

CANginell_BT



Bluetooth Edition

CANginell_BT enables the connection between commercial vehicle electronics and telematics host computer via Bluetooth SSP link. On its vehicle side CANginell_BT offers connections to

- FMS CAN
- CAN of the digital tachograph
- D8 info link of the digital tachograph



With these connections not only the complete real-time vehicle operational data and the ID numbers of the driver cards are available but also access to the data storage of the digital tachograph. Using CANginell_BT as an access device to the vehicles electronics the telematics unit is able to download the complete tachograph data for archival storage without any manual intervention. The laborious and error-prone handling of the USB Download Sticks is a thing of the past. Update your telematics equipment with CANginell_BT for the cost of one single Download Stick.

High Performance

In its standard case, CANginell_BT only measures 92x44x24 mm³ and contains a modern 32 bit microcontroller, **72 MHz** which is internal clocked at 72 MHz. The Arm controller offers enough resources even for future firmware extensions. The supply voltage is 7...32 V, the operating temperature range is -40...80°C.

FMS CAN

CANginell_BT supports all messages defined in all standards up to version 3. If the vehicle is equipped with one of the newer versions, the connection of the D8 info serial link is generally not necessary as information about the inserted driver cards is provided by the newer FMS standards. This simplifies cabling.

D8 Info Link of the DTCO

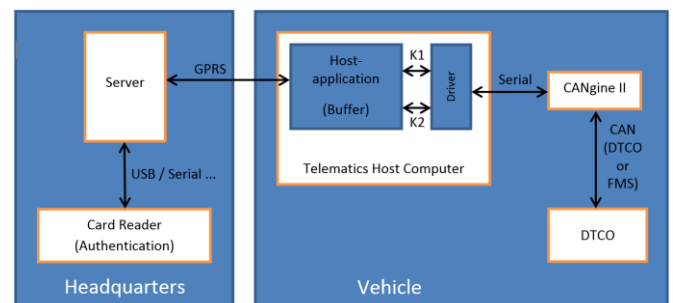
The digital tachograph (DTCO) features a serial output on its rear panel, where the driver's card data and some vehicle operational data are transmitted cyclically.

Unfortunately the data format is not specified in the EU regulation paper and therefore the tachograph manufacturers use different data formats. In its actual revision CANginell supports the VDO and Stoneridge formats, other tachographs will be added on request.



Remote Download

The Remote Download function via FMS CAN has been published end of 2008. CANginell_BT grants access to this helpful feature without having to learn the related CAN protocol. A special serial protocol provides access to authentication and data download. On the telematics host side we provide Run-Time API for Windows and Android which realizes most of the programming tasks and facilitates building the Remote Download application. Both API offers the functions to open a session, to realize the authentication process and to download the tachograph's and the driver cards data. To further facilitate the programming work the example application which is delivered with CANginell_BT is available as a source code package.



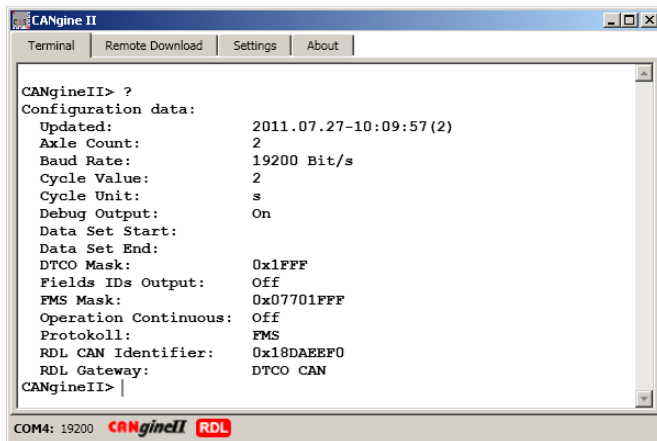
If the vehicle doesn't yet support the Remote Download feature on the CAN FMS CANginell_BT can be connected to the rear panel of the digital tachograph. Using a configuration command the specific link for Remote Download can be defined.

CANgineII_BT

Bluetooth Edition

Parameterising

CANgineII_BT can be parameterised by a lot of useful parameters and in this way be adapted to nearly any special demands of a given telematic application. The telematics host is not bound to read all the real time variables. With the help of parameterising commands the variables are selectable by masks as well as the time or distance period of the output cycle.



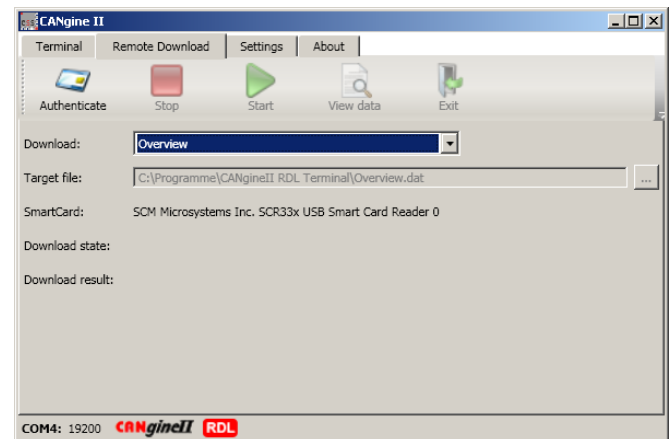
Overview Parameterising

Example Software

The example software is delivered for Windows and Android. The software shows all functions of the CANgineII_BT including the Remote Download function. A terminal window is used for direct communication to the device. In this window the operational parameters are set and the data output can be watched. With the settings basic communication parameters can be adjusted. The Remote Download tab is used to set the target directory for download data, to authenticate the download and to download the data sets from the tachograph or driver cards to the telematics host.

With the help of the Remote Download function companies are able to fulfil the compulsory archiving without manual intervention of the driver. Data

downloaded by the Remote Download Function contains a digital signature as requested by the law in most European countries.



Remote Download Tab

Output of Real Time Values

The cyclic output of real-time values can be done in two different formats. The so called debug format is used for the initial operation procedure and for monitoring after modification of parametrising. In normal operation mode when data is transmitted to the telematics host a compressed format is used, where no leading text and no physical units are output. In this format, the values are separated by semicolons and can be prefixed by an optional index value.

Technical Data

Power Supply	7 .. 30	VDC
Power Consumption	78 typ @ 12 VDC 48 typ @ 24 VDC	mA mA
CAN Transceiver	82C251 (24V)	
Vehicle Connector	Sub-D 9 pin male	
CAN Baud Rate	250	kBit/s
Displays	LED RUN (green) LED ERR (red)	
Size	84 x 44 x 24 3.31 x 1.73 x 0.94	mm ³ inch ³
Weight	44	g
Operating Temperature	-40 .. +80	°C

Approved by KBA: (E1) 10 R - 047178