



WiCAN PRO

Advanced OBD-II diagnostic scanner

WiCAN PRO is an unparalleled diagnostic OBD scanner meticulously designed to meet the advanced needs of automotive diagnostics. Powered by a dedicated OBD interpreter chip, it ensures comprehensive support across all legislated OBD-II protocols. With its ability to interface with three CAN BUS protocols and one SW CAN, WiCAN PRO offers broad compatibility, covering numerous vehicle makes and models.

Key Highlights

- Dedicated OBD chip — full coverage of all legislated OBD-II protocols
- 3 × CAN bus + 1 × Single-Wire CAN (GMLAN)
- ESP32-S3 with Wi-Fi and Bluetooth LE
- Native Home Assistant integration
- USB host for optional peripherals
- microSD data logging, IMU wake-on-motion, OTA firmware

Supported Protocols

Covers all legislated OBD-II protocols across passenger and commercial vehicles:

- ISO 15765-4 CAN
- SAE J1939 CAN
- ISO 11898 raw CAN
- Single Wire CAN (GMLAN)
- SAE J1850-PWM / VPW
- ISO 9141-2
- ISO 14230-4 (KWP2000)

Seamless Integration with Home Assistant

What sets WiCAN PRO apart from typical OBD2 scanners is that it doesn't rely on a dedicated app. Instead, it integrates directly with platforms like Home Assistant (via an integration) and other IoT systems, allowing you to access and process vehicle data seamlessly. This makes it a practical choice for adding automotive diagnostics to a smart home setup.

Compatible Apps

Works with popular OBD diagnostic applications, including Car Scanner, Torque Lite / Pro, OBD Auto Doctor, BimmerCode and OBD Fusion. Also integrates directly with Home Assistant and other IoT platforms for dashboard and automation use cases.

Features & Specifications

Processor & Connectivity

Processor	Espressif ESP32-S3, dual-core
Memory	16MB Flash 8MB PSRAM
Wireless	Wi-Fi (STA / AP), Bluetooth 5 LE
Firmware	Open-source WiCAN firmware
Real-Time Clock	Retains time briefly when unpowered
IMU	Accelerometer for wake-on-motion

OBD-II & CAN Interfaces

Interpreter	Dedicated OBD chip — all legislated OBD-II protocols
CAN interfaces	3 × CAN bus + 1 × Single-Wire CAN (GMLAN)
Other Interfaces	SAE J1850-PWM, SAE J1850-VPW, ISO 14230-4 slow/fast
Instruction sets	ELM327 v2.3, ELM329 v2.2, STN, VT

Peripherals & I/O

USB host	5 V, up to 1.5 A
USB-C	Firmware flashing only (see note below)
microSD slot	Local data logging
User interface	Multi-function push button

Power

Power source	Vehicle OBD-II port (7V ~ 18V)
USB-C power	Not Supported
Sleep Mode	Supported
Sleep Current	~3.8mA

Wireless / RF

Wi-Fi standard	IEEE 802.11 b/g/n (2.4 GHz)
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Wi-Fi frequency range	2412 – 2484 MHz
Wi-Fi TX power (conducted, typ.)	20.5 dBm max (802.11b); 18.0 dBm (802.11g); 17.5 dBm (802.11n HT20)
Bluetooth LE frequency range	2402 – 2480 MHz
Bluetooth LE TX power (conducted)	–24.0 to +20.0 dBm

Note: WiCAN PRO cannot be powered via the USB-C interface; it must be connected to an OBD-II port for power.

Comparison table

Feature	WiCAN Pro	WiCAN
USB & HARDWARE		
USB Host Interface	✓	✗
Dual USB to Serial	✓	✗
Button	✓	✗
SD Card Logging	✓	✗
CONNECTIVITY & SOFTWARE		
Interface	WiFi / BLE / USB	WiFi / BLE
WiCAN Firmware	✓	✓
Wireguard VPN	✓	✗
HTTPS	✓	HTTP only
MQTTs (Secure MQTT)	✓	MQTT only
Home Assistant Nabu Casa	✓	✗
Firmware Updates — Access Latest Features	Full	Limited
Improved Web Interface	✓	✗
Additional Reverse Engineering Tools	✓	✗
RealDash CAN Protocol (PIN 6/14)	✓	✓
slcan / socketCAN (PIN 6/14)	✓	✓
PROTOCOLS		
Medium Speed CAN MS-CAN (PIN 3/11)	✓	✗
GM High-Speed J1962 (PIN 12/13)	✓	✗
Single Wire CAN GMLAN (PIN 1)	✓	✗
SAE J1850-PWM	✓	✗
SAE J1850-VPW	✓	✗
ISO 9141-2	✓	✗
ISO 14230-4 Slow/Fast	✓	✗
INSTRUCTION SETS		
ELM327 Instructions	v2.3	Emulation v1.5
ELM329 Instructions	v2.2	✗
STN Instructions	✓	✗
VT Instructions	✓	✗

OBDII Connector Pinout



Ordering Information

Part Number	Description	Packaging
MP-WICAN-PRO	WiCAN PRO OBD-II diagnostic scanner	

Revision History

Revision	Date	Description of Changes
1.0	2026-04-18	Initial release

Disclaimer

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