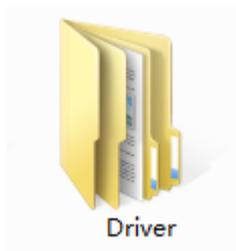


# USB-CAN User Manual

## 1. Install the driver

In the data to see the following folder



Double-click, according to your specific system to install the driver

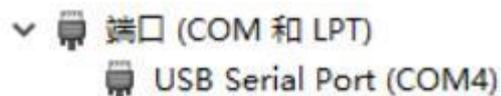
-  driver for USB(232)CAN(FT232)
-  driver for USBCAN(CH540)

## 2. The USB - CAN insert computer

From the device manager see USB - CAN virtual COM port

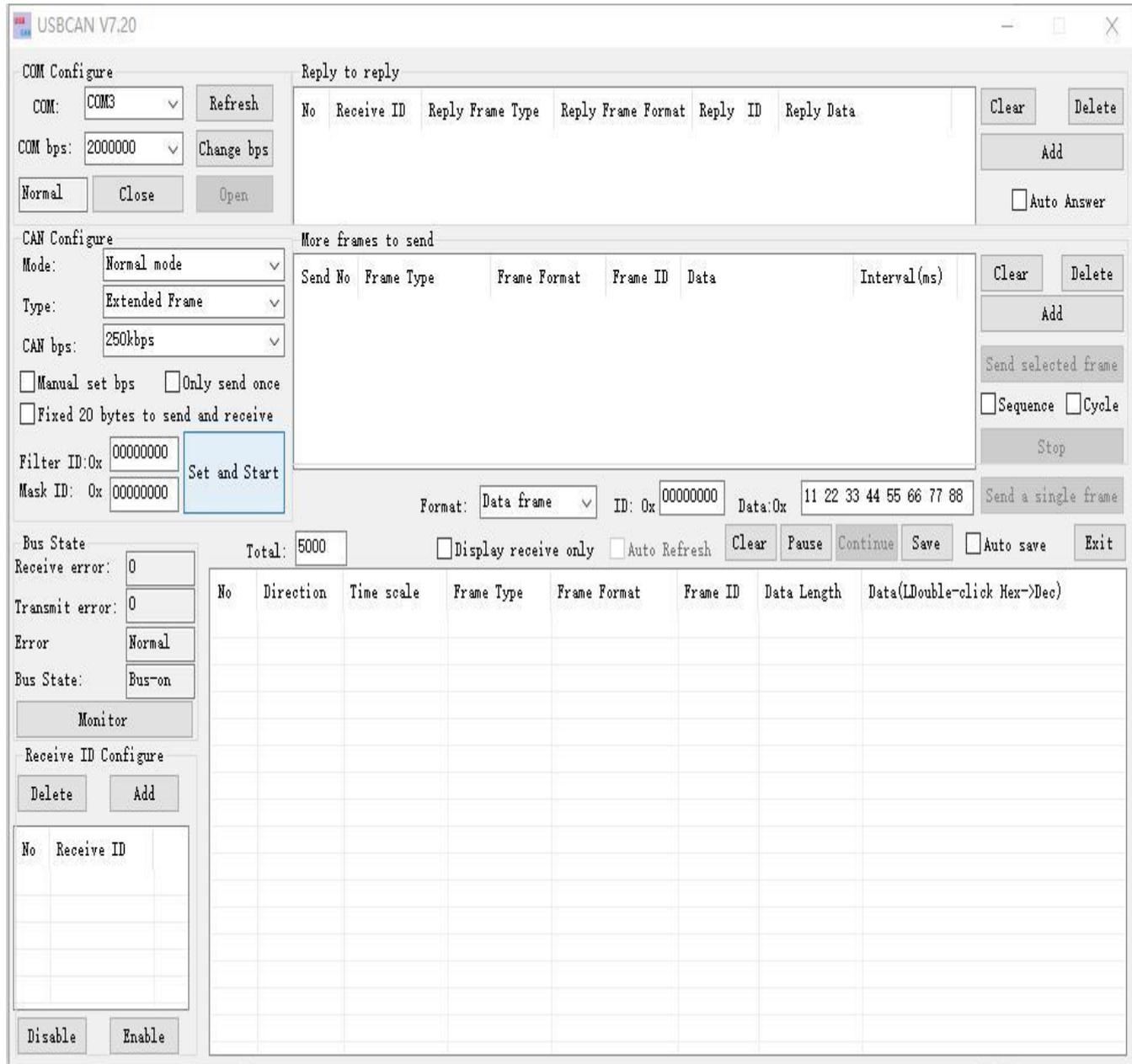


From the device manager see USB(232) - CAN virtual COM port





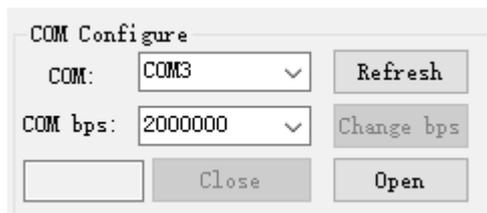
Click on the Open button



According to the CAN bus selecting frame type and set CAN baud rate, point solution set and start button, the CAN bus and the equipment the communication.

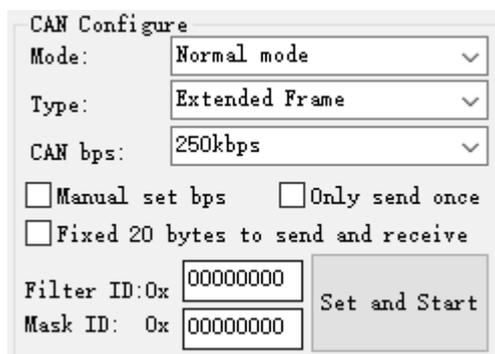
## 4. Software and introduces

### 4.1 COM Port Settings



Will the USB - CAN insert computer, CAN automatic find the computer COM port, choose good port CAN, CAN open or closed port, this with serial debugging assistant similar, communication baud rate is fixed 1228800 BSP.

### 4.2 CAN Settings



Work patterns include normal mode, Loop back mode, silent mode, Loop back + silent mode

**Normal mode:** is CAN normal communication model, CAN be normal to the bus to send and receive data

**Loop back mode:** send data CAN be sent to CAN bus, and at the same time, feedback internal region of acceptance, ignore accept pin of the actual state and CAN be used for self test

**Silent mode:** CAN normal accept data, but CAN only send recessive position, and CAN't really send message, often is applied to the analysis of CAN bus activities

**Loop back + silent mode:** the model can be used for "hot self test", namely online self test. Like a ring back mode that self test, but does not affect the CAN bus system.

**Frame type:** standard frame (CAN2.0 A 11 ID) extended frame (CAN2.0 B 29 ID)

**CAN baud rate:** CAN the direct selection CAN communication commonly used baud rate:

1M,800K,500K,400K,250K,200K,125K,100K,50K,20K,10K,5K

f it CAN be directly set the baud rate and you CAN equipment baud rate does not agree, CAN choose

**Fixed 20 bytes to send and receive:** CAN converter internal there are two agreements, one CAN be the length of the communication protocol, is a kind of fixed 20 bytes of communication protocol, communication protocol will be fixed after selected 20, variable protocol communication is not selected

**Manual set bps:** After the choice will jump out of a custom baud rate dialog box

The image shows a dialog box titled "CAN bps" with the following fields and values:

- Formula:  $CAN\ bps = 36000000 / (SYNC\_SEG + BP1 + BP2) / \text{Preassigned frequency}$
- CAN bps: 250000 bsp
- SYNC\_SEG: CAN\_SJW\_1tq
- BP1: CAN\_BS1\_8tq
- BP2: CAN\_BS1\_7tq
- Preassigned frequency: 9

An "OK" button is visible on the right side of the dialog box.

**The top position CAN baud rate calculation formula, and at the same time set phase buffer 1, phase buffer 2, and preassigned frequency is ok**

**Filter ID and Mask ID:** are hexadecimal data filtering the IDs and Mask ID standard frames low 11 (range: 0x00000000 to 0x000007ff) extended frame filter ID and Mask ID 29 (range 0x00000000 to 0x1fffffff)

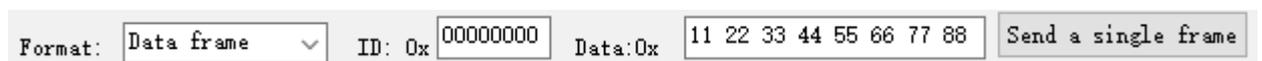
**Only send once:** CAN communication is usually send unsuccessful automatic repeat, if have been circulating send data, CAN set banned message automatic repeat



Click **Set and Start**, CAN undertake the CAN communication

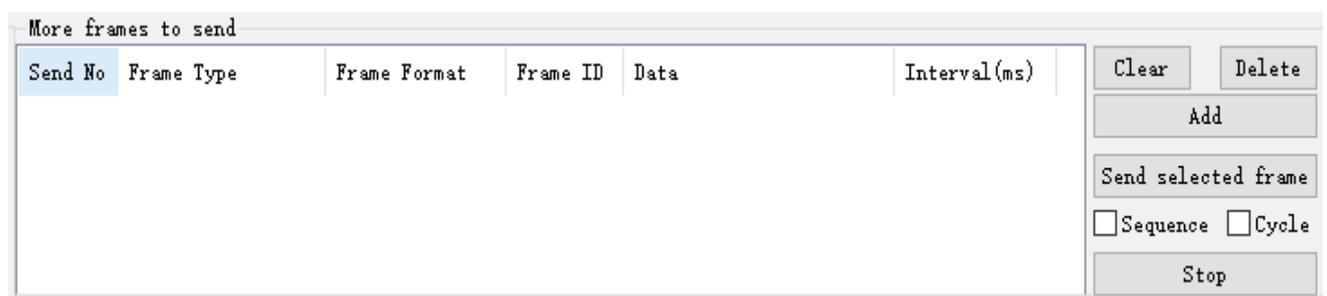
**Frame format** contains data frames and remote frame, frame ID is hexadecimal data, the standard frame ID the range of 0x00000000 ~ 0x000007fff, to expand frame ID the range of 0x00000000 ~ 0x1fffffff. To send data also for hexadecimal data. The data in the figure are 0x11 0x22 0x33 0x44 0x55 0x66 0x77 0x88, respectively.

### 4.3 Sending a single frame data area



Click on the button **Send a single frame** will be the frame data sent to the CAN bus

### 4.4 Send multiple frames data



**Add button:** When sending multiple frame area below the selected row will add a frame data

**Delete button:** To delete the selected rows

**Clear button:** Send clear area frame to send all the data

**Interval:** Connected area frame to send on the sending time interval of two frames (ms)

**Send selected frame:** Click on this button will send multiple frames in the selected row

**Sequence** Selected and then click the send selected frame will automatically switch to the next frame

**Cycle:** send cycle is repeated

**Stop:** cancel sending multiple frames command

Data editing in sending multiple frames area editor

#### 4.5 Reply to reply

Reply to reply					
No	Receive ID	Reply Frame Type	Reply Frame Format	Reply ID	Reply Data

Clear Delete

Add

Auto Answer

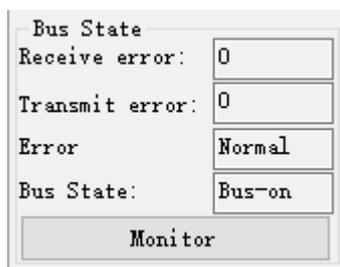
**ADD:** In the automatic response area below the selected row will add a automatic response data

**Delete:** To delete the selected rows

**Clear:** All the data will clear to send automatic response area

**Auto Answer:** Will be selected after receiving to accept ID will automatically return the corresponding frame ID and data

#### 4.6 CAN Bus State



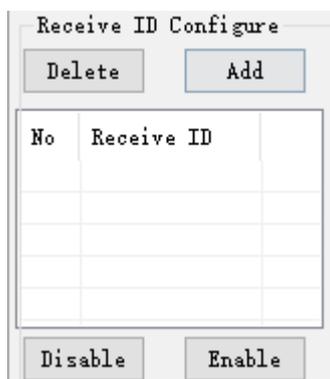
A software window titled "Bus State" with the following fields and values:

Receive error:	0
Transmit error:	0
Error	Normal
Bus State:	Bus-on

At the bottom of the window is a button labeled "Monitor".

Mainly used in turn CAN see USB device CAN state

#### 4.7 Receive ID Configure



A software window titled "Receive ID Configure" with the following elements:

- Buttons: "Delete" and "Add" at the top.
- Table with columns "No" and "Receive ID":

No	Receive ID
- Buttons: "Disable" and "Enable" at the bottom.

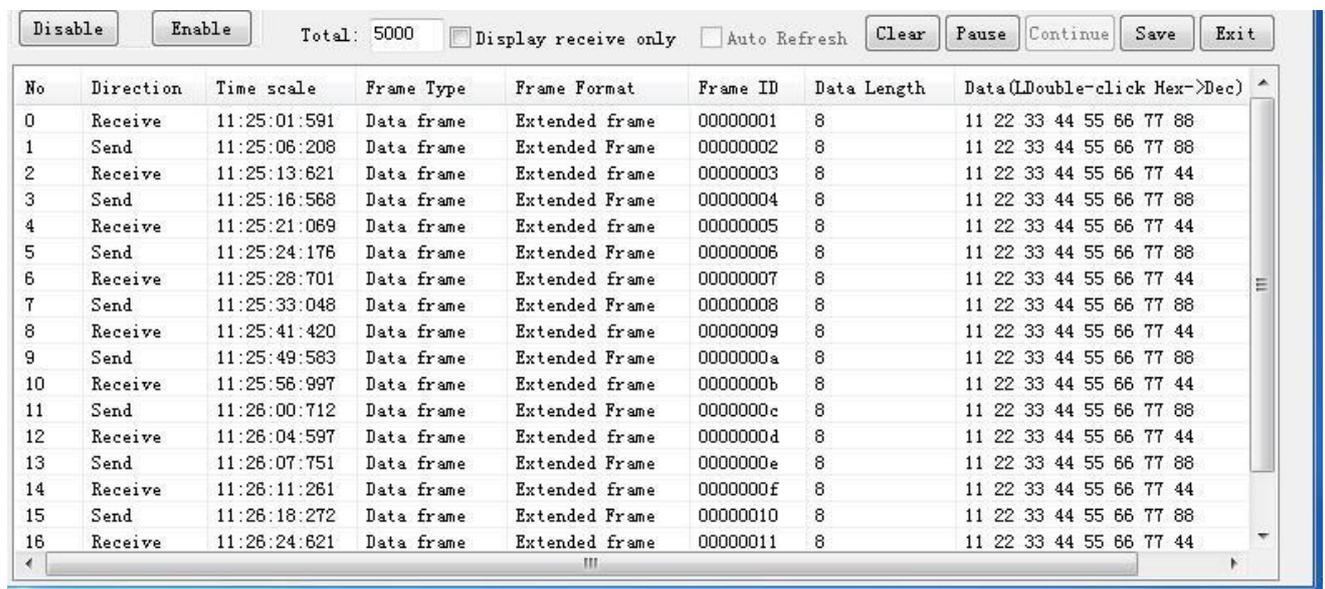
**Add:** Accept the area below the selected row configuration will add a automatic response data

**Delete:** To delete the selected rows

**Enable:** Converter after click on this button will only upload configuration accept ID area ID set inside, other ID are not uploaded to the computer

**Disable:** Converter after click this button to upload all ID data to the computer

#### 4.8 ending and receiving data display area



The screenshot shows a software interface with a control bar at the top and a data table below. The control bar includes buttons for 'Disable', 'Enable', 'Clear', 'Pause', 'Continue', 'Save', and 'Exit'. It also displays 'Total: 5000', a checked 'Display receive only' checkbox, and an unchecked 'Auto Refresh' checkbox. The table below has columns for 'No', 'Direction', 'Time scale', 'Frame Type', 'Frame Format', 'Frame ID', 'Data Length', and 'Data (LDouble-click Hex->Dec)'. The table contains 17 rows of data, alternating between 'Receive' and 'Send' directions, with frame IDs ranging from 00000001 to 00000011. Each data entry shows a time scale, frame type, format, ID, length of 8, and a hexadecimal data string.

No	Direction	Time scale	Frame Type	Frame Format	Frame ID	Data Length	Data (LDouble-click Hex->Dec)
0	Receive	11:25:01:591	Data frame	Extended frame	00000001	8	11 22 33 44 55 66 77 88
1	Send	11:25:06:208	Data frame	Extended Frame	00000002	8	11 22 33 44 55 66 77 88
2	Receive	11:25:13:621	Data frame	Extended frame	00000003	8	11 22 33 44 55 66 77 44
3	Send	11:25:16:568	Data frame	Extended Frame	00000004	8	11 22 33 44 55 66 77 88
4	Receive	11:25:21:069	Data frame	Extended frame	00000005	8	11 22 33 44 55 66 77 44
5	Send	11:25:24:176	Data frame	Extended Frame	00000006	8	11 22 33 44 55 66 77 88
6	Receive	11:25:28:701	Data frame	Extended frame	00000007	8	11 22 33 44 55 66 77 44
7	Send	11:25:33:048	Data frame	Extended Frame	00000008	8	11 22 33 44 55 66 77 88
8	Receive	11:25:41:420	Data frame	Extended frame	00000009	8	11 22 33 44 55 66 77 44
9	Send	11:25:49:583	Data frame	Extended Frame	0000000a	8	11 22 33 44 55 66 77 88
10	Receive	11:25:56:997	Data frame	Extended frame	0000000b	8	11 22 33 44 55 66 77 44
11	Send	11:26:00:712	Data frame	Extended Frame	0000000c	8	11 22 33 44 55 66 77 88
12	Receive	11:26:04:597	Data frame	Extended frame	0000000d	8	11 22 33 44 55 66 77 44
13	Send	11:26:07:751	Data frame	Extended Frame	0000000e	8	11 22 33 44 55 66 77 88
14	Receive	11:26:11:261	Data frame	Extended frame	0000000f	8	11 22 33 44 55 66 77 44
15	Send	11:26:18:272	Data frame	Extended Frame	00000010	8	11 22 33 44 55 66 77 88
16	Receive	11:26:24:621	Data frame	Extended frame	00000011	8	11 22 33 44 55 66 77 44

**Clear:** empty to send and receive data display so data

**Pause:** pause in the sending and receiving display area shows that other data

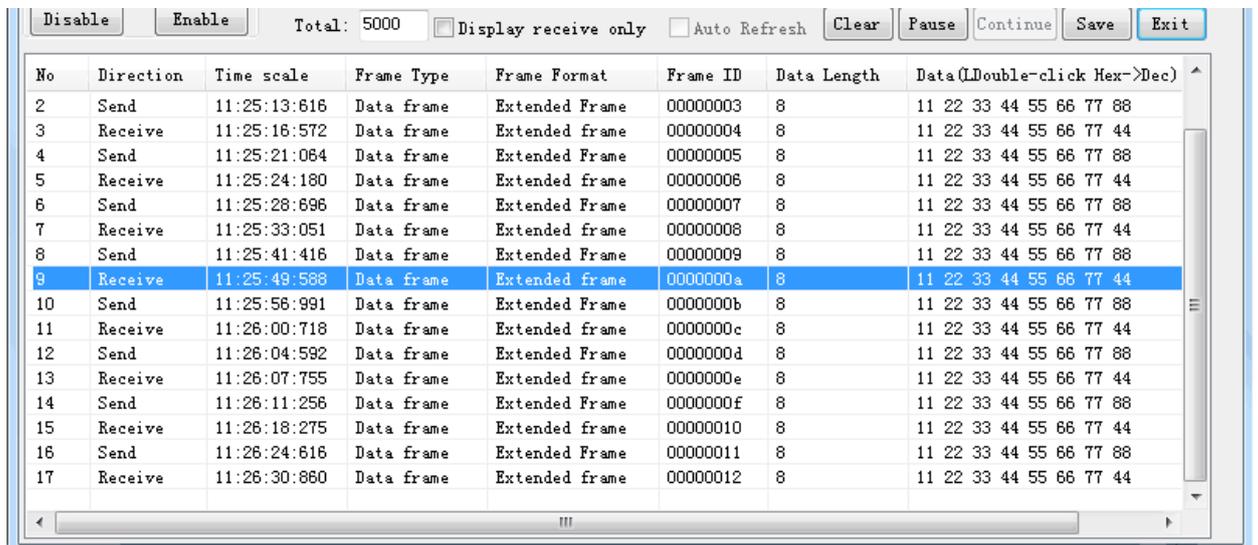
**Continue to:** continue to show to send and receive data

**Save:** can send and receive data buffer data storage that can hold two format, excel or TXT text

**Display receive only:** can send and receive data area show only accept data

**Auto refresh:** when display only accept data, CAN choose to be automatic refresh, this time data are real-time refresh, rather than increasing column display, this function CAN be concluded CAN summarize ID data

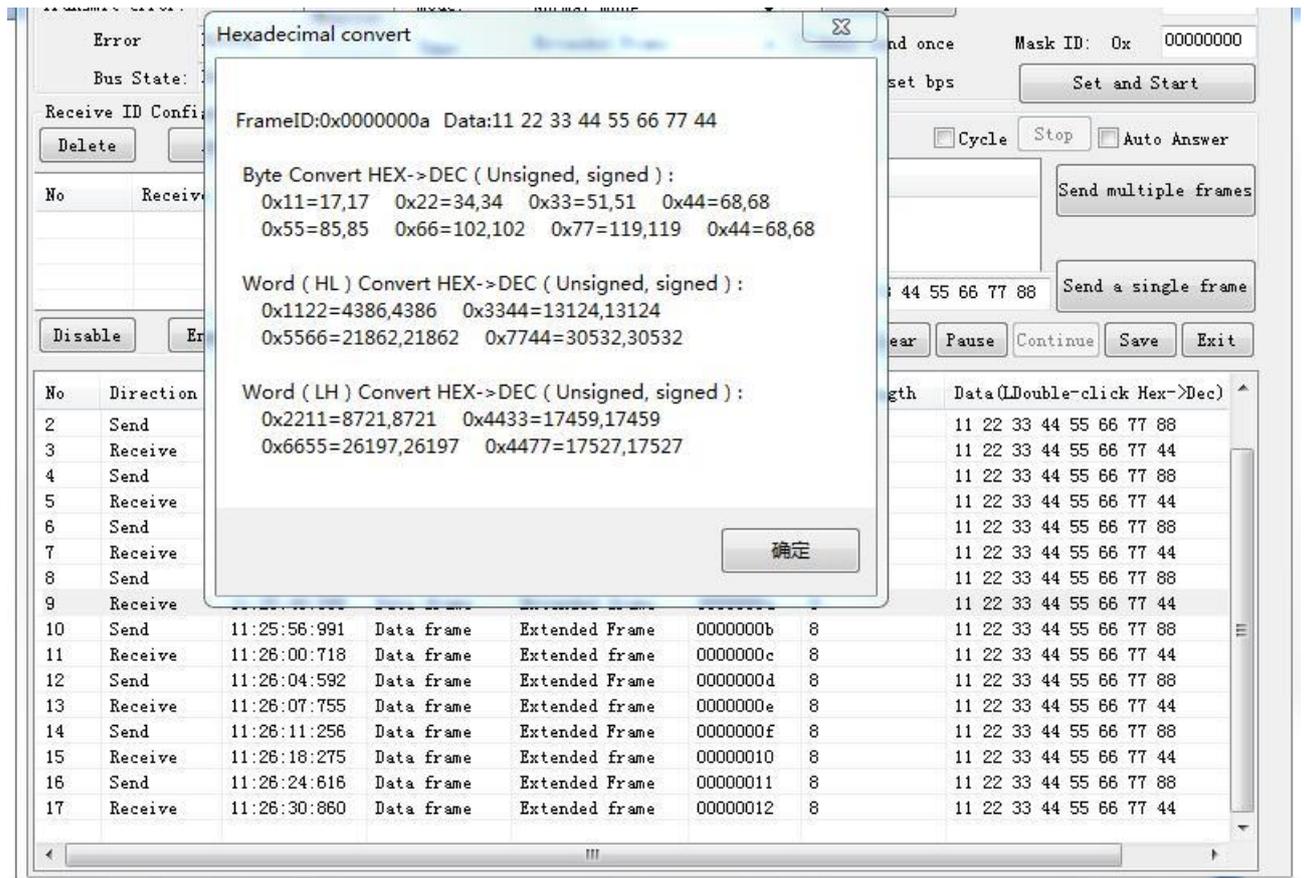
### Select any line



The screenshot shows a software interface for monitoring CAN bus data. At the top, there are control buttons: 'Disable', 'Enable', 'Total: 5000', a checkbox for 'Display receive only', a checkbox for 'Auto Refresh', 'Clear', 'Pause', 'Continue', 'Save', and 'Exit'. Below these is a table with the following columns: 'No', 'Direction', 'Time scale', 'Frame Type', 'Frame Format', 'Frame ID', 'Data Length', and 'Data(LDouble-click Hex->Dec)'. The table contains 17 rows of data, with the 9th row highlighted in blue. The data in the table is as follows:

No	Direction	Time scale	Frame Type	Frame Format	Frame ID	Data Length	Data(LDouble-click Hex->Dec)
2	Send	11:25:13:616	Data frame	Extended Frame	00000003	8	11 22 33 44 55 66 77 88
3	Receive	11:25:16:572	Data frame	Extended frame	00000004	8	11 22 33 44 55 66 77 44
4	Send	11:25:21:064	Data frame	Extended Frame	00000005	8	11 22 33 44 55 66 77 88
5	Receive	11:25:24:180	Data frame	Extended frame	00000006	8	11 22 33 44 55 66 77 44
6	Send	11:25:28:696	Data frame	Extended Frame	00000007	8	11 22 33 44 55 66 77 88
7	Receive	11:25:33:051	Data frame	Extended frame	00000008	8	11 22 33 44 55 66 77 44
8	Send	11:25:41:416	Data frame	Extended Frame	00000009	8	11 22 33 44 55 66 77 88
9	Receive	11:25:49:588	Data frame	Extended frame	0000000a	8	11 22 33 44 55 66 77 44
10	Send	11:25:56:991	Data frame	Extended Frame	0000000b	8	11 22 33 44 55 66 77 88
11	Receive	11:26:00:718	Data frame	Extended frame	0000000c	8	11 22 33 44 55 66 77 44
12	Send	11:26:04:592	Data frame	Extended Frame	0000000d	8	11 22 33 44 55 66 77 88
13	Receive	11:26:07:755	Data frame	Extended frame	0000000e	8	11 22 33 44 55 66 77 44
14	Send	11:26:11:256	Data frame	Extended Frame	0000000f	8	11 22 33 44 55 66 77 88
15	Receive	11:26:18:275	Data frame	Extended frame	00000010	8	11 22 33 44 55 66 77 44
16	Send	11:26:24:616	Data frame	Extended Frame	00000011	8	11 22 33 44 55 66 77 88
17	Receive	11:26:30:860	Data frame	Extended frame	00000012	8	11 22 33 44 55 66 77 44

The left mouse button double click it



## 5.COM bps select

USB - CAN power on when to send and receive light flash **one** at the same time, the COM baud rate to **200000** BPS, flash **two** at the same time, the COM baud rate to **1228800** BPS, flash **three** times at the same time, the COM baud rate to **115200** BPS, flash **four** at the same time, the corresponding COM baud rate to **38400** BPS, flash **five** times at the same time, the corresponding COM baud rate to **19200** BPS, flash **six** at the same time, the corresponding COM baud rate to **9600** BPS