CAN-Controller

1 Overview

- 2 Can-bus Line
- Logger
- Sender
- Analyser
- Programmer
- Over-the-air updates
- RTC

2 Description

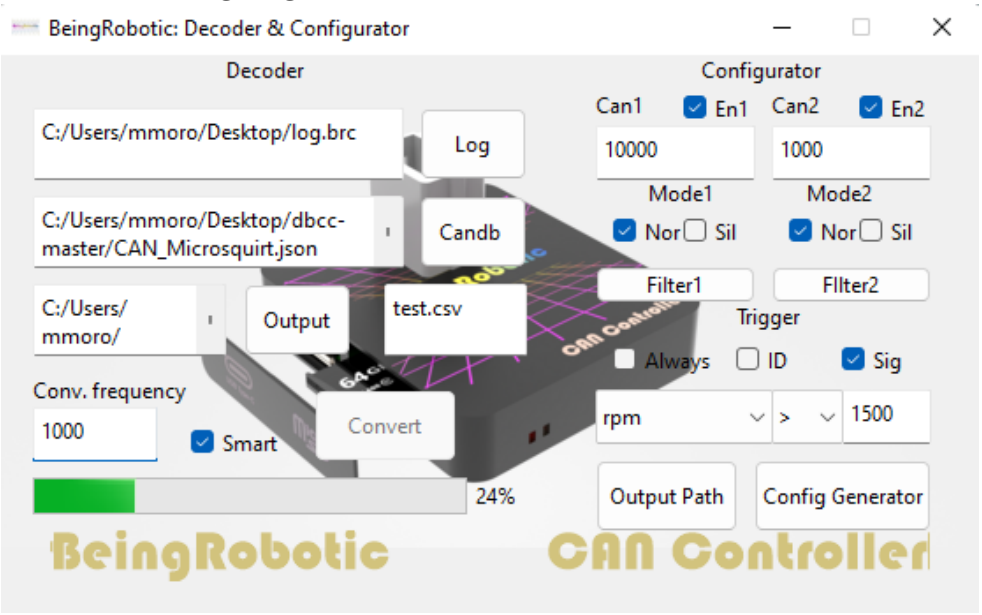
- CAN-Controller is a multipurpose Can-bus device. The board was created in order to make the Can-bus protocol accessible to everyone. In the development is followed a modular logic in order to provide a tailor-made product for each customer. This philosophy applies to hardware where are developed expansion boards those permit to add features, but it also applies to software where there are dedicated packages for each needs.
- CAN-Controller combines power, lightness and versatility and for this reason it is also very suitable for the racing application, where data reliability is very important.
- The board has 2 Can-bus interface (2.0B Active) full speed, up to 1Mb/s.
- The board can log independently 2 Can-bus Line. The acquisition is started by user settable trigger. The log file can be downloaded using USB, MicroSD and WIFI(if expansion board is installed). The log file is generated in a proprietary format and after download it is converted using .dbc database and custom software. All the Can-bus packets are always logged but only the packet inside .dbc are converted, so thus you can access the full bus data always.
- The board can send packets over Can-bus Line when a particular condition is meet. Sending can be triggered by user settable trigger. The packet to send are saved on the MicroSD.
- CAN-Controller is fully compatible with open-source software analysis such as SavvyCAN and Wireshark. The connection with PC is possible using USB or WIFI. Using those software is possible to perform different test over Can-bus systems, sending and receiving packets.
- An outstanding feature of the board is its capability for over-the-air updates via Wifi. This ensures you stay up-to-date with the latest firmware and can conveniently modify the device's behavior through our website
- In a future software update, the device will also be capable of programming different Can Device over the Can-bus without the need for additional programmer.

3 Expansion board

- Real Time Clock expansion board and Tamper Battery module can be installed on request, they permits to have very precise time reference for most critical applications.

4 Software provided

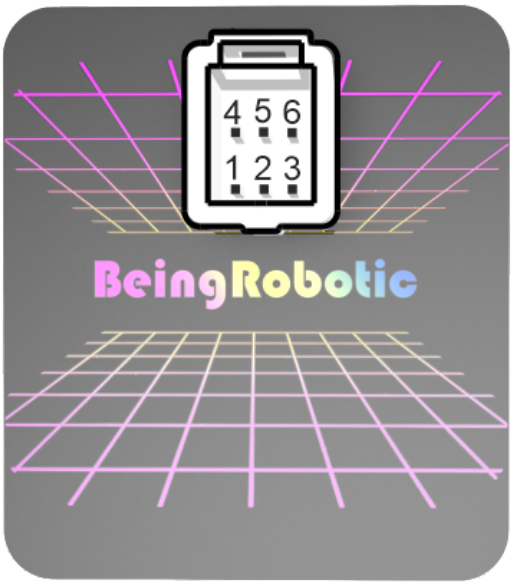
Decoder & Configurator is unique software that permits to manage the board, is possible to configure Can-bus parameters such as Can-bus Speed, Filters, Trigger and many others. Moreover is possible to convert proprietary log file using .dbc configuration file.
The software permits also to select the conversion frequency in order to generate .csv file, easy readable with common software such as MegaLogViewer.



5 Technical specification

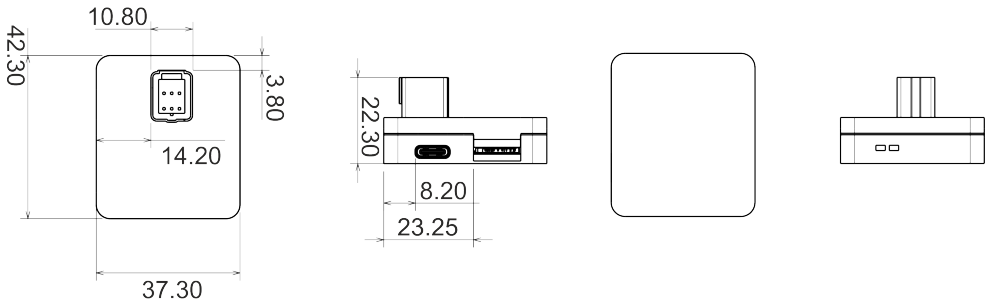
	Value	Unit
VIN	4V-28V	
Maximum current	0.2	A
Maximum current protection(resettable fuse)	0.3	A
Inversion supply polarity protection	yes	
Dimensions	37.30*42.30*22.30	$mm * mm * mm$
Weight	50	g
Temperature range	-20 ÷ 85	C
MicroSD Max capacity	128	GB
Can-bus Line	2	N
Can-bus speed Min	33.3	Kb/s
Can-bus speed Typ	33.3-100-125-250-500-1000	Kb/s
Can-bus speed Max	1000	Kb/s
paket@1000kb/s 2-Line loss	0.05%	
paket@1000kb/s 1-Line loss	0.01%	
paket@<=500kb/s 2-Line loss	0%	
paket@<=500kb/s 1-Line loss	0%	
CanAnalyser@SavvyCAN Rx Max	7000	$Pakets/s$
CanAnalyser@SavvyCAN Tx Max	3500	$Pakets/s$
Data log speed Max	5.2	Mb/s
USB log download speed Max	5.2	Mb/s
MicroSD log download speed Max	80	Mb/s
Ext Board RTC precision	50	us
Encypted remote update	yes	N
Connection to remote host	yes	N
Max data stream on Wifi Band 2.4Ghz	20	Kb/s

6 Pinout



Pin	Signal
1	4-28V
2	CAN1-H
3	CAN2-H
4	GND
5	CAN1-L
6	CAN2-L

7 Dimensions



8 Note

The informations in the datasheet are subjected to changes depending on the service requested. The manufacturer assumes no responsibility for any illegal use of the product. The product must only be used in an environment free of risks for the user and the surrounding people. The product must be kept away from heat sources. The product must be used by competent persons in the matter. The product is only for motorsports use. The manufacturer discharges itself from any type of responsibility.