

CP-CANFD USB to CAN FD Adapter

Datasheet



Version 1.0

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1 Introduction

1.1 Functional Description

The CP-CANFD adapter is an industrial-grade device that adds one or two high-speed CAN FD (Controller Area Network Flexible Data Rate) interfaces to PCs or notebooks via a USB connection. It provides a 10-pin terminal block connector for connecting to CAN/CAN FD interfaces. It complies with CAN specifications ISO 11898-1 for CAN/CAN FD and meets the requirements of the ISO11898-2:2016 high-speed CAN specification. It also supports both ISO-11898-1:2015 and Bosch M_CAN revision 3.2.1.1.

The CP-CANFD adapter supports CAN 2.0A and CAN 2.0B protocols and has three supported modes which are Normal mode, Listen mode, and Loopback mode. It supports standard CAN data rates up to 1 Mbps and a CAN FD data rate up to 8 Mbps. The adapter also can support CAN bus message filter configuration and each CAN FD port can output DC +5V 100mA power through the terminal block for external CAN devices power usage.

The adapter has built-in selectable 120 Ohm termination resistors at each port for the CAN bus termination and is firmware upgradable for future firmware revisions. CAN bus signal lines are protected with +/-12 KV ESD protection. The CAN/CAN FD interface can be controlled over the Virtual COM port using simple ASCII commands and has LEDs to indicate the status of the CAN bus. The adapter is powered by the USB port and a USB A to USB B cable of 90cm length is provided. There is no external power adapter required.

A driver is provided for Windows 11 down to Windows 7, Windows Server, and Linux OS, and it supports Linux SocketCAN (SLCAN).

The CP-CANFD adapter is compact and robust. It comes with an ABS plastic enclosure and with a ventilated design suitable for harsh environments. The adapter is designed with a pair of built-in mounting brackets at the side and two T-type slots at the bottom for easy wall mounting.

The USB to CAN FD interface provides simple and quick connection to CAN and CAN FD networks. It supports CAN FD frames for both ISO and Bosch's Non-ISO standards. Also, the CP-CANFD adapter transmits and receives both CAN frames in the classical CAN 2.0 A/B format as well as CAN FD format. Being capable of switching to a faster or slower data rate dynamically, the CP-CANFD adapter contains more data capacity in a frame up to 64 bytes.

CP-CANFD adapter can be added flexibly to existing CAN networks. Since CAN FD is an extension to the original CAN bus protocol, the adapter is backward compatible with the CAN 2.0 A/B standards. This cost-effective USB to CAN FD adapter solution makes it easier than ever to enable CAN network connection to CAN FD with data rate up to 8 Mbps to your system.

1.2 LED Description

The CP-CANFD adapter uses two LEDs to indicate firmware initialization and CAN bus status. The green LED indicates CAN bus data activity while the red LED indicates a CAN bus error. Following is the definition of different LED combinations:

A: Power up (device initialized)

After CP-CANFD adapter powers up (device initialized), green LED and red LED will flash four times to indicate that the CP-CANFD adapter has been initialized.

B: CAN bus channel open/close

When the CAN bus channel opens, the green LED will turn on to indicate that the CAN bus channel is open. When the CAN bus channel closes, the green LED will turn off to indicate that the CAN bus channel is closed.



C: CAN bus Data Activity

When CAN data frame is transmitting or receiving, the green LED flashes continuously to indicate CAN bus data I/O activity.

D: CAN bus Error

When an error occurs on the CAN bus, the red LED flashes continuously to indicate CAN bus error.

LED	LED	Description		
Label	Color	LED status	State	Description
Data	Green	Flashes 4 times	Initialization	Flashes four times together with red LED when device initialized
		ON	Operational	The device is in state OPERATIONAL (Channel is Open)
		OFF	Stopped	The device is in state STOPPED (Channel is Closed)
		Flashing continuously	Transmitting / Receiving	The device is transmitting or receiving data (Channel is Open)
Err	Red	Flashes 4 times	Initialization	Flashes four times together with green LED when device initialized
		Flashing continuously	Error	Error occurs on the device

Table 1 – LED Description



1.3 Features

- Adds one or two high speed CAN FD interfaces via a USB connection
- 10-pin terminal block connector for connecting to CAN bus interface
- Meets the requirements of the ISO 11898-2:2016 high speed CAN specification
- Complies to CAN specifications ISO 11898-1 for CAN and CAN FD
- CAN FD support both ISO-11898-1:2015 and Bosch M_CAN revision 3.2.1.1
- Supports CAN FD data rate up to 8 Mbps
- Supports CAN bus speed up to 1 Mbps
- Non-standard baud rates supported
- Supports CAN bus message filter configuration
- Provides +5V DC output at 100mA through pin-4 (port 1) and pin-9 (port 2) of terminal block
- Supports CAN 2.0A and CAN 2.0B protocols
- Supported CAN modes
 - Normal mode: normal operation on CAN bus
 - Listen mode: passive receiving of CAN frames
 - Loopback mode: transmitter also receives sent frames (for testing purposes)
- Built-in 120 Ohm termination resistors for CAN bus termination with a selectable jumper
- Firmware upgradable for future firmware revisions
- Galvanic isolation between PC and CAN bus connection up to 5700 Vrms (available only on CP-CANFD-1P-ISO and CP-CANFD-2P-ISO Adapter)
- CAN/CAN FD interface can be controlled over COM port using simple ASCII commands
- LEDs indicates CAN initialization and CAN bus status for monitoring port status
- Powered by USB port. No external power adapter required
- Includes one USB-A to USB-B cable. Cable length: 0.9meter
- Drivers provided for Windows 7 up to Windows 11, Windows Server, and Linux OS
- Supports Linux SocketCAN (SLCAN)
- Supported by CANHacker to test and analyze CAN frames
- Compact and robust ABS plastic enclosure with ventilation design suitable for harsh environment
- FCC, UKCA and CE compliant



2 Part Numbers/Ordering Information

Part Number	Description	
CP-CANFD-1P	USB to single CAN FD Adapter; Non-Isolation version	
CP-CANFD-1P-ISO	USB to single CAN FD Adapter; Isolation version	
CP-CANFD-2P	USB to dual CAN FD Adapter; Non-Isolation version	
CP-CANFD-2P-ISO USB to dual CAN FD Adapter; Isolation version		
Table 2 – Part Numbers / Ordering Information		

Note: USB-A to USB-B cable (length: 90cm) will be provided.



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3 Specifications

The table below show the specifications of CP-CANFD adapter:

General			
USB Bus	USB 2.0 high speed 480 Mbps		
	USB 1.1, USB 2.0, USB 3.0 compatible		
CAN Bus	Supports CAN 2.0A and CAN 2.0B and CAN FD		
CAN Controller	TCAN4551-Q1		
CAN Signals	CAN_H, CAN_L, CAN_GND, CAN_V+		
CAN Bus Speed	Up to 1 Mbps for CAN data transmit & receive		
	Up to 8 Mbps for CAN FD transmit & receive		
	Non-standard baud rate supported		
CAN Bus Mode	Normal mode: normal operation on CAN bus		
	Listen Only mode: passive receiving of CAN frames		
	Loopback mode: transmitter also receives sent frames (for testing		
	purposes)		
Specification	ISO 11898-2 high speed CAN specification		
	CAN FD support ISO-11898-1:2015 and Bosch M_CAN revision 3.2.1.1		
	Supported		
IRQ &IO Address	Assigned by system		
CP-CANED-1P	One		
Number of Ports	Une 10 zie terminel black connector		
Connector	10-pin terminal block connector		
Termination	120 Ohm terminator resistor on board		
LED	Power, CAN bus data activity, CAN bus error		
Protection	+/-12 KV ESD(HBM) protection for CAN signals		
CP-CANFD-1P-ISO			
Number of Ports	One		
Connector	ctor 10-pin terminal block connector		
Termination	Power CAN bus data activity CAN bus arror		
	Power, CAN bus data activity, CAN bus error		
Protection	+/-4 KV ESD(HBM) protection for CAN signals		
	Isolation Protection		
	CAN bus: 5700 Vrms for CAN signals		
CP-CANED-2P			
CF-CANFD-2P			
Number of Ports	10 min terminal black commanter		
	10-pin terminal block connector		
	120 Unim terminator resistor on board (per port)		
Dretection	Power, CAN bus data activity (per port), CAN bus error (per port)		
	+/-12 KV ESD(HBM) protection for CAIN signals		
CP-CANFD-2P-150	Ture		
	10 nin terminal black connector		
	10-pin terminal Diock connector		
	120 Onin terminator resistor on board (per port)		
LEV Teoletion Ducto sti	Power, CAN bus data activity (per port), CAN bus error (per port)		
1Solation Protection	+/-4 KV ESD(MBM) protection for CAN Signals		
	Power: 3000 VDC		
	CAN hus: 5700 Vrms for CAN signals		
Software Features			
0 S Driver Support	Windows 7 to Windows 11 OS		
	Windows Server 2003 to 2012 R2		
Power Perwirement			
Power Requirement	Dower supplied via LISP (EV) connector		
Power Input	Power supplied via USB (SV) connector		



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	No external power needed
Power Consumption	Max. 150mA@5VDC (CP-CANFD-1P & CP-CANFD-2P)
	Max. 250mA@5VDC (CP-CANFD-1P-ISO & CP-CANFD-2P-ISO)
Mechanical	
Casing	ABS Plastic enclosure with built-in mounting brackets
	Two T-shaped slots on the bottom for wall mounting
Dimensions	102 mm X 73 mm X 30.4 mm (L x W x H)
	102 mm X 96.5 mm X 30.4 mm with ears (L x W x H)
Weight	100g

Table 3 – CP-CANFD Adapter Specifications



4 Installation

4.1 Hardware Installation

4.1.1 Jumpers for Termination Resistors

A CAN bus network requires a 1200hm termination resistor at each end of the CAN network. If additional termination resistors are present through the CANbus network or if one of the termination resistors is missing at one of the ends, the CANbus network will not communicate.

CP-CANFD adapter has provided a built-in termination resistor. Users may enable or disable termination by switching the jumper on the PCB board.

Note:

- JP1 is for USB to single port CP-CANFD adapter
 - CP-CANFD-1P
 - o CP-CANFD-1P-ISO
- JP1 and JP2 are for USB to dual port CP-CANFD adapter
 - CP-CANFD-2P
 - CP-CANFD-2P-ISO



Figure 1 – Jumpers for Termination Resistors

JP1	JP2	Function
PIN 1-2 short		Disable 120Ω termination resistors
PIN 2-3 short		Enable 120Ω termination resistors

 Table 4 – Jumpers for Enabling / Disabling Termination Resistors



4.1.2 Mounting

The CP-CANFD adapter comes with an ABS plastic enclosure. The adapter is designed with a pair of built-in mounting bracket and two T-type slots at the bottom for easy wall mounting.

4.1.2.1 USB to Single Port CAN FD Adapter



102mm X 73mm X30.4mm (L x W x H) 102mm X 96.5mm X30.4mm with brackets (L x W x H)



102mm 10

4.1.2.2 USB to Dual Port CAN FD Adapter

Figure 3 - CP-CANFD-2P/CP-CANFD-2P-ISO Adapter



4.2 Device Driver Installation

4.2.1 Microsoft Windows

4.2.1.1 Installing Driver

The CP-CANFD adapter driver are available to download from https://www.connectiveperipherals.com

Download the latest version of CP CDC Driver from the above link.

Name	Туре	
CP_CDC_Driver	Application	

Figure 4 - CP CDC Driver

Double click the CP CDC Driver application file and click 'Install' to proceed for the installation.



Figure 5 - Install CP CDC Driver

Follow the instructions until the installation finishes.



Figure 6 - Installation Complete



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4.2.1.2 Changing COM Port Properties & COM Port Number

This feature is particularly useful for programs such as HyperTerminal, which only works with COM1 through COM4. Please ensure that you do not change to a COM port number that is already in use.



To change the virtual COM port properties:

- 1. Select the "CP-CANFD Port X (COMX)".
- 2. Click "Properties".
- 3. Select "Port Setting" and "Advanced".
- 4. Click the drop-down arrow on COM Port Number and scroll to the required COM port.
- 5. Select "OK".
- 6. Return to the Device Manager Screen. You will see that the CP-CANFD Port installation has been changed to the new COM Port Number.

4.2.2 Linux Driver (SocketCAN)

4.2.2.1 Installing Driver

SocketCAN is a set of open-source CAN drivers and a networking stack contributed by Volkswagen Research to the Linux kernel. Formerly known as Low Level CAN Framework (LLCF).

Installing SocketCAN is easy. In fact, it just needs to install can-utils packages. To proceed, uses the following command:

sudo apt-get install can-utils

By default, the SocketCAN device drivers are not automatically loaded by Linux at boot time on all systems: you may need to enable the relevant Linux kernel modules. You can manually load these modules with the following command:

sudo modprobe can sudo modprobe vcan sudo modprobe slcan

4.2.2.2 Using SocketCAN (SLCAN) with CP-CANFD Adapter

To use CP-CANFD adapter with SocketCAN, you must establish a "link" between the drivers and the hardware. This is done with the following command:

sudo slcand -o -c -s8 -S3000000 /dev/ttyUSB0 slcan0

The -s parameter allows to configure different interface speed as indicated below.

ASCII Command	CAN Bitrate
s0	10 Kbit/s
s1	20 Kbit/s
s2	50 Kbit/s
s3	100 Kbit/s
s4	125 Kbit/s
s5	250 Kbit/s
s6	500 Kbit/s
s7	800 Kbit/s
s8	1000 Kbit/s

Table 5 – ASCII Command for CAN Bitrate



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If everything worked fine, you should now see the can0 network device. To vary it, just type the following command:

sudo ip link set slcan0 up



5 Pinout Information

The following are the pinouts of 10-pin terminal block connector for CP-CANFD adapter.

5.1.1 Single Port CP-CANFD Adapter



Figure 8 - CP-CANFD-1P/CP-CANFD-1P ISO Adapter Terminal Block

The pinout of the terminal block connector for single port CP-CANFD adapter is shown in Table 6.

Note: Pin 6 to 10 is NC pin for single port CP-CANFD adapter

Pin Number	Port Number	Signals	Description
1	PORT 1	CAN_GND	Signal ground
2	PORT 1	CAN_H	CAN_H bus line (dominant level is high)
3	PORT 1	CAN_L	CAN_L bus line (dominant level is low)
4	PORT 1	CAN_V+	Outputs DC+5V at 100mA
5	PORT 1	CAN_GND	Signal ground

Table 6 – Pin-Out for CP-CANFD-1P/CP-CANFD-1P-ISO Terminal Block



5.1.2 Dual Port CP-CANFD Adapter



Figure 9 - CP-CANFD-2P/cP-CANFD-2P-ISO Adapter Terminal Block

The pinout of the terminal block connector for dual port CP-CANFD adapter is shown in Table 7.

Pin Number	Port Number	Signals	Description
1	PORT 1	CAN_GND	Signal ground
2	PORT 1	CAN_H	CAN_H bus line (dominant level is high)
3	PORT 1	CAN_L	CAN_L bus line (dominant level is low)
4	PORT 1	CAN_V+	Outputs DC+5V at 100mA
5	PORT 1	CAN_GND	Signal ground
6	PORT 2	CAN_GND	Signal ground
7	PORT 2	CAN_H	CAN_H bus line (dominant level is high)
8	PORT 2	CAN_L	CAN_L bus line (dominant level is low)
9	PORT 2	CAN_V+	Outputs DC+5V at 100mA
10	PORT 2	CAN GND	Signal ground

Table 7 – Pin-Out for CP-CANFD-2p/CP-CANFD-2P-ISO Terminal Block



6 Functions

6.1 ASCII Commands

The following ASCII commands provide a means of utilizing an interactive terminal program, or communication through a standard COM or TTY port. The CP-CANFD adapter can be registered as a virtual serial port on the host computer. With simple ASCII commands the CP-CANFD adapter can be controlled over this serial port. Users can send/receive commands from any simple serial terminal program.

Example: Set bitrate to 500Kbps, open CAN channel, send CAN frame (ID = 002h, DLC = 3, Data = 11 22 33), close CAN:

Command	Response	Function
S6[CR]	[CR]	Set bitrate of USB CAN adapter to 500Kbps
O[CR]	[CR]	Open CAN channel
t0023112233[CR]	z[CR]	Send CAN message (ID = $002h$, DLC = 3, Data = $11 22 33$)
C[CR]	[CR]	Close CAN channel

Table 8 – Example of sending CAN Command

6.2 Command list

The commands are line based and terminated with newline character CR (0xD). On error the response will be 0x7 (BELL).

The "help" command ('**H', 'h' or '?')** will list supported commands.

Command	Response	Function
H[CR]	[CR]	
h[CR]	[CR]	List all supported commands
?[CR]	[CR]	

Table 9 – "Help" Command

Example: H[CR]

Return Code

List of Supported Commands:

- 'O' Open the channel in Normal mode
- 'L' Open the channel in Listen Only mode
- 'Y' Open the channel in Loopback mode
- 'C' Close CAN Channel
- 'S' Set standard CAN bitrate
- `s' Set non-standard CAN bitrate
- `t' Transmit a standard frame
- 'T' Transmit an extended frame
- 'r' Transmit a standard remote request frame
- 'R' Transmit an extended remote request frame
- 'Z' Set timestamp on/off
- 'm' Set acceptance mask
- 'M' Set acceptance filter
- 'F' Read status flag
- 'V' Check software version
- 'N' Check serial number
- 'm' Set acceptance mask
- 'M' Set acceptance filter
- 'RST' Reset USB CAN Adapter
- 'H', 'h' or '?' List supported commands



6.2.1 Opening the CAN Bus Channel

The CAN bus channel will be opened with the command O[CR], L[CR], or Y[CR]. The command O[CR] will open the CAN bus channel in normal operation mode, the command L[CR] will open the CAN bus channel in listen only mode, in which no bus interaction will be done from the controller. the command Y[CR] will open the CAN bus channel in a loop-back mode, in which the USB to CAN adapter will also receive the frames that it sends. Before you use one of the commands, you should set a bitrate with the commands S or s.

Command	Response	Function
O[CR]	[CR]	Open the channel in Normal mode
L[CR]	[CR]	Open the channel in Listen Only mode
Y[CR]	[CR]	Open the channel in Loopback mode

Table 10 – ASCII Command for Open CAN Bus Channel

6.2.2 Closing the CAN Bus Channel

The CAN bus channel will be closed with the command C[CR]. The command can only be used if the CAN bus channel is open.

Command	Response	Function
C[CR]	[CR]	Close the CAN channel if it is opened
Та	ble 11 – ASC	II Command to Close CAN Bus Channel

6.2.3 Setting CAN Bitrate (Standard)

The CAN bus bitrate can be set with the command SX[CR]. The command can only be used if the CAN bus channel is closed.

Command	Response	Function
S00[CR]	[CR]	Set the CAN bus bitrate to 5K
S0[CR]	[CR]	Set the CAN bus bitrate to 10K
S1[CR]	[CR]	Set the CAN bus bitrate to 20K
S2[CR]	[CR]	Set the CAN bus bitrate to 50K
S3[CR]	[CR]	Set the CAN bus bitrate to 100K
S4[CR]	[CR]	Set the CAN bus bitrate to 125K
S5[CR]	[CR]	Set the CAN bus bitrate to 250K
S6[CR]	[CR]	Set the CAN bus bitrate to 500K
S7[CR]	[CR]	Set the CAN bus bitrate to 800K
S8[CR]	[CR]	Set the CAN bus bitrate to 1M
	Table 12 - /	SCII Command for CAN Bus Bitrate

ASCII Command for CAN Bus Bitrate

Example: S6[CR] will be set USB CAN adapter to 500K bps CAN Bitrates.

6.2.4 Transmitting a Standard CAN Frame

Transmitting a standard CAN frame (ID: 11 bit) over a CAN bus can be done with the command tiiildddd...dd[CR]. The return value will be z[CR] or the normal error byte (BELL). The command is only available when the CAN bus channel is open.

Command	Response	Function
tiiildddddd[CR]	z[CR]	Transmits a standard CAN message (11 bit) over the CAN bus
Table 13	- ASCII Con	nmand for Transmitting Standard CAN Frame

iii: Standard CAN frame (11 bit) identifier in hexadecimal format (000-7FF).

I: CAN data length (0-8) DLC, with the maximum value being 8 (8 bytes).



dd: Data byte value in hexadecimal format (00-FF). The number of bytes must be equal to the data length field.

Example: t00231199FF[CR] will send a standard CAN frame with ID = 002h, DLC = 3, Data = 11 99 FF.

6.2.5 Transmitting a Standard Remote Request CAN Frame

Transmitting a standard remote request CAN frame (ID: 11 bit) over a CAN bus can be done with the command riiil[CR]. The return value will be z[CR] or the normal error byte (BELL). The command is only available when the CAN bus channel is open.

Command	Response	Function
riiil[CR]	z[CR]	Transmits a standard remote request (11 bit) over the CAN bus
Table 14 – ASCII	Command for	or Transmitting Standard Remote Request CAN Frame

iii: Standard remote request CAN frame (11 bit) identifier in hexadecimal format (000-7FF).

I: CAN data length to request (0-8) DLC, with the maximum value being 8 (8 bytes).

Example: r0023[CR] will send a standard remote request CAN frame with ID = 002h, DLC = 3 and request 3 data bytes.

6.2.6 Transmitting an Extended CAN Frame

Transmitting an extended CAN frame (ID: 29 bit) over a CAN bus can be done with the command Tiiiiiiiiiidddd...dd[CR]. The return value will be Z[CR] or the normal error byte (BELL). The command is only available when the CAN bus channel is open.

Command	Response	Function
Tiiiiiiiiildddddd[CR]	Z[CR]	Transmits an extended CAN frame (11 bit) over the CAN bus

Table 15 – ASCII Command for Transmitting Extended CAN Frame

iiiiiiii: Extended CAN frame (29 bit) identifier in hexadecimal format (00000000-1FFFFFFF).

I: CAN data length (0-8) DLC, with the maximum value being 8 (8 bytes).

dd: Data byte value in hexadecimal format (00-FF). The number of bytes must be equal to the data length field.

Example: T1FFFFFF3112233[CR] will send an extended CAN frame with ID = 1FFFFFFh, DLC = 3, data = 11 22 33.

6.2.7 Transmitting an Extended Remote Request CAN Frame

Transmitting an extended remote request CAN frame (ID: 29 bit) over a CAN bus can be done with the command Riiiiiiiii[CR]. The return value will be Z[CR] or the normal error byte (BELL). The command is only available when the CAN bus channel is open.

Command	Response	Function
Riiiiiiiii[CR]	Z[CR]	Transmits an extended remote request (29 bit) over the CAN bus
Table 16 ACC		The second states of the second state of the second states and the second states and the second states and the second states and the second states are set of the second states are second states are second states are set of the second states are set of the second states are s

Table 16 – ASCII Command for Transmitting Extended Remote Request CAN Frame

iiiiiiii: Extended remote request CAN frame (29 bit) identifier in hexadecimal format (0000000-1FFFFFF).



I: CAN data length to request (0-8) DLC, with the DLC maximum value being 8 (8 bytes).

Example: R100000023[CR] will send an extended remote request CAN frame with ID = 10000002h, DLC = 3 and request 3 data bytes.

6.2.8 Setting Timestamps ON/OFF

The timestamp command will set the timestamp functionality of received frames ON or OFF. This command is only available when the CAN channel is closed.

Command	Response	Function
Z1[CR]	[CR]	Set the timestamp functionality on received frames ON
Z0[CR]	[CR]	Set the timestamp functionality on received frames OFF
T		CII Commond for Cotting Timestomers

Table 17 – ASCII Command for Setting Timestamps

6.2.9 Setting Acceptance Mask

The acceptance mask, in conjunction with the acceptance code (M), defines which CAN message frames (i.e., of a specific ID or range of CAN IDs) will be passed to the serial interface. The acceptance mask value corresponds to bits within a range of valid CAN IDs for either standard or extended CAN frames. This command is only active if the CAN channel is initiated and not opened. Set Acceptance Mask (m) command should be executed *prior* to Set Acceptance Code (M).

Note:

The CAN channel will revert to its prior state after execution. For example, if the channel is open when this command is executed, the channel will update the setting and return to the open state.

Command	Response	Function
miii[CR]	[CR]	Set acceptance mask for standard CAN frame (11 bit) identifier
miiiiiiii[CR]	[CR]	Set acceptance mask for extended CAN frame (29 bit) identifier

Table 18 – ASCII Command for Setting Acceptance Mask

iii = standard 11-bit CAN mask (0x000 through 0x7FF)

iiiiiiiii = extended 29-bit CAN mask (0x00000000 through 0x1FFFFFF)

A value of "0" in a bit location indicates that the bit location ID value is to be *ignored* when filtering messages.

Default is to pass all frames (acceptance mask = 0x000 for standard messages and 0x00000000 for extended messages)

Example: m700[CR] set acceptance mask to check bits 10, 9 and 8 against the filter. Bits 7 through 0 are ignored as "don't care". Use the acceptance mask in conjunction with the acceptance code, which is explained next.

6.2.10 Setting Acceptance Code

The acceptance code/filter, in conjunction with the acceptance mask (m), defines which CAN message frames (i.e., of a specific ID or range of CAN IDs) will be passed to the serial interface. The acceptance code value corresponds to a valid CAN IDs for either standard or extended CAN frames. This command is only active if the CAN channel is initiated and not opened.

The Set Acceptance Mask (m) command should be executed *prior* to the Set Acceptance Code (M) command.



Note:

The CAN channel will revert to its prior state after execution. For example, if the channel is open when this command is executed, the channel will update the setting and return to the open state.

Miii[CR] [CR] Set acceptance code for standard CAN framidentifier	ICR1 [CR]	Set acceptance code for standard CAN frame (11 bit
Cat accontance code for extended CAN from		identifier
Miiiiiiii[CR] [CR] Set acceptance code for extended CAN framidentifier	iiiii[CR] [CR]	Set acceptance code for extended CAN frame (29 bit identifier

iii = standard 11-bit CAN mask (0x000 through 0x7FF)iiiiiiiii = extended 29-bit CAN mask (0x00000000 through 0x1FFFFFFFF)

Default is to pass all frames (acceptance code = 0x7FF for standard messages and 0x1FFFFFF for extended messages)

Example: m1FF[CR] sets acceptance code to receive standard messages with the CAN ID of 0x1FF. If used in conjunction with the acceptance mask example above, frames of the range 0x100 through 0x1FF will be passed, and all other CAN IDs will be blocked.

6.2.11 Getting Status Flags

Users can use the command F[CR] to get the status bits when an error occurs. A two-byte BCD number is returned to correspond to the 8-bits of the internal register of the CAN controller.

Command	Response	Function
F[CR]	XX[CR]	Get CAN bus status
Ta	able 20 – AS	CII Command for getting Status Flags

Return Codes

XX[CR]

XX = CAN bus status (A bit set to "1" indicates a true condition):

Bits 2, 1, 0: Last Error Code (LEC), The LEC field holds a code, which indicates the type of the last error to occur on the CAN bus.

LEC	Meaning
Bits 2, 1, 0	
Error Code 0 0, 0, 0	No error.
Error Code 1 0, 0, 1	Stuff error: more than 5 equal bits in a sequence have occurred in a part of a received message where this is not allowed.
Error Code 2 0, 1, 0	Form error: a fixed format part of a received frame has the wrong format.
Error Code 3 0, 1, 1	ACK Error: the message this CAN core transmitted was not acknowledged by another node.
Error Code 4 1, 0, 0	Bit 1 error: during the transmission of a message (Apart from the arbitration field), the device wanted to send a recessive level (bit of logical value "1"), but the monitored bus value was dominant.
Error Code 5 1, 0, 1	Bit 0 error: Bit 1 error: during the transmission of a message (or acknowledged bit, or active error flag, or overload flag), the device wanted to send a dominant level (bit of logical value "0"), but the monitored bus value was recessive. During the bus-off recovery, this status is set each time a sequence of 11 recessive bits have been monitored. This enables the CPU to monitor the proceedings of the bus-off recovery sequence (indicating the bus is not stuck at dominant or continuously disturbed).

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Error Code 6 1, 1, 0	CRC error: the CRC checksum was incorrect in the message received; the CRC received for an incoming message does not match with the calculated CRC for the received data.
Error Code 7 1, 1, 1	Unused: no CAN bus event was detected since the CPU wrote this value to the LEC.

Table 21	. –	Return	Code	Descri	ption
----------	-----	--------	------	--------	-------

Bit 3: Transmitted a message successfully

1 = Since this bit was last reset by CPU, a message has been successfully (error-free and acknowledged by at least one other node) transmitted.

0 = Since this bit was last reset by CPU, no message has been transmitted.

Bit 4: Received a message successfully

1 = A message has been successfully received since this bit was last reset by CPU (independent of the result of acceptance filtering).

0 = No message has been successfully received since this bit was last reset by CPU

Bit 5: Error Passive (Read only)

1 = The CAN core is in the error passive state as defined in the CAN specification.

0 = The CAN core is in the error active.

Bit 6: Error Warning Status (Read only)

1 = At least one of the error counters in the EML (Error Management Logic) has reached the error warning limit of 96.

0 = Both error counters are below the error warning limit of 96.

Bit 7: Bus-off Status (Read only)

1 = The CAN Module is in bus-off state.

0 = The CAN Module is not in bus-off state.

<BELL> = ERROR

Bit 0 ~ Bit 7 returned to correspond to the 8-bits of the internal register of the CAN controller.



6.2.12 Get Version Information

The command V[CR] to retrieve the current firmware version of the CP-CANFD adapter.

Command	Response	Function
V[CR]	VXXXX[CR]	Get the current firmware version of the CP-CANFD adapter
Tab	le 22 – ASCI	I Command for get Version Information

This command is always available and will return the version information formatted like this: VXXXX[CR].

6.2.13 Get Serial Number

The command N[CR] will retrieve the serial number of the CP-CANFD adapter.

Command	Response	Function
N[CR]	TXXXXXXXX[CR]	Get the serial number of the CP-CANFD adapter
	Table 23 – ASC	II Command for get Serial Number

This command is always available and will return the decimal serial number like this: TXXXXXXX[CR].

6.2.14 Reset CP-CANFD Adapter

The command RST[CR] will reset the CP-CANFD adapter.

Command	Response	Function
RST[CR]	-	Reset the CP-CANFD adapter
Tab	e 24 – ASCI	Command for Reset CP-CANFD Adapter

This command is always available.



7 Tools

7.1 Firmware Upgrade

The CP-CANFD adapter firmware can be updated for bug fixes and enhanced features. You can use our tool program to upgrade the firmware contents via serial port.

The firmware upgrade program (USB-CAN-FD_update.exe) can be downloaded from https://www.connectiveperipherals.com.

🧏 USB-CAN FD update		- 12		\times
~ Refre	sh			
]	File	
		- 1	any are t	-

Figure 10 - USB-CAN FD Update Tool

<u>Step 1:</u> Click Refresh button to get the COM port number with in used.

Step 2: Select the COM port number which the CP-CANFD adapter used.

<u>Step 3:</u> Click File button to select the firmware file and click Update button to upgrade CP-CANFD adapter.



7.2 CANHacker

CANHacker is a Windows application software for analyzing and transmitting/receiving CAN frames. The CANHacker software has a friendly interface and is easy to use. Through the software, users can easily test and analyze the CAN frames.

The following shows its main panel:

CANHacke	r V2.00.0)1							
e Connec	T Kese	t Settings Filter Tracer ?							
	X.				_				
ID	DLC	Data	Period	Count	Connent	(click t	o change)	_	Ī
ransm	it								
D	DLC	Data	Period	Count	Comment				1
rr	8	44 55 66 // 88 99 AA BB	300	U					
D	DLC	Data	Comment				Single	Shot	Сору
		44 33 66 77 88 33 AA BB					Sand		Add
29 Bit Id	1	HTH Period (ms) 300	* = doi	n't care			Jend		~~~
X Mode F	Periodic		er Data				Stop	All	Delete

Figure 11 - CANHACKER Main Panel

The following sections will briefly introduce the necessary steps on how to use the software.

7.2.1 Settings Procedure for Selecting and Configuring the USB to CAN Adapter

1. Open CANHacker and click "Settings" under the menu.

CANUL-I		$\frac{9}{3}$					_			
File Conno 4 K	ect Rese	t Settings	Filter Ti	racer ? 追	et					
Receive ID	e DLC	Data	-	-	Period	Count	Comment	(click	to change)	

Figure 12 - CANHACKER Settings Menu

- 2. Select COM port of the USB to CAN adapter.
- 3. Check "RTS HS" to enable RTS handshake function.
- 4. Check "Time Stamp" to enable timestamp function.
- 5. Select CAN Baudrate for the CAN bus operating speed.
- 6. Finally, click "OK" to finish the settings and return to the main panel.



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Figure 13 - CANHACKER Settings Tab

You may connect the CP-CANFD adapter after configuration. Click "Connect", as shown in the figure, to start the CANHacker software operation.

e Conne	ct Rese	t Settings Filter Tracer ?			
4 n	×]†		
Receive					
ID	DLC	Data	Period	Count Comment (click to change)	

Figure 14 - Start CANHACKER Software Operation

When CP-CANFD adapter successfully connects, you will find the message "Connected to XXX kbits/s", firmware version VXXXX and operation mode at the bottom of the main panel.



Figure 15 – Connection Successful



7.2.2 Receiving CAN Frames

When CANHacker receives CAN frames from another CAN node, it will show all CAN frame messages in the middle of main panel. The CAN frame messages includes ID, DLC, Data, Period, Count.

× n	7	T		D		B.	Ę	•	∎↓							
Receive																
ID	DLC	Dat	a							Period	Count	Comment	(click	to	change)	
01234567	8	11	22	33	44	55	66	77	88	494	42333					1.
04000000	8	FF	EE	BB	DD	CC	AA	44	55	200	65287					
12345600	8	44	55	66	77	88	99	AA	BB	515	42127					
12345688	8	AA	CC	DD	EE	FF	66	77	88	110	194449					
13456789	8	00	01	02	03	04	05	06	07	1015	20897					1
476	0	RTR	l							107	195597					
7FF	8	00	01	02	03	04	05	06	07	202	102387					
																1
																-
																-

Figure 16 – CANHACKER Receiving CAN Frame

7.2.3 Sending CAN Frames

CANHacker provides many parameters for sending CAN frames to another CAN node, you can set the following parameters on the bottom of the main panel for CAN data transmission:

ID 12345688	DLC 8	Data AA CC DD EE FF	Comment 66 77 88	Single Shot	Сору
🔽 29 Bit Id	R	TR Period (ms) 100	×	Send All	Add
TX Mode Per	iodic	▼ Trigger ID	Trigger Data	Stop All	Delete
onnected to 100	kbit/s		Firmware: V0.73 Filter: Off	No	ormal Mode

Figure 17 – CANHACKER Set CAN Data Transmission Parameter

Select transmit an extended CAN Frame (29 bits ID) or a standard CAN frame (11 bits ID).

Check "29 Bit Id" Check "29 Bit Id" to transmit an extended CAN Frame (29 bits ID) and uncheck "29 Bit Id" 29 Bit Id to transmit a standard CAN frame (11 bits ID).

Select remote request frame mode or transmit CAN frame mode.

Check "RTR" RTR" For a remote request frame mode or uncheck "RTR" RTR" CAN frame mode.

Enter CAN frame messages in the respective fields, including ID, DLC, Data.

ID	DLC	Data							
12345688	8	AA	CC	DD	EE	FF	66	77	88

In "TX Mode" dialog box, you can select "off", "Periodic", "RTR", "Trigger" modes.



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When "Periodic" mode is selected, you can enter "Period (ms)" to send CAN frames message repeatedly (enter "500" to send CAN messages every 500ms).



Figure 20 – Periodic Mode Setting

To send a single CAN frame message, click "Single Shot". Click "Send All" to send CAN frames message repeatedly.

To stop sending CAN frame messages, click "Stop All".

[Single Shot
I	Send All
Ī	Stop All

Figure 21 – Send / Stop CAN Frame Message

7.2.4 Assistant Features

There are many assistant features included in CANHacker, as shown in the figure below:

CANHacker V2.00.01	A THE PARTY AND AND AND	
ile Disconnect Reset Settings Filter Tra	2	
💥 👓 🔅 T 🗋 🙆 🖣	64	
Receive		
ID DLC Data	Period Count Consent (click to change)	

Saving data to file or loading data from file:

Select **"File"** option to save Rx List, Trace, Tx List, Command List and Load Trace, Tx List, Command List.

File	Disconnect Reset Settings	Filt
	Save Rx List	-
	Load Trace	_
	Save Trace	DD
	Load Tx List	44 DD
	Save Tx List	DD
	Load Comment List	0.0
	Save Comment List	03
	Quit	

Figure 23 – CANHACKER File Menu

Click "Disconnect" to stop CANHacker.



File	Disconne	ect Re	eset	Sett	ings	Fil	ter	Trac	er	?	
×	5	2	T		D		B.		•	E+	
Re	ceive	DIC	De		_						
0.41	100000	DIC	Da FF	La FF	DD	DD	cc	2.2		E E	-
04	545678	8	11	22	33	44	55	66	77	88	
12	345555	8	ÀÀ	BB	ČČ	DD	EE	FF	99	88	
10	156799	8	0.0	01	02	03	04	05	06	07	

Figure 24 – CANHACKER for Disconnect

 ${\sf Click}\ ``{\sf Reset''}\ to\ {\sf renew\ the\ received\ CAN\ frame\ messages\ and\ reset\ the\ transmission\ (received)\ count.$

×	0 0	-	and the second						
	- /	<i>a</i>	T		Ca.	en la companya de la	∎∔		
Recei	ve								
ID	DI	.C 1	Data	i .			1	Period	Count

Figure 25 – CANHACKER for Reset

Select "Filter" to set mask filter and range filter.

File	Disconnect Reset	Settings Filte	r Tracer	?
Fi	lter			
	Mask Filter			
	11Bit/29Bit Mask	FFFFFFF	44	
	11Bit/29Bit Code	FFFFFFFF	77	88
	Mask: 0 = Relevant, 1 (for details look at SJA1	= Don't care 000 Datasheet)	06	88 07 00
	📰 Enable Mask Filter		06	07
	Range Filter			
	Start ID	00000000		
	EndID	1FFFFFFF		
	Discrete IDs	0		
	Enable Range Filter			
	Cancel	Ok		

Figure 26 – CANHACKER for Filter Setting

Select "Tracer" or "Monitor" to trace or monitor the CAN frame messages.

le Disconne	ect Re	set Settings Filter Tracer ?				File (Disconnect	Reset	Settings	Filter	Monitor	7	-	_	_	
× n	2					×	10	3% T		D	Ba	Fit				0
Receive						Rec	eive			L.S.	-			"		
ID	DLC	Data	Period	Count	Comment	Time	- TD	DIC	Data	_	_	_	Comm	⇒nt	_	
04000000	8	FF EE BB DD CC AA 44 55	200	28480			5 125	220	20100							
04545678	8	11 22 33 44 55 66 77 88	493	11232												
12345555	8	AA BB CC DD EE FF 99 88	108	52150												
13456789	8	00 01 02 03 04 05 06 07	1014	5617												
4CC	8	00 00 00 00 00 00 00 00	204	28082												
7F6	0	RTR	499	11232												
2EE	0	00 01 02 02 04 05 04 07	202	28087												

Figure 27 – CANHACKER for Tracer / Monitor

7.3 CP CAN FD Utility



Document Reference No.: CP_000091 Clearance No.: CP#078

CP CAN FD Utility is a Windows application software for testing and transmitting/receiving CAN FD frames. CP CAN FD Utility is an easy-to-use software, through the software users can easily test and analyze the CAN FD frames.

The CP CAN FD Utility can be downloaded from <u>https://www.connectiveperipherals.com.</u>

The following figure shows its main panel:

securitys										
Connect	Configu	uration								
Message										
essage Ci	onfiguration									
x Mode:	OFF V	Trigger ID:				Trigger Data:				
D Type:	11-bit(standard)	~ 1	ID: ZEE	RTR:	0 × FD 0	V BRS: 0 V DIC:	8 × Send Cycle:	0		m
,,,								<u> </u>		
DATA: 0	0-00-00-00-00-00-00-00-00-00-00-00-00-0	00-00								
,	Add	Modify	C	хру	Delete	Singleshot	Send All	Stop All	Re	set
No	Туре	ID	RTR FD	BRS	DLC	DATA		Timer Count	Mode	
No	Туре	ID	RTR FD	BRS	DLC	DΛTΛ		Timer Count	Mode	
No	Туре	ID	RTR FD	BRS	DLC	DATA		Timer Count	Mode	
No	Туре	ID	RTR FD	BRS	DLC	DΛΤΛ		Timer Count	Mode	
No ive Messa	Туре	ID	RTR FD	BRS	DLC	DATA		Timer Count	Mode	
No ive Messa No	Type age Type	ID	RTR FD	BRS D BRS	DLC	DATA		Timer Count	Mode	
No ive Messa No	Type age Type	ID	RTR FD	BRS D BRS	DLC	DATA		Timer Count	Mode	
No ive Messa No	Type age Type	ID	RTR FD	BRS D BRS	DLC	DATA		Timer Count	Mode	
No ive Messa No	Type age Type	ID	RTR FD	D BRS	DLC DLC	DATA		Timer Count	Mode	

Figure 28 – CP CAN FD Utility Main Panel

7.3.1 Settings Procedure for Selecting and Configuring the USB to CAN FD Adapter



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1. Open CP CAN FD Utility and click "**Configuration**" under the menu.

o ^o Configuration	? ×
COM Port:	Reflash
Mode:	Normal 🗸 🗹 Timestamp
CAN BaudRate: 5	1000 🗸 Kbit/s
6 CAN FD BaudRate:	5000 🗸 Kbit/s
7 Filter	~
Filter: 7FF	Mask: 7FF
Add Ren	
No Type	Filter Mask
ito ijpe	The Mask
<	
8	OK Cancel

Figure 30 – CP CAN FD Utility Configuration

- 2. Select COM port of the USB to CAN FD adapter.
- 3. Select Mode to open the CAN bus adapter in loopback or listen only operation mode, otherwise the CAN bus adapter will open in normal operation mode.
- 4. Check "TimeStamp" to enable timestamp function.
- 5. Select CAN Baudrate for the CAN bus operating speed.
- 6. Check CAN FD Baudrate and select CAN FD Baudrate for the CAN FD operating speed.
- 7. Set the mask and filter to specify the CAN IDs that are passed or blocked.
- 8. Finally, click "OK" to finish the settings and return to the main panel.

Note:

Before you set the **"Mask Filter"** function, you need to unplug the USB adapter. After setting the value of "Mask" and "Filter", connect the USB adapter again to enable the "Mask Filter" function.

🧕 CP CAN FD U	tility
File Settings	
Connect	Configuration

Figure 31 – Connect to CP CAN FD Utility

Users may connect the CP CAN FD adapter after configuration. Click "**Connect**" to start the CP CAN FD Utility.



Receive Message

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Connected | COM183 | BR: 1000 / 5000 kbps Web site: http://connectiveperipherals.com/

Figure 32 – Connection Status

When CP CAN FD adapter successfully connects, user will find the message "Connected COMxx BR:xxxkbps" at the bottom of the main panel.

7.3.2 Receiving CAN Frames

When CP CAN FD utility receives CAN frames from another CAN node, it will show all CAN frame messages in Receive Message panel of the CP CAN FD Utility. Users may merge the data from the same ID by checking the 'Merge list data' box and clear the data in the Receive Message panel by clicking "Clear".

No	Туре	ID	RTR	FD	BRS	DLC	DATA	Timer	Count
1	Standard	1FF	0	0	0	8	11-22-33-44-55-66-77-88	8943	216
2	Extended	12345678	0	0	0	8	11-22-33-44-55-66-77-88	8AA0	216
3	Extended	1FFFFFFF	0	1	0	64	11-11-11-11-11-11-11-22-22-22-22-22-22-2	8E88	216

Figure 33 – CP CAN FD Utility - Receive Message

7.3.3 Sending CAN Frames

CP CAN FD Utility provides many parameters for sending CAN frames to another CAN node, you can set the following parameters in the Send Message panel for CAN data transmission:

I x Mode:	OFF	✓ Trigger	ID:							Tri	gger [Data:						
ID Type:	29-bit(exten	ded)	\sim ID:	1FFFFFFF	RTR	: 0 ~	FD	1 ~	BRS:	0	\sim	DLC:	64 V	Send Cyd	e: 10			,
No	Туре	ID	RTR	FD	BRS	DLC	.ue		Singi	carlot	DATA	¢.	Jenu		Timer	Count	Mode	
No	Туре	ID	RTR	FD	BRS	DLC				- 8	DATA	(Timer	Count	Mode	
1	Standard	1FF	0	0	0	8	11-2	2-33-44	-55-66-	77-88					10	216	OFF	
	Extended	12345678	0	0	0	8	11-2	2-33-44	-55-66-	77-88					10	216	OFF	
2											a second		an a	Vertices 1	(1995)	Construction	Press of	

Figure 34 – CP CAN FD Utility - Send Message

- 1. Select transmit an extended CAN frame (29 bits ID) or a standard CAN frame (11 bits ID). Enter CAN frame messages in the respective fields.
- Click "Add" to add a new send CAN frame message. Click "Modify" to modify a send CAN frame message. Click "Copy" to copy a send CAN frame message repeatedly. Click "Delete" to delete send CAN frame message.
- 3. CAN frame message to transmit will show in the data list.
- 4. Click "Singleshot" to send a single CAN frame message. Click "Send All" to send CAN frames message repeatedly. Click "Stop All" to stop sending CAN frame messages.
- 5. Click "Reset" to reset the "Count" column in the data list.



7.3.4 Assistant Features

The below figures illustrate some of the wide range of features included in CP CAN FD Utility

The "File" menu has features like "Save Receive", "Load Send" and "Save Send".

File	Settings	
٥	Save Receive	×
	Load Send	ſ
	Save Send	÷

Figure 35 – CP CAN FD Utility File Menu

The **"Settings"** menu offers the "*Auto reconnect"* feature. The CP CAN FD adapters will auto reconnect after unplugging and replugging if this feature is enabled.

-	2	
File	Settings	
	Auto recon	nnect



Click "Disconnect" to close the open channel of CP CAN FD adapter.

CP CAN FD Utili	ty
File Settings	
X Disconnect	Configuration

Figure 37 – Settings – Disconnect CP CAN FD Utility

7.4 BUSMASTER

BUSMASTER is an open-source software tool for simulating, analyzing and testing data bus systems such as CAN, LIN.

A guide to using CP CAN FD adapter with BUSMASTER tool can be found below.

Step1: Install busmaster-installers-3.2.2

Step2: Download the CP_BUSMASTER patch from https://www.connectiveperipherals.com.

<u>Step3:</u> Backup BusmasterDriverInterface.dll file. Copy and replace all files in CP_BUSMASTER patch to BUSMASTER installed folder



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File Home	Share	View			
← → ~ ↑ 🚺	> Th	is PC > Windows8_OS (C:) > Program Files	(x86) > BUSMASTER_v3.2.2		
	^	Name	Date modified	Туре	Size
🖈 Quick access		合 uninst	4/4/2024 9·21 AM	Application	209 KB
Documents	A		8/9/2022 3:35 PM	Application exten	72 KB
Downloads	1		26/8/2022 3:49 PM	Application exten	122 KB
Pictures	1	BusmasterDriverInterface.dll	26/8/2022 3:25 PM	Application exten	36 KB
BUSMASTER	_v3.	BUSMASTER Cleanup Registry	30/10/2017 5:21 PM	Application	34 KB
CanFestival-	3	S FormatConverter	30/10/2017 5:21 PM	Application	51 KB
Deskton		LDFViewer	30/10/2017 5:20 PM	Application	41 KB

Figure 38 – Adding File in CP_BUSMASTER Patch to BUSMASTER Installed Folder

<u>Step4:</u> Open BUSMASTER software and select CP CAN-API for CP CAN FD adapter.

	F (2011)					В	USMASTER		
	AN J1939 LIN	View Too	ls Help						
Connect Hare	Driver Selection Configuratio	Database Database	letwork Sign tatistics Graph	al Filters M 1* W Measuremen	Aessage Signal Vindow* Watch * t Windows	Logging	Transmit Node Replay Waveform Window Simulation * Messages* Simulation Windows	Test Automation Executor	Diagnostics Diagnostics
Hesse	ETAS BOA								
Time	ETAS ESSB1.3 ETAS ESSB1.4 ETAS ESSB1.4 ETAS ISOLAR-EVE I-VIEW IntrepidCS neoVI DXAT VCI Kvaser CAN MHS Tiny-CAN NSI CAN-API PEAK USB CP CAN-API VSCOM CAN-API	Channel	Msg	ID	Message	DLC	Data Byte(s)		
	Vector XL								

Figure 39 – Selecting CP CAN-API

<u>Step5:</u> Click "**Advanced**" button to show the CP CAN Device Config, Click Search for Devices on COM-ports, then select the COM port you want to use.

	1	BUSMASTER		- 🗆 X
Connect Driver Selection ~ Co Hardware Configu	Channel Database Hetwork Signal Fiters Hersen Channel Database Hetwork Signal Fiters Hersen Database Hetwork Signal Fiters Hersen Measurement Window Measurement Window	ge Signal Logging W Watch - Window Simulation dows	Diagnostics	9 () ^
← [Message Window - 1 Time 110: 44: 09: 9582 110: 44: 09: 9582 110: 44: 09: 9582 110: 44: 09: 9582 110: 48: 10: 48: 41: 7042 110: 48: 41: 7042	Hardware Selection P CAN Device Config X Serial Port COM2 Serial Port COM2 Serial-Inform Device Type: Unknown Serial-unber: Unknown Serial-unber: Unknown Serial-unber: Unknown Device Config Operation Mode Operation Mode Outsen unity OLoopEad: Baudrate: Baudrate: Baudrate: Baudrate: Doob Max Serial Seriad Seriad Seriad Seriad Seriad Seriad Seriad Seriad Seriad S	Configured DAN Hardware Hardware DP DAN Device	7 × Hadware Detais Driver ID : 0 Firmware : CAN Backflade 1000000 BTR0: C0 BTR1: 3A Sampler: 1 Obok: 15 Advanced	
	BTR: register 0 More BTR0: 0x: 00 BTR1: 0x: 00 Acceptance Code: 0x(0000000) 0x(0000000)		1898 Securition 1 Champion 727 City 18, 1999 Pro-	

Figure 40 – CP CAN Device Configuration



Version 1.0

Document Reference No.: CP_000091 Clearance No.: CP#078

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Appendix C – Revision History

Document Title:	CP-CANFD USB to CAN FD Adapter Datasheet
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Clearance No.:	CP#078
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Revision	Changes	Date
1.0	Initial Release	16-05-2024

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