



# INTELLIGENT TRANSPORTATION

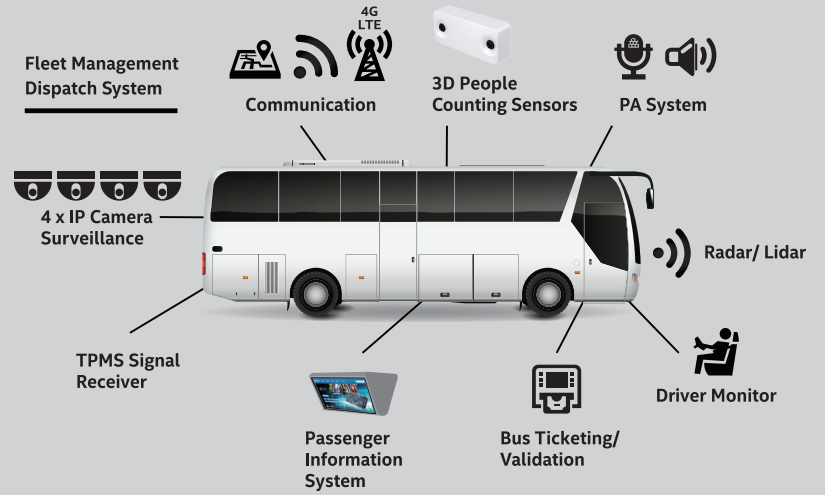
- Infotainment for Public Transit
- Real-Time Traffic Information System
- Truck Fleet Management
- Intelligent Waste Management
- Autonomous Vehicles Application



VMS-APL  
+ BTM28N + EPD-1333

## Smart Bus and Bus Stop

The bus gateway is an embedded control unit, which can listen to all of the messages on the bus and transfer them to the central system.



## INTELLIGENT TRANSPORTATION

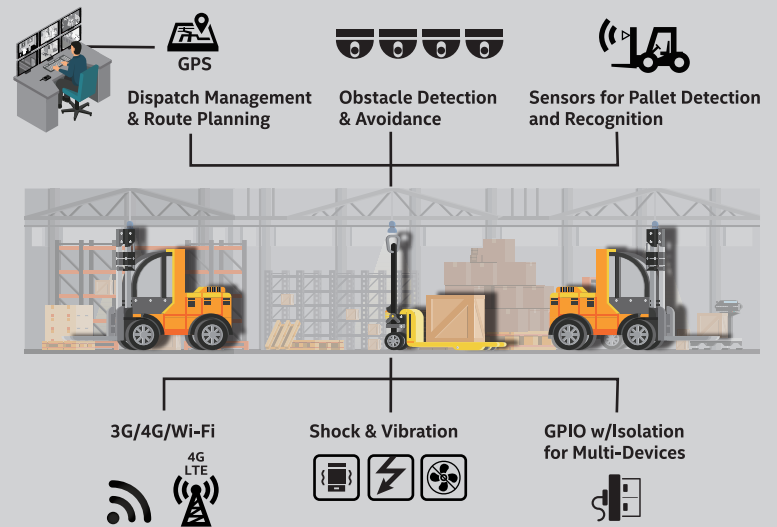
In the future, people will face serious global environmental challenges. The latest smart technology is urgently needed to solve the various problems of life or urbanization. Among the intelligent transportation development processes, integrable and multi-stability products with faster data transfer and analysis rates as well as stronger stability and ruggedness are required to satisfy the increasingly complex demands. Avalue offers a variety of integrated intelligent transportation solutions for vehicle, rail transit and maritime transport related industries.



VMS-CFS-PSE

## AGV in Factory/ Warehouse

AGV in an unmanned factory helps to improve the efficiency and increase the safety for manufacturing process.

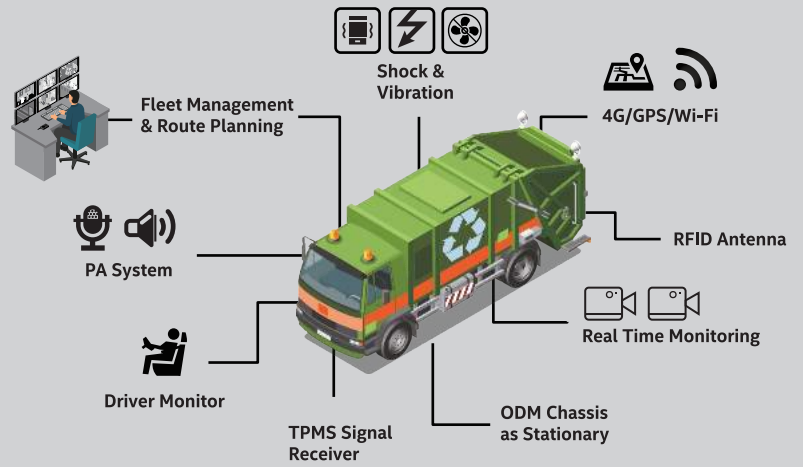




VMS-BYT

## Garbage Truck

Garbage collection within an certain street block, furthermore to collect the Bill by RFID, also acting as a gateway in vehicle.



Wide Voltage  
9 ~ 36V



Wide Temp.  
-40 ~ 70°C



Power Management  
and Ignition  
Control



GPS/4G/5G/Wifi  
Communication



Shock/  
Vibration  
MIL-STD



Certification  
E-mark/  
IEC 60945



Fanless and  
Ruggedized  
Design

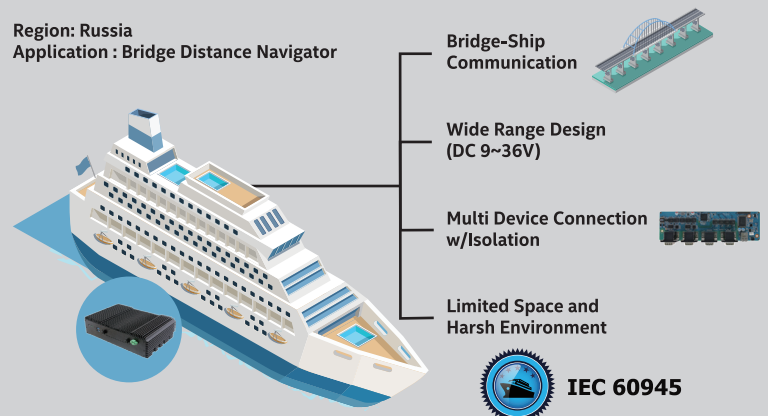


EMS-SKLU-Marine

## Maritime

Control unit equipped in the navigation bridge and allow multi-devices to connect with. Furthermore, expansion slots could install wifi/LTE module to communicate with control center.

Region: Russia  
Application : Bridge Distance Navigator





### VMS-BYT

#### Intel Atom® Processor E3845 Fanless Vehicle Telematics System

- Onboard Intel® Atom™ SoC E3845 Processors
- One 204-pin SODIMM Socket Up to 8GB DDR3L 1333MHz SDRAM
- Power Management and Low Voltage Protection Design
- Optional CAN modules support SAE J1939 or J1708
- Wide Range DC Power Input from 9 ~ 36V
- Fanless Operating from -40 ~ 75°C



### VMS-APL

#### Intel® Pentium®/Celeron®/Atom™ Processor Fanless Vehicle Telematics System

- Intel® Pentium®/Celeron®/Atom™ Processor
- One 204-pin SODIMM Socket Up to 8GB DDR3L 1866MHz SDRAM
- Onboard u-box M8N concurrent GNS module
- Power Management and Low Voltage Protection Design
- Wake on RTC/SMS Via WWAN Module
- Wide Range DC Power Input from 9 ~ 36V
- Fanless Operating from -20/40 ~ 70°C



### EMS-SKLU-Marine

#### 6th Gen Intel® Core™ Processor i7/i5/i3/ Celeron, Marine Fanless Rugged Embedded System with 4 COM Isolations

- Onboard 6th Gen Intel® Core™ SoC i7/i5/i3/ Celeron BGA Processor
- One 260-pin SODIMM Socket Up to 16GB DDR4 2133MHz SDRAM
- 4 COM port support 2.5KV Isolation Protection
- Fanless Operating from -20 ~ 60°C
- Power Input :Typical 12/24Vdc ( +9 ~ +36V )
- Service Window, Easy to Install M.2, Memory and Mini PCIe Module



### VMS-CFS

#### 9th Generation Intel® Core™ i7/i5/i3/ Pentium/Celeron Fanless Vehicle Telematics System

- Intel® Coffee Lake Low power LGA 6+2, 4+2 (35W) Processor
- Two 260-pin SODIMM Socket Up to 32GB
- DDR4 2400/2666MHz SDRAM
- Power Management and Low Voltage Protection Design
- Wake on LAN Module
- Wide Range DC Power Input from 9 ~ 36V
- Fanless Operating, STD -25~70°C, WT -40~70°C



### VMS-CFS-PSE

#### Intel® 8th/9th Coffee Lake Rugged Fanless Vehicle Telematics System w/PSE (RJ45/M12)

- 8th/9th Generation Intel® Core™ i7/i5/i3/ Pentium/Celeron Processor
- Two 260-pin SODIMM Socket Up to 32GB DDR4 2400/2666MHz SDRAM
- 4-port supports 802.3af PSE
- Power Management and Low Voltage Protection Design
- Fanless design with MIL-STD-810G/H/ E-mark/ ISO7637-2 certified
- Wide Range DC Power Input from 9 ~ 36V



### EPD-3133

#### 31.2" E Ink Public Display

- 31.2" E Ink Open Frame
- Selected Avalue Mainboards
- Reserved Pins for Solar Panel & Battery Charger
- Ultra Slim Bezel Design
- Optional AR/AG Cover Glass
- Optional Front Light Module
- Optional WiFi & LTE Module



### EPD-1333

#### 13.3" E Ink Public Display

- 13.3" E Ink Panel Open Frame
- Selected Avalue Mainboards
- Reserved Pins for Solar Panel & Battery Charger
- Ultra Slim Bezel Design
- Optional AR/AG Cover Glass
- Optional Front Light Module
- Optional WiFi & LTE Module



### BTM-28N

#### 28.6" Bar Type Monitor

- 28.6" 1920 x 540 bar type display
- Default high brightness 1000nits
- view angle 178/178
- Open cell mask type
- VGA/HDMI/DVI
- USB Type A for FW upgrade
- -10~60 degree working temperature
- +12V DC in design



### BTM-37N

#### 37" Bar Type Monitor

- 37" 1920 x 540 bar type display
- Default High brightness 1000nits
- View angle 178/178
- Open cell mask type
- VGA/ HDMI/ DVI
- USB Type A for FW upgrade
- -0°C~+50°C working temperature
- +24V DC in design



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