AutoPi CAN-FD Pro

CAN Bus data logger for professionals





Module 4

Security Element























Key Benefits

4G/LTE with global coverage

The integrated modem with worldwide coverage.

Built in 2x CAN-FD interface

Automotive connection with dual CAN-FD.

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 a wide range of use cases

Upgraded Memory/Storage

Upgrade with 32GB storage and 4GB memory

Automotive certified (CE/FCC)

Certified to automotive standards for global usage.

Security element

Secure and encrypt your data

External antennas

External SMA connector for 2x 4G/LTE. 1x GPS and 1x WiFi/BLE



Upgraded automotive interface

The device comes with a 2x CAN-FD 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. 4GB LPDDR4 RAM and an integrated GPU. Comes with 32GB on-board storage for extensive logging.



Technical Specifications

| Processor | Broadcom BCM2711 Quad-core Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz |
|---|--|
| Memory | 4GB LPDDR4 SDRAM |
| Storage | 32GB on board eMMC |
| Size and Weight | Size: L: 133,5mm H: 36,6mm W: 68,2mm Weight: 170g |
| | Integrated 4G/LTE Cat 4 connection (3G/EDGE fallback) 150Mbit DL / 50Mbit UL |
| Modem | Worldwide support in a single device 4G LTE Bands (Global): B1 / B2 / B3 / B4 / B5 / B7 / B8 / B12 / B13 / B18 / B19 / B20 / B25 / B26 / B28 / B38 / B39 / B40 / B41 3G Fallback (WCDMA): B1 / B2 / B4 / B5 / B6 / B8 / B19 EDGE Fallback: 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:10–1–17 Edition |
| Security Element | - Hardware Based Secure Key Management - Public Key Algorithms: RSA and ECC asymmetric, AES and DES symmetric cryptography algorithms. HMAC, CMAC, SHA-1, SHA-224/256/384/512 operations - Crypto Curves: ECC NIST, Brainpool, Twisted Edwards Ed2551, Montgomery Curve25519, Koblitz, Barreto-Naehrig Curve, Montgomery Curve448 - Secure Storage of Keys, Certificates and Data - Unique Serial Number - Intrusion Detection |
| GPS | Integrated GPS + A-GPS. Supports : GPS/GLONASS/BeiDou/Galileo/QZSS |
| Power | Line Voltage: 12.5V DC (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 | 2 X USB: USB 2.0 (Max. theoretical power 2.1A divided between the two ports) Ethernet: Built in Gigabit Ethernet GPIO: UART/I2C/SPI |
| Wireless | Built on Cypress CYW43455 Chipset WiFi: 2.4GHz and 5GHz IEEE 802.11.b/g/n/ac wireless LAN Bluetooth: Bluetooth 5.0 + Bluetooth Low Energy (BLE) |
| Accelerometer | Built in 3-axis accelerometer |
| Gyroscope | Built in 3-axis gyroscope |
| Automotive Interface | 2 X CAN-FD: CAN-FD interface with up to 5Mbps Data rate with integrated CAN data filter DoIP: Upgradeable to allow support for DoIP |
| Input slots | SIM Card: Nano SIM – Not Included |
| Audio | Built-in speakers |
| Video Out | HDMI @ 1080P60 Video Output |
| Absolute Maximum Operating Environment | Operating Temperature: -20° TO 70° C (-4° TO 158° F) Relative Humidity: 0% TO 75% Noncondensing |
| Operating System | Raspbian OS with preconfigured AutoPi Core |
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