

CAMMSYS

AUTOMOTIVE PRODUCTS 2015

CONTENTS

COMPANY PROFILE

DASH-CAM

360° SURROUND VIEW MONITORING SYSTEM

OBD (On-Board Diagnostics)

TPMS (Tire Pressure Monitoring System)

CAR CAMERA (Vehicle-mounted camera)

COMPANY PROFILE



Mobile Camera Module and Automotive Products Manufacturer

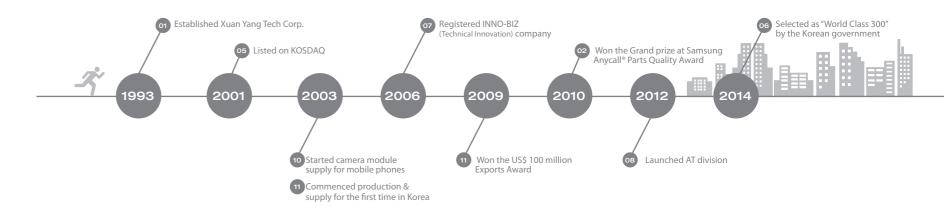
CAMMSYS CORP. is one of the professional mobile camera module makers in global market ranked global top 7.

With our proven quality control and know-how on camera module, we have been developing and producing automotive products range from Dashcam, Rear camera to Surround View Monitoring System and real-time tracking system since 2012. Besides, ADAS(Advanced Driver Assistance System) have been under development for the safe and intelligent driving.

As a listed company in stock market (KOSDAQ, 2001) and a part of group, we are proud of financial stability, rich R&D and quality control system. we export to America, Europe and Asia with more than 20 countries including Samsung Mobile and Japanese Top brand.

By running 4 factories and 2 sales offices in Korea, China and Vietnam, CAMMSYS employs about 3,375 people and achieved sales of over 396 Million US dollars in 2014.

Experience advanced driving technology with **CAMMSYS**.



DASH-CAM

BlackSys Dash-cam	CL-100B (FHD-HD 4" IPS LCD)	BL-100N (HD-VGA 3.5" LCD)	CH-100 (FHD & HD)	BH-300 (HD 1CH)
Channel	2CH	2CH	2CH	1CH
Camera	Front : Full HD (1920x1080)	Front : HD (1280x720)	Front : Full HD (1920x1080)	HD (1280x720)
	Rear : HD (1280x720)	Rear : HD (640x480)	Rear : HD (1280x720)	
Image Sensor	2.0M Sony Exmor CMOS Sensor	1.0M CMOS Sensor	2.1M Sony Exmor CMOS Sensor	2.0M CMOS Sensor
Angle of View	Front: 130° / Rear: 120°	Front: 120° / Rear: 120°	Front: 135° / Rear: 130°	Front: 120°
Display	4" Full Touch IPS LCD	3.5" Full Touch LCD		
	800 x 480	480 x 320		
Frame	Front : 25 fps	Front : 20 fps	Front : 30 fps	30 fps
	Rear: 25 fps	Rear: 10 fps	Rear: 30 fps	
Memory	Micro SD card (16GB~32GB)	Micro SD card (16GB~32GB)	Micro SD card (16GB~128GB)	Micro SD card (8GB~32GB)
GPS	SiRF4 (External)	SiRF4 (External)	Dual Band GPS (GPS+GLONASS)	SiRF4 (External)
Mic	Voice Guide / Recording			
Basic Functions	Low Voltage Cut-off	Low Voltage Cut-off	Low Voltage Cut-off	Low Voltage Cut-off
	High Temperature Cut-off	High Temperature Cut-off	High Temperature Cut-off	High Temperature Cut-off
	Various Recording mode (Normal, Parking, Event, Manual)			
	Motion Detection Parking mode			
	Security LED	Security LED	Security LED	Security LED
Specialized Func- tions	OBD II & TPMS Support	TPMS Support	WI-FI with BlackSys App (Android & iOS)	TAT Format Free
	Dual CPU (Front & Rear)	10 Hours recording	21 Multi-language voice guide	
	Super Capacity Backup Battery	Super Capacity Backup Battery	Super Capacity Backup Battery	

DASH-CAM | CL-100B / BL-100N



BL-100N (2 CH HD-VGA 3.5" LCD)

- 1.3 MP Resolution
- Front: 1280 x 720 (HD) / Rear: 640 x 480 (VGA)
- 3.5" Full Touch LCD
- 20 fps / 10 fps (Max. 30fps)
- TPMS (Tire Pressure Monitoring System) (Option)
- 10h continuous recording time.
- 3 steps Low voltage cut-off (11.8V / 12V / 12.2V)
- High temperature cut-off
- Various recording (Normal, Parking, Event, Manual)
- Motion Detection
- Security LED function
- Voice recording / Guidance
- UP TO 15M Rear cable for Bus & Truck
- Super Capacity (Backup battery)

CL-100B (FHD-HD 4" IPS LCD)

- FHD(Front): 1920 x 1080 / HD(Rear): 1280 x 720
- OBD II Smart Car-Care
- 4" IPS Full Touch LCD (800 x 480)
- User friend GUI
- 25fps / 25 fps
- Dual CPU (Front & Rear)
- Picture in Picture
- SONY Exmor Sensor
- 3 steps Low voltage cut-off (11.8V / 12V / 12.2V)
- High temperature cut-off
- Various recording (Normal, Parking, Event, Manual)
- Security LED function
- Voice recording / Guidance



DASH-CAM | CH-100



CH-100 (2CH FHD-HD WI-FI)

- Front: Full HD (1920x1080) / Rear: HD (1280x720)
- Sony Exmor CMOS Sensor
- 30fps / 30fps
- Micro SD card up to 128GB (Memory Allocation Function)
- 21Multi-language Voice guide support
- WI-FI 802.11 b/g/n (2.4GHz) Dongle
- App for Android & iOS
- 4 steps Low Voltage Cut-off (11.8V / 12.0V / 12.2V / 12.4V)
- High Temperature Cut-off
- Various recording (Normal, Parking, Event, Manual)
- Motion Detection Parking Mode
- Security LED function
- Voice recording / Guidance



DASH-CAM | BH-300



BH-300 (1 CH HD Format Free)

- HD 1CH
- 2.0MP resolution (1280 * 720)
- TAT Solution
- Formalness Car DVR
- 3 steps Low voltage cut-off (11.8V / 12V / 12.2V)
- High temperature cut-off
- Various recording (Normal, Parking, Event, Manual)
- Motion Detection
- Security LED function
- Voice recording / Guidance

360° SURROUND VIEWMONITORING SYSTEM

360° SURROUND VIEW | AVM-100

360° SURROUND VIEW I AVM-100

AVM-100

Perfect Surround View Monitoring System

EASY DRIVING Safe on narrow path.

It helps driver to drive easy and safe on narrow path like entrance of underground parking lot.



SAFE DRIVING Check any obstructions on the road.

Drivers can avoid any obstructions in blind spot while parking.





360° SURROUND VIEW | AVM-100



One Touch Auto Calibration

All you need to calibrate four cameras is to touch the screen once. Using manual calibration, it usually takes more than 1 hour to calibrate four cameras. But auto calibration function shortens time less than 4 minutes.



<Others - More than 1 Hour>



<AVM-100 - 4Min. 30Sec.>



195° Wide Angle Lens

It provides wide angle of view using 195° ultra wide angle lens.





<Others>

<AVM-100>



Blind-Spot Correction

AVM-100 never misses the blind-spot at the corners of the vehicle using blind-spot algorithm.





<Others> <AVM-100>



Clear Image with Brightness Correction

AVM-100 corrects the brightness according to sun light or night lighting and provides consistent bight images.





<Before Brightness Correction> <After Brightness Correction>



360° SURROUND VIEW | AVM-100

Perfect Surround View Monitoring System

5 Different View Mode.







Top + FRONT VIEW

TOP + SIDE VIEW

TOP + REAR VIEW





FRONT FULL VIEW

REAR FULL VIEW

CAMMSYS AVM-100								
Typical Supply Voltage	12V ~ 24V (Free voltage)	Camera Angle	195°					
Power Consumption	>12W (With camera)	Weight (ECU)	612g + 22g (Bracket)					
Camera Input	NTSC, 4CH	Dimension (ECU)	144.7mm x 410mm x 42mm					
Video Output	NTSC, CVBS (SD) 2CH	Resolution	VGA [800 x 480]					
Operating Temperature	-30°C ~ +75°C	IP Classification	IP 69K					

OBD

OBD OS-100U



The Revolution of Dash-cam!

Now comes Smarter Dash-cam with Smart Car Care System CarNSys!

OBD(On-board Diagnostics) OS-100U

- Driving Information: Speed, RPM, Driving Distance, Driving Hours, Average Speed, Idling Hours
- Driver's Operating Info.: Brake pedal, Accelerator pedal, Position of Transmission Gear, Turn Signal, Steering angle
- Car Diagnosis(DTC) Information
- Real-time Vehicle voltage Information: Real-time indication of vehicle voltage and cut-off power
- Real-time coolant temperature Information : Warning for Coolant temperature and overheating
- Normal Power & Cut-off Low Voltage
- Ignition ON/OFF information : Date and time information of Ignition
- ECO-Driving Information
- Fuel consumption information : Average fuel consumption Fuel injection information
- Support OBD || for more than 95% of vehicles





TPMS

TPMS | TA-100/TA-100P/TA-200







TPMS (Tire Pressure Monitoring System)

Device that detects tire pressure and temperature and notices to driver while driving.

- 1. Prevent from vehicle accident due to lack of tire pressure.
- 2. Prevent from wasting fuel due to lack of tire pressure.
- 3. Improve driving safety by proper balance of tire pressure.

SPECIFICATION					
Frequency	433.92MHz				
Pressure range	0 ~ 60PSI				
Accuracy	Tire Pressure ±1 PSI / temperature ±2 °C				
Operating voltage	3.3 ~ 5V DC				
Operating temperature	-40 °C ~ 125 °C				
Dimensions	Diameter 20.5mm x height 20mm				
Weight	10g(±1g)				
Battery life	1~2 years				

CAR CAMERA

ITEM		Passenger Car	Truck & Bus	AVM Camera	Passenger(After)
Feature					
ELECTRONIC FEATURE	Oper. Voltage	DC 6.5V (DC6.0V ~ 9.0V)	DC 12.0V (DC9.0 ~ 16.0V)	DC 5.0V (DC4.5V ~ 5.5V)	DC 12.0V (DC9.0 ~ 16.0V)
	Oper. Current	100mA or less (at DC6.5V)	80mA or less (at DC12.0V)	130mA or less (at DC5.0V)	50mA or less (at DC12V)
VIDEO OUTPUT	Interface	CVBS(NTSC)	CVBS(NTSC)	CVBS(NTSC)	CVBS(NTSC)
	Capability	720(H)x487(V), 30fps	720(H)x487(V), 30fps	720(H)x487(V), 30fps	640(H)x480(V), 30fps
	View Angle	136°(H), 110°(V), 158°(D)	136°(H), 110°(V), 158°(D)	195°(H), 148°(V), 200°(D)	120°(H), 96°(V), 141°(D)
	Image Dir.	H:Mirror, V:Nor.	H:Mirror, V:Nor.	H:Nor., V:Nor.	Selectable
TEMP. Range	Oper. Temp.	-40°C ~ +80°C	-35℃ ~+80℃	-30°C ~+70°C	-30℃ ~+70℃
	Stor. Temp.	-40°C ~+85°C	-40°C ~+85°C	-40°C ~+85°C	-40°C ~+85°C
DIMENSION & Weight	W x H x D (Unit : mm)	24.0(W) x 24.0(H) x 26.8(D)	40.0(W) x 35.0(H) x 33.8(D)	21.0(W) x 21.0(H) x 24.5(D)	28.0(W) x 30.0(H) x 22.0(D)
	Weight	43g (w BRKT&Cable)	200g (w BRKT&Cable)	50g (w Cable)	50g (w Cable)

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