

Jcast's VDS (Vehicle Detection System)

Jcast's Vehicle Detection System(jVDS) is an AMR-based wireless sensor that detects vehicle presence and movement, and that transmits real-time data for many traffic management applications such vehicle speed, traffic volume, and vehicle length. jVDS, virtually maintenance free, can be installed in minutes and deployed in an hour.

Features

- Measurement platform for traffic volume, vehicle speed, occupancy, vehicle length, etc.
- Low-power wireless communications with SC-300 (road-side equipment)
- In-pavement installation in minutes reduces road closures and worker exposure
- Weather-proof sensor with 10-year battery life
- Superior accuracy, dependability, and extensibility
- Self-calibrating, self-tuning
- Re-usable and remotely upgradeable

Applications

- Automatic traffic management for volume, vehicle speed, occupancy, etc.
- Traffic signal control management
- Speed violation
- Early warning for vehicles approaching to key sensitive facilities
- Warning for car accidents in tunnels
- Road weather information such as icing.



TWSN

- | |
|----------------|
| Multi-Sensor |
| Zigbee |
| Case / Battery |

uRSE

- | | |
|-------------------|-------|
| Sensor controller | |
| Zigbee | Wi-Fi |
| CAM Enc / PoE | |

TWIS

- | | |
|-----------------------|-----|
| Acquisition / Control | |
| Wi-Fi | NMS |
| DB / WEB / GIS / USN | |

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Jcast's VDS (Vehicle Detection System)

Product Specification



TWSN (Traffic and Weather Sensor Node)

Item	Specification
Detection Method	1/3-axis magnetic field sensing
Sampling rate	128 Hz
Protocol	IEEE 802.15.4
Modulation	DSSS OQPSK
Data rate	250 Kbps
Frequency Band	2,400 to 2,438.5 MHz
Channel	16
Channel Band	5 MHz
Nominal output power	0 dBm
Rx sensitivity	-95 dBm (PER = 1%)
Power Supply	More than Support(nominal capacity)
Dimensions / Weight	90mm * 90mm * 8.5 AH / 500g
Ingress Protection	IP 68
Operation Temp.	-40°C to 70°C



uRSE (ubiquitous Road Side Equipment)

Item	Specification
CPU	ARM11
O/S	Embedded Linux 2.6.29
Memory	128MB
Interface	IEEE 802.15.4 / IEEE 801.16e 10/100 Base-T Ethernet Wi-Fi (801.11 a/b/g/n) Option : IP Camera Support(H.264)
Per-vehicle data processing	Initial vehicle detect time, Gap, Speed, Length, Vehicle classification
Detection Accuracy	95% or better
Speed Accuracy	95% or better
Occupancy	90% or better
Input voltage	PoE, 36~58 VDC(48 VDC nominal), 12 VDC
Dimensions / Weight	165mm * 220mm * 50mm / 1000g
Ingress Protection	Designed for weatherproof, outdoor, operation
Operation Temp.	-10°C to 60°C

TWIS (Traffic and Weather Information System)



Item	Specification
CPU	Dual-core Intel or compatible 2.4 GHz, 1MB cache, 800MHz front side bus
Memory / HDD	2.0GB / 750GB, Onboard SATA
Network	10/100/1000 BT-Ethernet
Protocol	TCP/IP, SNMP, HTTP, SOAP, SDP, SLI, DDNS, NTP, ARP, RARP, DHCP
Database	MySQL 5
Traffic data	Occupancy, Volume, Speed, Len Length, Gap
Media	DVD-ROM drive
OS	Windows server group
GUI	Flex3, Web, PHP5, GoogleMAP
Report types	HTML, PNG, Text, CSV, XLS

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FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference. and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Caution

Any changes or modifications (including the antenna) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.