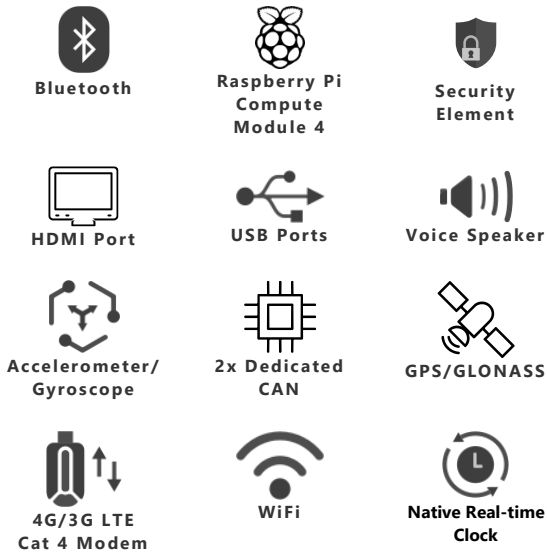


# AutoPi TMU CM4

Faster data rate at your fingertips



## Key Benefits

### 4G/LTE with global coverage

The integrated modem with worldwide coverage.

### Built in 2x CAN interface

Automotive connection with dual CAN.

### Factory integrated unit or aftermarket add-on

Use as a factory integrated OEM device or aftermarket add-on.

### Integrated power-safe functionality

Proven and experienced power fail-safe functionality integrated.

### Runs full Linux OS

Boost a well proved and tested OS, with guarantee for stability.

### Can be extended to almost any usage

Allows extension to both business and personal use cases.

### Upgradeable CPU/RAM

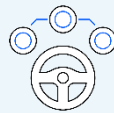
Upgrade the device with additional CPU/RAM

### Automotive certified (CE/FCC)

Certified to automotive standards for global usage.

### Security element

Secure and encrypt your data



### Upgraded automotive interface

The device comes with a 2x CAN interface and can be further expanded with additional CAN interfaces. Support for Diagnostics over IP (DoIP)



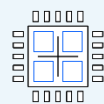
### Runs LINUX OS

AutoPi Core is based on a full LINUX OS (Raspberry Pi OS), with endless possibilities for extensions and integrations. Well proven and tested OS, with high endurance.



### Open source-software

The device runs on an open source-software, which allows users to build a custom code on top of that. All drivers and implementations in AutoPi Core is available from our GitHub repository.



### Computing Power

Broadcom BCM2711 Quad-core Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz provides incredible speed and functionality. 1GB LPDDR4 RAM and an integrated GPU. Upgradeable to even more memory

# Technical Specifications

Processor <b>(NEW)</b>	Broadcom BCM2711 Quad-core Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz
Memory	1GB LPDDR4 SDRAM <b>Upgrade:</b> 2GB, 4GB or 8GB LPDDR4 SDRAM (depending on model)
Storage <b>(NEW)</b>	8GB on board eMMC <b>Upgrade:</b> 16GB and 32GB (depending on model)
Size, Weight and Casing	<b>Casing:</b> Improved expansion options with exchangeable back shield for external antennas, additional USB ports, ethernet port.
Modem	Integrated 4G/LTE Cat 4 connection (3G/EDGE fallback) 150Mbit DL / 50Mbit UL Worldwide support in a single device <b>4G LTE Bands (Global):</b> B1 / B2 / B3 / B4 / B5 / B7 / B8 / B12 / B13 / B18 / B19 / B20 / B25 / B26 / B28 / B38 / B39 / B40 / B41 <b>3G Fallback (WCDMA):</b> B1 / B2 / B4 / B5 / B6 / B8 / B19 <b>EDGE Fallback:</b> B2 / B3 / B5 / B8 / Quad-band
Certifications	EN 301 489-1 v2.2.0, EN55025:2008, EN 50498 and Directive 2004/104/EC, ISO 7637-2:2011, EN 301 489-3 V2.1.1, FCC 47 CFR Part 15, Class A:10–17 Edition
Security Element <b>(NEW)</b>	<ul style="list-style-type: none"><li>- Hardware Based Secure Key Management</li><li>- Public Key Algorithms: RSA and ECC asymmetric, AES and DES symmetric cryptography algorithms. HMAC, CMAC, SHA-1, SHA-224/256/384/512 operations</li><li>- Crypto Curves: ECC NIST, Brainpool, Twisted Edwards Ed2551, Montgomery Curve25519, Koblitz, Barreto-Naehrig Curve, Montgomery Curve448</li><li>- Secure Storage of Keys, Certificates and Data</li><li>- Unique Serial Number</li><li>- Intrusion Detection</li></ul>
GPS	Integrated GPS + A-GPS. <b>Supports:</b> GPS/GLONASS/BeiDou/Galileo/QZSS
Power	<b>Line Voltage:</b> 12.5V AC (Car battery power). Up to 35V (Trucks). Support for trucks with up to 35V Built-in Power Management system to prevent the vehicle's battery from being drained
Expansion <b>(NEW)</b>	<b>2 X USB:</b> USB 2.0 (Max. theoretical power 2.1A divided between the two ports) <b>Ethernet:</b> Built in Ethernet <b>GPIO:</b> UART/I2C/SPI
Wireless	Built on Cypress CYW43455 Chipset <b>WiFi:</b> 2.4GHz and 5GHz IEEE 802.11.b/g/n/ac wireless LAN <b>Bluetooth:</b> Bluetooth 5.0 + Bluetooth Low Energy (BLE)
Accelerometer	Built in 3-axis accelerometer
Gyroscope	Built in 3-axis gyroscope
Automotive Interface	<b>2 X CAN:</b> CAN interface with up to 1Mbps Data rate with integrated CAN data filter <b>DoIP:</b> Upgradeable to allow support for DoIP
Input slots	<b>SIM Card:</b> Nano SIM – <i>Not Included</i>
Audio	Built-in speakers
Video Out	HDMI @ 1080P60 Video Output
Absolute Maximum Operating Environment	<b>Operating Temperature:</b> -20° TO 70° C (-4° TO 158° F) <b>Relative Humidity:</b> 0% TO 75% Noncondensing
Operating System	Raspbian OS with preconfigured AutoPi Core