

On-Board Computer



Specifications

- Powerful Processor
- Multimedia Support (Video: TFT Graphic LCD, Audio: mp3, wav)
- Projected Capacitive Touchscreen
- GPS Module
- Operating System (Linux/Android)
- Wide Range Communication Interfaces (Wi-Fi, Ethernet, 4G/3G/GPRS, Bluetooth)
- Extensive Connectivity (GPIO, RS232/RS485, USB, CAN)
- Contactless Mobile Payment Applications
- Advanced Power Management Modes
- Easy Installation and Maintenance
- RoHS Compliance

Application Areas

OBU is an On-board Driver Computer for the reliable and smooth performance of the Automated Fare Collection and Vehicle Management Systems of **kentkart**. The elegantly designed OBU has a capacitive touchscreen. It is a smart device that can run one or more validators at the same time in buses, minibuses, trolleybuses and trams. OBU receives accumulated fare data from all validators, sends it to the main operation center and downloads the new fare-table configurations via GPRS. It is an inseparable part of the distance based fare tariff system which gives trip runtime information to the drivers and enables to communicate both ways with the vehicle dispatching center. The enriched hardware infrastructure with GPS and GPRS connectivity of the On-board Computer facilitates timekeeping for the drivers. It also acts as a voice reminder of departure time for the drivers and thus, enables easy tracking of arrival and departure times to and from the stations.

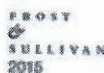
kentkart uses widely known security standards (RSA, 3DES, AES) on its validators both for transaction and for storage and communication. OBU can read standard ISO 14443 A/B type contactless smartcards. Transactions or other event notifications are done via LEDs, LCD and/or audio.

About kentkart

kentkart has been founded in 1998 in Izmir for the purpose of producing, selling and operating Automatic Fare Collection Systems by using smart card technology.

kentkart is the first in the world to integrate AFC using smart cards with vehicle tracking system in a single validator and to put it into service on buses.

kentkart achieved the prestigious SESAMES Award for Best Transportation Application at Cartes Smart Card Exhibition in Paris, in 2000 with its Izmir project.



Processor	: 1GHz ARM Cortex A8
Memory	: 1GB DDR3 RAM
Flash	: 512MB flash 16MB redundant data flash
Real Time Clock LCD	: Battery powered RTC
Screen	: 262,144 Colors 800x480 7" TFT LCD
Voice	: Mono output (speaker)
Internal Modem	: GSM/GPRS/EDGE and UMTS/HSPA or 4G/LTE module Bidirectional voice transfer with internal microphone (optional)
User Interface	: Capacitive touchscreen with hardened protective gorilla glass
WLAN	: IEEE 802.11b/g/n
GPS	: 72 channel high sensitivity GPS module
Multimedia Support	: Secondary display support 1 VGA/CVBS/Component output (optional)
Communication Interface	: RS232/RS485 USB 2.0 (host/client) CAN Ethernet 10/100 Mbps Digital/analog IO
Power Supply	: PoE PD 802.3af, 18-32V DC
Smart Card Reader	: 2xID-000 SAM card (internal) ISO7816, GSM standards
External Card Reader	: MicroSD card reader
Contactless Card Reader	: ISO 14443 Type A/B, NFC Level 3 cards: Mifare Classic, UL, ULC, My-D Move Level 4 cards: Mifare DESfire, Plus, 7816-4 File System Smart Cards, Java cards, Contactless Credit Cards
Operating Temperature	: -20°C... +70°C
Storage Temperature	: -30°C... +80°C
Humidity	: 10%... 90%
EMC	: EN 55022, EN 55024, EN50155
LVD	: EN 60950-1
Vibration & Shock	: 60068-2-6, 60068-2-27, EN60721-3-5
Certification	: CE, RoHS, Emark (E9), IK07, IP54 (without card slot)
Dimensions	: 215 x 146 x 55 mm

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