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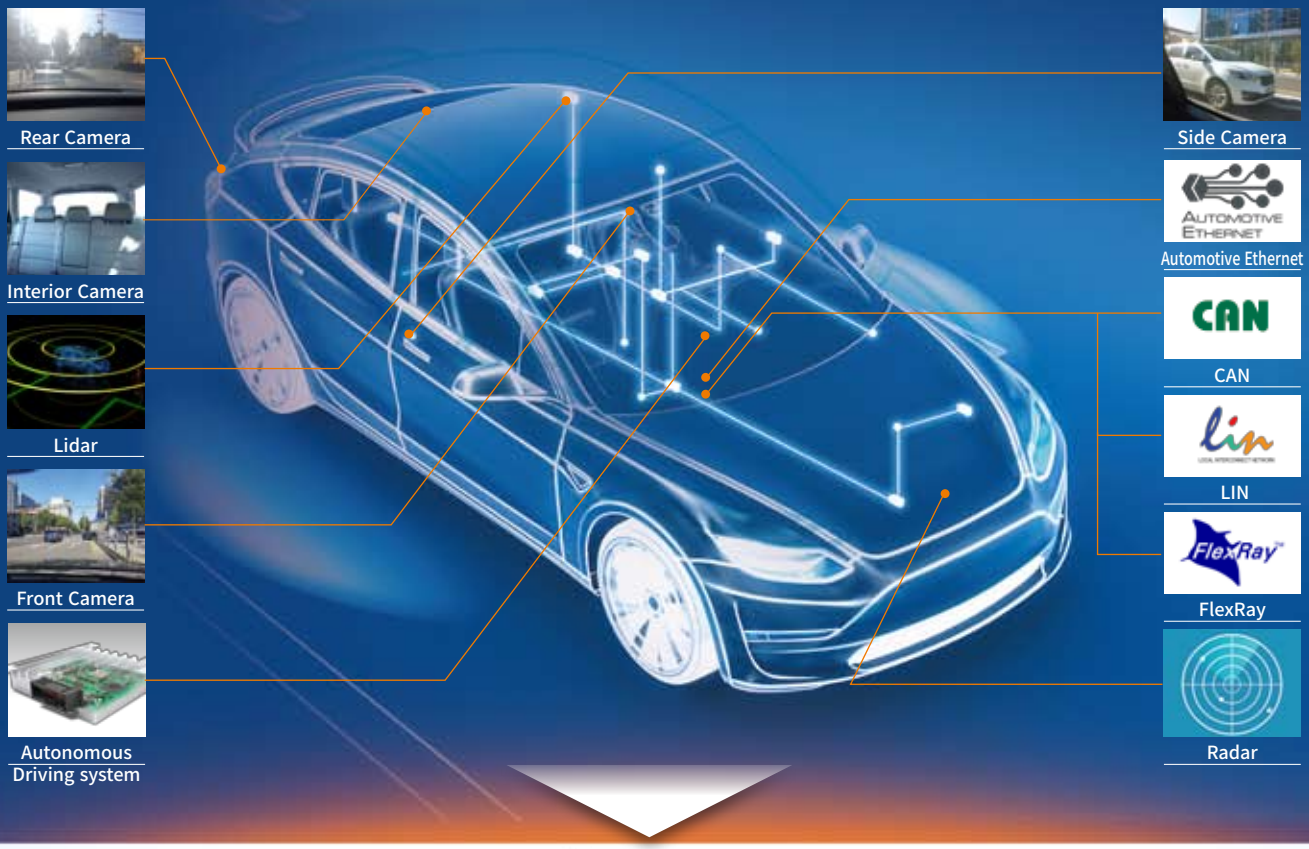
Vision On Chip Co., Ltd.

Essential equipment to develop
and test the autonomous system
and ADAS sensors

ADAS Measurement, Validation and Test Solution



LOGGING

Synchronization Lossless

Essential equipment to develop and test the autonomous system and ADAS sensors

REPROCESSING FOR HILS

LAB

Autonomous Driving System

ANALYSIS TOOLS

Measurement and Analysis System

Simulator

Logging Data

Reprocessing

Measurement

Autonomous Driving system

Control

Analysis Tools

Visiononchip Technologies

for ADAS & Autonomous Vehicle

Camera
Optics, CMOS IF,
Camera Control

FPGA
Real time, Optimization,
Accelerator

Standard High Speed IF
LVDS, 10G, MIPI
USB3.0/1, PCIe

Embedded LINUX
OS, Driver,
Stack, APP

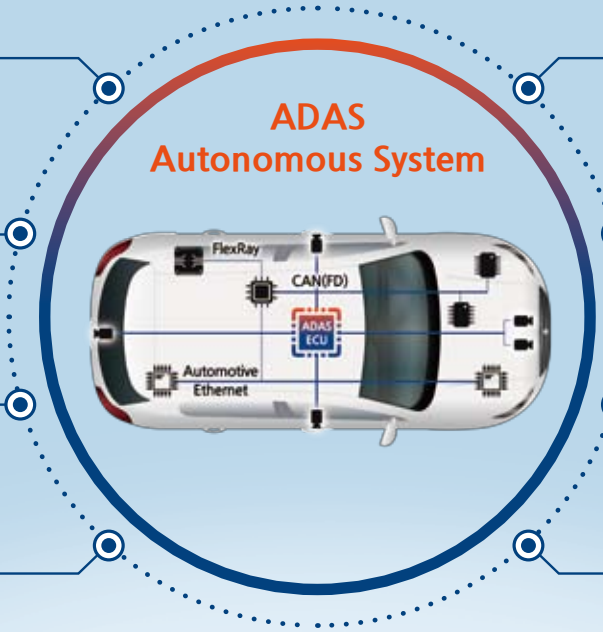


Image / Vision
ISP, CoDec,
Computer Vision

Vehicle Network
CAN, FlexRay,
Automotive Ethernet

Deep Learning
Forward Accelerator
Quantization DNN

Board Design
SoC, DDR, LVDS, MIPI,
10G, FPGA, Sensors

- Platform Processor (FPGA/SoC/GPU)
- CMOS Sensor (1/2/3/8M)
- 1/2/3/4Ch Camera
- SerDes (FPD-Link/GMSL)
- Network Interface (CAN/AE/FlexRay)
- Sensor Interface (GPS/IMU/Lidar/Radar)
- Algorithm Accelerator Engineering

ADAS Measurement System

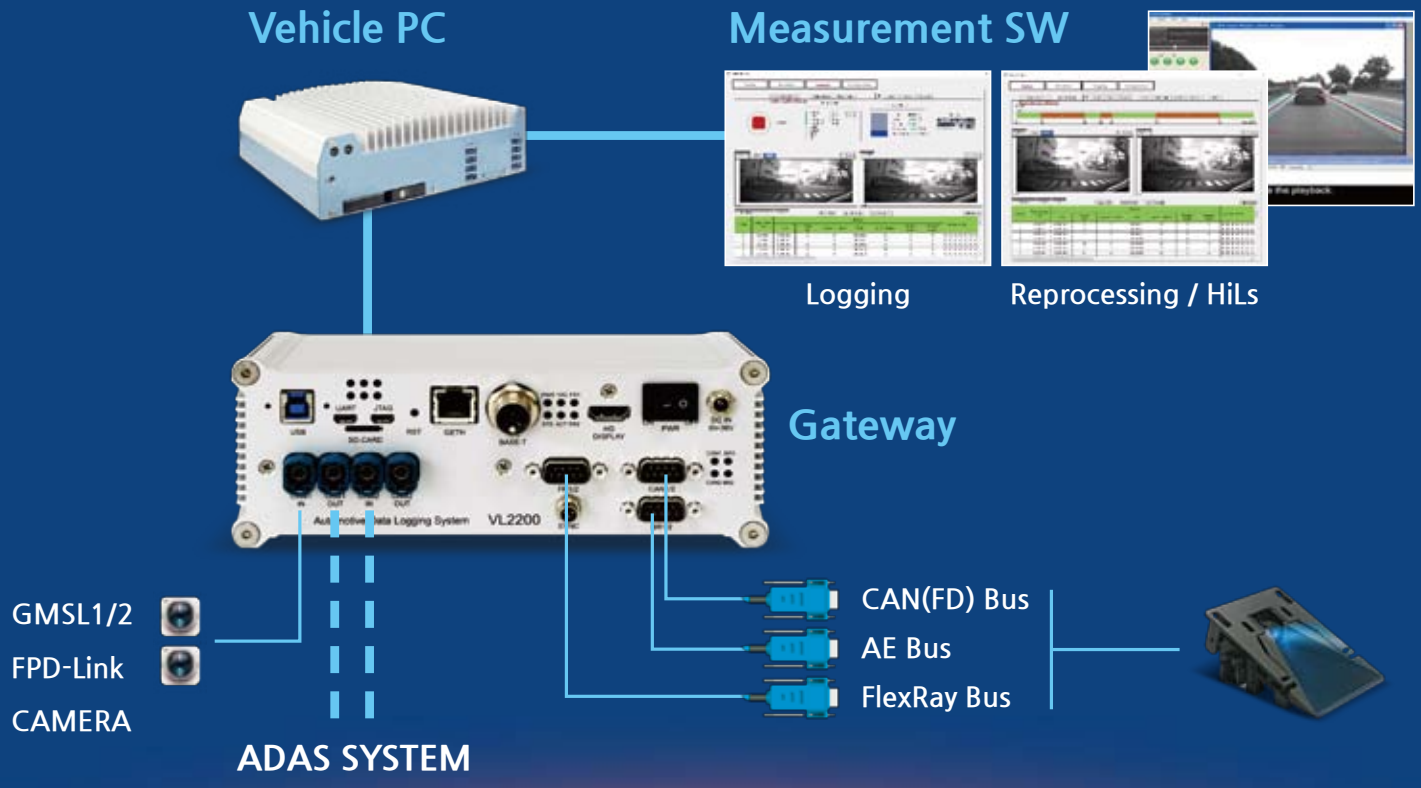
- Recording, Reprocessing and HILS of ADAS system
- Analysis of ADAS Signals (CAM/CAN/ETH/FlexRay)
- Development and Testing Autonomous Vehicle
- All signal time synchronized
- Camera 1/2/3/4Ch
- CMOS 1/2/3/8M
- FPD-Link/GMSL

ADAS Camera & ECU Custom Design

Analysis Tool for Vehicle Network

- **VEMC200**
  2CH BroadR-Reach-100BASE-TX
  Dual Media Converter & TAP Function
- **VEMC300**
  CAN to Ethernet Converter
- **VM1300**
  FlexRay Logger & Reprocessing

Measurement System Concept



Gateway Specification

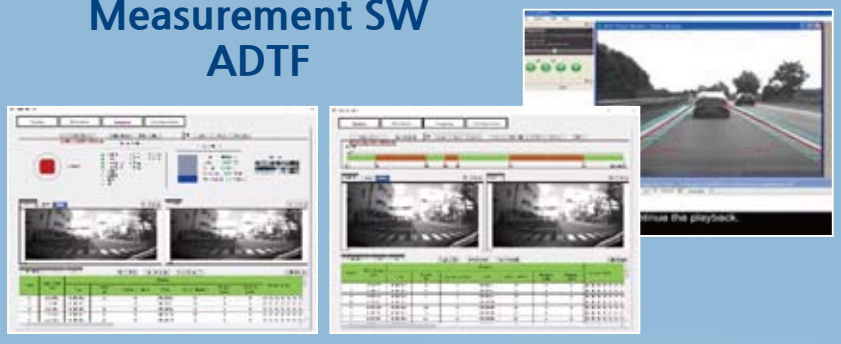
Model		VL1300	VL1400	VL1500	VL2100	VL2200
Main Advantage		High Video Resolution		Low cost	Various application	
DISPLAY		1 × HDMI(*Optional)		X	1 × HDMI	
PC INTERFACE		1xRJ45 10Gbps		USB3.0	1xRJ45 10Gbps (*Option) 1xRJ45 1Gbps	
VIDEO	Channels	1CH	1CH	1CH	3CH	2CH
	Frame rate	Max 44	Max 44	Max 30	Max 30	Max 30
	INPUT/OUTPUT	Max 3840 × 2160	Max 3840 × 2160	Max 1920 × 1080	Max 1920 × 1080	Max 1920 × 1080
	Interface	MAXIM, TI Serdes (Can be customized)				
Vehicle Network	BroadR-Reach	(*Optional)		(*Optional)	2CH × D-SUB	
	CAN	(*Optional)		2CH × D-SUB9	2CH × D-SUB9	
	FlexRay	D-SUB9 (A/B) with Cold starter		(*Optional)	D-SUB9 (A/B) (*Optional)	
	IMU / GPS	*option (Customized according to customer's request)				
	Rader / Lidar	*option (Customized according to customer's request)				

* VL1300 : Reprocessing only.
* Customization service for user environment is available

ADAS Measurement System

Recording, Reprocessing and HiLs for ADAS system
Analysis of ADAS signals
Development and Testing for Autonomous Vehicle

Measurement SW
ADTF



Logging

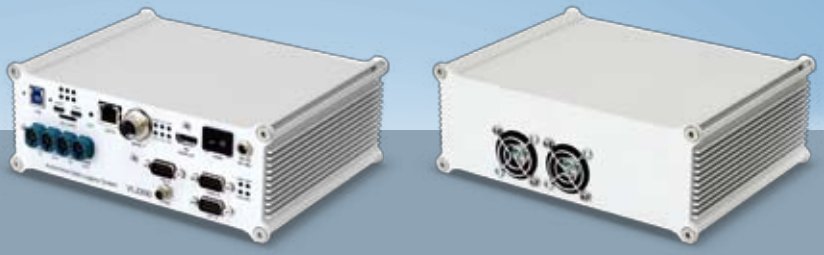
Reprocessing / HiLs

Storage

Road Database
Signal Database
Control Database

Measurement HW

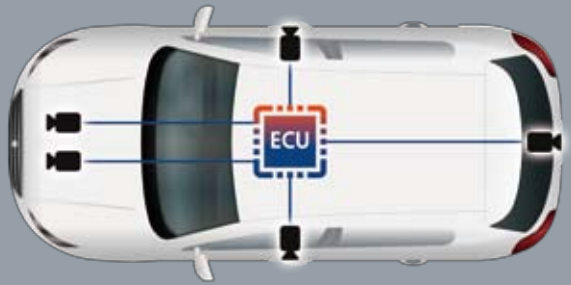
All signals will be
time synchronized



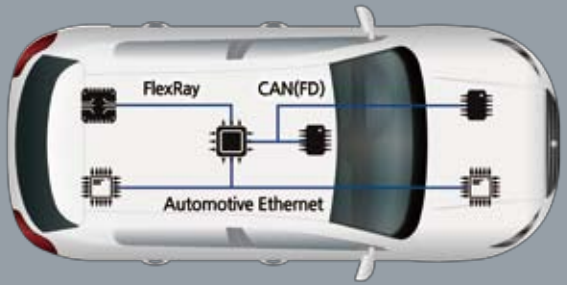
GMSL / FPD-Link

CAN / FlexRay / Automotive Ethernet

ADAS Camera & ECU



Vehicle Network

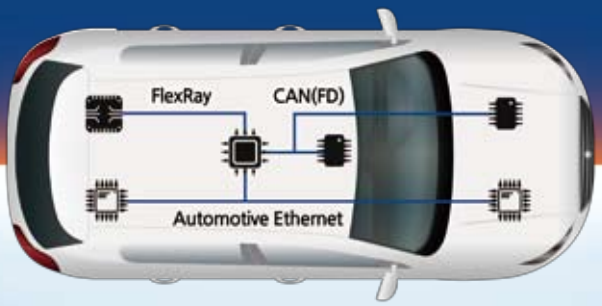


CAN, AE and FlexRay analysis tool

Essential equipment for CAN and Automotive Ethernet ECU development and testing

Analysis SW

- TX/RX Packet Analysis
- Only one tool for all testing tasks
- User-friendly evaluation of results
- Automatic DBC Message & Signal generator
- Affordable tool for monitoring CAN & Automotive Ethernet packets
- Easy Monitoring of CAN & Automotive Ethernet Packets
- Extensive possibilities for simulating and testing ECU
- TCP,UDP and UDP Broadcast

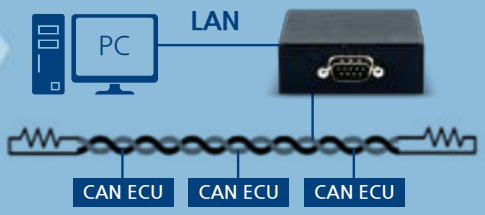


VEMC200 for Automotive Ethernet

- VEMC200 is a Media Converter & Network Tap
- Dual Media Converter
- 2CH BroadR-Reach - 100BASE-TX
- Ethernet monitoring between two nodes
- Network Tap data is decoupled of both BroadR-Reach line ends

VEMC300 for CAN

CAN to Ethernet Converter



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A company that strives for competitiveness and specialization
and grows based on customer trust

Courage to challenge | Creative spirit | Faith & Trust in Humanity | Honesty

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