VCU Pro IDM is the advanced on-board unit from the Vehicle Connectivity Unit series. With 4 CAN interfaces (2 standard CAN and 2 CAN FD), 4 analog inputs and 4 digital outputs VCU Pro IDM is a professional and robust gateway. Two independent processors ensure both a safe and secure connection to the vehicle network and also provide a universal communication capability.

**Specifications**

- **Dimensions**: 200 × 122 × 40 mm
- **Temperature Range**: −40 to +70 °C acc. DIN EN 50155 Class TX

**Components**

- **CPU**: ARM® 1 GHz
- **RAM**: 512 MB
- **Memory**: 8 GB Flash
- **Sensors**: 3-axis Accelerometer, 3-axis Gyro
- **GNSS**: GPS, Glonass, BeiDou, Galileo
- **Antenna Connectors**: 2x Cellular, 2x WLAN/Bluetooth, 2x GNSS
- **Power supply and signal interface**
- **Automotive Connector**: MOLEX (48 pins)
- **Antenna Connectors**: SMA Female
- **Mounting Option**: Screws
# VCU Pro IDM Onboard Unit

## Communication and Interfaces
- 2× CAN 2.0B
- 2× CAN FD
- 4× Analog IN
- 4× Digital OUT
- 1× Ethernet 100 BaseT
- 2× Ethernet BrdrR
- WiFi 802.11 a/b/g/n
- Bluetooth 4.2
- 1× RS232
- 1× RS232 / RS485
- 1× LIN
- 1× K-Line
- 1× embedded SIM + 1× plastic SIM (accessible)
- Cellular – LTE Cat4 (Global)

## Processors and modules
- ARM Cortex A8 (1GHz)
- Infineon Aurix Microcontroller (200MHz, 472 KB RAM)
- HSM (Hardware Security Module) for cloud communication secure key storage
- Second HSM for diagnostic key sessions
- GTM (Generic Timer Module)

## Sensor Network
- 3-axis Accelerometer
- 3-axis Gyro

## Power Supply
- Nominal Voltage: 9–36 V DC

## System
- Linux Operating System
- Fail-safe OTA update

## Environmental conditions according to EN50155:
- Cold operating and non-operating; Dry, damp heat and cyclic
- Vibration and shock acc. EN61373
- Material: Aluminum / Plastic Waterproof housing
- Operating temperature from ~40°C to +70°C acc. DIN EN 50155 Class TX
- Protection level: IP56 (IP69K optional)

## Memory
- 512 MB RAM
- 8 GB eMMC Flash

## Approvals
- E-Mark
- ISO16750
- Fire protection DIN EN 45545-2

## Certification
- CE
- FCC (components)

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Subject to technical change without notice