

FINTEK

CANBus Series

Windows Tools Guide

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Contents

1.	Introduction.....	2
1.1	Overview	2
1.2	FitCANBusBurnIn.exe Command Syntax	2
1.3	FCANBUS.exe GUI.....	4

1. Introduction

1.1 Overview

Currently the tools package contains CAN bus GUI tool (FCANBUS.exe) and command line burnin tool (FitCANBusBurnIn.exe).

1.2 FitCANBusBurnIn.exe Command Syntax

FitCANBusBurnIn offers a set of command-line tools for Windows. Open windows command prompt and type the FitCANBusBurnIn to run and type any key then press ENTER to exit. This tool provides some parameters, command syntax is as below:

```
FitCANBusBurnIn.exe <ComPortNumber> <CAN_baudRate> <CANID> <CANID_Bits> <TxDelay>
<TxDiffIdNums> <TxWaitTime> <TxRxMode> <FilterPatten0> <FilterMask0> ... <FilterPatten15> <FilterMask15>
```

Parameters:

<ComPortNumber >	Indicate the CAN controller, depends on com port occupied from Fintek driver. e.g., in device manager CANBus Port (COM24) represents CAN1, the <ComPortNumber> is 'COM24' shown in Figure 1.
<CAN_baudRate>	Unit is k, 250 means 250k bps. Support baudrate: [10 20 50 100 125 250 500 800 1000]
<CANID>	CANID with hex format.
<CANID_Bits>	11 or 29 to indicate 11bit or 29bit
<TxDelay>	Indicate the interval after write messages. Minimum: 1M: 140us / 800K: 165us / 500K: 265us / 250K: 530us / 125K: 1100us / 100K: 1350us / 50K: 2650us / 20K: 6550us / 10K: 13100us
<TxDiffIdNums>	Indicate the message numbers to send out. Maximum: 65536
<TxWaitTime>	WaitingTime, useless parameter, only for SDK debug use. If give '-1', mean to do Initial/Uninitial test
<TxRxMode>	1: RX mode, 2: TX mode, others: not support

<FilterPatten> Filter CANID pattern with hex format.
 <FilterMask> Filter mask with hex format

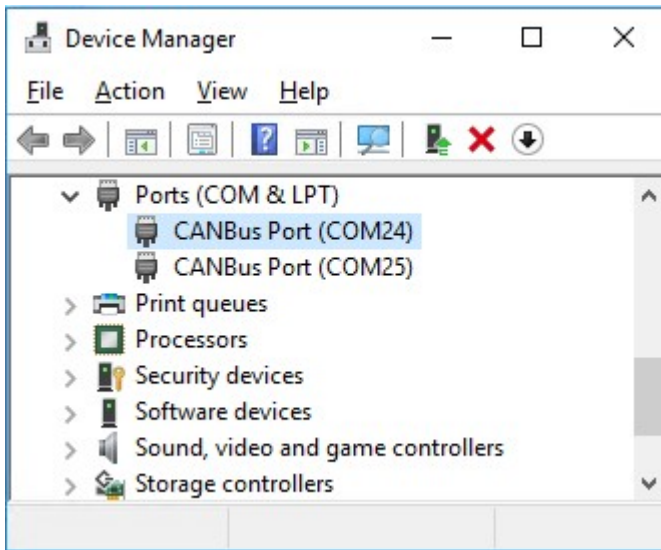


Figure 1. CANBus Port show in Device Manager

EX1: FitCANBusBurnIn.exe COM24 250 18EA5678 29 530 10 1200 2 0 0

Means CAN bus baud rate 250kbps, start CANID 18EA5678, 29bit protocol, wait 530us after write one messages, one cycle write 10 messages, 1200 is dummy parameter.

EX2: FitCANBusBurnIn.exe COM24 1000 18EA5678 11 140 10 -1 2 0 0

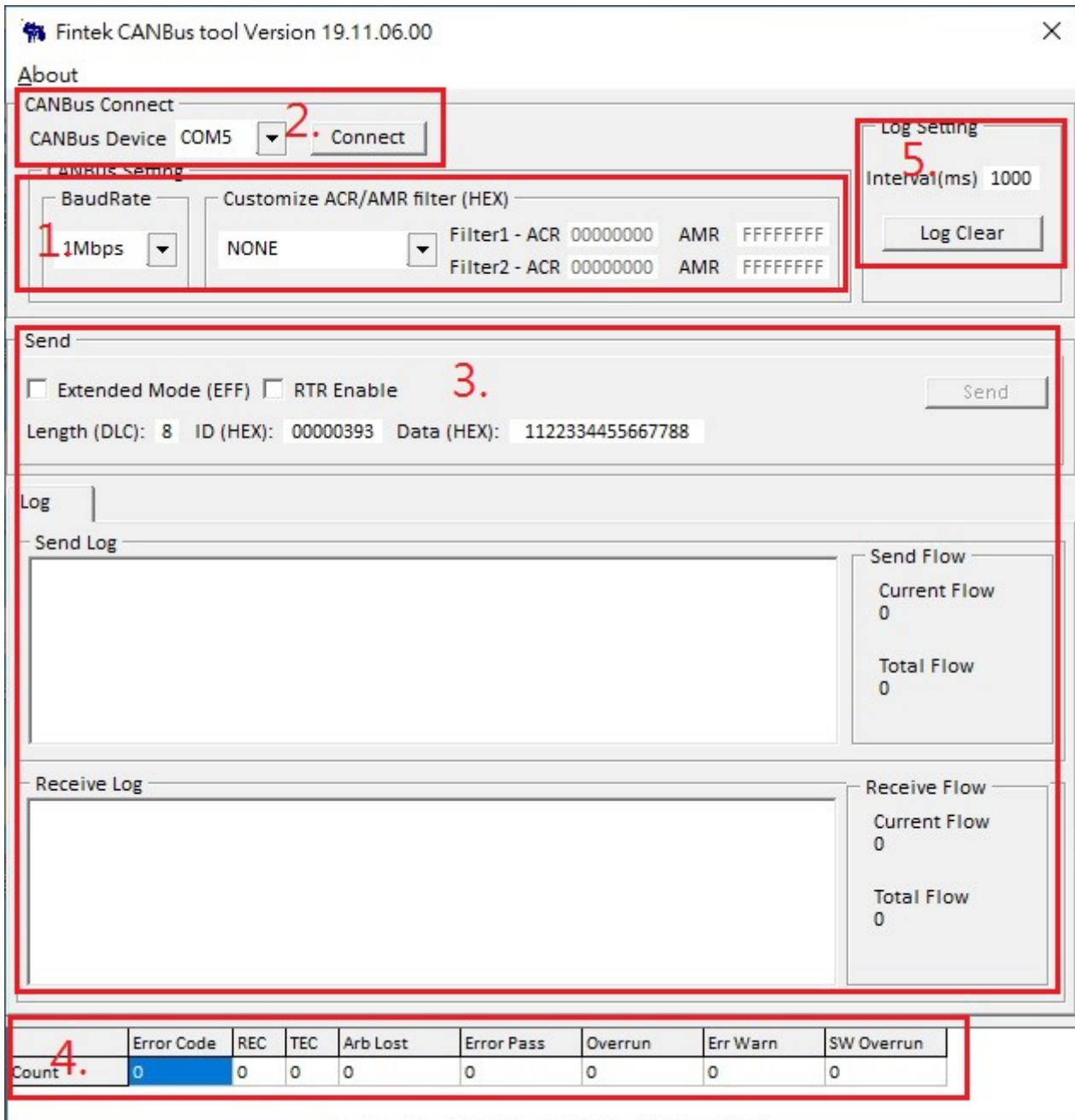
Means CAN bus baud rate 1Mbps, start CANID 18EA5678, 11bit protocol, wait 140us after write one messages, one cycle write 10 messages, TxWaitTime gives -1, means to do Initialize/Write/Uninitialize cycle test.

EX3: FitCANBusBurnIn.exe COM24 250 18EA0000 29 530 10 -1 2 18EA00F1 FFFFFFFF

Means CANID pattern is 0x18EA00F1, mask is 0xffffffff, that means to get the result of (pattern & mask) as the CANID to receive, it will be 0x18EA00F1, if you set mask to 0xffffffffe, that means 0x18EA00F0 and 0x18EA00F1 messages will be received.

Notice: If Filter Patter and Mask set to 0 0, that means no filter, if you want to set specified CANID, you can give the CANID as FilterPattern, Mask set to ffffffff for 29bit, set to fff fort 11bit, up to 15 filters.

1.3 FCANBUS.exe GUI



Fintek CANBus tool Version 19.11.06.00

About

CANBus Connect

CANBus Device COM5 **2.** Connect

CANBus Setting

BaudRate **1.** 1Mbps

Customize ACR/AMR filter (HEX)

NONE

Filter1 - ACR 00000000 AMR FFFFFFFF

Filter2 - ACR 00000000 AMR FFFFFFFF

Log Setting

Interval(ms) 1000 **5.**

Log Clear

Send

☐ Extended Mode (EFF) ☐ RTR Enable **3.**

Length (DLC): 8 ID (HEX): 00000393 Data (HEX): 1122334455667788

Send

Log

Send Log

Receive Log

Send Flow

Current Flow 0

Total Flow 0

Receive Flow

Current Flow 0

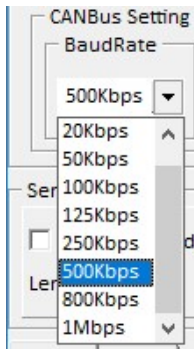
Total Flow 0

4.

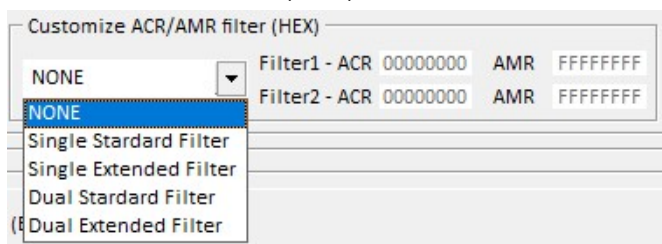
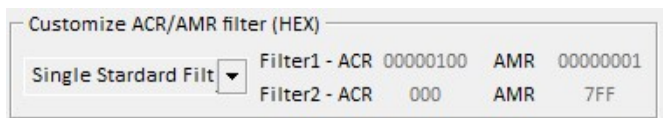
Error Code	REC	TEC	Arb Lost	Error Pass	Overrun	Err Warn	SW Overrun
Count 0	0	0	0	0	0	0	0

Description :
I. CanBus setting : setting baudrate and customer ACR/AMR filter

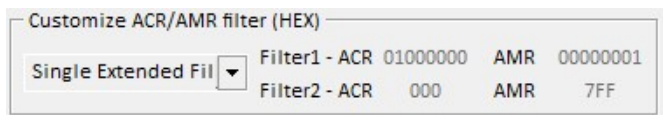
- BaudRate : 10Kbps ~ 1Mbps



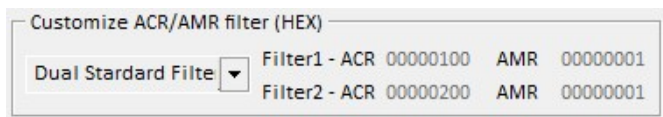
- Customer ACR/AMR filter(HEX)


(1) Single standard filter example :


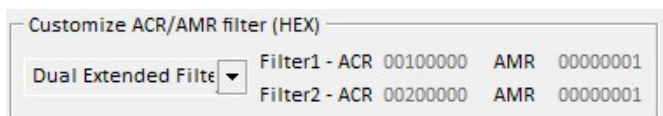
receive CAN ID : 100/101

(2) Single extended filter example :


receive CAN ID : 01000000/01000001

(3) Dual standard filter example :


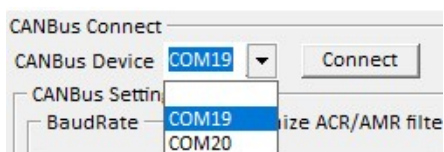
receive CAN ID : 100/101/200/201

(4) Dual extended filter example :


Receive CAN ID : 00100000~00100FFF and 00200000~00200FFF

***NOTICE :** dual filters are comparing the first two bytes of the extended identifier range only.

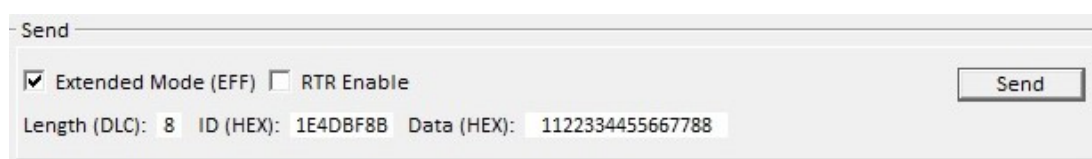
II. CanBus Connect : select CanBus port and connect



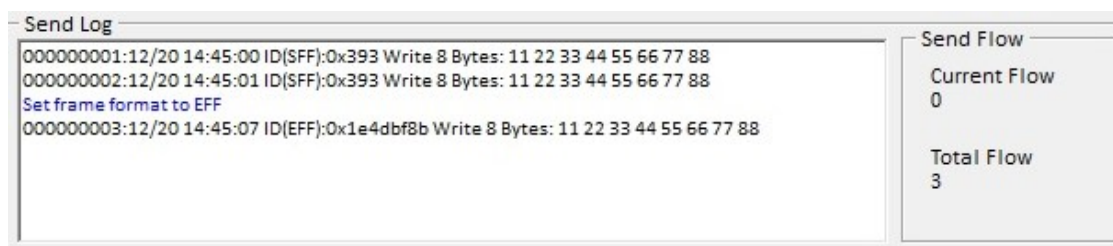
III. Send :

A. at Log page Click 「Send」 button to send once can packet.

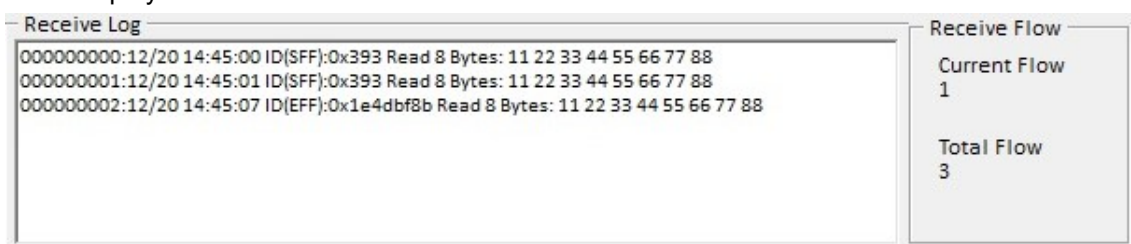
i. Setting can mode/RTR enable/data length/ID/data



ii. Display transmission data



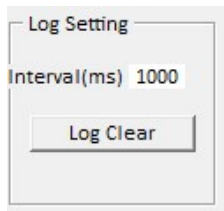
iii. Display receive data



IV. Count : count error status

	Error Code	REC	TEC	Arb Lost	Error Pass	Overrun	Err Warn	SW Overrun
Count	0	0	0	0	0	0	0	0

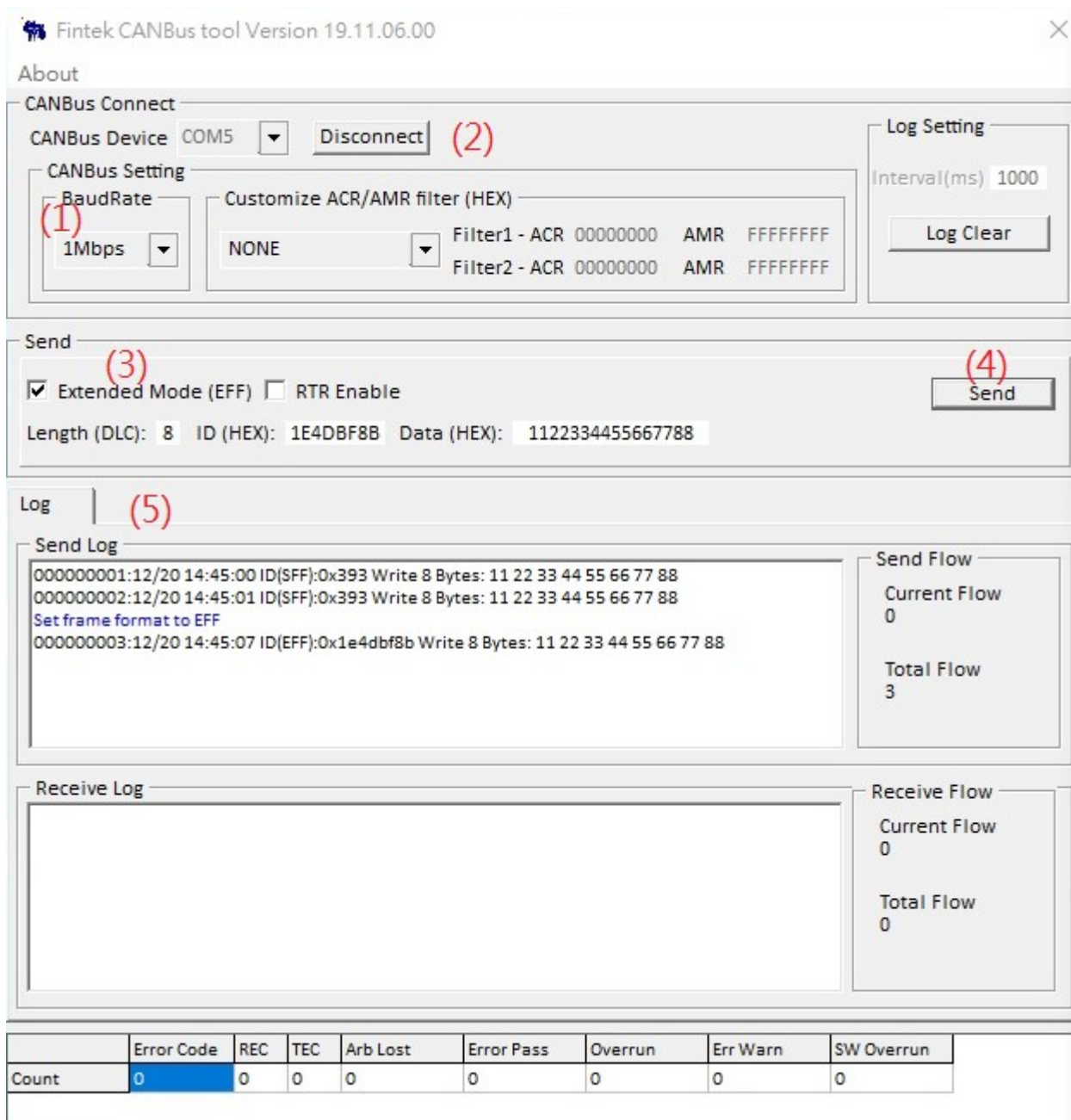
V. Log setting : when click 「Log Clear」 button will clear send log, receiver log and count.



*NOTICE : FCANBUS.EXE can open two CANBus tool and setup CAN device individually

2. Step of connection :

I. Send example :



The screenshot shows the Fintek CANBus tool interface with the following components and annotations:

- Top Bar:** Fintek CANBus tool Version 19.11.06.00
- Log Setting:** Interval(ms) 1000, Log Clear button.
- CANBus Connect:** CANBus Device: COM5, Disconnect button. (2) is annotated next to the Disconnect button.
- CANBus Setting:**
 - BaudRate: 1Mbps. (1) is annotated next to the BaudRate dropdown.
 - Customize ACR/AMR filter (HEX): NONE. Filter1 - ACR 00000000 AMR FFFFFFFF, Filter2 - ACR 00000000 AMR FFFFFFFF.
- Send:**
 - Extended Mode (EFF) ☒ RTR Enable ☐. (3) is annotated next to the Extended Mode checkbox.
 - Length (DLC): 8 ID (HEX): 1E4DBF8B Data (HEX): 1122334455667788.
 - Send button. (4) is annotated next to the Send button.
- Log:** (5) is annotated next to the Log tab.
- Send Log:**
 - 000000001:12/20 14:45:00 ID(SFF):0x393 Write 8 Bytes: 11 22 33 44 55 66 77 88
 - 000000002:12/20 14:45:01 ID(SFF):0x393 Write 8 Bytes: 11 22 33 44 55 66 77 88
 - Set frame format to EFF
 - 000000003:12/20 14:45:07 ID(EFF):0x1e4dbf8b Write 8 Bytes: 11 22 33 44 55 66 77 88
- Send Flow:** Current Flow 0, Total Flow 3.
- Receive Log:** (Empty)
- Receive Flow:** Current Flow 0, Total Flow 0.
- Bottom Table:**

	Error Code	REC	TEC	Arb Lost	Error Pass	Overrun	Err Warn	SW Overrun
Count	0	0	0	0	0	0	0	0

- (1) Setting baudrate and ACR/AMR filter
- (2) Select canbus port and connect device
- (3) Setting data length, ID, and data;
- (4) Click send button
- (5) Display transmission or receive data