User Manual

V2X On-Board Unit

FCC ID: LXC-V2X-OBU-HERC



Since this device is installed on a vehicle by either a professional installer or automaker, as depicted in the views below, and the device is not sold to general end-users directly, there is no OBU user manual presented to end-users.

Trunk, IP Side view hatch Trunk, hatch Instrument panel **Top view**



Typical mounting locations for OBU device: Trunk or hatch area, or instrument panel (IP).



OBU Radio Features

This device mainly consists of ITS band DSRC transceiver and GNSS positioning functions to exchange vehicle's information. It also contains a cellular transceiver (LTE).

This device is installed in a vehicle to transmit the vehicle's information, such as vehicle position, vehicle speed and travelling direction to other vehicles. This device also receives information transmitted from other vehicles and calculates the possibility of collision with other vehicles, based on the vehicles' status.

FCC Part (DSRC): FCC Part 2 and 95

Frequency: 5895-5925 MHz

Operating channels: Ch180 - Ch184

Channel width: 10 MHz

DSRC Device Class: Class C

DSRC Antenna: Roof-mount, Maximum Gain: 7.0 dBi

Cable length: 3 meters

Cable loss: 3.5dB (5895-5925 MHz, FAKRA)

FCC Part (Cellular): FCC Part 22, 24, and 27

Frequency, Channels: Various (see Test report)

LTE Antenna Gain: 3-5.8 dBi max



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This device is authorized for use with the specified antenna maximum gain values. Refer to the tables on the previous page.

Regulatory Compliance Information:

- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- Replacement of any transmitter component (crystal, semiconductor, etc.) could result in a violation of FCC rules.
- The FCC certification includes colocation (concurrent operation) of DSRC and LTE transmitters. They should not be operated concurrently with any other transmitter or antenna.

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm from all persons in a vehicle.

Firmware settings:

All firmware settings, including power level and frequency tuning parameters are stored in firmware by DENSO at the time of manufacture. No hardware components are adjustable after the product is manufactured.

Part numbers:

Software version: BSP v0.2.3.3; Hardware: LXC-V2X-OBU-HERC-001

