Consat Vehicle Computer
(CVC01-5G)

CONSAT
Telematics

Description

The Consat Vehicle Computer (CVC01) is Consat's advanced vehicle communication gateway computer, designed for smooth installation while seamlessly controlling onboard equipment and establishing communication with the back-office system. It offers a robust solution for handling a variety of features such as AVL, block assignment, passenger counting, audio control, PTC, destination displays, and internal passenger information displays.

Accompanied by its corresponding cable harness, the CVC01 is ITxPT compliant and certified for deployment in public transportation vehicles. Featuring essential elements like CAN/FMS connections, Ethernet, and digital/analog inputs, this device facilitates efficient data collection for analysis within fleet management systems such as Consat's Fleet Studio and Traffic Studio.

The Value

Future proofed – Increased processing power enables more advanced use case implementations, creating opportunities for e.g. advanced AI vehicle solutions and autonomous solutions. Expanded capacity allows for drawing conclusions from vast volumes of vehicle data, enabling predictive maintenance, optimized charging strategies, and increased energy efficiency.

Enable electromobility – High processing power enables security use cases and ecosystem integration. Examples include real-time analysis of vehicle data and the potential detection of vehicle component failures.

Unified platform – using a uniform operating system across Consat's hardware family streamlines and simplifies management and maintenance processes.

Specifications

Operating System

- Consat Linux

Hardware

- CPU: i.MX8M Plus Quad Core
- RAM: 4 GB LPDDR4
- Storage: 32 GB eMMC
- Sensors: Accelerometer, Gyroscope, Magnetometer and Temperature
- Stereo audio codec with Digital Audio Processor
- Power RGB-LED + Status RGB-LED

Wireless and Positioning

- 5G NR module with fallback to 4G LTE
- Dual SIM (eSIM and micro-SIM)
- Multi-constellation GNSS (GPS, GLONASS, BDS and Galileo)
- Wi-Fi IEEE 802.11ac
- Bluetooth 5.3

Audio

- External, internal and passenger audio announcements
- Push to communicate, Handset and Driver mic/speaker
- Built-in 3W amplifier for driver speaker

Power

- Supply Voltage 9-36 V DC, ISO 16570-2 Level E
- Ignition control with SLEEP max. 0.48mW

Environment

- IP40
- Temperature: -25 to +60°C (Operating) -40 to +85°C (Storage)

I/O

- 2 x Ethernet
- 2 x USB 3.0
- 1 x HDMI
- 3 x CAN/CAN-FD
- 9 x Inputs with programmable levels
- 1 x Analog Voltage input high precision 24 bits
- 1 x Analog Current 4-20 mA input high precision 24 bits
- 12 x DO (sourcing and sinking)
- 1 x Tachometer input
- 2 x External temperature sensor input (PT100)
- 3 x Serial Ports (RS232, RS232/RS485 and RS232/RS485/J1708)

Connections

- 2 x Ethernet (RJ-45 and M12)
- 2 x USB type A
- 1 x HDMI type A
- 3 x JAE MX34. (Power, Audio, Com-IO)
- 2 x Cellular MIMO (Fakra)
- 1 x GNSS (Fakra)
- 2 x WIFI MIMO (SMA)

Compliance *

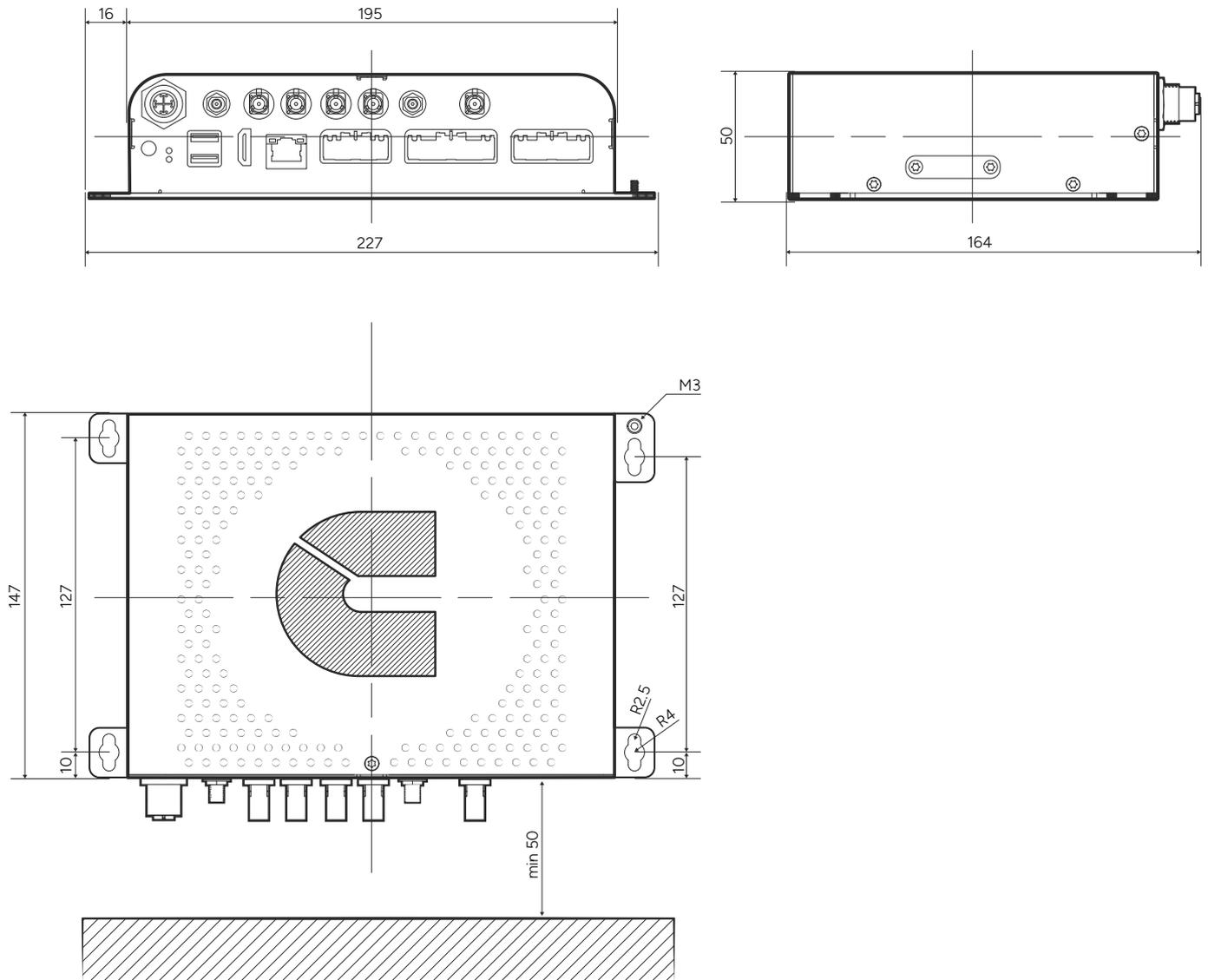- E-mark (ECE R10, ECE R118), EN50155, EN45455 CE / FCC / IC / RCM /Antatel ITxPT labeled

Dimensions

195 mm x 50 mm x 147 mm

* Please note that the final product specifications are subject to change pending certification approval. Any necessary adjustments will be made to ensure compliance with certification requirements.

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Technical drawings

Bringing intelligent public transportation to life

For authorities, operators, and manufacturers of public transportation, Consat is the intelligent public transportation solution that combines high reliability with flexibility, so that each customer can receive optimal data and find their way towards better, more efficient, and sustainable operations.

https://www.consat.se/telematics/
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