

Packing List

In addition to this guide, the package includes the following items:



I-2533CS-FD



Screw Driver



USB Cable
(CA-USB10)



Core

Resources

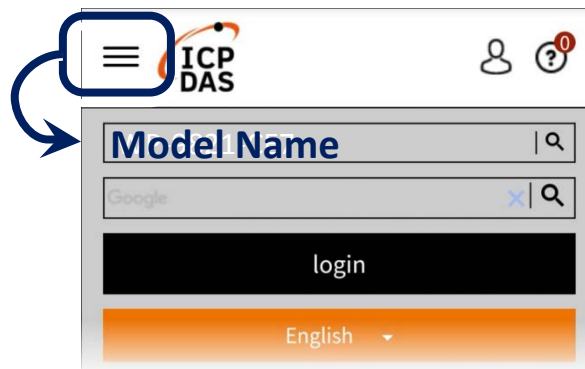
How to search for drivers, manuals and spec information on ICP DAS website.

Technical Support

service@icpdas.com

www.icpdas.com

- For Mobile Web



- For Desktop Web

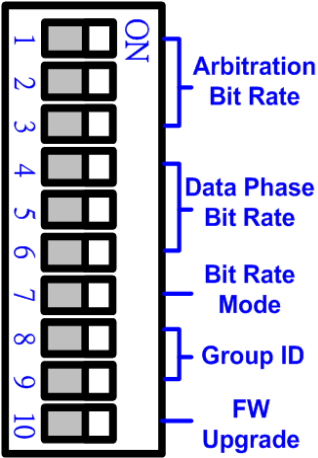
1

Hardware Installation

Before using I-2533CS-FD device, some things must be done.

Step 1: Prepare one pair of I-2533CS-FD

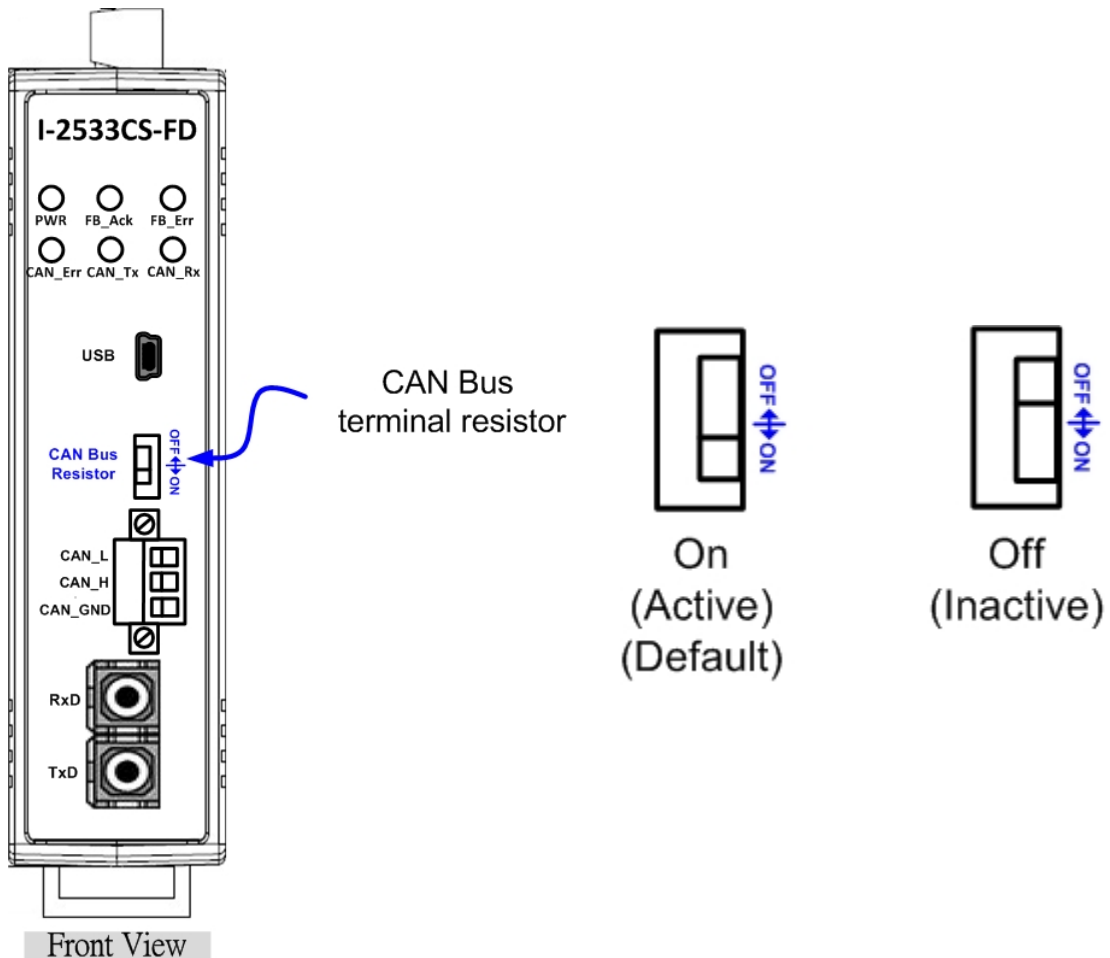
Step 2: Set the CAN/CAN FD baud rate and check the module group ID setting of each I-2533CS-FD

10-pin dip switch	Pin	Switch Function	Description			
	1 ~ 3	Arbitration Bit Rate of CAN/CAN FD message	Bit Rate (kbps)	1	2	3
			10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			125	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			250	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
			500	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
			800	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			1000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	4 ~ 6	Data Phase Bit Rate of CAN FD message	Bit Rate (kbps)	1	2	3
100			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
125			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
250			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
500			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
800			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1000			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2000			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
3000			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
7	Bit Rate Mode	ON: Use Arbitration/ Data Phase bit rate setting by Utility configuration				

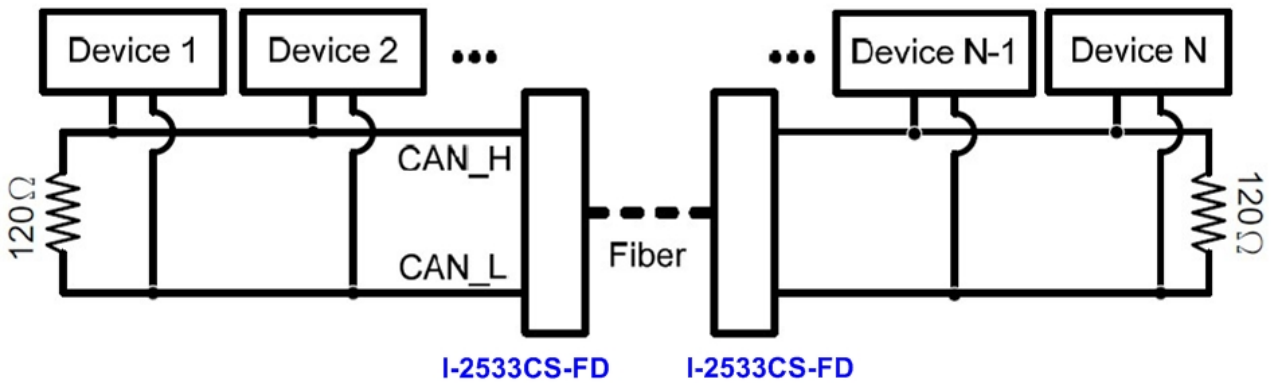
			OFF: Use Arbitration/ Data Phase bit rate setting by dip switch setting		
	8 ~ 9	Module's group ID	Group ID value	8	9
			00	<input type="checkbox"/>	<input type="checkbox"/>
			10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			02	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		03	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
10	Firmware upgrade mode	ON: Into firmware upgrade mode. OFF: Into normal operating mode.			

Step 3: Determine if the terminal resistor is needed or not

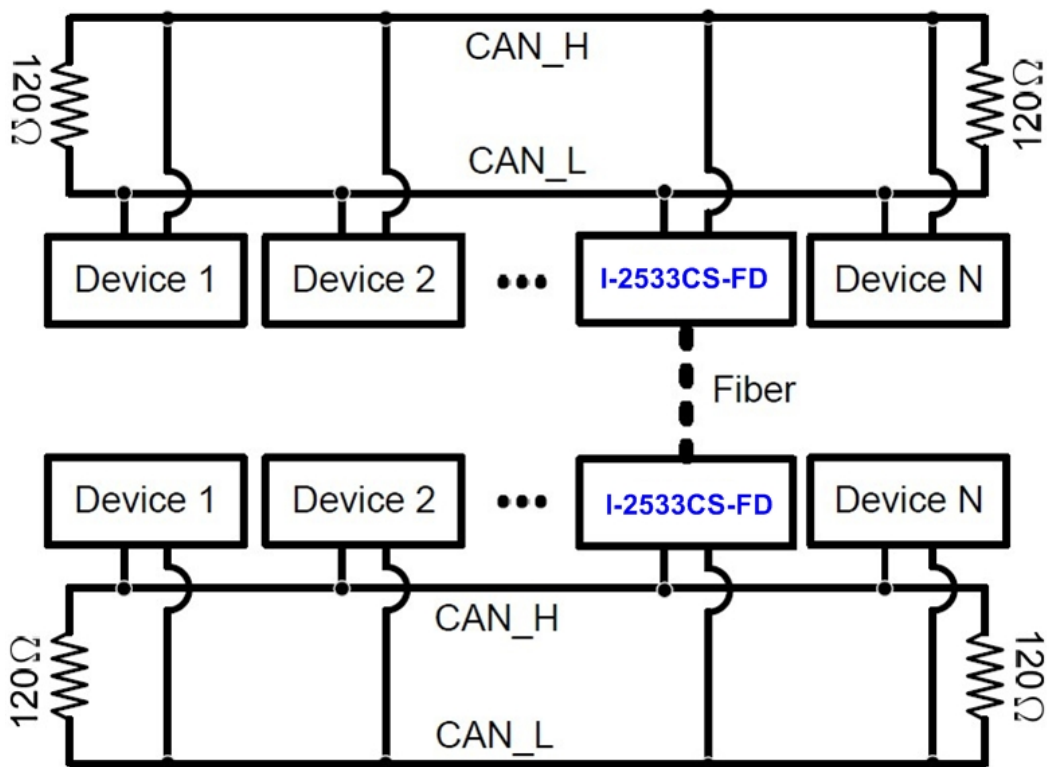
Check the application structure, and determine if the terminal resistor is needed or not. You can find it at the position as follows.



Generally, if your application is as follows, we recommend you to enable the terminal resistor.

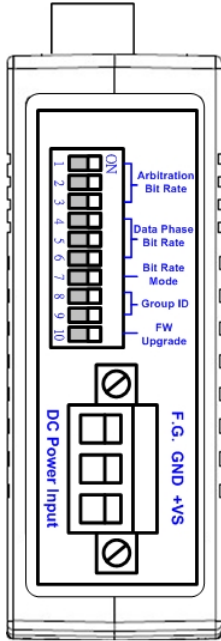
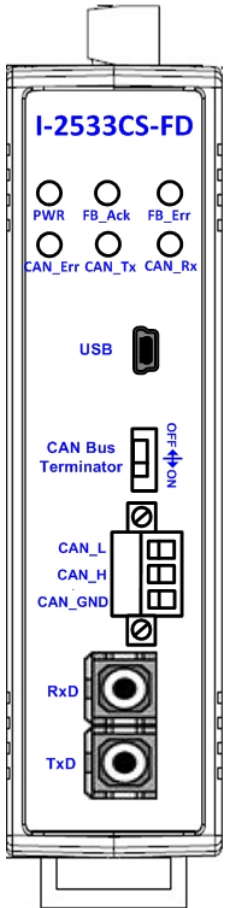


If your application is like the structure as follows, the terminal resistor is not needed.



Step 4: Connect the fiber port, CAN port, power line and frame ground of these I-2533CS-FD.

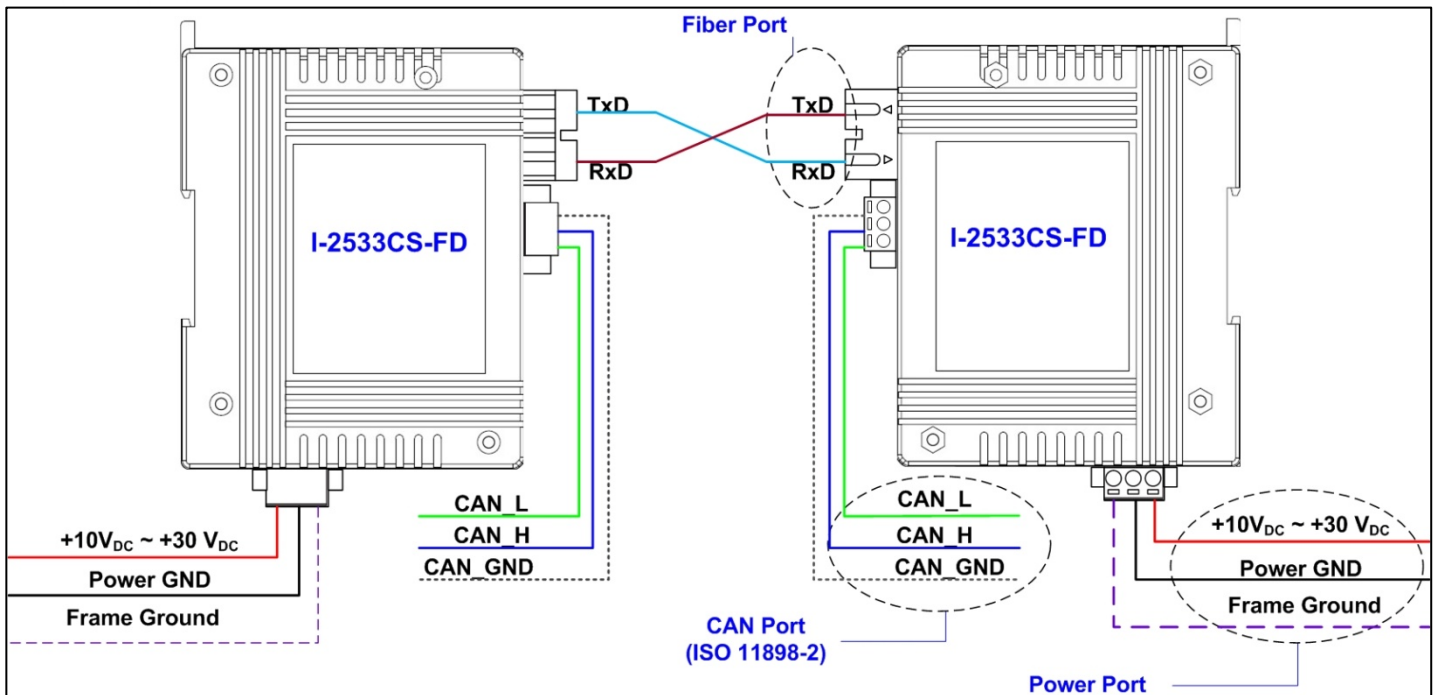
The pin assignment and wire connection are as follows. When finished, run your application with the I-2533CS-FD.



Bottom View

Port	Name	Description
USB	USB	Used for configuration utility
CAN	CAN_L	CAN_Low, signal line of CAN port.
	CAN_H	CAN_High, signal line of CAN port.
	CAN_GND	CAN_Ground, ground voltage level of CAN port.
Fiber	TxD	Transmit optic data.
	RxD	Receive optic data.
Power	+Vs	Voltage Source Input. +10V _{DC} ~ +30V _{DC} .
	GND	Power Ground.
	F.G.	Frame Ground.

Front View



2

Utility tool

When users want to use user-defined CAN/CAN FD baud rate and CAN message filter, I-2533CS-FD Utility tool may be needed.

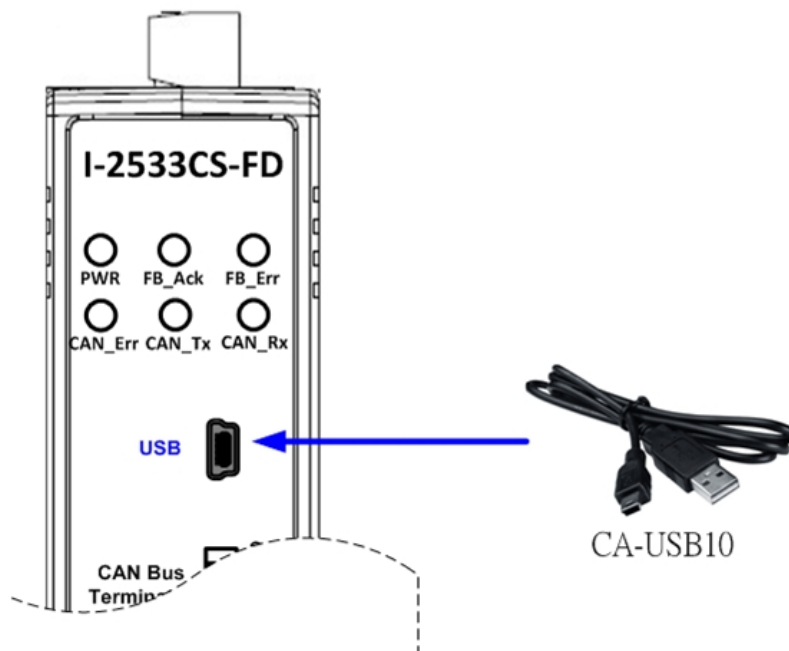
Step 1: Install the I-2533CS-FD Utility

The software is located at:

<http://www.icpdas.com/en/download/show.php?num=2454&model=I-2533CS-FD>

Step 2: Setting up I-2533CS-FD module

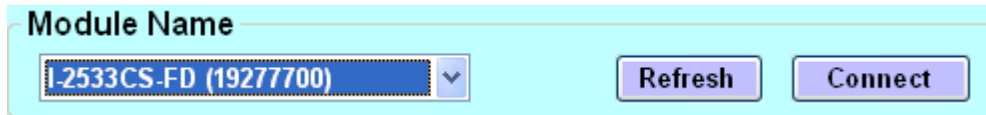
1. Connect the PC available USB port with the USB port of the I-2533CS-FD. Users can find the communication cable (CA-USB10) in the product box.



2. Execute the I-2533CS-FD Utility tool.

Step 3: Connect to I-2533CS-FD module

Press the “Refresh” button to scan and list all the necessary I-2533CS-FD modules on “Module Name” location. Then select the necessary I-2533CS-FD module and press “Connect” button to start to connect with it.

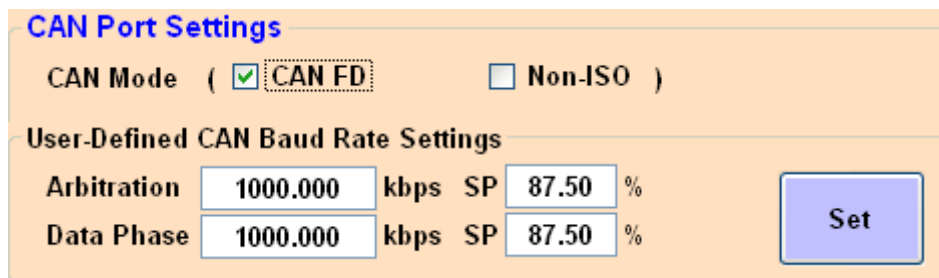


Module Name

I-2533CS-FD (19277700) Refresh Connect

Step 4: Configure user-defined CAN/CAN FD baud rate

1. User can set the CAN port operation mode and user-defined CAN baudrate parameters on the “CAN Port Settings” frame. All settings will take effect after reboot the module.



CAN Port Settings

CAN Mode (CAN FD Non-ISO)

User-Defined CAN Baud Rate Settings

Arbitration	1000.000	kbps	SP	87.50	%
Data Phase	1000.000	kbps	SP	87.50	%

Set

[CAN Mode]

“CAN FD” :

Set the CAN port into CAN FD mode. When setting the CAN port into CAN FD mode, the CAN port can process CAN/CAN FD messages, otherwise this port just can process CAN messages.

“Non-ISO”:

Non-ISO operation. If this parameter is checked, the module uses the CAN FD frame format as specified by the Bosch CAN FD Specification V1.0. Otherwise, CAN FD frame format will follow according to ISO11898-1.

[User-defined CAN Baud Rate Settings]

“Arbitration”:
CAN/CAN FD arbitration phase bit rate. Valid range: 10 kbps ~ 1000 kbps.

“Data Phase”:
CAN FD data phase bit rate. Valid range: 100 kbps ~ 3000 kbps

“SP”: CAN/CAN FD arbitration/data phase bit rate sample point. Suggested range: 75.00 ~ 87.50 %

2. In order to use the “User-Defined CAN Baud Rate Settings” paramters, user need to set the pin7 of “10-pin dip switch” to ON position. Otherwise, the CAN “Arbitration Bit Rate” and “Data Phase Bit Rate” settings will follow according to “10-pin dip switch” settings.

Step 5: Setting CAN filter ID

1. The “Reject Remote Frame” is used to reject remote standard/extended CAN frame. And the “Standard ID/Extended ID” field are used to set accepted standard/extended CAN IDs.
2. All settings in the “CAN Filter Setting” will take effect after pressing “Re-Init CAN” button.

The screenshot shows the 'Advanced Settings' tab for CAN Filter Setting. It includes a 'Reject Remote Frame' section with two checkboxes: 'Reject Remote Standard Frame' and 'Reject Remote Extended Frame'. Below this is a section for 'Acceptance CAN ID (HEX)' with 'Standard ID' and 'Extended ID' tabs. The 'From' field contains '000' and the 'To' field contains '7FF'. An 'Add' button is next to the 'To' field. A table with columns 'No', 'From-CAN ID(hex)', and 'To-CAN ID(hex)' is shown below. To the right of the table are buttons for 'Save File', 'Load File', 'Delete Row', and 'Clear Table'. At the bottom of the interface are buttons for 'Get CAN Standard IDs', 'Set CAN Standard IDs', and 'Re-Init CAN'.

No	From-CAN ID(hex)	To-CAN ID(hex)
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