



**Since 1990**

Founded in 1990, Being a 26years leading surveillance manufactory in Taiwan, working in close partnership with the world's leading companies and concentrating its activity on Transport Security, surveillance and E-Home Solutions.

### RELIABILITY

Certificated by ISO 90002, QC080000, KCA always provides prompt maintenance service and long-term RMA warranty which provided KCA Group's successful participation in large projects worldwide.

### QUALITY

Products are 100% made in Taiwan based on RoHS, CE/FCC... qualified quality. KCA is always dedicated to offering best balance between quality and price.

### INNOVATION

Own R&D innovation on complete Firmware, Software, Hardware and Power PCB, KCA's unparalleled Hi-Res Transport Surveillance Solutions combined with function-rich vehicle management system for any OEM/ODM customized cooperation.

## APPLICATION CASE



**CASH-IN-TRANSIT**  
Africa



**TOUR BUS**  
USA



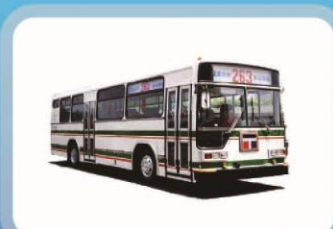
**TRUCKS / TRAILERS**  
USA, UK, AUSTRALIA



**School Bus**  
Saudi Arabia



**Refuse Vehicles / Fire Apparatus**  
TAIWAN



**CITY BUS**  
TAIWAN, USA



**Excavators / Concrete Mixers**  
JAPAN



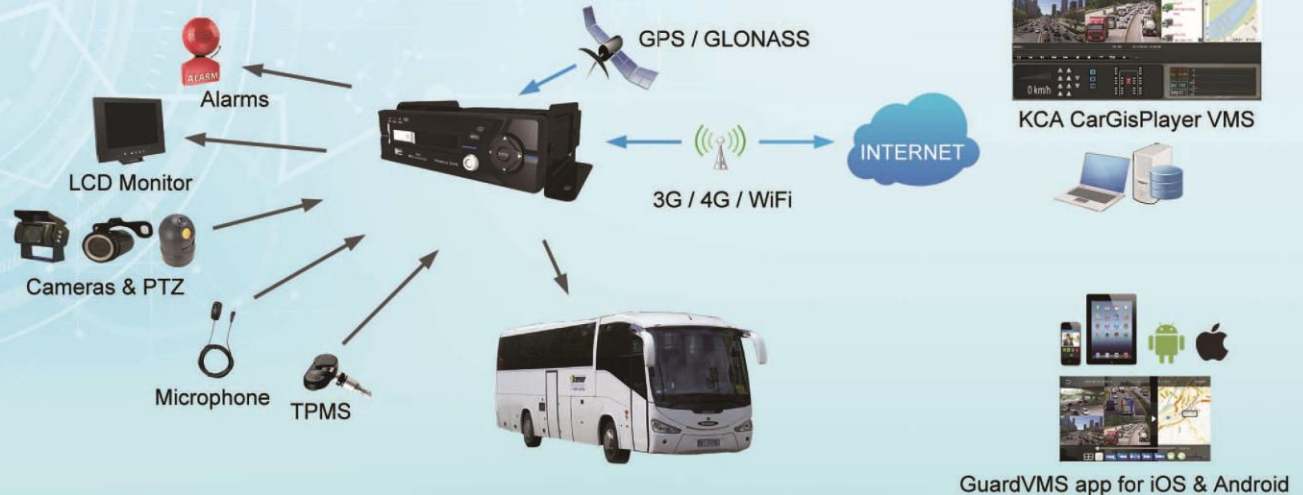
**Ambulance**  
TAIWAN

## MDVR Features

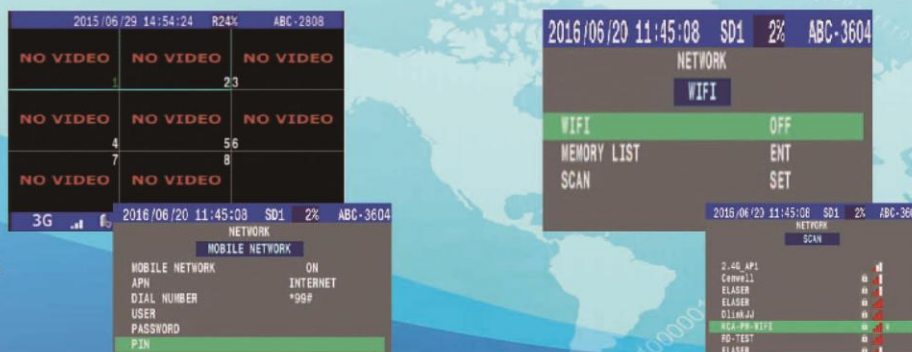
- AHD 720P / IP Camera Analog hybrid
- Password protection
- WIFI / 3G / 4G LTE Link
- VMS CarGisPlayer – Remote view / Grouping / History route ...
- GuardVMS iOS / Android App.
- Own Media player – Customized ability
- Support GPS / GLONASS / Beidou ...
- Alarm trigger – Push video to server / mobile device.
- 3–Axis G sensor detection
- Support PTZ / RS485 / RS232
- System boot up delay to guarantee the right power up
- (ACC)Power off then keep record
- Low Power protection



## Alarm Diagram



## Network Link - 3G/4G/WIFI





AHD/960H/IPC

Model	DV-2808 8CH / HDD+SD card	DV-2808H 8CH / HDD+SD card
Video Compress	H.264 Baseline/Main Profile@Level1-4.2	H.264 Baseline/Main Profile@Level1-4.2
Resolution	2CH AHD 720P + 6CH 960H	4CH AHD 720P + 4CH IP Camera
Audio Compress	2CH G.711	2CH G.711
Record Mode	Full record / Parking Record (time Adjustable)	Full record / Parking Record (time Adjustable)
Digital processing		
Video bitrate (Analog)	D1/960H : 1920K ~ 2688K bps(each channel) 720P : 2700K ~ 3072K bps(each channel)	D1/960H : 1920K ~ 2688K bps(each channel) 720P : 2700K ~ 3072K bps(each channel)
Video Storage (Analog)	D1/960H : 4500 ~ 6000 MBytes/Hour(8CH) 720P : 7700 MBytes/Hour(8CH)	D1/960H : 2300 ~ 3100 MBytes/Hour(4CH) 720P : 3900 MBytes/Hour(4CH)
Playback (Full channel )		
AV Compress	2CH AHD 720P@20fps + 6CH 960H@30fps 2CH AHD 720P@15fps + 6CH CIF@30fps 8CH 960H@30fps 2CH Audio	4CH AHD 720p@30fps 2CH AHD 720p@30fps + 2CH 960H@30fps 4CH 960H@30fps + 1CH 1080P IPC@30fps + 3CH 720P IPC@30fps 4CH 720P@30fps + 2CH 720P IPC@30fps 2CH Audio
Search Playback	Time index / Time Direct / Event	Time index / Time Direct / Event
Network Straming		
Resolution	8CH CIF@30fps / QCIF@30fps 2CH Audio	4CH CIF@30fps / QCIF@30fps that IPC was excluded 4CH CIF@30fps + 4CH CIF IPC@30fps 2CH Audio
AV in / out connector		
Video input	BNC x 8 ( CH1 / CH2 BNC for AHD)	BNC x 4
Video output	BNC x 1 / VGA x 1(800 x 600)	BNC x 1 / VGA x 1(800 x 600)
Mic in	No Support	No Support
Audio input	RCA x 2	RCA x 2
Audio output	RCA x 1	RCA x 1
Live Display Split	1 / 4 / 9	1 / 4 / 9
Storage & Backup		
HDD / SSD	2.5" SATA 2 x 1	2.5" SATA2 x 1
SD	SDxC x 1 (Max 128GB)	SDxC x 1 (Max 128GB)
Backup	USB 2.0 / Network	USB 2.0 / Network
Network Devices		
Ethernet	RJ45 Giga x 1 (Static / DHCP)	RJ45 Giga x 1 (Static / DHCP)
3G / LTE	Build-in for option	Build-in for option
WIFI	Build-in for option	Build-in for option
I / O		
Build-in Alarm	8CH	8CH
Build-in Output	2CH TTL Output	2CH TTL Output
Firmware Upgrage		
USB	USB 2.0 / Network	USB 2.0 / Network
Peripheral		
GPS	Build-in	Build-in
G-Sensor	Build-in	Build-in
Car speeding pulse in	Support	Support
TPMS Detection	Support (TTL / RS232)	Support (TTL / RS232)
Speaker	Buzzer	Buzzer
Temperature sensor	Build-in	Build-in
USB port	USB 2.0 x 1	USB 2.0 x 1
RS485	Yes	Yes
RS232	Yes	Yes
Others		
Language	Multi Language (Customized ability)	Multi Language (Customized ability)
Administrator Password	Two level password for System & Storage format	Two level password for System & Storage format
Car Voltage Detect	Support	Support
System Fail report	Temperature / HDD / SD / Voltage / GPS / G-sensor	Temperature / HDD / SD / Voltage / GPS / G-sensor
PTZ	Pelco - P / D	Pelco - P / D
Boot delay	0 ~ 10 sec	0 ~ 10 sec
Power Control	Camera Power bypass control	Camera Power bypass control
Power in	9 ~ 36V(DC)	9 ~ 36V(DC)
Power Consumption	7.8W (with HDD & without network) 9.8W (with HDD & network)	7.8W (without network) 9.8W (with HDD & network)
Dimension / Weight	(W)190 x (H)58 x (D) 205mm ; 1.65kgs	(W)190 x (H)58 x (D) 205mm ; 1.65kgs
Operation Temperature	-25℃~+70℃	-25℃~+70℃
Software / Application	(Full channel playback)	
VMS - CarGisPlayer (3G / LTE model)	PC server / client remote viewer	PC server / client remote viewer
GuardVMS (Smart phone / PAD)	iOS / Android client remote viewer Event Message / push video	iOS / Android client remote viewer Event Message / push video
PC Viewer	Self-Playback viewer	Self-Playback viewer
Option		
Extend LED indicator	Customized	Customized
Output Control Board	Customized	Customized



Model	DV-2804 4CH / HDD+SD card	DV-3604 4CH / SD card
Video Compress	H.264 Baseline/Main Profile@Level1-4.2	H.264 Baseline/Main Profile@Level1-4.2
Resolution	4CH AHD 720P	4CH AHD 720P
Audio Compress	2CH G.711	2CH G.711
Record Mode	Full record / Parking Record (time Adjustable)	Full record / Parking Record (time Adjustable)
Digital processing		
Video bitrate (Analog)	D1/960H : 1920K ~ 2688K bps(each channel) 720P : 2700K ~ 3072K bps(each channel)	D1/960H : 1920K ~ 2688K bps(each channel) 720P : 2700K ~ 3072K bps(each channel)
Video Storage (Analog)	D1/960H : 2300 ~ 3100 MBytes/Hour(4CH) 720P : 3900 MBytes/Hour(4CH)	D1/960H : 2300 ~ 3100 MBytes/Hour(4CH) 720P : 3900 MBytes/Hour(4CH)
Playback		
AV Compress	4CH AHD 720p@30fps 4CH 960H@30fps 2CH AHD 720P@30fps + 2CH 960H@30fps	4CH AHD 720p@30fps 4CH 960H@30fps 2CH AHD 720p@30fps + 2CH 960H@30fps
Search Playback	2CH Audio	2CH Audio
Network Streaming	Time index / Time Direct / Event	Time index / Time Direct / Event
Resolution	4CH CIF@30fps / QCIF@30fps 2CH Audio	4CH CIF@30fps / QCIF@30fps 2CH Audio
AV in / out connector		
Video input	BNC x 4	BNC x 4
Video output	BNC x 1 / VGA x 1(800 x 600)	BNC x 1 / VGA x 1(800 x 600)
Mic in	No Support	No Support
Audio input	RCA x 2	RCA x 2
Audio output	RCA x 1	RCA x 1
Live Display Split	1 / 4	1 / 4
Storage & Backup		
HDD / SSD	2.5" SATA2 x 1	x
SD	SDxC x 1 (Max 128GB)	SDxC x 2CH TTL Output
Backup	USB 2.0 / Network	USB 2.0 / Network
Network Devices		
Ethernet	RJ45 Giga x 1 (Static / DHCP)	RJ45 Giga x 1 (Static / DHCP)
3G / LTE	Build-in for option	Build-in for option
WIFI	Build-in for option	Build-in for option
I/O		
Build-in Alarm	8CH	6CH
Build-in Output	2CH TTL Output	2CH TTL Output
Firmware Upgrade		
USB	USB 2.0 / Network	USB 2.0 / Network
Peripheral		
GPS	Build-in	Build-in GPS interface (or G-mouse GPS Receiver for optional)
G-Sensor	Build-in	Build-in
Car speeding pulse in	Support	Support
TPMS Detection	Support (TTL / RS232)	Support (TTL / RS232)
Speaker	Buzzer	Buzzer
Temperature sensor	Build-in	Build-in
USB port	USB 2.0 x 1	USB 2.0 x 1
RS485	Yes	Yes
RS232	Yes	Yes
Others		
Language	Multi Language (Customized ability)	Multi Language (Customized ability)
Administrator Password	Two level password for System & Storage format	Two level password for System & Storage format
Car Voltage Detect	Support	Support
System Fail report	Temperature / HDD / SD / Voltage / GPS / G-sensor	Temperature / HDD / SD / Voltage / GPS / G-sensor
PTZ	Pelco - P / D	Pelco - P / D
Boot delay	0 ~ 10 sec	0 ~ 10 sec
Power Control	Camera Power bypass control	DC12V output for camera
Power in	9 ~ 36V(DC)	9 ~ 36V(DC)
Power Consumption	7.8W (without network) 9.8W (with HDD & network)	6.2W (without network & power output for camera)
Dimension / Weight	(W)190 x (H)58 x (D) 205mm ; 1.65kgs	(W)202 x(H)50 x(D)150mm ; 850g
Operation Temperature	-25℃~+70℃	-40℃~+80℃
Software / Application	(Full channel playback)	
VMS - CarGisPlayer (3G / LTE model)	PC server / client remote viewer	PC server / client remote viewer
GuardVMS (Smart phone / PAD)	iOS / Android client remote viewer Event Message / push video	iOS / Android client remote viewer Event Message / push video
PC Viewer	Self-Playback viewer	Self-Playback viewer
Option		
Extend LED indicator	Customized	Customized
Output Control Board	Customized	Customized

## Car Rear View Monitor

	DM-2170	<ul style="list-style-type: none"> <li>● 7 inch HD TFT LCD Monitor</li> <li>● 16:9 or 4:3 wide screen display</li> <li>● Resolution: 1024*600</li> <li>● Brightness: 400cd/m2</li> <li>● Contrast: 500:1</li> <li>● PAL&amp; NTSC auto switch</li> <li>● Video Input: AHD 1.0Vp-p or CVBS 1.0Vp-p 75Ω</li> <li>● Support AHD 1080P/720P /CVBS</li> </ul>	<ul style="list-style-type: none"> <li>● Viewing Angle: L/R:70°U/D:60°</li> <li>● Power supply: DC 12V/24V Output : DC12V(To camera power)</li> <li>● Power consumption: Max 5W</li> <li>● 4PIN connector suitable for Camera (option)</li> <li>● Working Temperature: -25°C~70°C</li> <li>● Storage Temperature: -30°C~80°C</li> </ul>
 <p>1. NC                    5. Menu 2. Mode                6. + 3. Video Select       7. Power 4. -                      8. IR</p>	DM-2190	<ul style="list-style-type: none"> <li>● 9 inch AHD TFT LCD Monitor</li> <li>● 16:9 wide screen display</li> <li>● Resolution: 1024*600</li> <li>● Brightness: 400cd/m2</li> <li>● Contrast: 500:1</li> <li>● PAL&amp; NTSC auto switching</li> <li>● Video Input: AHD 1.0Vp-p or CVBS 1.0Vp-p 75Ω</li> <li>● Support AHD 1080P/720P /CVBS</li> </ul>	<ul style="list-style-type: none"> <li>● Viewing Angle: L/R:70°U/D:60°</li> <li>● Power supply: DC 12V/24V Output : DC12V(To camera power)</li> <li>● Power con</li> <li>● Storage Temperature: -30°C~80°C</li> </ul>
 <p>1. NC                    5. Menu 2. Mode                6. + 3. Video Select       7. Power 4. -                      8. IR</p>	DM-2192	<ul style="list-style-type: none"> <li>● 9 inch TFT LCD monitor 16:9 wide screen display</li> <li>● 2 channel, 4pin din connector</li> <li>● PAL/NTSC auto switching</li> <li>● Resolution:800x480</li> <li>● Advanced LED backlight technology</li> <li>● Contrast Ratio 300:1</li> <li>● IR remote control handset</li> <li>● Power Supply:12~24vDC</li> </ul>	<ul style="list-style-type: none"> <li>● Single Channel Audio function</li> <li>● Built-in Speaker(option)</li> <li>● Operation Temp: -20°C to +70°C</li> </ul>

## Mobil Camera Extension Cable

	DV-9204-05M	5M length
	DV-9204-10M	10M length
	DV-9204-15M	15M length

## Accessory

	DV-9204	3A adaptor 10~30V into 12V MDVR and Car power (For DV-2808)
	DV-9102	G-mouse GPS Receiver, PS2 ( For DV-3604N)
	KF-9001	Camera Sunshield

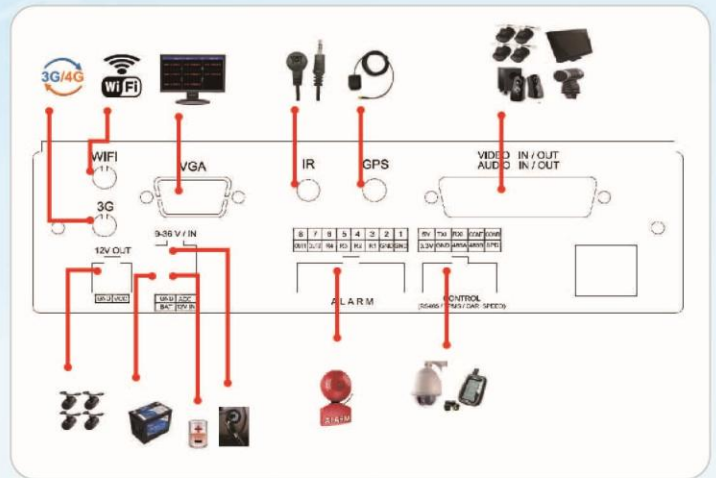
<b>Sensor Chip</b>	1/3" SONY Hi-Res. CCD	<b>Auto Gain Control</b>	AUTO
<b>High Resolution</b>	700 TV lines	<b>Backlight Compensation</b>	AUTO
<b>Sensitivity</b>	0.05 Lux (IR OFF) ; 0 Lux (IR ON)	<b>S/N Ratio</b>	More than 50dB (AGC OFF)
<b>Synchronizing System</b>	Internal Sync., 2:1 Interlace	<b>Electronic Shutter</b>	Auto [ 1/60(50)~1/110,000 ]
<b>Auto White Balance</b>	AUTO	<b>Video Output</b>	1.0Vp-p75Ω
<b>Mirror</b>	Option		
MODEL		DESCRIPTION	
KF-3148		<b>12pcs LED IR Camera</b> Lens Mount Dimension Power Requirement Operating Temperature	3.6mm 54 (Ø) x 48 (H) mm DC 12V / 110mA -25°C ~ +70°C
KF-3248		<b>12pcs LED IR Camera</b> Lens Tilt Adjusting Power Supply Power Consumption Dimensions / Weight Water Proof Operating Temperature	3.6mm Megapixel 0-62 Degree 12V DC ±10% 160mA 76.4 x 60.5 x 56mm / 215g IP67 -20°C to +70°C
KF-3348		<b>12pcs LED IR Camera</b> Lens Mount Waterproof Adjusting Degree Power Consumption Dimension / Weight Operating Temperature	2.5mm megapixel lens (3.6~6mm optional) IP67 Pan +/- 0-5 degree ; Tilt 0-30 degree DC 12V / 80mA (LED off) / 140mA (LED on) 83 (L) x 57.3 (H) mm / 140g -25°C ~ + 60°C
KF-3448		<b>Vandal Camera</b> Lens Power Supply Power Consumption Dimensions / Weight Water Proof Operating Temperature	2.8mm / 3.6mm 12V DC ±10%, 210mA 47.9 x55.8mm / 40g IP68 -25°C to +70°C
KF-3748		<b>12pcs LED IR Bumper Camera</b> Lens Power Supply Power Consumption Dimensions / Weight Water Proof Operating Temperature	2.2mm 8.5-18V DC BNC Jack 30mA 32.4 x 36.5 mm / 110g IP67 -25°C to +60°C
KF-3848		<b>Side View Camera</b> Lens optional Power Supply Dimensions PAN TILT Power Consumption Water Proof	2.8/3.6/6.0mm 12V DC D54*H43(mm) +/- 30°C +/- 30°C 180mA / 130g IP68
KF-5248		<b>Mini Dome camera</b> Lens Field of View (D) Adjusting Degree Power Supply Power Consumption Dimensions / Weight Weatherproof Operating Temperature	2.2mm Fixed Iris Lens 140° +/-180° / 0-50° 8-18 VDC 80mA 64.7 x 36.5 mm / 90g IP66 -25°C to +60°C
KF-6348		<b>Mini Camera</b> Lens Optional Power Supply Dimensions / Weight Power Consumption	2.5~12 12V DC L41.8xW28.5xH44.7(mm) / 120g 70mA
KF-6448		<b>Mini Rear View Camera</b> Lens Lens Horizontal Angel Power Supply Power Consumption Dimensions / Weight Water Proof Operating Temperature	1.58mm Fisheye lens 170° 12V DC 60mA 42.5*27.68*32.88mm / 33g IP68 -30°C ~+60°C
KF-7548		<b>18pcs LED IR Camera</b> Optional Lens Lens Tilt Adjusting Power Supply Power Consumption Dimensions / Weight Water Proof Operating Temperature	2.5mm to f12mm 2.5mm~12mm optional 0-62 Degree 12V DC ±10% 180mA L69 x W76 x H78 mm / 285g IP67 -20°C to +70°C

<b>Sensor Chip</b>	1/3" CMOS Sensor	<b>Backlight Compensation</b>	AUTO
<b>Effective Pixel</b>	1280 (H) x 960 (V)	<b>Noisy Reduction</b>	3D
<b>Scanning System</b>	Progressive scan RGB CMOS	<b>S/N Ratio</b>	More than 50dB (AGC OFF)
<b>Sensitivity</b>	0 Lux (IR ON)	<b>Electronic Shutter</b>	Auto
<b>Synchronizing System</b>	Internal Sync., 2:1 Interlace	<b>Video Output</b>	AHD 1.0Vp-p75Ω
<b>Mirror</b>	Option	<b>Lens Mount</b>	3.6mm megapixel lens (2.5 – 12mm optional)
<b>Auto Gain Control</b>	AUTO		

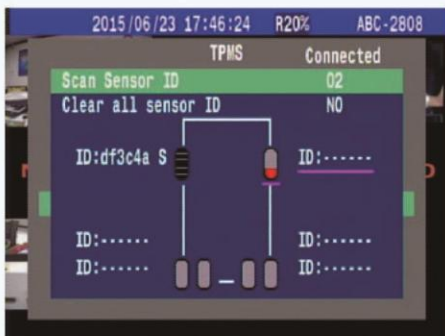
MODEL		DESCRIPTION	
KG-3242		<b>12pcs LED IR Camera</b> Waterproof Adjusting Degree Power Consumption Dimension / Weight Operating Temperature	IP67 DC 12V 80mA (LED off) / 140mA (LED on) 76.4 (L) x 56 (H) x 60.5(W) mm / 215g -25°C ~ +70°C
KG-3342		<b>12pcs LED IR Camera</b> Waterproof Adjusting Degree Power Consumption Dimension / Weight Operating Temperature	IP67 Pan +/- 180 degree ; Tilt 0-62 degree DC 12V (9~18V) / 110mA 57.3 (Ø) x 83 (H) mm / 140g -25°C ~ +60 °C
KG-3542		<b>12pcs LED IR Camera</b> Waterproof Adjusting Degree Power Consumption Dimension / Weight Operating Temperature	IP67 Pan +/- 180 degree ; Tilt 0-50 degree DC 12V (9-18V) / 140mA 57 (H) x 60(W) mm / 160g -25°C ~ +70°C
KG-3642		<b>12pcs LED IR Camera + Audio</b> Audio Power Consumption Dimension / Weight Operating Temperature	optional DC 12V / 140mA 59.2 (H) x 68.8(W) mm / 180g -25°C ~ +70°C
KG-6342		<b>Mini Camera</b> Tilt Degree Power Requirement Dimension / Weight Operating Temperature	0 ~ 60 degree DC 12V / 210 mA 41.8 (L) x 44.7(H) x 28.5(W) mm / 120g -25°C ~ +60°C
KG-7332		<b>12pcs LED IR Camera</b> Power Requirement Power Requirement Dimension / Weight Operating Temperature	DC 12V DC 12V / 220 mA (IR ON) 94(Ø) x 80(H) mm ; 500g -10°C ~ +60°C
KG-7442		<b>12pcs LED IR Camera + Audio</b> Waterproof Power Requirement Power Consumption Dimension / Weight Operating Temperature	IP67 DC 12V 80mA (LED off) / 170mA (LED on) 48.5 (L) x 61.2 (H) x 87(W) mm -25°C ~ +70°C
KG-7542		<b>18pcs LED IR Camera</b> Waterproof Power Requirement Power Consumption Dimension / Weight Operating Temperature	IP67 DC 12V 160mA 69 (L) x 76 (W) x 78 (H) mm ; 290g -25°C ~ +70°C
KG-7642		<b>30pcs LED IR Camera</b> Waterproof Power Requirement Power Consumption Dimension / Weight Operating Temperature	IP67 DC 12V 160mA 67 (L) x 108.5 (W) x 80 (H) mm ; 680g -25°C ~ +70°C

# MDVR Characteristics

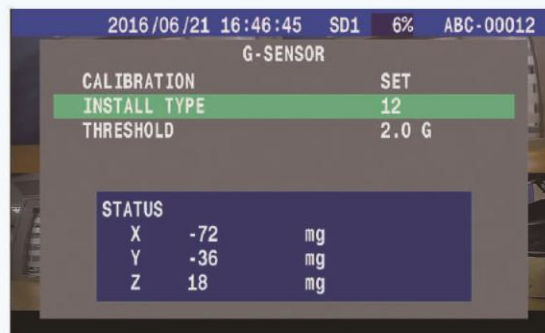
## Peripherals



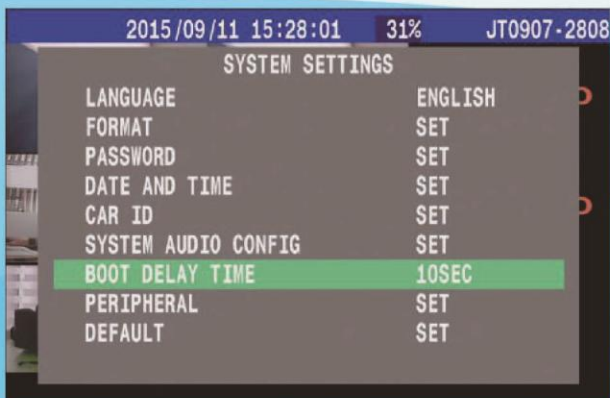
## TPMS



## 3-Axis G-sensor



## Power up protection



## Low power protection





## VMS-Live Monitoring

- Server can remote process the vehicle information.
- PC for Server mode – Central management center
- Laptop or additional PC for “Client mode” .
- Process “Net Realtime Play, Net Recorded Play, Upload File, Device Info Control, Delete from list “



## PC viewer-self player for full channel Playback

Support a self player to play video / data recording from HDD 、SD card or USB drive.

The firmware UI support information systems Integration on one screen with “time 、event video playback 、backup” and can draw with Google mapping.



## GuardVMS - iOS / Android

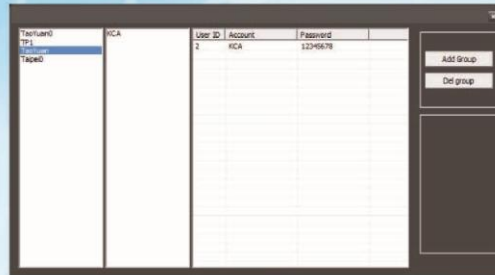
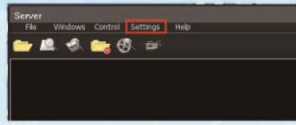
Full channel display



# CarGisPlayer VMS

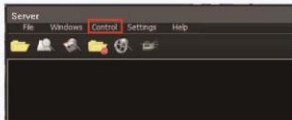
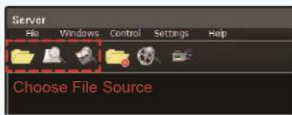
## Grouping

To manage and display the car list via different user account & password.

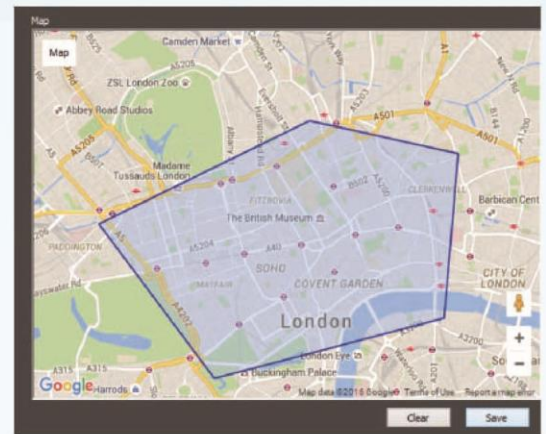


## History Route

Viewing the information from HDD /SD card/ File about the historical path.

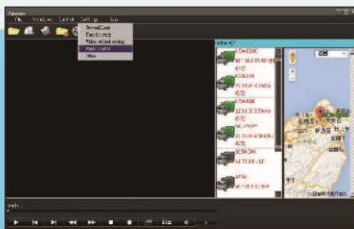


## Geo-Fence



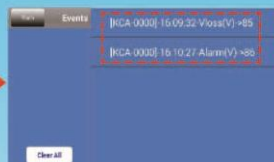
## Push control

Send message to GuardVMS (apps of cell phone) from sever site.



## Events alert

GuardVMS (iOS/Android) - Alert message



## Client alert

