



Application Note – Inspection and verification of DSRC radio communication zones

Q-Free Monitor OBU for easy DSRC lobe measurements and communication quality assessment

Background:

In a DSRC environment, the ability to measure the DSRC communication lobe or analyse the communication quality by means of a test-OBU is a useful tool. For easy application by the road operator or test personnel, the Q-Free Monitor OBU facilitates a wide range of test opportunities at all sites holding DSRC communication equipment; like tolling plazas, point of sales or service sites. The Monitor OBU will behave identical on any CEN DSRC roadside equipment, regardless of manufacturer.

Use-case and features:

The Q-Free Monitor OBU is a service tool for inspecting and verifying DSRC radio communication zones, typically used in tolling station configurations. The LEDs allow for visual tracking of the signal quality, and by using an optional buzzer mode, sound can be added to make the monitoring easier and more convenient for the end user. It features all the high-quality signal discrimination technologies found in other Q-Free OBU products. Low-power technology, accompanied by a sleep mode, ensures low current draw. The Monitor OBU can be used as a hand-held device, as well as be mounted in a slide-in bracket.

- Deep sleep mode promotes long service and shelf life
- Plug and play operation, can be used anywhere, anytime
- Visual and audible signal quality indicators
- Robust design

Workflow:

The Monitor OBU has an instruction manual attached to it, and can be used as follows:

- Activate the Monitor OBU by pushing the power/mode button
- Toggle between visual-only and audio assisted mode by pushing the power/mode button again
- Start the intended analyses/ inspection/ verification activities
- The Monitor OBU will indicate the signal quality when DSRC frames are received
- Disable the Monitor OBU by holding the power/mode button >1 second

