



**KOPF**

## AUTOMOTIVE INTERFACE AI2

BASIC HARDWARE WITH CAN, LIN AND USB-INTERFACE FOR THE  
AUTOMOTIVE-RANGE



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BASIC HARDWARE WITH CAN,  
LIN AND USB-INTERFACE FOR  
THE AUTOMOTIVE-RANGE



- ▶ Spontaneous and cyclical sending from CAN-Frames
- ▶ Implementation of complete communication stencils (on request)
- ▶ LIN Master/Slave simulation with cycle- and status information
- ▶ Interface for PC-communication (RS232 & USB)
- ▶ Online Bus Trace (screen)
- ▶ Monitoring the Businformationen on screen and in a file
- ▶ Producing a trigger signal (ISO9141) of freely selectable ID
- ▶ High accuracy of the system time reference
- ▶ Timing analysis of the data telegrams with a dissolution of 10us
- ▶ Efficient hardware with expandabilities
- ▶ Availability of the Source code für customer adjustments
- ▶ Flash-Update via PC-Software
- ▶ USB-Integration via DLL-Interface including completely Source-Codes

### Operational areas of the Automotive Interfaces (AI)

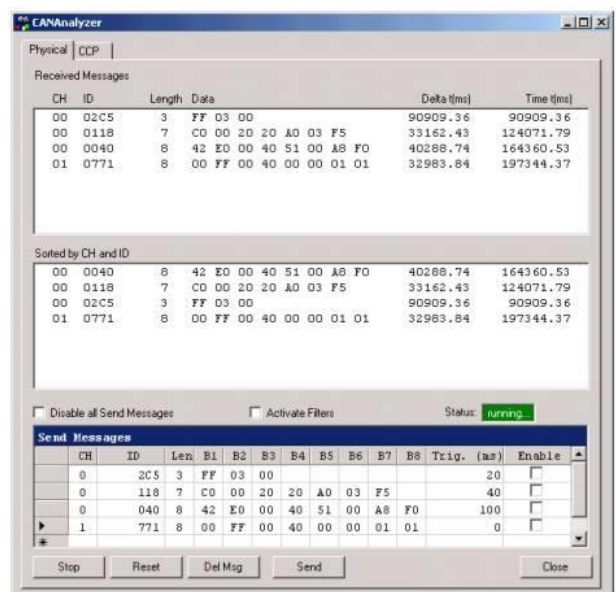
Use finds the AI in the scope of development and inspection of the car manufacturers and their supplier.

CAN & LIN MONITOR &  
SIMULATION

### PC Software

The communication between PC and AI2 takes place with the help of a dynamic Link Library (DLL) via the USB-Interface. In the basic scope of supply of the AI2 is the application buswatch V3 (Windows Vista, Windows 7, Windows 8, Windows 10) inclusively Source-Code (C#). Further integration examples in C# and other programm languages can be found at

- ▶ <http://www.kopfweb.de/index.php/en/hardware-development>
- ▶ <http://www.kopfweb.de/index.php/en/download-english>



### Function range Buswatch V3

- ▶ Cycle and spontaneous sending procedures
- ▶ Support of max. 2 CAN-Channels
- ▶ Minutes-recordings in File
- ▶ Windows Vista, Windows 7, Windows 8, Win 10
- ▶ Basic implementation CCP-communication
- ▶ Filter for receipt Messages
- ▶ Source-Code without restrictions available

In configuration files attitudes can be stored for different simulations- and/or test environments.



## CAN & LIN MONITOR & SIMULATION

USB-Interface Dynamic Link Library (AID.DLL)

### KCAN\_Open

Syntax: uint32 KCAN\_Open()

Open for the USB-Interface of the AI2

Return value: 1: Interface activ

### KCAN\_Init

Syntax: uint32 KCAN\_Init(byte channel, uint32 baudrate)

Initialization for the CAN Interface „channel“ (0,1) with the Baud rate „baud rate“ (50000..1000000).

Return value: 0: Initialization implemented

### KCAN\_Reset

Syntax: uint32 KCAN\_Reset()

Reset for the USB-Interface and delete of the CAN-Puffers.

Return value: 0: KCAN\_Reset implemented

### KCAN\_Send

Syntax:

uint32 KCAN\_Send(byte channel, uint32 id, uint32 dlc, byte \*data)

Send a CAN telegrams on the CAN interface „channel“. Extended-Frames are marked by an active Highest-Bit (Bit31) of the Identifiers.

Return value: 0: Telegram dispatched

### KCAN\_Receive

Syntax:

uint32 KCAN\_Receive(byte \*channel, uint32 \*id, uint32 \*dlc, byte \*data, ulong \*time)

Received of a CAN Telegrams of the CAN Interface „channel“. Extended-Frames werden durch ein aktives Highest-Bit (Bit31) des Identifiers gekennzeichnet. Dissolution of „time“ amounts to 10us.

Return value: 0: Telegram received

### KCAN\_Receive\_Status

Syntax: uint32 KCAN\_Receive\_Status()

Return value: Number of CAN Telegrams in the buffer

### KCAN\_Close

Syntax: uint32 KCAN\_Close()

Close for the USB-Interface of the AI2

Return value: 0: Interface closed

## Technical data AI2 in overview

Voltage supply	USB or 8-30 V DC
CAN-Interface	2x 82C251 / TJA1050
LIN-Interface	1x TJA1020
RS232-Interface	1x HIN202 (PC,SPS)
USB-Interface	1x FTDI245
Dimensions (LxWxH)	112x60x20 mm
Weight	0,1 kg
Temperature range	-40°C – 85 °C (0°C-50°C USB)
Processor	MC9S12DP256/25 MHz
System Memory	256 kB Flash-EPROM (Update over PC) 12 kB RAM

## Order and price information\*

Automotive Interface 2 Aluminium Case with Top Hat Rail Ext. Supply 12/24V LIN <b>070 010 192 C</b>	628,00 €
Connecting cable 2 CAN LIN <b>070 010 184</b>	41,90 €
Connecting cable LIN Slave without terminal resistance <b>070 010 181</b>	22,40 €
Connecting cable LIN Master with terminal resistance 1 kΩ <b>070 010 182A</b>	54,60 €

\* All the prices indicated are subject to VAT at the prevailing rate.