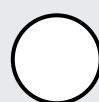




Automotive Components
DashCam



PRODUCT

overview

Cloud Dashcam

Wi-Fi communication type Dashcam

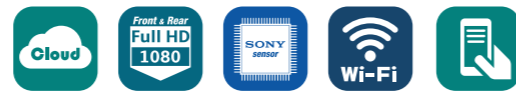


Cloud Dashcam
HONOR



■ Features

- Cloud service
- (Front+Rear) FULL HD 30fps 2CH
- WDR feature built in
- H.264/ ADPCM
- Wi-Fi smart phone connection(Available for tethering)
- 128GB SD included



Live view(Front+Rear) & Location indication on map



Video recording location indication stored on cloud



Display driving-info by date/ time statistically



Convenient settings from your smartphone

■ Specifications

Item	Content	Item	Content
Model name	HONOR	Format free	Yes
Size (mm)	104(W)mm X 70(H)mm X 32.5(D)mm	Weight	123g (including cradle)
Display pannel	3.5inch IPS touch LCD (480 × 320)	Wi-Fi module	External (USB Type) 2.4GHz (optional)
Memory capacity	microSD (8GB to 128GB)	GPS	External GPS port(option)
Resolution	Front FHD (1920x1080) Rear FHD (1920x1080)	Firmware updatemethod	Micro SD card update support
Image sensor	Front camera : Sony Image Sensor Rear camera : Sony Image Sensor	Viewer	There is a dedicated viewer (using Google Maps)
Frames per second	1CH front MAX.30fps 2CH front MAX.30fps, rear MAX.30fps	SD Card format function	Yes
Recording method	Normal: Normal Mode + Event Mode	Power consumption	Max 2.8W
Compression method	H.264 / PCM	Accelerometer	Built-in (alarm when driving according to set value)
Input power	12~24V support	Recording function	Yes
Backup power	Super cap embedded	Operating temperature	-10℃~+60℃
Speaker	Built-in	Storage temperature	-20℃~+70℃

Full HD / Full HD 2CH
MK10W



■ Features

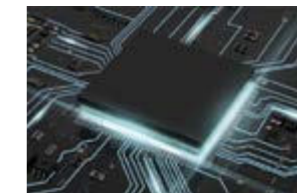
- FHD camera(Front) & FHD camera(Rear)
- Wi-Fi communication type dashcam
- GPS embedded for vehicle location, speed
- High image quality and sensing technology installed!
- Format free!
- Night vision installed!



Real-time video check on smartphone



Convenient settings from your smartphone



SONY Image Sensor



Format free!

■ Specifications

Item	Content	Item	Content
Model name	MK10W	Format free	Yes
Size (mm)	104(W)mm X 65(H)mm X 35(D)mm	Weight	123g (including cradle)
Display pannel	3.5inch IPS touch LCD (480 × 320)	Wi-Fi module	Embedded
Memory capacity	microSD (8GB to 64GB)	High-temperature blocking	Embedded
Resolution	Front FHD (1920x1080) Rear FHD (1920x1080)	Firmware updatemethod	Micro SD card update support
Image sensor	Front camera : Sony Image Sensor Rear camera : Sony Image Sensor	Viewer	There is a dedicated viewer (using Google Maps)
Frames per second	1CH front MAX.30fps 2CH front MAX.30fps, rear MAX.30fps	SD Card format function	Yes
Recording method	Normal: Normal Mode + Event Mode Parking: Front/ Rear motion detect + Event Mode)	Power consumption	Max 2.8W
Compression method	H.264 / PCM	Accelerometer	Built-in (alarm when driving according to set value)
Input power	12~24V support	Recording function	Yes
Backup power	Super cap embedded	Discharge protection low-voltage	Built-in
Speaker	Built-in	Operating temperature	-10℃~+60℃
GPS	External GPS port(option)	Storage temperature	-20℃~+70℃

Wi-Fi 2CH full HD Dashcam WFF-800C



■ Features

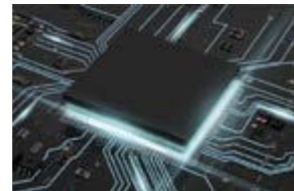
- FHD camera(Front) & FHD camera(Rear)
- Wi-Fi dashcam connected with smartphone
- GPS embedded
- High image quality and sensing technology installed!
- ADAS(Advanced Driver Assistance System) installed!
- Night vision installed!



Real-time video
check on smartphone



Convenient settings from
your smartphone



SONY Image Sensor



Format free!

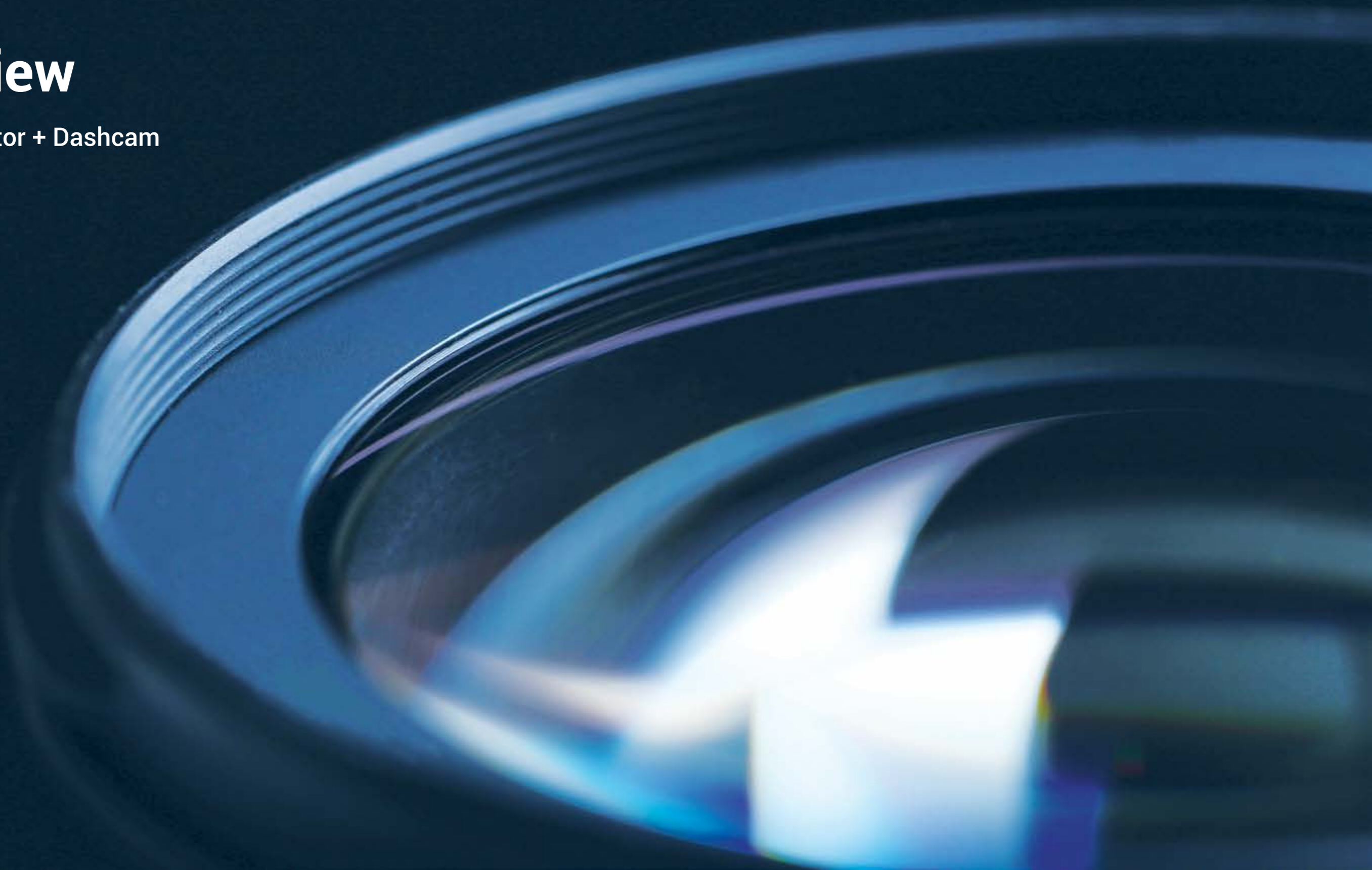
■ Specifications

Item	Content	Item	Content
Model name	WFF-800C	Format free	Yes
Size (mm)	97(W)mm X 47(H)mm X 33(D)mm	Weight	123g (including cradle)
Memory capacity	microSD (16GB to 64GB) class 10 or higher	Firmware update method	Micro SD card update support
Resolution	Front/Rear FHD (1920x1080)	Viewer	There is a dedicated viewer (using Google Maps)
Image sensor	Front camera : SONY IMX307 Rear camera : SONY IMX323	Wi-Fi module	Embedded
Frames per second	1CH front MAX.30fps 2CH front MAX.30fps, rear MAX.30fps	Power consumption	Max 4.8W
Recording method	Normal: Normal Mode + Event Mode Parking: Front/ Rear motion detect + Event Mode	Accelerometer	Built-in (alarm when driving according to set value)
Video encoding	H.264 / PCM	Recording function	Yes
Input power	12~24V support	Discharge protection low-voltage	Support
Backup power	Super cap embedded	Play video	MK10W video player, App on smartphone
Speaker	Built-in	Operating temperature	-10℃~+60℃
GPS module	Embedded	Storage temperature	-20℃~+70℃

PRODUCT

overview

Radar Detector + Dashcam



Radar Detector + Dashcam
ADR-22



■ Features

- Front/Rear Full HD (1920x1080)
- Wi-Fi dashcam connected with smartphone
- GPS embedded for vehicle location, speed
- High image quality and sensing technology installed!
- ADAS(Advanced Driver Assistance System) installed!
- Night vision installed!
- Anti-CAS



Wi-Fi dashcam connected with smartphone



Anti-CAS
Anti-CAS(Offering the least amount of false alerts from Collision Avoidance Systems(CAS) in other vehicles)



SONY STARVIS Sensor



GPS detection for speed camera location

■ Specifications

Item	Content	Item	Content
Model name	ADR-22	Alarm	Yes
Size(mm)	84(W)mm X 40(H)mm X 92(D)mm	Viewer	Available for PC Viewer(only), smartphone
CPU	SAV833D	Wi-Fi module	Yes (Wi-fi enabled to View, Share & Edit Videos)
Image sensor	Sony 2M Starvis (IMX307)	GPS module	Built-in GPS (Alarm while driving)
Angle of view	140°(D) X 115°(H) X 60°(V)	Acceleration sensor	Acceleration sensor
Resolution	Front/Rear FHD (1920x1080)	Recording function	Yes (On / Off)
Frames per second	1CH front MAX.30fps 2CH front MAX.30fps, rear MAX.30fps	Voice recording and voice guidance	Yes (On / Off)
Recording method	Normal recording / Event recording / Manual recording	Radar frequency	X-band (10.525GHz ±25MHz)
Video encoding	H.264 / ADPCM		K-band (24.150GHz ±100MHz)
Display panel	1.54inch IPS LCD (240 X 240)		Ka-band (34.700GHz ±1300MHz)
Display brightness	2step brightness	Radar sensitivity setting	High / Middle / Low
Setting button	Button (4ea)	Anti CAS	Yes
Speaker	Embedded	Key setting	Sensitivity setting / Mute
Memory capacity	microSD (8GB to 64GB)	Input power	12V (Only)
Recording time	TBD	Power consumption	TBD
Format free	Yes	Operating temperature	-10°C~+60°C
Video playback	Available for PC Viewer(only), smartphone	Storage temperature	-20°C~+70°C
AV output	No	Laser wavelength	800~1100nm

Radar Detector + Dashcam
GWC-1000



■ Features

- Front/Rear Full HD (1920x1080)
- Wi-Fi dashcam connected with smartphone
- GPS embedded for vehicle location, speed
- High image quality and sensing technology installed!
- ADAS(Advanced Driver Assistance System) installed!
- Night vision installed!
- Anti-CAS



Wi-Fi dashcam connected with smartphone



Anti-CAS
Anti-CAS(Offering the least amount of false alerts from Collision Avoidance Systems(CAS) in other vehicles)



SONY STARVIS Sensor



GPS detection for speed camera location

■ Specifications

Item	Features	Content
Core	CPU	Format free
	RAM	Weight
Display	LCD	Firmware updatemethod
Front FHD	Sensor	1/2.8 inch CMOS (Sony IMX307)
	Resolution/ Frame	1920*1080 / 30fps
Port	DC Power	DC 12~24V
	Storage Slot	Micro SD card
Port	Radar Detector	X-band : 10.525GHz (±50MHz) K-band : 24.150GHz (±150MHz) Laser : 800~1100nm
	Backup Battery	Li-Polymer, 380mAh
	Acceleration Sensor	3axis ±2G
	Microphone	Built-in
	Speaker	Max. 0.8W mono
	Storage	8~64 GB (Class 10)
	Size and Weight	Main Size / Weight
Power	Operating Voltage	12~24V
	Consumption Current	320mA
Temperature	Operating Temp	-10°C~+60°C
	Storage Temp	-20°C~+70°C

Item	Features	Content	
Basic	OS	Format free	
	Video Encoding	Weight	
	Audio Encoding	Firmware updatemethod	
	Camera		Sony IMX307
			125°
			1920 * 1080 / 30fps
	Storage Slot	Micro SD card	
	File name format		NF_TTMMDD-HHMMSS.AVI (AllTime Recording)
			EF_TTMMDD-HHMMSS.AVI (Impact Recording)
			MF_TTMMDD-HHMMSS.AVI (ManualRecording)
		PF_TTMMDD-HHMMSS.AVI (Battery Recording)	
		*YYMMDD: Year/Month/Day *HHMMSS: Hour/Minute/Second	
Event Recording	Max Previous 10 sec, Total 20sec (configurable)		
Recording Time	1Min,3Min,5Min		
Folder	AllTime / EVENT / PROTECT		
File Constructure	Video + Audio + GPS+G-sensor in one file		
File System	FAT32 with journaling, Fixed file size Cluster size 64kB		
Function	Play Back	Single playback/FF/RW/Pause/Play	
	Storage	8~64 GB (Class 10)	

PRODUCT

overview

Smart mirror Dashcam
fork lift Dashcam



Smart mirror MI-1000



■ Features

- Smart mirror feature for dashcam (Smart mirror body + (Front+Rear) Full HD)
- SONY STARVIS Sensor
- HDR built in
- 9.35inch wide IPS LCD
- Night vision installed!



(Front+Rear) FULL HD 30fps 2CH



HDR built in
(Possible to record clearly even with various illumination changes)



High definition



SONY STARVIS Sensor

■ Specifications

Item	Content	Item	Content
Model name	MI-1000	Format free	Yes
Size (mm)	265(W)mm X 76.3(H)mm X 24(D)mm	Weight	362g
Display pannel	9.35inch Wide IPS	HDR	Yes
Memory capacity	microSD (8GB~64GB)	GPS	External GPS port(option)
Resolution	Front FHD (1920x1080) Rear FHD (1920x1080)	Firmware updatemethod	Micro SD card update support
Image sensor	Front camera : Sony Image Sensor Rear camera : Sony Image Sensor	Viewer	There is a dedicated viewer (using Google Maps)
Frames per second	1CH front MAX.30fps 2CH front MAX.30fps, rear MAX.30fps	SD Card format function	Yes
Recording method	Infinite loop(normal) recording/ Infinite loop (normal) + Event/ Quick recording Infinite loop(normal) recording/ Motion/ Infinite loop(normal) + Event/ Motion+Event(When Parking)	Power consumption	Max 2.8W
Viewing angle	(Front+Rear): 117.9(H) X 62.2 (V) X 141(D)	voice recording	Yes
Compression method	H.264 / PCM / Still frame JPEG	3G Sensor	Yes (Impact sensitivity: 10steps)
Input power	12~24V support	Recording function	Yes
Backup power	Super cap embedded	Operating temperature	-10°C~+60°C
Speaker	Built-in	Storage temperature	-20°C~+70°C

fork lift Dashcam MF-1000



■ Features

- Possible to mount on any forklift
- Compact design for easy installation
- Waterproof for indoor/outdoor



(Front+Rear) FULL HD 30fps 2CH



Waterproof for indoor / outdoor use.



Compact design for easy installation



SONY STARVIS Sensor

■ Specifications

TBD (To Be Determined)

PRODUCT

overview

2CH Full HD Dashcam



Front/Rear Full HD
W2



■ Features

- FHD camera(Front) & FHD camera(Rear)
- Soda air(CO2) measurement
- Time lapse
- External GPS port(option)
- High image quality and sensing technology installed!
- Format free
- Night vision installed!



Front/Rear Full HD (1920x1080)



Soda air(CO2) measurement



SONY Image Sensor



ADAS installed!

■ Specifications

Item	Content	Item	Content
Model name	W2	Format free	Yes
Size (mm)	105(W)mm X 70(H)mm X 34.5(D)mm	Weight	140g (including cradle)
Display pannel	3.5inch touch LCD (480 x 320)	High-temperature blocking	Embedded
Memory capacity	microSD (8GB to 64GB)	Firmware updatemethod	Micro SD card update support
Resolution	Front FHD (1920 x 1080) Rear FHD (1920 x 1080)	Viewer	There is a dedicated viewer (using Google Maps)
Image sensor	Front camera : Sony Image Sensor Rear camera : Sony Image Sensor	SD Card format function	Yes
Frames per second	1CH front MAX.30fps 2CH front MAX.30fps, rear MAX.30fps	Power consumption	Max 4.2W
Recording method	Normal: Normal Mode + Event Mode Parking: Front/ Rear motion detect + Event Mode, Time lapse)	Acceleration sensor	Support for a 3-axis acceleration sensor
Compression method	H.264 / PCM	Recording function	Yes
Input power	12~24V support	Discharge protection low-voltage	Built-in
Backup power	Super cap embedded	Security LED	Yes
Speaker	Built-in	Operating temperature	-10°C~+60°C
GPS	External GPS port(option)	Storage temperature	-20°C~+70°C

SFHHD / HD 2CH
SH-300M



■ Features

- 2K Resolution & Super premium dashcam
- ADAS installed! (LDWS) / (FCWS) / (FVSA)
- External GPS port(option)
- Format free!
- Night vision installed!



SFHHD / HD 2CH



Night vision installed!



ADAS installed!



Format free!

■ Specifications

Item	Content	Item	Content
Model name	SH-300M	Format free	Yes
Size (mm)	111(W)mm X 69(H)mm X 35.5(D)mm	Weight	128g (including cradle)
Display pannel	3.5inch touch LCD (480 x 320)	High-temperature blocking	Embedded
Memory capacity	microSD (8GB to 64GB)	Firmware updatemethod	Micro SD card update support
Resolution	Front SFHHD (2304 x 1296) Rear HD (1280x720)	Viewer	There is a dedicated viewer (using Google Maps)
Image sensor	Front camera : SFHHD CMOS Sensor Rear camera : HD CMOS Sensor	SD Card format function	Yes
Frames per second	1CH front MAX.30fps 2CH front MAX.30fps, rear MAX.30fps	Power consumption	Max 3.2W
Recording method	Normal: Normal Mode + Event Mode Parking: Front/ Rear motion detect + Event Mode, Time lapse)	Accelerometer	Built-in (alarm when driving according to set value)
Compression method	H.264 / PCM	Recording function	Yes
Input power	12~24V support	Discharge protection low-voltage	Built-in
Backup power	Super cap embedded	Security LED	Yes
Speaker	Built-in	Operating temperature	-10°C~+60°C
GPS	External GPS port(option)	Storage temperature	-20°C~+70°C

SFHD / HD 2CH
M1



■ Features

- SFHD camera(Front) & HD camera(Rear)
- TLDS (Traffic lights detection system)
- External GPS port(option)
- High image quality and sensing technology installed!
- Format free
- Night vision installed!



SFHD High image quality



TLDS (Traffic lights detection system)



Front Vehicle Start Alarm(FVSA)



GPS detection for speed camera location

■ Specifications

Item	Content	Item	Content
Model name	M1	Format free	Yes
Size (mm)	106(W)mm X 66.8(H)mm X 38.4(D)mm	Weight	123g (including cradle)
Display pannel	3.5inch touch LCD (480 × 320)	High-temperature blocking	Embedded
Memory capacity	microSD (8GB to 64GB)	Firmware updatemethod	Micro SD card update support
Resolution	Front SFHD (2304 x 1296) Rear HD (1280 x 720)	Viewer	There is a dedicated viewer (using Google Maps)
Image sensor	Front camera : Prime CMOS Sensor Rear camera : Clairpixel CMOS AHD Sensor	SD Card format function	Yes
Frames per second	1CH front MAX.30fps 2CH front MAX.30fps, rear MAX.30fps	Power consumption	Max 4W
Recording method	Normal: Normal Mode + Event Mode Parking: Front/ Rear motion detect + Event Mode)	Acceleration sensor	Support for a 3-axis acceleration sensor
Compression method	H.264 / PCM	Recording function	Yes
Input power	12~24V support	Discharge protection low-voltage	Built-in
Backup power	Super cap embedded	Security LED	Yes
Speaker	Built-in	Operating temperature	-10℃~+60℃
GPS	External GPS port(option)	Storage temperature	-20℃~+70℃

Full HD / HD 2CH
F2



■ Features

- FHD camera(Front) & FHD camera(Rear)
- Wi-Fi communication type dashcam
- GPS embedded for vehicle location, speed
- High image quality and sensing technology installed!
- ADAS(Advanced Driver Assistance System) installed!
- Night vision installed!



TLDS (Traffic lights detection system)



GPS detection for speed camera location



Front Vehicle Start Alarm(FVSA)



Format free!

■ Specifications

Item	Content	Item	Content
Model name	F2	Format free	Yes
Size (mm)	104(W)mm X 65(H)mm X 36.5(D)mm	Weight	125g (including cradle)
Display pannel	3.5inch touch LCD (480 × 320)	High-temperature blocking	Embedded
Memory capacity	microSD (8GB to 64GB)	Firmware updatemethod	Micro SD card update support
Resolution	Front FHD (1920 x 1080) Rear HD (1280 x 720)	Viewer	There is a dedicated viewer (using Google Maps)
Image sensor	Front camera : Prime CMOS Sensor Rear camera : Clairpixel CMOS AHD Sensor	SD Card format function	Yes
Frames per second	1CH front MAX.30fps 2CH front MAX.30fps, rear MAX.30fps	Power consumption	Max 4W
Recording method	Normal: Normal Mode + Event Mode Parking: Front/ Rear motion detect + Event Mode)	Acceleration sensor	Support for a 3-axis acceleration sensor
Compression method	H.264 / PCM	Recording function	Yes
Input power	12~24V support	Discharge protection low-voltage	Built-in
Backup power	Super cap embedded	Security LED	Yes
Speaker	Built-in	Operating temperature	-10℃~+60℃
GPS	External GPS port(option)	Storage temperature	-20℃~+70℃

