



OBU GO DSRC TLPV5.1



The OBU GO DSRC features enhanced signal-detection logic, 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 new enhanced signal-detection logic has been patented by Movyon.

The driver can use OBU GO DSRC in Europe ((France, Spain, Portugal, Italy and in any other contexts that comply with the CEN standard) and it fully supports other applications like Congestion Charging, Road Tolling, Access Control and Park Management using UN110607 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.

OBU GO DSRC is an On Board Unit (OBU) for toll payment using DSRC technology, based on EN 15509 and on UN110607 and ETSI 200 674-1 protocols. The OBU autonomously manages the communications in either toll contexts.

OBU GO DSRC is available in 3 versions:

OBU GO DSRC - TLPV5.1.

OBU GO DSRC - Bluetooth

OBU GO DSRC - Bluetooth and Accelerometer

KEY FEATURES

- Based on EN 15509, UN110607 and ETSI 200 674-1 protocols
- Designed to support Automatic Fee collection with multiple application
- Highly integrated product based on the 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

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

Lifetime

- ⦿ **MTBF:** ~2.69M hours calculated with MIL-HDBK-217F
- ⦿ **Battery lifetime:** >8 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 m²s⁻³-8h/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 Conformity to 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