

# Q-FREE OBU610 DSRC TRANSPONDER

- Small form factor
- Designed to blend unobtrusively into the interior of any vehicle
- Custom designed private label
- Smart transportation mode eases shipping and storage



## OVERVIEW

Designed to blend into the interior of any modern vehicle, so small that it will not obstruct the view and yet powerful enough to support all applicable protocols in the world of 5.8 GHz CEN DSRC for automatic registration, identification and fee collection from vehicles, the Q-Free OBU610 is the most advanced, universal OBU of its kind.

**The OBU610** is a fourth generation transponder from Q-Free. Combining more than 20 years of experience, proven technology and current state-of-the-art design, it safeguards future operation and investment.

**The OBU610** is easily attached to and removed from the windscreen using a slide-in bracket, which additionally serves as a removal-detector.





## FEATURES

### Small OBU size enables non-obtrusive placement in windscreen

- Size: 69 x 40 x 22 mm (L x W x D) with bracket
- Weight: 34 g
- Perfectly fit into any vehicle interior
- Low weight eases distribution and minimizes cost to end users and operators
- No compromise on performance

### Private Label

- To accommodate logos, colours and customer specific look and feel
- Label applied in production process

### Removal Detection

- Checks if the OBU has been moved from the bracket
- Assists the toll chargers to verify if the OBU is used correctly or if the OBU has been moved to a new car
- Transportation mode prevents unwanted DSRC communication
- Optional bracket activation mode where the OBU is enabled only when placed in the bracket
- Prevents battery power loss before installation. Enables more efficient packaging, storage and shipping

- Environmentally friendly: – no need for foil bags
- Inserting the OBU in its bracket activates the OBU

### Multi Application Support

- Supports multiple and custom applications (elements)
- EN15509/SmartDSRC/PISTA /TIS/GSS/A1/OGS
- Electronic Registration Identification applications: ISO17264 and EN16312
- Memory size equivalent to more than six EN15509 applications
- Uses the DSRC RF interface to personalize OBU
- Adding applications and data content
- Support several personalization and key distribution schemes
- Supports secure personalization of new elements
- Supports secure change of content in read-only attributes, separate key for each element

### Buzzer

- Different beep signals available to alert drivers
- Total of four different signal beep patterns
- Custom specific beep signals available

## TECHNICAL SPECIFICATION

**Operating frequency:** 5.8 GHz CF

**Downlink bit rate:** 500 kbps

**Uplink bit rate:** 250 kbps

**Sub carrier frequencies:** 1.5 MHz (profile 0) and 2.0 MHz (profile 1)

**RTTT profiles:** Both Set A and Set B ref EN13372

### Standards:

CEN TC278 DSRC	EN 13372 EN 12253 Physical Layer EN 12795 Data Link Layer EN 12834 Application Layer
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Safety EN 60950-1

Applications	ISO 14906/EN 15509 EFC Application ISO 17264/EN 16312 ERI Application
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**Max communication range:** ≤ 10 m

**Maximum radiated power:** - 21,4 dBm (EIRP)

**Power supply:** Single battery coin cell

**Battery life time (MTBF):** 7 years

**Environmental conditions:** Class H1 ref ISO 14815

**Operating temperature:** -40 °C to +85 °C (Class 5K4H and 5K3 ref IEC 60721-3-5)

**IP Grade:** IP 41



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