



OBU GO DSRC TLPV5.1

OBU GO DSRC is an On Board Unit (OBU) for toll payment using DSRC technology, based on EN 15509 and on UNI10607 and ETSI 200 674-1 protocols. The OBU autonomously manages the communications in either toll contexts.



The OBU GO DSRC features enhanced signal-detection, which has been specifically designed to reject unwanted wake-ups due to interference from external source, such as WI-FI, Bluetooth and other radio communication protocols operating near the DSRC 5.8 GHz radio frequency band. This feature is aimed at preserving battery life.

The driver can use OBU GO DSRC in Europe (France, Spain, Portugal, Italy and in any other context that complies with the CEN standard) It fully supports other applications like Congestion Charging, Road Tolling, Access Control and Park Management using UNI10607 protocols.

The system can withstand all mechanical vibrations normally found in a vehicle over its operating temperature range. The OBU can easily be removed from the bracket mounted on the windscreen to be used on other vehicles.

KEY FEATURES

- Based on EN 15509, UNI10607 and ETSI 200 674-1 protocols
- Designed to support Automatic Fee collection with multiple application
- Highly integrated product with new dedicated DSRC communication chip
- New ASIC chipset with integrated active RF front-end
- 32KB RAM and a 128KB embedded FLASH memory for multiple applications
- Very low power consumption for an extended battery lifetime
- HW encryption accelerator (DES/3DES/AES)
- Operating Temperature: -25°C to +85°C
- CE & RoHS compliant
- Support NFC/Rfid (optional)

ACCESSORIES

- **Mounting bracket:** ABS Plastic with pre-mounted adhesive
- **Windscreen cleaning tissue:** for installation (optional)
- **Protective bag:** metallized packaging (optional)
- **Extra accessories:** upon request

TECHNICAL FEATURES

Casing

- **Material:** ABS Plastic Case
- **Size:** 65,2x 39,9x 13,4 mm
- **Weight:** 30 g
- **Enclosure:** IP41
- **Color:** standard black (RAL9005), others available upon request
- **Customization:** case can be marked with pad-print on front and/or back side

Installation

- Mounting Bracket in ABS Plastic with pre-mounted adhesive

Power Supply

- **Battery:** 3.0V LiMnO₂ coin
- **Battery Capacity:** 600 mAh

Hardware

- **MMI:** configurable buzzer
- **Memory:** 32KB RAM / 128KB FLASH
- **ASIC:** custom Guicciardini ASIC (Movyon IPR)
- **HW encryption accelerator:** DES/3DES/AES
- **NFC/RFID:** dynamic tag (optional)

Lifetime

- **MTBF:** ~2.69M hours calculated with MIL-HDBK-217F
- **Battery lifetime:** >7 years @ 2.000 transaction per year under normal use



Environmental conditions

- **Operating temperature:** -25°C to +85°C
- **Storage temperature:** -40°C to +85°C (recommended: 0°C to +20°C)
- **Random vibration:** 10Hz-1000Hz: 10.0 m/s³-8h/3axes
Shock: 30g, 3 shock / 3 axis
- **Free fall:** 1000 mm on each face
- **Classification:** 5K2 (85°C)/5B1/5C1/5S1/5F1/5M3 (IEC 60721-3-5 class)

DSRC compliance

- EN 15509 - EFC Interoperable Application Profile
- EN ISO 14906:2022 - EFC Application interface definition
- ETSI 200 674-1 - compliance with the European Electronic Tolling Service (EETS)
- UNI10607:2013 - Road traffic and transport telematic
- GSS (Global Specification for Short Range Communication)

Conformance

- EU directive 2014/53/UE
- EU directive 2019/520
- EU directive 2015/863/UE (RoHS III)
- WEEE 2012/19/EC