

### Document Information

<b>Model</b>	DA100	<b>Release Date</b>	2026-02-05
<b>Document Version</b>	Rev 1.0	<b>Firmware</b>	V1.5

#### Scope

This specification applies to the DA100 Bluetooth Low Energy (BLE) OBD-II adapter. It is intended for OEM/ODM and wholesale customers for product evaluation, integration planning, and quality verification.

#### Purpose of Document

This document defines key hardware and interface characteristics, typical OBD-II functions, packaging information, and storage/transportation requirements for design review and quality verification.



#### Bluetooth Low Energy

Wireless connectivity for iOS & Android devices with low power consumption



#### 9 OBD-II Protocols

Universal support for all standard vehicle protocols and manufacturers



#### Real-Time Data Stream

Live vehicle parameters and diagnostic streaming via standard PIDs



#### DTC Management

Read and clear diagnostic trouble codes where permitted by vehicle



#### Wide Temperature Range

-20°C to +60°C operating range for harsh environments



#### Vehicle Powered

9-16V DC direct power from vehicle OBD-II port

#### Physical Specifications

64.5 × 49 × 24 mm  
Weight: 30 g (net) , 61 g (gross)  
OBD-II 16-pin Male Connector



#### App Compatible

Works with third-party OBD-II apps or custom software



#### Compact Design

Only 30g, fits discreetly in vehicle OBD-II port

### OBD-II Diagnostic Features & Capabilities

- Read & Clear DTCs:** Reads and clears engine/emissions Diagnostic Trouble Codes (subject to vehicle conditions and regulations)
- OBD-II Standard Modes:** Access to live data, freeze frame, I/M readiness, O2 sensor test, Mode 6, and vehicle information (VIN/CID where supported)
- Real-Time Data Stream:** Supports standard PIDs including engine RPM, vehicle speed, coolant temperature, fuel trim, throttle position, and more (PID availability depends on vehicle)
- App Compatibility:** Works with compatible third-party OBD-II apps or customer-developed applications (app not included)

Note: Advanced diagnostics (ABS/SRS/TPMS/body modules, etc.) require vehicle- and app-specific support and are not part of the OBD-II standard.

### Supported OBD-II Protocols (Vehicle Side)

- SAE J1850 PWM (41.6 Kbaud)
- SAE J1850 VPW (10.4 Kbaud)
- ISO 9141-2 (5-baud init, 10.4 Kbaud)
- ISO 14230-4 KWP (5-baud init, 10.4 Kbaud)
- ISO 14230-4 KWP (fast init, 10.4 Kbaud)
- ISO 15765-4 CAN (11-bit ID, 500 Kbaud)
- ISO 15765-4 CAN (29-bit ID, 500 Kbaud)
- ISO 15765-4 CAN (11-bit ID, 250 Kbaud)
- ISO 15765-4 CAN (29-bit ID, 250 Kbaud)

### Supported Vehicle Data (Typical Standard PIDs)

- Diagnostic Trouble Codes (DTC)
- Clear DTCs / Turn off MIL
- Engine Speed (RPM)
- Vehicle Speed
- Coolant Temperature
- Calculated Load Value
- Fuel System Status
- Short-Term Fuel Trim
- Long-Term Fuel Trim
- Intake Manifold Pressure
- Ignition Timing Advance
- Intake Air Temperature
- Mass Air Flow Rate
- Throttle Position (Absolute)
- Oxygen Sensor Voltage/Trim
- Fuel Pressure (where supported)

\* PID availability varies by vehicle make, model, year, and ECU implementation. Not all vehicles support all PIDs.

### Technical Specifications (Detailed)

#### GENERAL

<b>Product Model</b>	DA100
<b>Product Type</b>	Bluetooth Low Energy (BLE) OBD-II Diagnostic Adapter
<b>Target Application</b>	Fleet management, vehicle diagnostics, real-time monitoring, OEM/ODM integration

#### COMMUNICATION

<b>Wireless Technology</b>	Bluetooth Low Energy (BLE)/ Bluetooth 5.4 / Bluetooth 4.0
<b>Supported Devices</b>	iOS (iPhone, iPad) and Android smartphones/tablets with BLE support
<b>Vehicle Connection</b>	OBD-II 16-pin male connector (SAE J1962 standard)
<b>Wireless Range</b>	Up to 10 meters (33 feet) typical, varies by environment

#### ELECTRICAL

<b>Operating Voltage</b>	DC 9V to 16V (powered from vehicle OBD-II port, Pin 16)
<b>Power Consumption</b>	Low power consumption via BLE technology

#### ENVIRONMENTAL

<b>Operating Temperature</b>	-20°C to +60°C (-4°F to +140°F)
<b>Storage Temperature</b>	-20°C to +60°C (-4°F to +140°F)
<b>Humidity</b>	5% to 95% RH (non-condensing)

#### PHYSICAL

<b>Dimensions (L × W × H)</b>	64.5 mm × 49 mm × 24 mm (2.54" × 1.93" × 0.94")
<b>Weight (Device Only)</b>	30 g (1.06 oz)
<b>Weight (with Packaging)</b>	61 g (2.15 oz)
<b>Housing Material</b>	ABS plastic, automotive-grade

#### SOFTWARE & COMPATIBILITY

<b>Supported Systems</b>	iOS (iPhone 4S and later, iPad 3rd gen and later), Android 4.3+ with BLE support
<b>Compatible Apps</b>	Third-party OBD-II apps or customer-developed applications (app not included with device)
<b>Supported Languages</b>	English, German, French, Spanish, Italian, Russian, Chinese, Japanese, Portuguese, Korean (app-dependent)

#### CERTIFICATIONS & COMPLIANCE

<b>Standards Compliance</b>	CE, FCC, RoHS compliant
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### OBD-II Interface Definition (16-pin SAE J1962)

Pin	Signal Description	Pin	Signal Description
1	Reserved	9	Reserved
2	J1850+ Bus Positive	10	J1850- Bus Negative
3	Reserved	11	Reserved
4	Chassis Ground	12	Reserved
5	Signal Ground	13	Reserved
6	CAN High (CANH)	14	CAN Low (CANL)
7	K-Line (ISO 9141-2 / ISO 14230-4)	15	L-Line (ISO 9141-2 / ISO 14230-4)
8	Reserved	16	Battery Power (+12V)

### Packaging Information

**Contents:** Adapter ×1, Manual ×1, Box ×1

**Package Size:** 87 × 73 × 30 mm

**Carton Size:** 365 × 320 × 395 mm

**Qty per Carton:** 200 pcs

**Net Weight:** 30 g

**Gross Weight:** 61 g

### Storage & Transportation

**Storage:** Store in a clean, ventilated, cool and dry environment. Moisture protection is required.

**Handling:** Handle with care during loading and unloading. Avoid strong vibration, impact, compression, contamination, or packaging damage.

**Transport:** Protect from rain and direct sunlight. Suitable for road, railway, sea, or air transport.

### Supported Languages (10)

- English
- German
- French
- Chinese
- Japanese
- Spanish
- Italian
- Russian
- Portuguese
- Korean

### Warnings & Precautions

- ▶ Do not clean the product with abrasive or corrosive detergents
- ▶ Do not expose the product to direct sunlight for extended periods
- ▶ Do not use the product in rain or under excessive moisture conditions
- ▶ Do not expose the product to heat sources or open flames
- ▶ Do not attempt to disassemble, modify, or repair the product
- ▶ Store in dry environment away from extreme temperatures and dust when not in use

 There are no user-serviceable parts inside. For technical support, contact authorized service centers only.