

Toward Global Top - Tier
Automotive Electronics Solution


CAMMSYS

AUTOMOTIVE PRODUCTS 2017

www.pna360.com

CAMMSYS

COMPANY PROFILE



Company	: CammSys Corp.
CEO	: Young-tae, Park
Established Date	: 01.30.1993
Capital	: US \$19.68M (12. 31. '15)
Employees	: 2,908
Core Business	: Camera Module, Automotive Electronic-IT, EV Power Train Parts, Security Solution
Location	: 26, Venture-ro 100beon-gil, Yeonsu-gu, Incheon, Korea
Homepage	: www.cammsys.net

HISTORY of GROWTH

- 1993.01 Established SunYang Tech Co., Ltd.
- 2001.05 **Listed on KOSDAQ**
- 2003.10 Started CM supply for Mobile Phones
- 2004.09 Established overseas subsidiary in China (Sun Yang DNT, Manufacturing Factory 1)
- 2009.07 Certified Samsung Electronics Quality assurance system
- 2010.03 **Changed name to 'CammSys'**
- 2012.06 Declared vision 'Work SMART, Smart CammSys'
- 2012.12 Acquired Sam Woo Electronics (in China) (Manufacturing Factory 3)
- 2013.06 Established overseas sales office in China (Shenzhen, Weihai)
- 2014.01 Established overseas subsidiary in Vietnam (CammSys VINA , Manufacturing Factory 2)
- 2014.01 **Certified Samsung Electronics High-Quality Supplier**
- 2014.03 Joined Samsung Electronics Partnership Group
- 2014.06 **Appointed World Class 300(Government certified 300 middle-sized business)**
- 2014.08 Acquired BEFS (Biometric Security Solution)
- 2014.11 Established overseas subsidiary in China (Sun Yang Optical)
- 2015.04 **Established Automotive Electronic IT R&D Center**
- 2016.06 Contracted with KT for distribution of security solution 'Wiz Stick'
- 2016.10 Announced technical cooperation with HASCO for FVCG

GLOBAL NETWORK

Employee :

3,168 (Head Office Employees : 234)

R&D Power :

3 Site R&D Center

120 Engineers

CAPA (Camera Module) :

China **7** M/Month

Vietnam **12** M/Month



Head Office / CM R&D Center



Location : Song-Do, Incheon, Korea
R&D Area : Camera Module
Patent : 40 (registration 33)

Automotive IT R&D Center



Location : Dong-Tan, Korea
R&D Area : Automotive Electronic-IT
EV Power train Parts
Patent : 21 (registration 1)

BEFS



Location : Gang-Nam, Seoul, Korea
R&D Area : Biometric Security Solution
Patent : 40 (registration 30)

Sun Yang DNT (Manufacturing Factory 1)



Location : Weihai Shandong, China
Main Product : Camera Module
CAPA : 7M/Month

Sam Woo Electronics (Manufacturing Factory 2)



Location : Weihai Shandong, China
Main Product : SMT
CAPA : 12M/Month

CammSys VINA (Manufacturing Factory 3)



Location : Vinh Phuc Province, Vietnam
Main Product : Camera Module
CAPA : 12M/Month

MAJOR BUSINESS PARTNER



SURROUND VIEW MONITOR SYSTEM
PANORAMA360 for PASSENGER



Blind-Spot Correction

PANORAMA 360 never misses the blind-spot at the corners of the vehicle using blind-spot algorithm.



<Others>

<Panorama 360>



195° Wide Angle Lens

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



<Others>



<Panorama 360>



Clear Image with Brightness Correction

PANORAMA 360 corrects the brightness according to sun light or night lighting, and provides consistent bright images.



<Before>

<After>

SURROUND VIEW MONITOR SYSTEM PANORAMA360 for COMMERCIAL



+ Applicable Vehicle



Fire engine



Emergency Ambulance



Motorhome



Truck



Large-sized bus

+ 7 Different View Mode



Top+Front View



Top+Rear View



Top+Left View



Top+Right View



Front Full View



Rear Full View



Full Top View

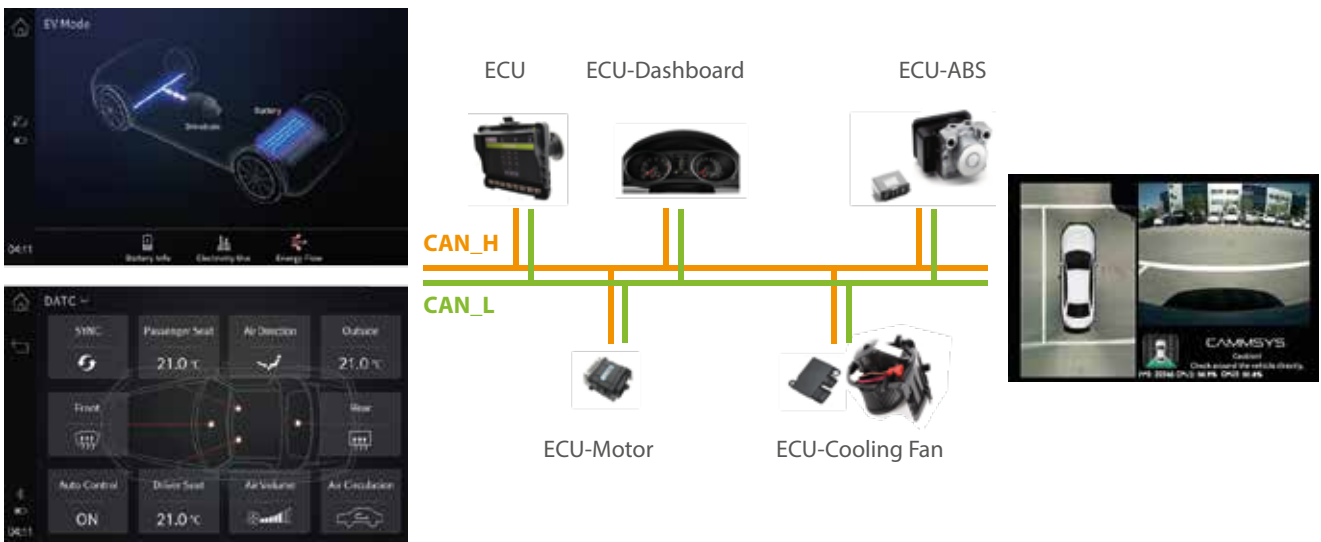
IN VEHICLE INFOTAINMENT SYSTEM

D-AUDIO



- Customization of features on display based on the vehicle
- I/O Ports and Interface for the conditioning, AVM and Cluster.
- Various solution for the Connected Car
- Simple & user friendly GUI for the intuitive control

+ D-Audio Connection figure



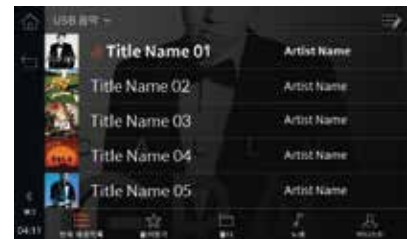
+ GUI (Graphical User Interface)



Home



Audio



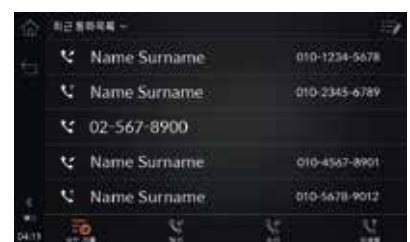
Audio List



Radio



Dial



Call History

CAR CAMERA

ITEM		Passenger Car	Truck & Bus	Passenger Car (KD)	Passenger Car (OEM)
Feature					
ELECTRONIC FEATURE	Oper. Voltage	DC 6.5V (DC6.0V ~ 9.0V)	DC 12.0V (DC9.0 ~ 16.0V)	DC 6.5V (DC6.0V ~ 7.0V)	DC 9.0V (DC5.0V ~ 16.0V)
	Oper. Current	100mA or less (at DC6.5V)	80mA or less (at DC12.0V)	100mA or less (at DC6.5V)	200mA or less (at DC9.0V)
VIDEO OUTPUT	Interface	CVBS(NTSC)	CVBS(NTSC)	CVBS(NTSC)	LVDS STP or PoC
	Capability	720(H)x487(V), 30fps	720(H)x487(V), 30fps	720(H) x 487(V), 30fps (Active Pixel : 640x480)	1280(H)x720(V) 30fps
	View Angle	136°(H), 110°(V), 158°(D)	136°(H), 110°(V), 158°(D)	190°(H)x120°(V) :Lens/Case Changeable	190°(H)x120°(V) :Lens/Case Changeable
	Image Dir.	H : Mirror, V : Nor.	H : Mirror, V : Nor.	H:Nor., V:Nor. : Negotiable	H:Nor., V:Nor. : Negotiable
TEMP. Range	Oper. Temp.	-40°C ~ +80°C	-35°C ~ +80°C	-30°C ~ +70°C	-40°C ~ +85°C
	Stor. Temp.	-40°C ~ +85°C	-40°C ~ +85°C	-40°C ~ +85°C	-45°C ~ +105°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)	24.0(W) x 24.0(H) x 32.6(D)	27.0(W) x 24.1(H) x 30.8(D)
	IP Class.	IP69K	IP69K	IP69K	IP69K
	Weight	43g (w BRKT&Cable)	200g (w BRKT&Cable)	45g (w Cable)	T.B.D

DASHCAM CH-100B (2CH FHD-HD, WI-FI)

- Front : Full HD (1920 x 1080) / Rear : HD (1280 x 720)
- 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 in Parking Mode



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