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HSC

Compact High-Performance Interface for Vehicle Electronics

The HSC Interface is a further powerful VCI. With a compact design and WLAN/LAN as interfaces to the PC as well as CAN, K-Line and Ethernet to the vehicle, the VCI is particularly well suited for future-proof mobile manufacturing and after-sales service applications.

Protocol Handling in the Interface

The vehicle protocols are handled directly in the interface. This ensures fast response times and reliable real-time behavior regardless of the PC operating system. The use of a two-processor solution consisting of a 550 MHz SoC and a 32-bit automotive microcontroller enables parallel operation of several communication channels as is often necessary for diagnostics and flash applications on the entire vehicle.

Software Interfaces

The communication protocols UDS (ISO 14229) and KWP 2000 (ISO 15765) are currently supported via the standardized D-PDU API (ISO 22900-2). The VCI can also be used as a PassThru device in acc. with SAE J2534. Together with the Diagnostic Tool Set DTS from Softing, an integral solution in accordance with the MCD-3D standard ISO 22900-3 can be realized with ODX technology.

Mobility

With its WLAN interface, the HSC is designed for mobile use in after-sales service and in manufacturing. The WLAN chip set integrated on the SoC and two antennas are the basis of the high-performance integration of an Ethernet connection to the vehicle.

Flexibility

Software upgrades are also available for HSC ensuring it is always perfectly equipped for future applications. This is also the way to realize customer-specific software solutions.

Compact and Robust Design

The device is extremely compact and ruggedized thanks to the integration of the diagnostic connector into the housing made of impact-resistant plastic. Cables with a specially developed port using spring contacts and magnetic fastening are available for a connection to the PC via LAN.

Areas of Application

- Mobile applications in manufacturing and after-sales service
- Fast and reliable flash programming
- Diagnostic tests for test drives
- Future-proof diagnostic solutions with DoIP (Diagnostics over IP)

Benefits

- 2 x CAN, 2 x ISO 9141, Ethernet
- Data preprocessing and protocol handling in the interface
- Compact design with integrated diagnostic connector
- Special LAN cable with magnetic fastening
- Light band as status indicator
- Galvanic isolation

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Technical Data

Format	Approx. 140 x 48 x 25 mm
Power supply	7 ... 32 V via vehicle diagnostic connector
Current consumption	Approx. 250 mA at 12 V
Microcontroller	SoC and 32-bit microcontroller
PC interfaces	LAN 100 MBit/s via optional LAN cable WLAN IEEE 802.11 a/b/g/n, 300 MBit/s, safety standards WEP, WPA and WPA2
Vehicle interface	Integrated diagnostic connector in acc. with ISO 15031-3, all signals galvanically isolated from the PC interface
CAN	2 CAN channels high-speed in acc. with ISO 11898-2, CAN channel 2 switchable via software to CAN fault tolerant ISO 11898-3
ISO 9141-2	2 K-Line channels for 12V and 24V vehicle systems; one K-Line usable as L-Line; Baud rate max. 250 kBaud (depending on the protocol and bus physics)
Ethernet	Ethernet 100 MBit/s, use with DoIP depends on the operating software
Digital inputs	Ignition (KI 15), Two capacitive buttons, movement detector (use depends on the operating software)
Status indicator	RGB light diodes linked to clearly visible light band
Temperature range	Operation: 0 ... +50 °C, storage: -20 ... +85 °C
Protection rating	Dust and splash water protection in accordance with IP54
EMC conformity	Noise emission: EN 55011 Interference immunity: EN 61000-4
Radio permits	EU states, Switzerland, Liechtenstein, Norway, Iceland, other countries on request
Software interface	D-PDU API
System requirements	Operating system: Windows 7, Windows 8

Order Numbers

HC-HD-1400	HSC multibus interface with WLAN/LAN and integrated diagnostic connector (J1962 / ISO 15031-3); K/L-Line ISO 9141(-2), 2 x CAN V2.0B high speed, 1 CAN channel switchable to CAN fault tolerant; Ethernet for DoIP; For 12/24V systems; incl. D-PDU API software The LAN cable HC-KA-2002 is necessary for the configuration of the WLAN interface of the VCI

Supplementary Products and Services

HC-KA-2002	LAN-Kabel with MagCode for HSC

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