

HANSE

**SURVEILLANCE
SOLUTIONS**

**2019 VEHICLE Security
Solution Catalogue**

AHD 1.0 VEHICLE CAMERA
AHD 2.0 VEHICLE CAMERA
VEHICLE DVR
VEHICLE MONITOR

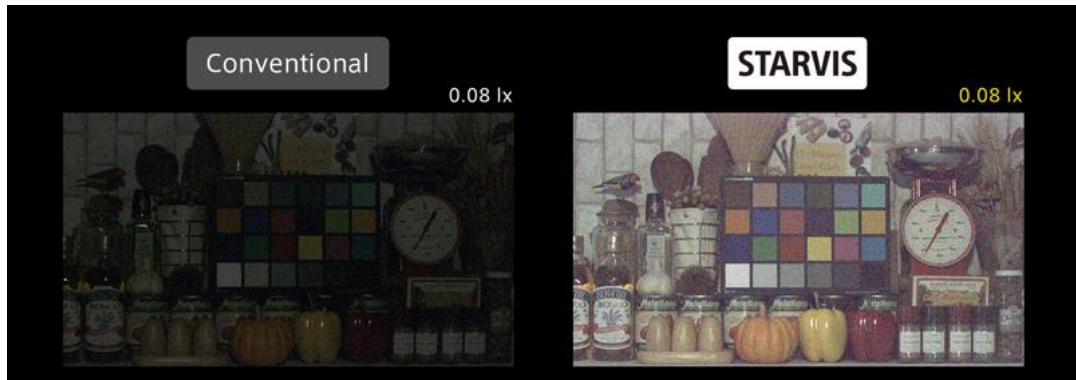


AHD 1.0 **VEHICLE** CAMERA

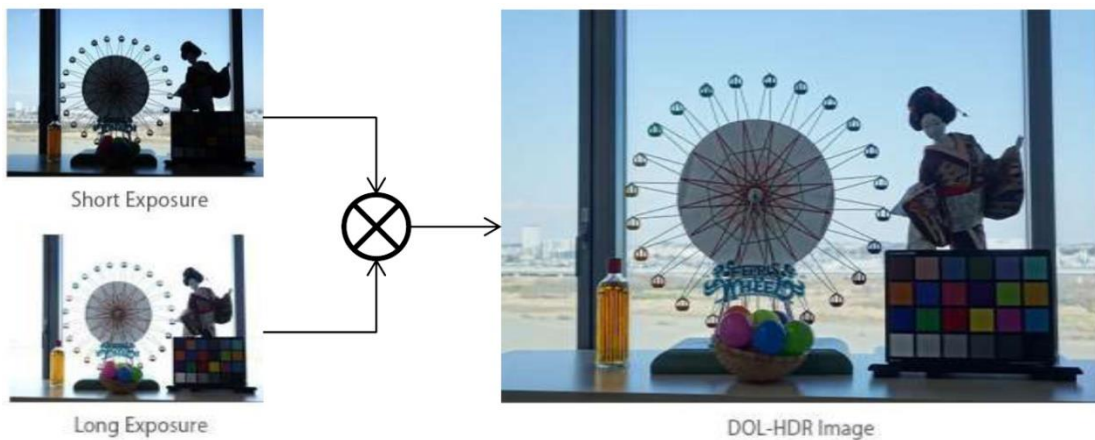
World 1st RGBW Sensor Output in AHD Signal Format (AHD 1.0 : HD, 720p)

STARVIS **R G B W** **Exmor RS**

STARVIS RGBW, Exmor-RS : High Sensitivity



DOL WDR + ATR : Digital OverLab Wide Dynamic Range



Mechanical IR Cut Filter Free with 2 Bandpass : RGBW CMOS Sensor



Mechanical IR Cut Filter Free in CMOS Sensor with IR LED as like CCD

Beyond human eyes!



AHD Indoor Plastic IR Dome Camera for Vehicle (AHD 720p, 1.3MP, 12 IR LED)


STARVIS

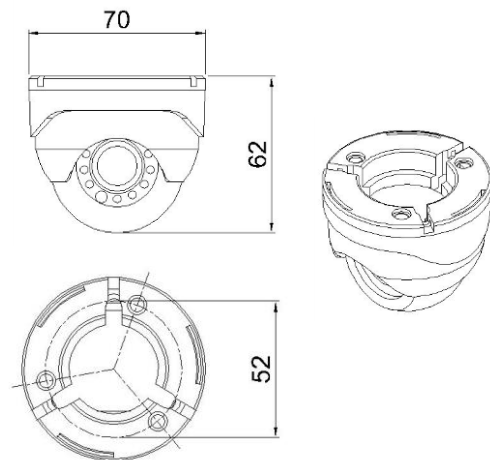
Exmor RS

HHV-RD1

FEATURES

- 1/3.2", 1.3MP Sony STARVIS RGBW CMOS
- AHD : 720P (30fps), HD Resolution
- Mechanical IR Cut Filter Free, Day & Night
- 3.6mm Fixed Lens, 12 IR LED (850nm)
- DOL WDR + ATR, Digital Overlap WDR
- Flip : H-Flip, V-Flip, HV Flip
- Extremely Reliable Power Input Range (DC9V ~ DC28V)
- For Indoor Ceiling Mount of Vehicle
- Plastic IR Dome Camera

DIMENSION



CAMERA SPECIFICATIONS

Image Sensor	1/3.2", 1.3Mega Sony STARVIS RGBW CMOS
Total Pixels	1305(H) x 985(V) Approx. 1.29M Pixels
Effective Pixels	1297(H) x 977(V) Approx. 1.27M Pixels
Minimum Illumination (F1.2)	Color : 0.005 Lux (AGC ON) B/W : 0.001 Lux (AGC ON)
Shutter Speed	1/50(1/60) ~ 1/50000 sec
Video Output Mode	AHD 720p (HD Resolution), 30fps
Lens	3.6mm, Mega Pixel Lens
IR LED	12 IR LED, 850nm
Iris Control	Manual
S/N Ratio	72dB
ATW Range	1800 ~ 10500K
White Balance	ATW / Push / User1 / User2 / Manual / Push Lock
AGC	Min / 6 / 12 / 18 / 24 / 30 / 36 / 42 / 48 / Max
Back Light	Off / BLC / HLC
WDR / ATR	Off / WDR (Low/Middle/High)/ART(Low/Middle/High)
2 DNR	Off / Y-C / Y / C
Day & Night	Auto / Manual
IR LED Control	Off / Auto / Fix
Privacy Masking	Off / On (16 Zone)
Defog	Off / Auto
Flip	Off / H-Flip / V-Flip / HV-Flip
Pict Adjust	Brightness/Contrast/Sharpness/Hue/Color Gain
Power Input	DC 9V ~ DC 28V
Power Consumption	Normal : 80mA (IR LED On : Max. 180mA)
Dimension	Ø 70 (Dome Base) x 62 (H)mm

AHD IR Camera , Driver View for Vehicle (HD 720p, 1.3MP, 12 IR LED)


STARVIS

Exmor RS

HHV-RU1

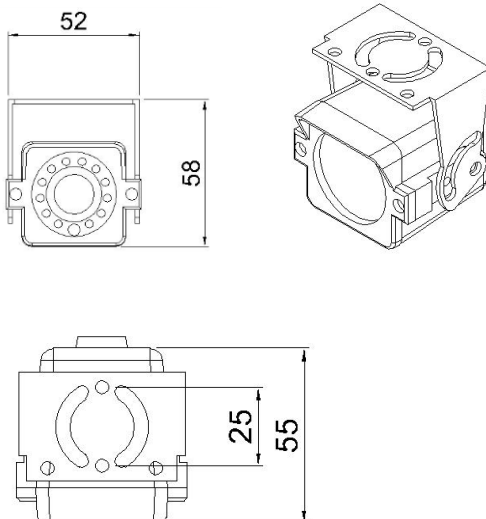
FEATURES

- 1/3.2", 1.3MP Sony STARVIS RGBW CMOS
- AHD : 720P (30fps), HD Resolution
- Mechanical IR Cut Filter Free, Day & Night
- 3.6mm Fixed Lens (Option : 2.9mm)
- 12 IR LED (850nm)
- DOL WDR + ATR, Digital Overlap WDR
- Flip : H-Flip, V-Flip, HV Flip
- Extremely Reliable Power Input Range (DC9V ~ DC28V)
- Aluminum Die-casting Body, Anodizing Coating
- For Indoor Driver View
- For Outdoor
- IP68 & IP69K Heavy Duty

CAMERA SPECIFICATIONS

Image Sensor	1/3.2", 1.3Mega Sony STARVIS RGBW CMOS
Total Pixels	1305(H) x 985(V) Approx. 1.29M Pixels
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Lens	3.6mm, Mega Pixel Lens
IR LED	12 IR LED, 850nm
Iris Control	Manual
S/N Ratio	72dB
ATW Range	1800 ~ 10500K
White Balance	ATW / Push / User1 / User2 / Manual / Push Lock
AGC	Min / 6 / 12 / 18 / 24 / 30 / 36 / 42 / 48 / Max
Back Light	Off / BLC / HLC
WDR / ATR	Off /WDR (Low/Middle/High)/ART(Low/Middle/High)
2 DNR	Off / Y-C / Y / C
Day & Night	Auto / Manual
IR LED Control	Off / Auto / Fix
Privacy Masking	Off / On (16 Zone)
Defog	Off / Auto
Flip	Off / H-Flip / V-Flip / HV-Flip
Pict Adjust	Brightness/Contrast/Sharpness/Hue/Color Gain
Power Input	DC 9V ~ DC 28V
Power Consumption	Normal : 80mA (IR LED On : Max. 180mA)
Dimension	52 (W) x 55 (D) x 58 (H)mm without Bracket

DIMENSION



AHD Dashboard Mount Front View Camera for Vehicle (HD 720p, 1.3MP, No IR LED)


STARVIS

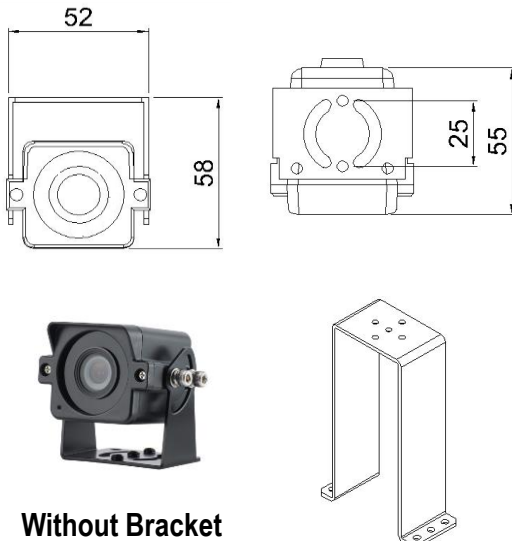
Exmor RS

HHV-U1

FEATURES

- 1/3.2", 1.3MP Sony STARVIS RGBW CMOS
- AHD : 720P (30fps), HD Resolution
- Mechanical IR Cut Filter Free, Day & Night
- 3.6mm Fixed Lens (Option : 2.9mm)
- DOL WDR + ATR, Digital Overlap WDR
- Flip : H-Flip, V-Flip, HV Flip
- Extremely Reliable Power Input Range (DC9V ~ DC28V)
- Aluminum Die-casting Body, Anodizing Coating
- For Indoor Dashboard Mount Front View
- IP68 & IP69K Heavy Duty

DIMENSION



Without Bracket

CAMERA SPECIFICATIONS

Image Sensor	1/3.2", 1.3Mega Sony STARVIS RGBW CMOS
Total Pixels	1305(H) x 985(V) Approx. 1.29M Pixels
Effective Pixels	1297(H) x 977(V) Approx. 1.27M Pixels
Minimum Illumination (F1.2)	Color : 0.005 Lux (AGC ON) B/W : 0.001 Lux (AGC ON)
Shutter Speed	1/50(1/60) ~ 1/50000 sec
Video Output Mode	AHD 720p (HD Resolution), 30fps
Lens	3.6mm, Mega Pixel Lens
IR LED	N/A
Iris Control	Manual
S/N Ratio	72dB
ATW Range	1800 ~ 10500K
White Balance	ATW / Push / User1 / User2 / Manual / Push Lock
AGC	Min / 6 / 12 / 18 / 24 / 30 / 36 / 42 / 48 / Max
Back Light	Off / BLC / HLC
WDR / ATR	Off / WDR (Low/Middle/High)/ART(Low/Middle/High)
2 DNR	Off / Y-C / Y / C
Day & Night	Auto / Manual
IR LED Control	Off / Auto / Fix
Privacy Masking	Off / On (16 Zone)
Defog	Off / Auto
Flip	Off / H-Flip / V-Flip / HV-Flip
Pict Adjust	Brightness/Contrast/Sharpness/Hue/Color Gain
Power Input	DC 9V ~ DC 28V
Power Consumption	Normal : 80mA
Dimension	52 (W) x 55 (D) x 58 (H)mm without Bracket

AHD IR Camera for Rear View, Side View of Vehicle (HD 720p, 1.3MP, 12 IR LED)


STARVIS

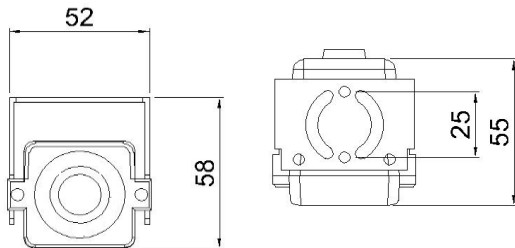
Exmor RS

HHV-RU1B

FEATURES

- 1/3.2", 1.3MP Sony STARVIS RGBW CMOS
- AHD : 720P (30fps), HD Resolution
- Mechanical IR Cut Filter Free, Day & Night
- 3.6mm Fixed Lens (Option : 2.9mm)
- 12 IR LED (850nm)
- DOL WDR + ATR, Digital Overlap WDR
- Flip : H-Flip, V-Flip, HV Flip
- Extremely Reliable Power Input Range (DC9V ~ DC28V)
- Aluminum Die-casting Body, Anodizing Coating
- For Outdoor Rear View, Side View (Left/Right)
- For Indoor Driver View
- IP68 & IP69K Heavy Duty

DIMENSION



Without Bracket

CAMERA SPECIFICATIONS

Image Sensor	1/3.2", 1.3Mega Sony STARVIS RGBW CMOS
Total Pixels	1305(H) x 985(V) Approx. 1.29M Pixels
Effective Pixels	1297(H) x 977(V) Approx. 1.27M Pixels
Minimum Illumination (F1.2)	Color : 0.005 Lux (AGC ON) B/W : 0.001 Lux (AGC ON)
Shutter Speed	1/50(1/60) ~ 1/50000 sec
Video Output Mode	AHD 720p (HD Resolution), 30fps
Lens	3.6mm, Mega Pixel Lens
IR LED	12 IR LED, 850nm
Iris Control	Manual
S/N Ratio	72dB
ATW Range	1800 ~ 10500K
White Balance	ATW / Push / User1 / User2 / Manual / Push Lock
AGC	Min / 6 / 12 / 18 / 24 / 30 / 36 / 42 / 48 / Max
Back Light	Off / BLC / HLC
WDR / ATR	Off / WDR (Low/Middle/High)/ART(Low/Middle/High)
2 DNR	Off / Y-C / Y / C
Day & Night	Auto / Manual
IR LED Control	Off / Auto / Fix
Privacy Masking	Off / On (16 Zone)
Defog	Off / Auto
Flip	Off / H-Flip / V-Flip / HV-Flip
Pict Adjust	Brightness/Contrast/Sharpness/Hue/Color Gain
Power Input	DC 9V ~ DC 28V
Power Consumption	Normal : 80mA (IR LED On : Max. 180mA)
Dimension	52 (W) x 55 (D) x 58 (H)mm without Bracket

Mini Vandal Dome IR for Indoor , Outdoor of Vehicle (AHD 720p, 1.3MP, 12 IR LED)


STARVIS

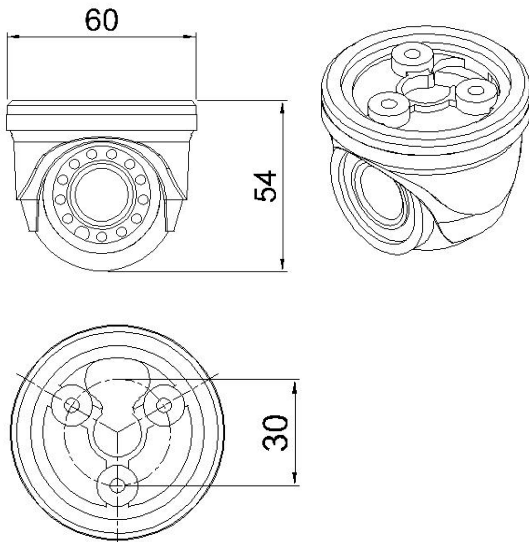
Exmor RS

HHV-RV1

FEATURES

- 1/3.2", 1.3MP Sony STARVIS RGBW CMOS
- AHD : 720P (30fps), HD Resolution
- Mechanical IR Cut Filter Free, Day & Night
- 3.6mm Fixed Lens, 12 IR LED (850nm)
- DOL WDR + ATR, Digital Overlap WDR
- Flip : H-Flip, V-Flip, HV Flip
- Extremely Reliable Power Input Range (DC9V ~ DC28V)
- Aluminum Die-casting Body, Anodizing Coating
- For Outdoor Side View (Left, Right)
- For Indoor Ceiling Mount
- IP 67, IK10 for Outdoor / Indoor

DIMENSION



CAMERA SPECIFICATIONS

Image Sensor	1/3.2", 1.3Mega Sony STARVIS RGBW CMOS
Total Pixels	1305(H) x 985(V) Approx. 1.29M Pixels
Effective Pixels	1297(H) x 977(V) Approx. 1.27M Pixels
Minimum Illumination (F1.2)	Color : 0.005 Lux (AGC ON) B/W : 0.001 Lux (AGC ON)
Shutter Speed	1/50(1/60) ~ 1/50000 sec
Video Output Mode	AHD 720p (HD Resolution), 30fps
Lens	3.6mm, Mega Pixel Lens
IR LED	12 IR LED (850nm)
Iris Control	Manual
S/N Ratio	72dB
ATW Range	1800 ~ 10500K
White Balance	ATW / Push / User1 / User2 / Manual / Push Lock
AGC	Min / 6 / 12 / 18 / 24 / 30 / 36 / 42 / 48 / Max
Back Light	Off / BLC / HLC
WDR / ATR	Off /WDR (Low/Middle/High)/ART(Low/Middle/High)
2 DNR	Off / Y-C / Y / C
Day & Night	Auto / Manual
IR LED Control	Off / Auto / Fix
Privacy Masking	Off / On (16 Zone)
Defog	Off / Auto
Flip	Off / H-Flip / V-Flip / HV-Flip
Pict Adjust	Brightness/Contrast/Sharpness/Hue/Color Gain
Power Input	DC 9V ~ DC 28V
Power Consumption	Normal : 80mA (IR LED On : Max. 180mA)
Dimension	Ø 60 (W) x 54 (H) mm



AHD 2.0

VEHICLE CAMERA

AHD Indoor Plastic Dome IR Camera for Vehicle (Full HD 1080p, 2.1MP, STARVIS, 12 IR LED)

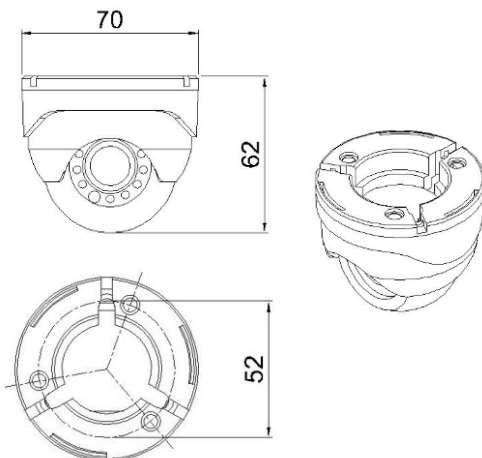

STARVIS
FULL HD
1920x1080

HHV-RD2

FEATURES

- 1/2.8" 2.1MP SONY Exmor-R STARVIS
- AHD 2.0 : 1080P (30fps), Full HD Resolution
- 3.6mm Wide Fixed Lens
- 12 IR LED (940nm Invisible IR LED)
- Min. Illumination
Color DSS : 0.0002 Lux / BW DSS : 0.0001 Lux
- 2D DNR (Digital Noise Reduction)
- WDR (Wide Dynamic Range)
- Defog : Defogging foggy video image
- Anti-lighting Protection Design
- For Indoor Ceiling Mount of Vehicle
- Plastic IR Dome Camera

DIMENSION



CAMERA SPECIFICATIONS

Effective Pixels	1945(H) x 1097(V) Approx. 2.13M
Total Pixel	1945(H) x 1109(V) Approx. 2.16M
Shutter Speed	Auto / Manual (1/30(1/25) ~1/60000)/ Flicker
Image Sensor	1/2.8" 2.1Mega SONY STARVIS CMOS
Resolution	1080p (Full HD), 30 fps
Lens	3.6mm Mega Pixel Lens
IR LED	12 IR LED, 940nm
S/N Ratio	More than 53dB
Sens-up	x2 / x4 / x8 / x16 / x32
Min. Illumination	Color DSS: 0.0002 Lux BW DSS : 0.0001 Lux
Smart IR	Off / On
E. Zoom	x1 ~ x8
Defog	On/Off
DNR (3D + 2D)	Off / Low / Middle /High
White Balance	Auto / Auto Ext / Preset / Manual
WDR / BLC / HLC	Off/WDR(Low / Middle / High) BLC / HLC
Video Output	AHD
Power Input	DC 12V ± 10%
Power Consumption	Normal : 80mA (IR LED On : Max. 180mA)
Operating Temperature	-20°C ~ +60°C
Dimension	Ø 70 (Dome Base) x 62 (H)mm

AHD Indoor Driver View Camera for Vehicle (Full HD 1080p, 2.1MP, STARVIS, 12 IR LED)

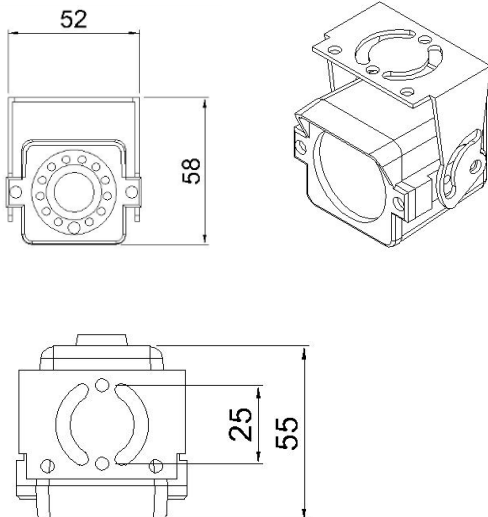

STARVIS
FULL HD
1920x1080

HHV-RUV

FEATURES

- 1/2.8" 2.1MP SONY Exmor-R STARVIS
- AHD 2.0 : 1080P (30fps), Full HD Resolution
- 3.6mm Fixed Lens, 12 IR LED (940nm Invisible)
- Min. Illumination
Color DSS : 0.0002 Lux / BW DSS : 0.0001 Lux
- 2D DNR (Digital Noise Reduction)
- WDR (Wide Dynamic Range)
- Defog : Defogging foggy video image
- Anti-lighting Protection Design
- Aluminum Die-casting Body, Anodizing Coating
- For Indoor Driver View
- For Outdoor
- IP68 & IP69K Heavy Duty

DIMENSION



CAMERA SPECIFICATIONS

Effective Pixels	1945(H) x 1097(V) Approx. 2.13M
Total Pixel	1945(H) x 1109(V) Approx. 2.16M
Shutter Speed	Auto / Manual (1/30(1/25) ~1/60000)/ Flicker
Image Sensor	1/2.8" 2.1Mega SONY STARVIS CMOS
Resolution	1080p (Full HD), 30 fps
Lens	3.6mm Mega Pixel Lens
IR LED	12 IR LED, 940nm
S/N Ratio	More than 53dB
Sens-up	x2 / x4 / x8 / x16 / x32
Min. Illumination	Color DSS: 0.0002 Lux BW DSS : 0.0001 Lux
Smart IR	Off / On
E. Zoom	x1 ~ x8
Defog	On/Off
DNR (3D + 2D)	Off / Low / Middle /High
White Balance	Auto / Auto Ext / Preset / Manual
WDR / BLC / HLC	Off/WDR(Low / Middle / High) BLC / HLC
Video Output	AHD
Power Input	DC 12V $\pm$ 10%
Power Consumption	Normal : 80mA (IR LED On : Max. 180mA)
Operating Temperature	-20°C ~ +60°C
Dimension	52 (W) x 55 (D) x 58 (H)mm without Bracket

AHD Dashboard Mount Front View Camera for Vehicle (Full HD 1080p, 2.1MP, STARVIS, No IR LED)

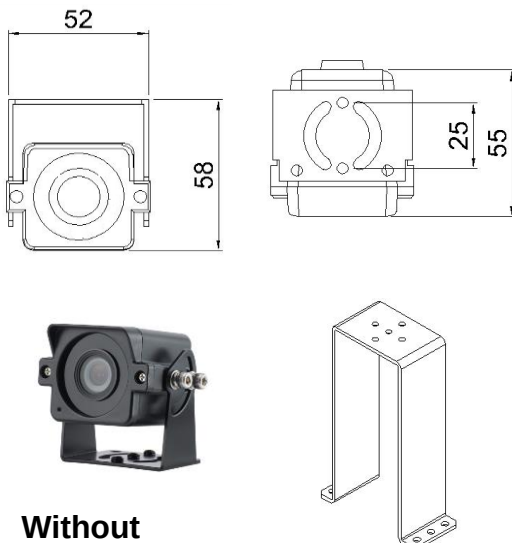

STARVIS
FULL HD
1920x1080

HHV-U2

FEATURES

- 1/2.8" 2.1MP SONY Exmor-R STARVIS
- AHD 2.0 : 1080P (30fps), Full HD Resolution
- 3.6mm Fixed Lens (Option : 2.9mm)
- Min. Illumination
Color DSS : 0.0002 Lux / BW DSS : 0.0001 Lux
- 2D DNR (Digital Noise Reduction)
- WDR (Wide Dynamic Range)
- Defog : Defogging foggy video image
- Anti-lighting Protection Design
- Aluminum Die-casting Body, Anodizing Coating
- For Indoor Dashboard Mount Front View
- IP68 & IP69K Heavy Duty

DIMENSION



**Without
Bracket**

CAMERA SPECIFICATIONS

Effective Pixels	1945(H) x 1097(V) Approx. 2.13M
Total Pixel	1945(H) x 1109(V) Approx. 2.16M
Shutter Speed	Auto / Manual (1/30(1/25) ~1/60000)/ Flicker
Image Sensor	1/2.8" 2.1Mega SONY STARVIS CMOS
Resolution	1080p (Full HD), 30 fps
Lens	3.6mm Mega Pixel Lens
IR LED	N/A
S/N Ratio	More than 53dB
Sens-up	x2 / x4 / x8 / x16 / x32
Min. Illumination	Color DSS: 0.0002 Lux BW DSS : 0.0001 Lux
Smart IR	Off / On
E. Zoom	x1 ~ x8
Defog	On/Off
DNR (3D + 2D)	Off / Low / Middle /High
White Balance	Auto / Auto Ext / Preset / Manual
WDR / BLC / HLC	Off/WDR(Low / Middle / High) BLC / HLC
Video Output	AHD
Power Input	DC 12V ± 10%
Power Consumption	Normal : 80mA
Operating Temperature	-20°C ~ +60°C
Dimension	52 (W) x 55 (D) x 58 (H)mm without Bracket

AHD Outdoor Rear View or Side View Camera for Vehicle (Full HD 1080p, 2.1MP, STARVIS, 12 IR LED)

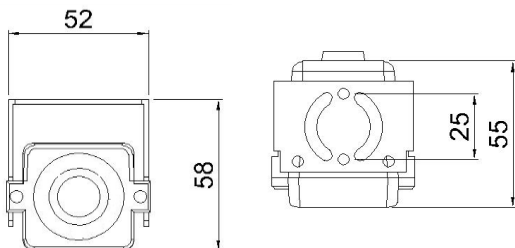

STARVIS
FULL HD
1920x1080

HHV-RU2B

FEATURES

- 1/2.8" 2.1MP SONY Exmor-R STARVIS
- AHD 2.0 : 1080P (30fps), Full HD Resolution
- 3.6mm Fixed Lens, 12 IR LED (940nm Invisible)
- Min. Illumination
Color DSS : 0.0002 Lux / BW DSS : 0.0001 Lux
- 2D DNR (Digital Noise Reduction)
- WDR (Wide Dynamic Range)
- Defog : Defogging foggy video image
- Anti-lighting Protection Design
- Aluminum Die-casting Body, Anodizing Coating
- For Outdoor Rear View, Side View (Left/Right)
- For Indoor Driver View
- IP68 & IP69K Heavy Duty

DIMENSION



Without Bracket

CAMERA SPECIFICATIONS

Effective Pixels	1945(H) x 1097(V) Approx. 2.13M
Total Pixel	1945(H) x 1109(V) Approx. 2.16M
Shutter Speed	Auto / Manual (1/30(1/25) ~1/60000)/ Flicker
Image Sensor	1/2.8" 2.1Mega SONY STARVIS CMOS
Resolution	1080p (Full HD), 30 fps
Lens	3.6mm Mega Pixel Lens
IR LED	12 IR LED, 940nm
S/N Ratio	More than 53dB
Sens-up	x2 / x4 / x8 / x16 / x32
Min. Illumination	Color DSS: 0.0002 Lux BW DSS : 0.0001 Lux
Smart IR	Off / On
E. Zoom	x1 ~ x8
Defog	On/Off
DNR (3D + 2D)	Off / Low / Middle /High
White Balance	Auto / Auto Ext / Preset / Manual
WDR / BLC / HLC	Off/WDR(Low / Middle / High) BLC / HLC
Video Output	AHD
Power Input	DC 12V ± 10%
Power Consumption	Normal : 80mA (IR LED On : Max. 180mA)
Operating Temperature	-20°C ~ +60°C
Dimension	52 (W) x 55 (D) x 58 (H)mm without Bracket

AHD Mini Vandal Dome IR Camera for Vehicle (Full HD 1080p, 2.1MP, STARVIS, 12 IR LED)

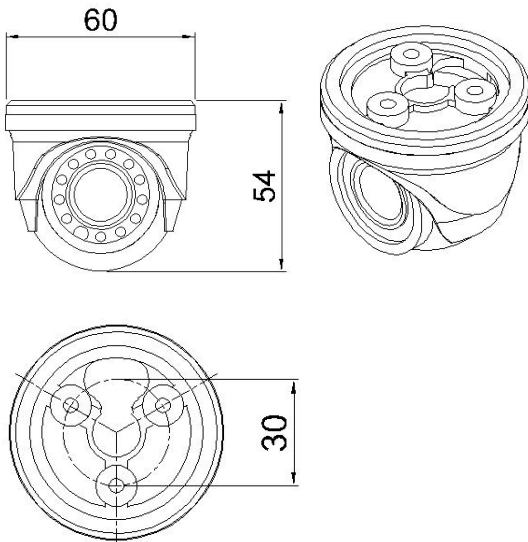

STARVIS
FULL HD
1920x1080

HHV-RV2

FEATURES

- 1/2.8" 2.1MP SONY IMX307 CMOS SENSOR
- ISP NEXTCHIP NVP2441H
- AHD 2.0 : 1080P (30fps), Full HD Resolution
- 3.6mm Fixed Lens, 12 IR LED (940nm Invisible)
- Min. Illumination
Color DSS : 0.0002 Lux / BW DSS : 0.0001 Lux
- 2D DNR (Digital Noise Reduction)
- WDR (Wide Dynamic Range)
- Defog : Defogging foggy video image
- Anti-lighting Protection Design
- Aluminum Die-casting Body, Anodizing Coating
- For Outdoor Side View (Left, Right)
- For Indoor Ceiling Mount
- IP67, IK10 for Indoor / Outdoor

DIMENSION



CAMERA SPECIFICATIONS

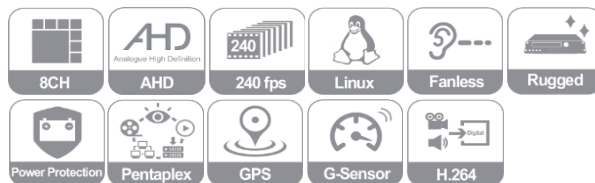
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Total Pixel	1945(H) x 1109(V) Approx. 2.16M
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Resolution	1080p (Full HD), 30 fps
Lens	3.6mm Mega Pixel Lens
IR LED	12 IR LED, 940nm
S/N Ratio	More than 53dB
Sens-up	x2 / x4 / x8 / x16 / x32
Min. Illumination	Color DSS: 0.0002 Lux BW DSS : 0.0001 Lux
Smart IR	Off / On
E. Zoom	x1 ~ x8
Defog	On/Off
DNR (3D + 2D)	Off / Low / Middle /High
White Balance	Auto / Auto Ext / Preset / Manual
WDR / BLC / HLC	Off/WDR(Low / Middle / High) BLC / HLC
Video Output	AHD
Power Input	DC 12V ± 10%
Power Consumption	Normal : 80mA (IR LED On : Max. 180mA)
Operating Temperature	-20°C ~ +60°C
Dimension	Ø 60 (W) x 54 (H) mm



VEHICLE DVR

HMR-C608

Mobile HD Digital Video Recorder
(8Ch, AHD 720p, HD Resolution, HDMI)

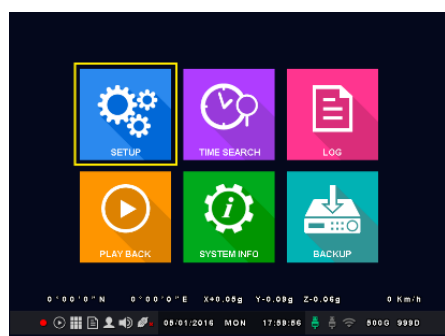


FEATURES

- 8Ch Mobile DVR (HD, 720p Resolution)
- Video Input : 8Ch - AHD720P, 960H, D1
- 240/200ps@720p Real-time Recording, Display & Playback, 30/25fps/Ch@720p
- 2 x 2.5" HDD or 2 x SSD
- SD Card slot for Event Recording
- 1 HDMI Video Out & 1 CVBS Video Out
- Storage Capacity : Max. 4TB (2TB x 2)
- Audio In 8Ch + 1Ch Mic. (Ext Port)
- Audio Out 1Ch + 1Ch Speaker (Ext Port)
- Alarm In 8TTL / Alarm Out 4 Relay
- Supports WiFi Dongle through USB Port
- 10/100/1000 Ethernet Network
- PC Viewer, Monitoring Software (ACMS)

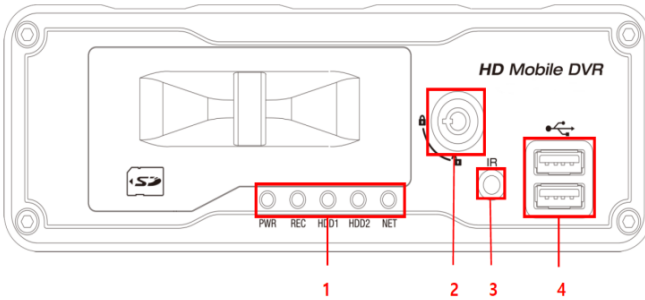
DVR SPECIFICATIONS

Operating system	Embedded Linux	
Video input	8 CH (AHD 720P or SD)	
Video output	CVBS 1CH, HDMI 1CH	
Video compression	H.264	
Audio input / output	8CH + 1CH MIC (EXT.Port) / 1CH + 1CH Speaker (EXT.Port)	
Audio compression	G.711	
Display split	1, 4, 8	
Recording mode	Normal / Event / Motion	
Recording	AHD 720P	240(200)fps in total
	SD	240(200)fps in total
Internal Buzzer	Supported	
G-sensor	Built-in, (Tri-axial acceleration sensor)	
GPS	Built-in (G-mouse)	
Triplex (Live, Playback, Record)	Triplex (Playback, Record, Copy)	
USB	2 x Front Ports USB 2.0 Front, 1 x Rear port USB 2.0	
Storage	2 x 2.5" SATA HDD/SSD RACK, 2TB each(max. size) SD card for event recording	
Alarm input	8 TTL	
Alarm output	4 Relay	
Network	10/100/1000 Ethernet, Wifi wireless (using wifi dongle)	
Working temperature	-20° C – 70° C, -4° F – 140° F	
Storage temperature	-40° C – 85° C, -40° F – 185° F	
Working Humidity	0% – 90%	
Working Voltage	DC 12V / 24V	
Product dimension (Without bracket)	182mm x 175mm x 62mm (W x D x H)	
Product Weight	Approx. 1.1kg	
Certifications	FCC, E-mark, CLASS-B	
PC Viewer Software CD	Smart Blur Software Wi-Fi Download Audio/Video Backup Software	
Monitoring Software	ACMS1.0: PC installation MDVR monitoring software	
	ACMS2.0: Sever-web based monitoring software	



HMR-C608

Front Panel Functions



① Front LED indicators

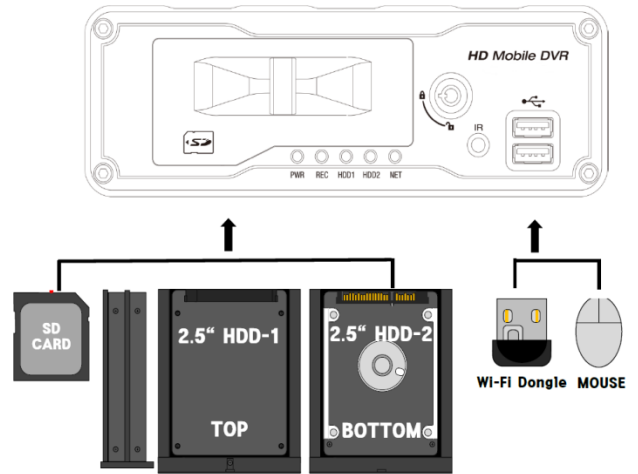
- PWR : POWER ON > Green LED on
- REC: RECORDING > Red LED on
- HDD1: HDD-1 mounted > Orange LED flickering
- HDD2: HDD-2 mounted > Orange LED flickering
- NET: Network connected > Green LED on

② Key lock: HDD and SD card lock

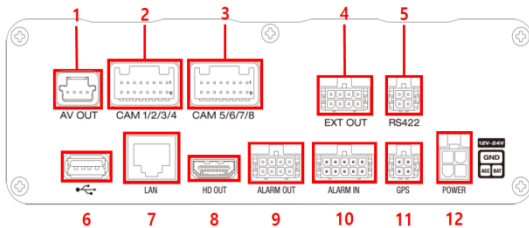
③ IR receiver for remote control

- ※ Make sure IR receiver is cleared and not blocked for remote control usage.

④ USB port: USB memory for upgrade and backup, USB mouse or WIFI dongle



Rear Panel Connections



① A/V OUT : 4 PIN VIDEO/AUDIO OUTPUT connector

② CAM 1/2/3/4 : 16 PIN/Camera 1CH - 4CH VIDEO/AUDIO INPUT connector

③ CAM 5/6/7/8 : 16 PIN/Camera 5CH - 8CH VIDEO/AUDIO INPUT connector

④ EXT OUT : 4 PIN/Speaker, MIC and other output connectors

⑤ RS422 : 4 PIN / Tx (+, -) & Rx (+, -)

⑥ USB : USB memory, mouse or WIFI dongle connection

⑦ LAN : RJ-45 / Remote connection to PC via Ethernet

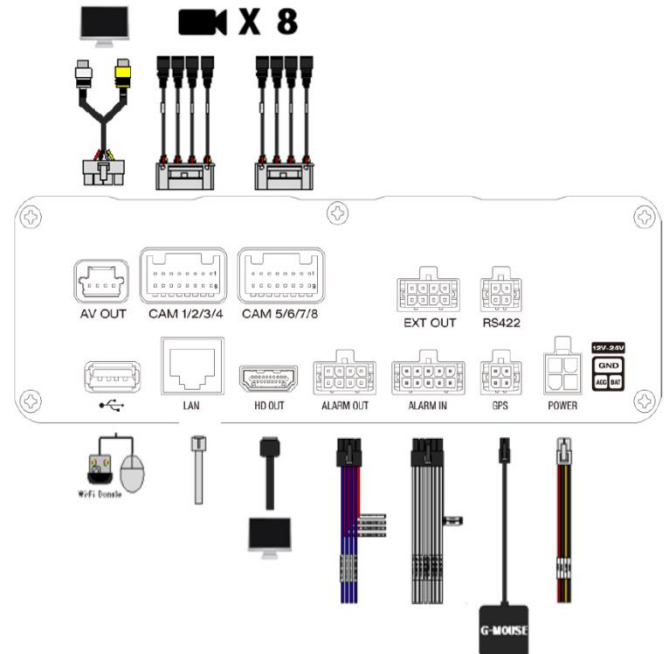
⑧ HD OUT : 19 PIN / HD video out connector

⑨ Alarm Out : 8 PIN / Alarm out relay connector

⑩ Alarm In : 10 PIN / Alarm in connector

⑪ GPS : 4 PIN / G-MOUSE connector

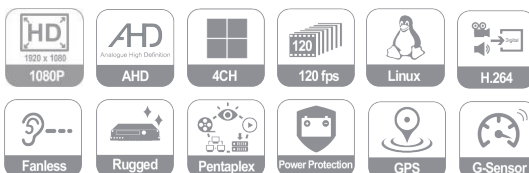
⑫ POWER: 4 PIN power connector





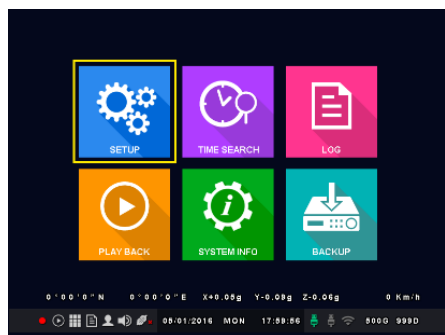
HMR-C704

Mobile FULL HD Digital Video Recorder
(4Ch, 1080p Real-time, HDMI)



FEATURES

- 4Ch Full HD Mobile DVR
- Video Input : 4Ch (AHD 1080p)
- Video Output : HDMI / CVBS
- AHD 120/100ps@1080p Real-time Recording, Display & Playback, 30/25fps/Ch@1920 x1080
- 1 x 2.5" HDD or 1 x SSD Selectable
- Storage Capacity : Max. 2TB (1 x 2TB)
- Audio In 4Ch + 1Ch Mic (Ext. Port)
- Audio Out 2Ch (1Ch + 1 Ch Speaker, Ext. Port)
- External GPS Support
- Alarm In 4TTL / Alarm Out 2 Relay
- USB 2.0 x 2 Ports in Front
- Support WiFi Dongle through USB Port
- Rugged Design and Fan-less Housing
- 10/100/1000 Ethernet Network
- Power Input : DC10V ~ DC30V
- PC Viewer, Monitoring Software (ACMS)

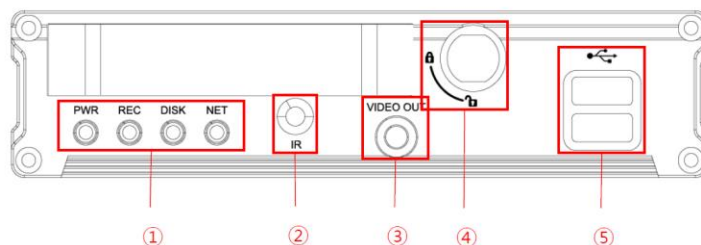


DVR SPECIFICATIONS

Interface		
Video	Input	4CH - AHD 1080P, 720P, 960H, D1
	Output	HDMI / CVBS
Audio	Input / Output	4CH + 1CH MIC (EXT. Port) / 1CH + 1CH Speaker (EXT.Port)
Alarm	Input / Output	4TTL / 2Relay
	Internal Buzzer	YES
Others	Ethernet	10/100/1000 Ethernet
	RS422C Port	4-pin Connect
	USB	USB2.0 Front 2 Ports
Record		
Compression (Video / Audio)		H.264 / G.711
Recording Resolution		Max. 120fps@1080P
General		
Electrical	Power Input	DC 10V ~ 30V, 500mA
Environmental	Operating Temp.	-20°C ~ + 70°C (-4°F ~ + 140°F)
	Humidity	0 ~ 90% RH (Non Condensing)
Mechanical	Dimension(mm)	160(W) x 165(D) x 47(H)mm
	Weight	Approx. 1.1kg(W/SD Card)
Language		English, Korean
Certi.	EMC/Safety	CE, FCC, E-mark, KC
Storage	Primary Storage	1 SATA SSD or 1 HDD
	Max. Storage	Max. 2TB x 1
	Data Export Device	USB Flash Drive
	Display Rate	Real-time Display
Monitoring	Display Mode	1, 4
	Pentaplex	Live, Record, Playback, Backup, Network
	Color Control	Brightness, Contrast, Color

HMR-C704

Front Panel Functions



①. Front LED indicators

- PWR : While booting, GREEN LED flickering > after booting, GREEN LED ON
- REC: While Recording, RED LED ON
- DISK: Disk mounted > ORANGE LED flickering
- NET: Network connected > GREEN LED ON

②. Remote controller IR receiver

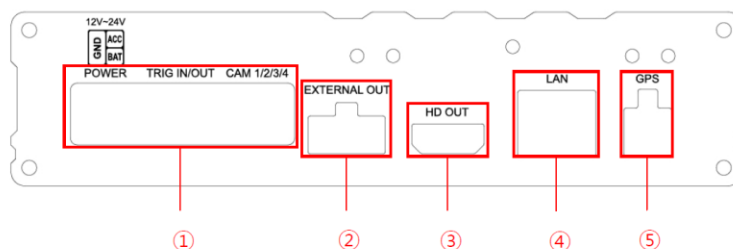
※ Please make sure not to block the IR receiver.

③. Video Out: Video Out connector

④. Key Lock: Lock a storage disk like SSD or HDD

⑤. USB port: a port for USB memor, mouse, wifi dongle

Rear Panel Functions



① POWER, TRIG IN/OUT, CAM 1/2/3/4: 40Pin Connector

- POWER: 4Pin power cable
- TRIG IN/OUT: Trigger 8 inputs, 2 outputs
- CAM 1/2/3/4: Camera CH 1 ~ CH 4 Video/Audio Inputs
- RCA VIDEO, AUDIO outputs

② EXTERNAL OUT : Speaker, Mic, and other outputs connector

③ HD OUT : HD video out connector

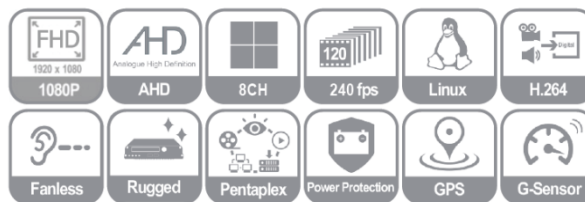
④ LAN : Network connection via Ethernet

⑤ GPS : G-MOUSE connector



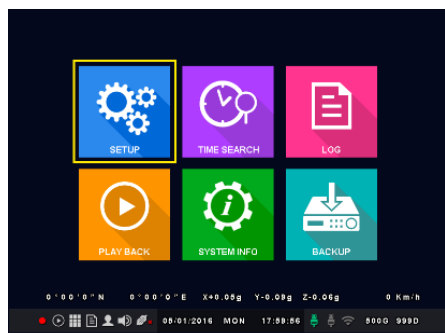
HMR-C708

Mobile FULL HD Digital Video Recorder
(4Ch, 1080p Real-time, HDMI)



FEATURES

- 8Ch Mobile DVR (Full HD, 1080p Resolution)
- Video Input : 8Ch – AHD 1080P, 720P, 960H, D1
- 240/200ps@1080p Real-time Recording, Display & Playback, 30/25fps/Ch@1080P
- 2 x 2.5" HDD or 2 x SSD Selectable
- SD Card slot for Event Recording
- 1 HDMI Video Out & 1 CVBS Video Out
- Storage Capacity : Max. 4TB (2TB x 2)
- Audio In 8Ch + 1Ch Mic. (Ext Port)
- Audio Out 1Ch + 1Ch Speaker (Ext Port)
- Alarm In 8TTL / Alarm Out 4 Relay
- Supports WiFi Dongle through USB Port
- 10/100/1000 Ethernet Network
- External GPS (4 Pin G-Mouse Type)
- PC Viewer, Monitoring Software (ACMS)

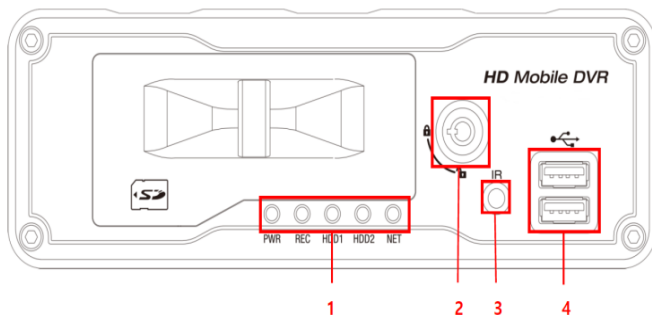


DVR SPECIFICATIONS

Interface		
Video	Input	8CH - AHD 1080P, 720P, 960H, D1
	Output	HDMI / CVBS
Audio	Input / Output	8CH + 1CH MIC (EXT. Port) / 1CH + 1CH Speaker (EXT. Port)
Alarm	Input / Output	8 TTL / 4 Relay
	Internal Buzzer	YES
Others	Ethernet	10/100/1000 Ethernet
	USB	USB2.0 Front 2 Ports / Back 1 Port
Record		
Compression(Video / Audio)		H.264 / G.711
Recording Resolution		Max. 240/200fps@1080P, 30fps/CH
General		
Electrical	Power Input	DC 10V ~ 30V, 500mA
Environmental	Operating Temperature	-20°C ~ + 70°C (-4°F ~ + 140°F)
	Humidity	0 ~ 90% RH (Non Condensing)
Mechanical	Dimension(mm)	182(W) x 175(D) x 62(H)mm
	Weight	Approx. 1.1kg (W/SD Card)
Language		English, Korean, Japanese, French
Certifi.	EMC/Safety	CE, FCC, E-mark, KC
Storage	Primary Storage	2 SATA SSD/HDD RACK
	Max. Storage	Max. 2TB HDD or SSD x 2 =4TB
	Data Export Device	USB Flash Drive
Monitoring	Display Rate	Real-time Display
	Display Mode	1, 4, 8
	Pentaplex	Live, Record, Playback, Backup, Network
	Color Control	Brightness, Contrast, Color

HMR-C708

Front Panel Functions



① Front LED indicators

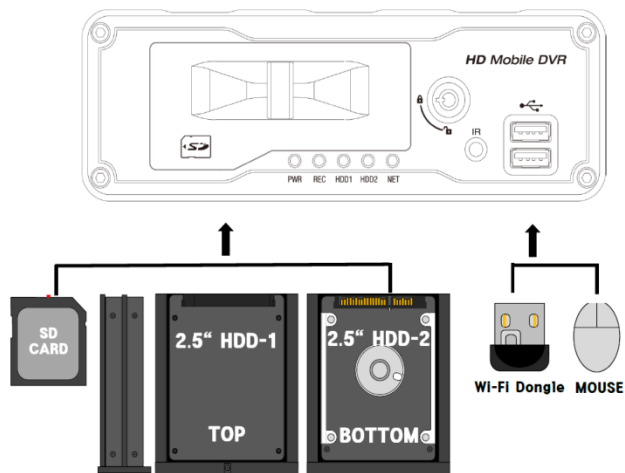
- PWR : POWER ON > Green LED on
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- NET: Network connected > Green LED on

② Key lock: HDD and SD card lock

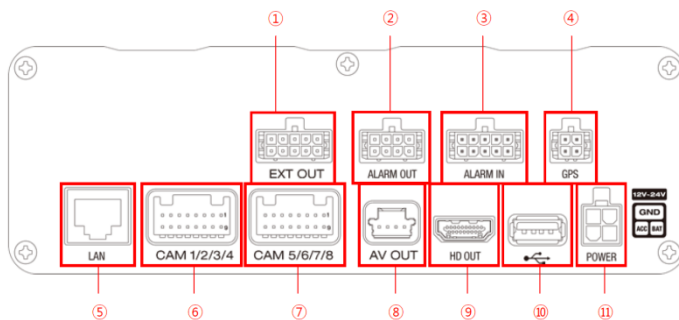
③ IR receiver for remote control

※ Make sure IR receiver is cleared and not blocked for remote control usage.

④ USB port: USB memory for upgrade and backup, USB mouse or WIFI dongle



Rear Panel Connections



① EXTERNAL OUT : 10 PIN / SPEAKER OUT, MIC IN, IR IN Connection

② Alarm Out : 8 PIN / Alarm Out Relay Connector

③ Alarm In : 10 PIN / Alarm In Relay Connector

④ GPS : 4 PIN / G-MOUSE Connector

⑤ LAN : RJ-45 / Ethernet Connection (10/100/1000)

⑥ CAM 1/2/3/4 : 16 PIN / Camera 1CH – 4CH VIDEO/AUDIO INPUT Connector

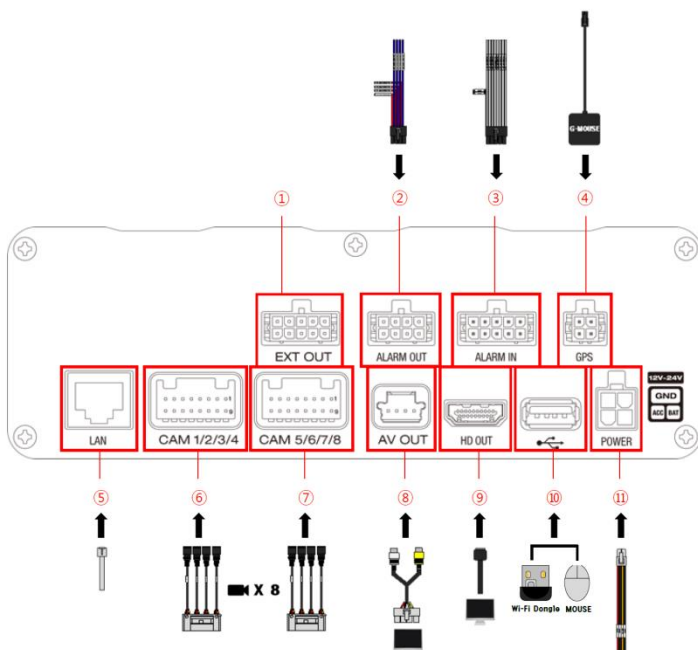
⑦ CAM 5/6/7/8 : 16 PIN / Camera 5CH – 8CH VIDEO/AUDIO INPUT Connector

⑧ A/V OUT : 4 PIN VIDEO / AUDIO OUTPUT Connector

⑨ HD OUT : 19 PIN / HD Video Out Connector (HDMI Output)

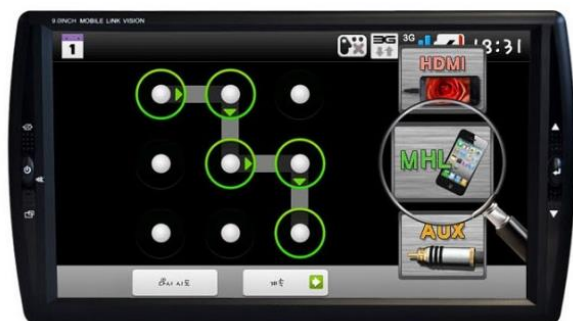
⑩ USB Port : USB Memory, Mouse , WiFi Dongle Connection

⑪ POWER : 4 PIN Power Connector





VEHICLE MONITOR



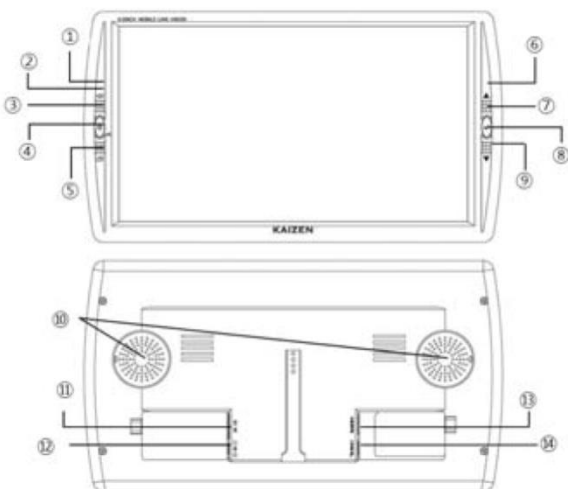
9 INCHES WVGA TFT LED HDMI MONITOR (HDMI Input)

HVM-09

FEATURES

- 9" WVGA Transparent TN LED Monitor
- 800(H) x 3(RGB) x 480(V) Resolution
- 1 x Mini HDMI Input, 1 x AUX Input
- 1 x USB Socket with Auto-Recharge for Smartphone
- Suitable for HD Resolution System (16:9 Ratio)
- Power Input : DC14.4V
- Operating Power Range : DC 10V ~ 28V
- Automatic Light Sensor (Dimming Control)
- Rear Camera Auto Detection (Video)
- 2Ch Speakers Built-in (4W = 2W x 2)
- Dashboard Mount Bracket, Remote Controller Include
- Option : HDMI Cable, Cigar Jack Power Cable

DIMENSION



MONITOR SPECIFICATIONS

MONITOR

Screen Size	9.0 Inches
LCD	Transparent TN LCD Panel
Driver	TFT Active Matrix
Quality	WVGA
Total Pixels	1,152 M Pixels
Effective Pixels	99.9%
Back Lighting	LED BLU
Brightness	480cd

GENERAL

Input Power	DC 14.4V
Operating Range	DC 10V ~ DC 28V / 800mA @ DC12V
Ground	Negative Ground
Dimension	239 (H) x 133 (V) x 22 (T)mm
Weight	440g (Monitor Only)
Operating Temp.	-20° C ~ +70°C

- | | |
|-----------------------|-------------------------|
| ① Dimming Sensor | ② Power LED |
| ③ Source Button | ④ Power / Mute |
| ⑤ Menu Button | ⑥ Remote control sensor |
| ⑦ Volume Up Button | ⑧ Select Button |
| ⑨ Volume Down Button | ⑩ Speaker Hole |
| ⑪ A/V Input Connector | ⑫ ACC Power Input |
| ⑬ HDMI Connector | ⑭ MHL Connector |

MLV-900

9 INCHES WVGA TFT LED HDMI MONITOR (HDMI Input)

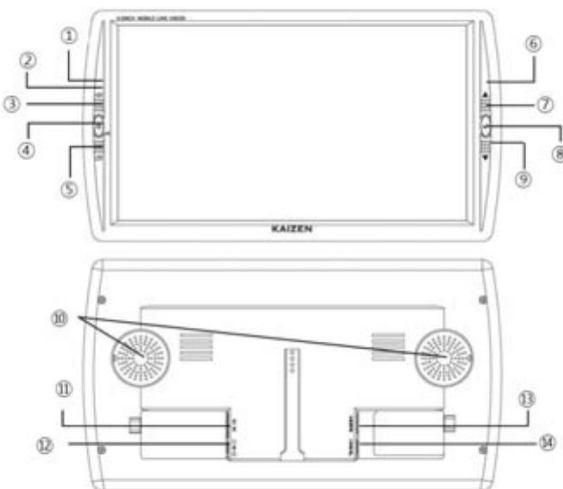
Design



Key Features

- 9" WVGA Transparent TN LED Monitor
- 800(H) x 3(RGB) x 480(V) Resolution
- 1 x Mini HDMI Input, 1 x AUX Input
- 1 x USB Socket with Auto-Recharge for Smartphone
- Suitable for HD Resolution System (16:9 Ratio)
- Power Input : DC14.4V
- Operating Power Range : DC 10V ~ 28V
- Automatic Light Sensor (Dimming Control)
- Rear Camera Auto Detection (Video)
- 2Ch Speakers Built-in (4W = 2W x 2)
- Dashboard Mount Bracket, Remote Controller Include
- Option : HDMI Cable, Cigar Jack Power Cable

Functions



Technical Specifications

Model		MLV-900
MONITOR		
Screen Size	9.0 Inches	
LCD	Transparent TN LCD Panel	
Driver	TFT Active Matrix	
Quality	WVGA	
Total Pixels	1,152 M Pixels	
Effective Pixels	99.9%	
Back Lighting	LED BLU	
Brightness	480cd	
GENERAL		
Input Power	DC 14.4V	
Operating Range	DC 10V ~ DC 28V / 800mA @ DC12V	
Ground	Negative Ground	
Dimension	239 (H) x 133 (V) x 22 (T)mm	
Weight	440g (Monitor Only)	
Operating Temp.	-20° C ~ +70°C	

- ① Dimming Sensor
- ② Power LED
- ③ Source Button
- ④ Power / Mute
- ⑤ Menu Button
- ⑥ Remote control sensor
- ⑦ Volume Up Button
- ⑧ Select Button
- ⑨ Volume Down Button
- ⑩ Speaker Hole
- ⑪ A/V Input Connector
- ⑫ ACC Power Input
- ⑬ HDMI Connector
- ⑭ MHL Connector