Onboard computer

AWIA SDIP® control unit

www.ente.com.pl

Onboard computer

Description of the device

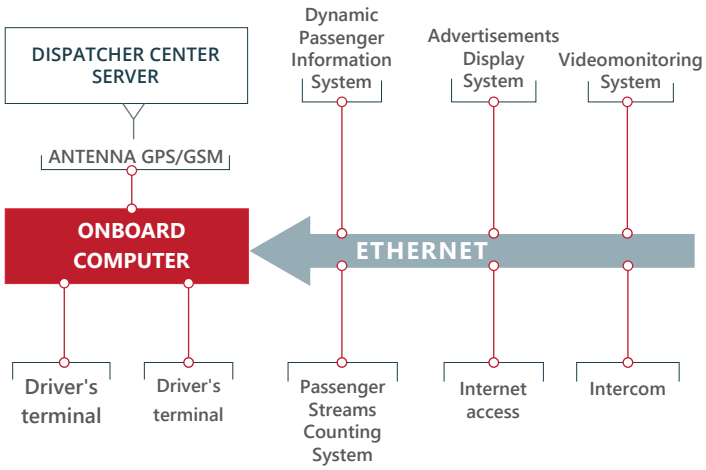
Onboard computer AWIA SDIP® is the main module of the system that manages the passenger information, GPS location, GSMdata transmission, machine driver's identification, dynamic driver's timetable, passenger's streams counting, voice announcements and videomonitoring. It is responsible for efficient and secure communication between subsystems installed in the vehicle and the management application located in dispatcher's center.

Functionality

- ✓ Data exchange between train onboard equipment and the managing application
- ✓ Broadcasting of current passengers' informations
- ✓ GPS localization
- ✓ GSM data transmission
- ✓ Passengers' streams counting
- ✓ Dynamic timetable for machine driver's terminals
- ✓ Onboard database of machine drivers
- ✓ Data processing related to train's punctuality

Architecture

- ✓ Main computer AWIA Locator 3G containing f.e. GPS localization module, trip module, GSM communication module
- ✓ I/O module - both analog and digital input and output interfaces
- ✓ ETH, CAN, RS interfaces for communication with external systems
- ✓ Audio, USB interfaces
- ✓ Power supply and battery backup system
- ✓ Other equipment depending on customer's requirements, e.g. WiFi modules, Audio amplifiers, redundant GSM module



Onboard computer

Technical parameters

Nominal supply voltage	+ 24 V DC
Supply voltage range	+ 16,8 ÷ + 31,2 V DC
Maximal power consumption	below 100 W
Ingress Protection	IP 30
Signal transmission band	UMTS/HSDPA 850/1900 MHz GSM/GPRS 850/900/1900 MHz LTE; 3G; 3,5G; UMTS; HSDPA
Data transmission (two independent modules)	8 GB
Flash memory	SMS
Sending and receiving text messages	GPS
Global positioning system	2,5 m CEP
Localisation accuracy	5 m SEP
Central Unit and cooperating applications functionality	Mark vehicle's current location on railroad map with transit route in real timeor from archive data, measures the distance traveled in km, trip time betweentwo points on the route, vehicle's speed in real time or from archive data
Number of digital inputs	10
Number of digital outputs	7
Supported interfaces	Audio Out USB CAN HDMI WiFi 1 x Ethernet (HARTING connector) 1 x Ethernet (RJ45)
Backup battery	12V / 12 Ah
Operational temperature	-40˚C ÷ +70˚C
Storage temperature	-40˚C ÷ +70˚C
Dimensions: width/height/depth	436x130x350 mm (with plugs connected)
Weight (without wiring)	15 kg
Additional memory for advertisements	2 TB

Compliance with standards

PN-EN 50155	Railway applications - Electronic equipment used on rolling stock
PN-EN 50121-3-2	Railway applications - Electromagnetic compatibility
PN-EN 45545-2+A1	Railway applications - Fire protection on railway vehicles. Part 2: Requirements for fire behaviour of materials and components
PN-EN 61373	Railway applications - Rolling stock equipment - Shock and vibration tests

ente
7 Gaudiego Street
44-100 Gliwice
+48 32 33 82 200
+48 32 33 82 210
ente@ente.com.pl
www.ente.com.pl