EDICblue

Bluetooth Interface for Vehicle Electronics

Data Sheet

Wireless Vehicle Interface

Applications in all areas of ECU communication require efficient, easy-to-use and reasonably-priced interfaces to the vehicle electronics. Thanks to its Bluetooth® interface and the new compact housing concept with an integrated diagnostic connector, EDICblue is perfect for use in the Test Drive, Manufacturing and Service sectors. EDICblue is software-compatible with other EDIC® interfaces* and can thus be used with Softing tools such as DTS, EDIABAS and VAS 5163 (for VW applications).

Areas of Implementation and Applications

Using EDICblue in test drive applications makes parallel communication with several ECUs possible due to reliable and efficient handling of diagnostic protocols in the interface. In manufacturing and service applications, EDICblue's wireless connection makes it perfect for use between the vehicle and test system. In addition, completely new applications are now possible: EDICblue is connected once in the vehicle thanks to the integrated J1962 diagnostic connector. Thereafter ECUs can be read or parameterized, the fault memory read or deleted, and other diagnostic tasks executed at different workstations. In addition, a digital input enables the evaluation of the ignition signal. The product compatibility of the EDIC family guarantees integration into existing systems.

Advantages of EDICblue

Integrated Diagnostic Connector

The compact housing concept with an integrated SAE-J1962 connector makes it possible to connect EDICblue directly to the diagnostic connector of the vehicle. Complicated and troublesome arrangement of additional cables is thus a thing of the past.

Wireless

The integrated Bluetooth interface connects the vehicle to the notebook, desktop or test system doing away with the need for cables.

D-PDU API

The standardized programming interface enables efficient integration into your application.

* EDIC is a registered trademark of Softing AG.

Protocol Processing in the Interface

The vehicle protocols are processed directly in the interface. This ensures fast response times and reliable real-time behavior regardless of the PC operating system. Extensive buffer mechanisms make parallel operation of several communication channels possible.

Flexibility

Various software packages with operating software and additional vehicle protocols, such as Diagnostics on CAN (ISO 15765), UDS (ISO 14229), KWP 2000 (ISO 14230), TP 2.0, as well as many OEM-specific protocols are available for EDICblue. The support of the relevant bus systems and of the parallel communication channels depends on the software package used. To ensure it is always perfectly equipped for future applications, EDICblue can be upgraded with software updates. Customized software solutions can be realized on request.

An Overview of Features

- Optimized housing design with integrated diagnostic connector
- 2 independent channels: 1 x CAN and 1 x ISO 9141
- Data preprocessing and protocol handling in the interface
- Bluetooth interface to the PC
- Status display via LED
- Power management

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EDICblue: Bluetooth Interface for Vehicle Electronics

Technical Data

Format	■ Approx. 114 x 48 x 25 mm ■ Weight approx. 100 g
Power supply	8 ... 18V via vehicle diagnostic connector
Current consumption	Approx. 200 mA at 12V
Microcontroller	16-bit microcontroller XC161CJ, 40 MHz
PC interface	■ Bluetooth® V1.1 / V2.0, Class 2 (range approx. 10 m) ■ USB V2.0 Full Speed, 12 Mbit/s, mini USB jack (type B)
Vehicle interface	Diagnostic connector in acc. with ISO 15031-3 or SAE J1962
CAN	1 channel with transceiver package depending on product variant: ■ EDICblue: – CAN high-speed in acc. with ISO 11898 and CAN 2.0B with 11-/29-bit identifier – Optional: CAN low-speed transceiver (TJA1054) switchable via software; fixed assignment to free pins 3, 8, 9, 11, 12 or 13 acc. to customer requirements ■ EDICblue-LS: – CAN high-speed in acc. with ISO 11898 and CAN 2.0B with 11-/29-bit identifier – CAN low-speed transceiver (TJA1054) switchable via software; fixed assignment to pin 8 and 9
ISO 9141-2	K- and L-line for 12-V vehicle systems; baud rates can be finely set, max. 125 kBaud (depending on the protocol and bus physics)
SAE J1850	SAE J1850 PWM and VPW: on request
Digital input	For ignition signal
Power-save mode	Automatic power-off after a settable time, power-on by ignition
Temperature range	Operation: 0 ... +50 °C, Storage: -20 ... +85 °C
Vehicle interfering pulses	In acc. with ISO 7637; pulses 1 - 5
EMC conformity	■ Noise emission: EN 55022, EN 55011 Class A and EN 61000-6-4 (Industry) ■ Interference immunity: EN 61000-6-2 (Industry) ■ FCC part 15 subpart B limit A (Industry)
Radio permit	EU states, Switzerland, Norway, USA, Canada; other countries on request

Delivery Scope

- EDICblue
- USB cable (3 m)
- User manual
- D-PDU API software ISO 22900-2

System Requirements

- Operating system: Windows™ XP, Win 7 from 12/2010
- Bluetooth interface Class 1 or Class 2

Application Software (optional)

- Diagnostic Tool Set (DTS)

Product Variants/Order Numbers

EDICblue
- EDICblue hardware with CAN high-speed transceiver

EDICblue-LS
- EDICblue hardware with transceivers for CAN high-speed and CAN low-speed, switchable via software; fixed assignment to pin 8 and 9

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