to 64 Channels can be Displayed at the Same Time via CMS
Alarm Pop-up	up to 16 Channels can be Displayed when Alarm via CMS
Multiple View Support	Main Display, Map and Alarm Pop-up can be Displayed in Different Screens
Remote GPO Control	YES (Supported from CMS)
Dual Streaming	YES (Supported from CMS)

Mobility Tracking	
Live GPS Tracking Display	Support Live GPS Tracking integrated with On-Line Map
Live GPS Tracking Markers	Support up to 64 Live GPS Tracking Markers at the Same Time
Live Tracking View	Both Video and GPS Tracking can be Viewed at the Same Time
Playback Tracking View	Video / GPS Marker / Tracking Route can be Displayed Simultaneously

Customized Applications **OPTIONAL**	
Digital Tachograph	Through RS-232, Record Vehicle Data with Video
POS	Through RS-232, Record POS Data with Video
Power Box	Supplying DC 12V to Cameras / Recording at Ignition OFF
GPO Box	Vehicle Use Relay Out, able to Control up to 30mA

Completed HDD Files Investigation	
Auto File Synchronization	Get Files through WiFi Network, Do the Investigation at File Server
Direct Link into PC	Read Files by Linking into PC, Do the Investigation at PC
Play with Another DVR	Read Files at another DVR, Do the Investigation at the DVR

OSD & DVR Control	
GUI	YES (Friendly Windows-Like Graphic Interface Design)
Authority Management	YES (1 Admin and 16 Users with Password Control)
PTZ Control	YES (Available via RS-485)
Multiple PTZ Control	YES (Available via Network through IE / CMS and Mobile Phone)
Multiple PTZ Protocol	YES (Support Pelco-P, Pelco-D, and Panasonic etc.)
RS-485	YES
RS-232	YES
Mouse Control	YES (Available via USB 2.0 Interface)
Keyboard Control	YES (Available via USB 2.0 Interface)
Firmware Upgrade	YES (Available via USB / Network)
CMS Software	Licensed Central Management System Application Bundled

General	
OS	Embedded Linux, OS and Firmware Embedded inside DOM
Auto Operation	YES (Auto Operation with Engine Ignition)
Auto Power Delay ON	For Avoiding Sudden High Voltage from Engine Start: 10 seconds
Auto Power Delay OFF	For Extending Recording while Driver is Still Inside Vehicle: 180 seconds
Configuration File Backup	Configuration File can be Backup for Further Restore or Upload
Power Input	Wide Voltage Range DC 9V – 32V
Power Consumption	Low Power Consumption Only with 15W
Operation Temperature	Wide Working Temperature -10 ~ 60°C
Humidity	10 ~ 90%
Dimension	240(W)x160(D)x65(H)mm
Weight	3kg
Certificates	e-Mark(e13), FCC, US Military Standard MIL-STD-810F / G Certified

Power Box
Supplying DC 12V to Cameras /
Recording at Ignition OFF

GPO Box
Vehicle Use Relay Out,
able to Control up to 30mA

GPS Modem
For Tracking the Vehicle
Position over the Map

SATA to USB Converter with Power Supply
For Reading Files by
Linking HDD directly into PC

Digital Tachograph
(also called In-Vehicle Data Recorder)
For Collecting Speed Information
and Car Status etc

HDD Tray
For Easy Switching the HDD
with Extra HDD Tray