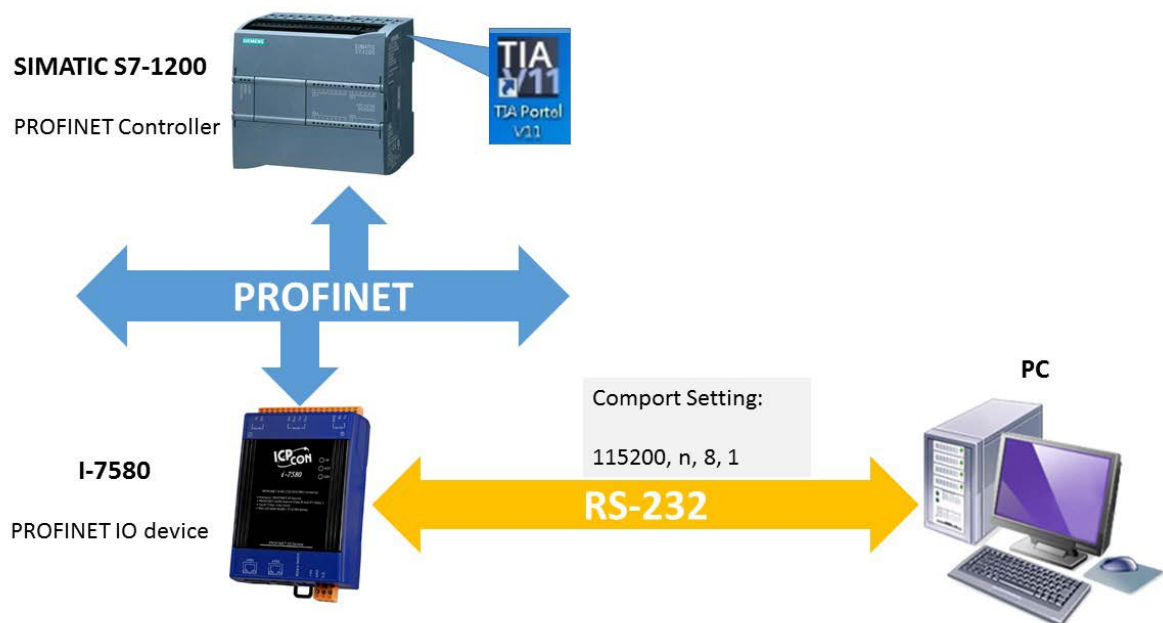


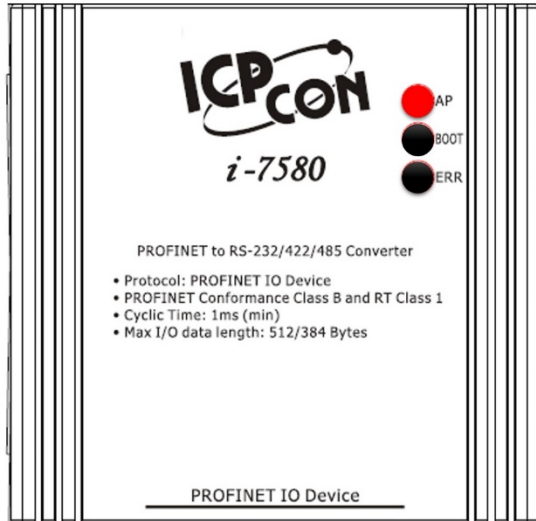
How to Transmit/Receive data at SIMATIC TIA portal?

1. Hardware Configuration



2. Please check the below before transmit and receive data.

- A. AP LED is ON, BOOT LED is OFF, and ERR LED is OFF.
It means I-7580 is ready to transmit and receive data.



- B. Confirm the I-7580's Comport settings is the same with RS-232 tool (ex: Send232, user can download Send232 from [Download Send232](#)).

Device overview

Module	Rack	Slot	I address	Q address	Type	Order no.
I-7580	0	0			I-7580 2-Port Device	I-7580
Internal	0	0 X1			I-7580	
RSW:0 Input:32Byte Output:...	0	1	1...32	1...32	RSW:0 Input:32Byte...	

RSW:0 Input:32Byte Output:32Byte_1

Properties

General

Module parameters

General parameters

Baud rate: 115200

Parity: None

Data bit: 8 data bit

Stop bit: 1 stop bit

End char of input data: None

Input fixed length data: Disable

Unit of timeout value: 1 ms

Diagnosis of time out: None

3. Communication – Receive

We send the string “sendtoi7580” by Send232 and receive the same string in PROFINET input data area.

PROFINET input data address:1~32

The image shows a three-step process for sending and receiving data via Send232. Step 1 shows the configuration window with COM status and send string settings. Step 2 shows the same window with the string 'sendtoi7580' entered and the 'Send' button pressed. Step 3 shows a data monitor table with annotations for data length, received data count, and the received data itself.

1 Set parameters and press 「Open」

2 Input data and press 「Send」 to send data to PC

i	Name	Address	Display format	Monitor value
1	"IState"	%B1	DEC_unsigned	0
2	"error state"	%B2	DEC_unsigned	0
3	"rcv len"	%W3	DEC_unsigned	13
4	"rcv cnt"	%W5	DEC_unsigned	1
5	"out_cnt"	%W7	DEC_unsigned	0
6	"IN_data_(0)"	%B9	Character	's'
7	"IN_data_(1)"	%B10	Character	'e'
8	"IN_data_(2)"	%B11	Character	'n'
9	"IN_data_(3)"	%B12	Character	'd'
10	"IN_data_(4)"	%B13	Character	't'
11	"IN_data_(5)"	%B14	Character	'o'
12	"IN_data_(6)"	%B15	Character	'i'
13	"IN_data_(7)"	%B16	Character	'7'
14	"IN_data_(8)"	%B17	Character	'5'
15	"IN_data_(9)"	%B18	Character	'8'
16	"IN_data_(10)"	%B19	Character	'0'
17	"IN_data_(11)"	%B20	Hex	16#0D
18	"IN_data_(12)"	%B21	Hex	16#0A

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4. Communication – Transmit

In PROFINET output data area, please set value of byte 4 to 8, and input data string “sendtoPC” to byte 9~13. As soon as byte 1 changes its value from 0 to 1, the data string will be transferred to RS232 device.

PROFINET Output data address: 1~32

The image shows two parts of a configuration process. The top part is a screenshot of the SIMATIC Manager 'Output Data' table. The bottom part is a screenshot of the 'Send232' software interface showing received data.

	RSW:0 Input 32Byte Output...	0	1	1...32	1...32	RSW:0 Input 32Byte...
1	"output cmd"	%QB1	DEC_unsigned	1	1	
2	"Control bit"	%QB2	Hex	16#00		
3	"output len"	%QW3	DEC_unsigned	8	8	
4	"fix len"	%QW5	DEC_unsigned	0		
5	"interval time"	%QB7	DEC_unsigned	0		
6	"timeout value"	%QB8	DEC_unsigned	0		
7	"OUT_data_(0)"	%QB9	Character	's'	's'	
8	"OUT_data_(1)"	%QB10	Character	'e'	'e'	
9	"OUT_data_(2)"	%QB11	Character	'n'	'n'	
10	"OUT_data_(3)"	%QB12	Character	'd'	'd'	
11	"OUT_data_(4)"	%QB13	Character	't'	't'	
12	"OUT_data_(5)"	%QB14	Character	'o'	'o'	
13	"OUT_data_(6)"	%QB15	Character	'p'	'p'	
14	"OUT_data_(7)"	%QB16	Character	'c'	'c'	

Annotations for the Output Data Table:

- Data output cmd 0x00 -> 0x01:** Points to the 'Monitor value' of the 'output cmd' variable.
- Data length:** Points to the 'Monitor value' of the 'output len' variable.
- Input string "sendtoPC":** Points to the character data in the 'OUT_data_(0)' through 'OUT_data_(7)' rows.

Send232 V. 2.0.1 COM1 Interface:

- COM status:** COM1, 115200, N,8,1.
- Send string with:** CR_LF (selected).
- Auto send:** Interval 500.
- Receive:** The text 'sendtoPC' is displayed in the receive window.

Annotations for Send232:

- Received string from I-7580:** Points to the 'sendtoPC' text in the receive window.