

# CAN Newsletter Online

HYBRID V2X COMMUNICATION PLATFORM

## Dynamic switching of radio modes

Nordsys, provider of V2X system solutions, added the Wavebee plus 8 to its Wavebee product family. It is a development and communication platform with triple connectivity for series development of V2X applications and comes with a CAN interface.



The platform provides a CAN interface (Source: Nordsys)

The platform supports the V2X standard ITS-G5 IEEE 802.11p as well as C-V2X according to 3GPP PC5 Sidelink and Uu-Mode in a single device. Switching between the two radio modes ITS-G5 and PC5 can be program-controlled without the need for a reboot or reconfiguration.

For the platform, a modular hardware platform called WMP was developed, which is based on 17 years of experience in V2X development and represents the future core for the entire Wavebee ecosystem, explained the company. As V2X software, the Wavebee stack with its WDS programming interface continues to be used. This provides a uniform platform for a variety of solutions across the entire product development cycle for global markets and standards, said the company: Starting from application development up to testing and validation of V2X functions for North America, Europe, and China.

### CAN interface on board

Equipped with a i.MX8 application processor, the product offers reserves for future applications, said the company. A hardware security module (HSM) is already integrated. Furthermore, the device comes with a CAN interface, Ethernet connection, WiFi, LTE as well as GNSS. The operating temperature range is from -40 °C to +85 °C and dimensions 170 mm x 167 mm x 35 mm.

In addition to its use as an on-board unit (OBU) in the Wavebee plus 8, the Wavebee Modular Platform from Nordsys also serves as the basis for the Wavebee road RSU (road-side-unit) as well as the test and simulation platforms Wavebee to-go and the HIL (hardware in the loop) system Wavebee hive.

### Individual customer adaptations

"The modular design of the WMP allows us to quickly respond to customer requests and make project-specific adjustments," explained Manfred Miller, Managing Partner of Nordsys. "The development of V2X applications can start immediately, while in parallel we have developed a customized hardware variant within a few weeks through our in-house prototype production. Porting the software is usually straightforward to the finished system."

The Wavebee Ecosystem offers level of investment security for ITS-G5 or 5G applications due to the unified programming application programming interface and the support of the different standards.

[CW](#)