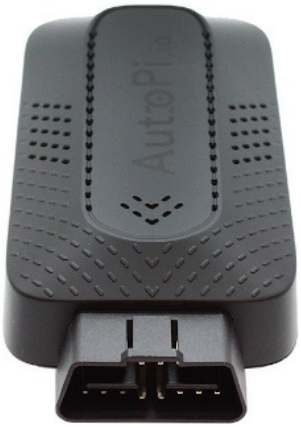
CAN Newsletter Online

4G TELEMATICS UNIT

# For fleet and device management

**TMU Pi3 telematics unit from Autopi (Denmark) is built on top of the Raspberry Pi 3 model A+ SBC (single-board computer). It can be connected to in-vehicle CAN networks via the OBD2 port.**



*The TMU Pi3 is upgradeable to the Raspberry Pi4 thus targeting future application (Source: Autopi)*

The device is based on the 1,4-GHz Broadcom BCM2837B0 SOC (system on chip) with Cortex-A53 64-bit quad-core processor. A 512-MiB SDRAM and a 32-GiB micro SD card with installed Raspbian Jessie operating system and Autopi Core software are included. Supported CAN-based higher-layer protocols include ISO 15765-4 (diagnostic over CAN), J1939, and others. Wifi, Bluetooth, and 4G/LTE cellular network are offered for wireless connectivity. The TMU Pi3 is upgradeable to the Raspberry Pi4, if additional computing power and Ethernet support are required.

The unit features a GPS (global positioning system) receiver, a HDMI (video output) interface, an audio jack, built-in speakers, a micro USB port, and 18 programmable GPIO (general purpose input/output) pins. A 3-Axis accelerometer is implemented. On larger orders, it is possible to expand the TMU with a 3-axis gyroscope. Two LEDs indicate power and status of the device. Sizing 137 mm x 36mm x 66mm, it works with power supply of up to 35$V_{DC}$, which is suitable for use in trucks. A built-in power management system prevents the vehicle's battery from being drained when the TMU is left plugged in for extended periods of time. The operating temperature can range from -20 °C to +70 °C.

Together with the fleet and device management software Autopi Management Cloud the connected vehicles can be tracked and the data can be visualized and diagnosed on a PC or a mobile device. The dashboard is based on customizable widgets. The vehicle trips' data can be stored in the cloud. Important events and notifications can be reviewed with the chosen functions.

*The connected vehicles can be tracked using browser-based Autopi Management Cloud software (Source: Autopi)*

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