

1

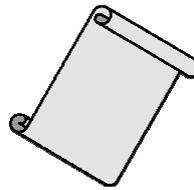
What's in the shipping package?



SST-900B Wireless Modem
3dBi 900M Hz Antenna



CA-0910



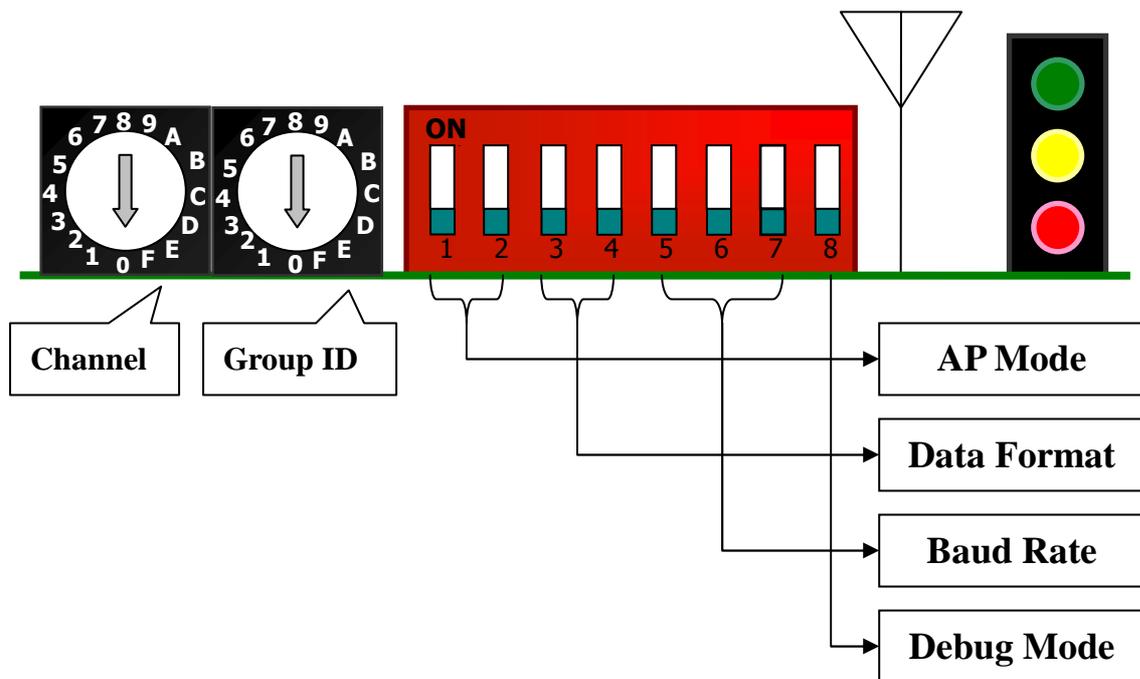
Quick Start
Guide



CD

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External switch introduction



3 Configuring via external switch

■ RF Channel:

SST-900B supports 16 channels.

The same channel of each module will be connected.

■ Group ID:

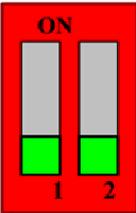
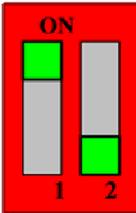
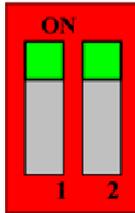
SST-900B supports 16 Group ID.

The same Group ID of each module will be connected.

■ AP Mode:

Value Bit	0	1
Bit 1	Master	Slave
Bit 2	Peer-to-Peer	Broadcast

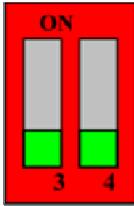
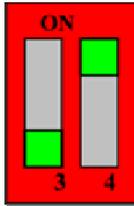
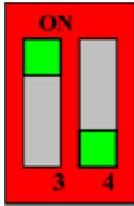
Three AP Modes are allowed, which are separated into Master/P2P, Slave/P2P and Slave/Broadcast. When any one of the three modes is set, the Power LED (red) will be lit when the module boots. The Power LED will remain off when the setting is Master/Broadcast.

Master/P2P (0x00)	Slave/P2P (0x10)	Slave/Broadcast (0x11)
		

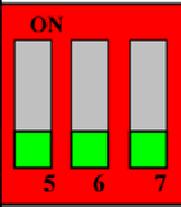
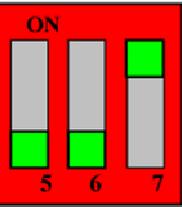
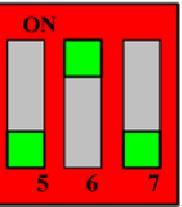
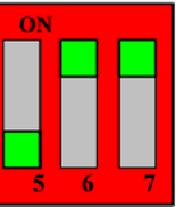
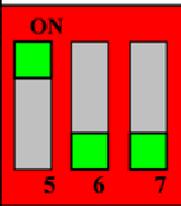
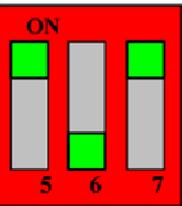
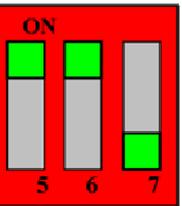
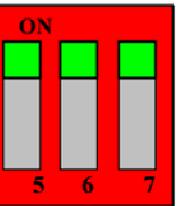
Configuring via external switch (Cont')

■ Data Format:

The Data Format supports 3 modes – N81, O81 and E81.

Data format	N,8,1 (0x00)	O,8,1 (0x01)	E,8,1 (0x10)
Bit 3	0	0	1
Bit 4	0	1	0
Dip Switch			

■ Baud Rate:

Baud rate	1200 (0x00)	2400 (0x01)	4800 (0x02)	9600 (0x03)
Bit 5	0	0	0	0
Bit 6	0	0	1	1
Bit 7	0	1	0	1
Dip Switch				
Baud rate	19200 (0x04)	38400 (0x05)	57600 (0x06)	115200 (0x07)
Bit 5	1	1	1	1
Bit 6	0	0	1	1
Bit 7	0	1	0	1
Dip Switch				

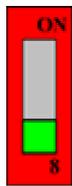
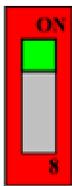
Configuring via external switch (Cont')

■ Debug mode:

In this mode, the Baud Rate is 115200 bps and the Data Format is N,8,1. It will send the settings from the RS-232/485 when it boots

■ Normal mode:

Data can only be transferred in this mode.

	Debug Mode	Normal Mode
Bit 8	0 (0x00)	1 (0x01)
Dip Switch		

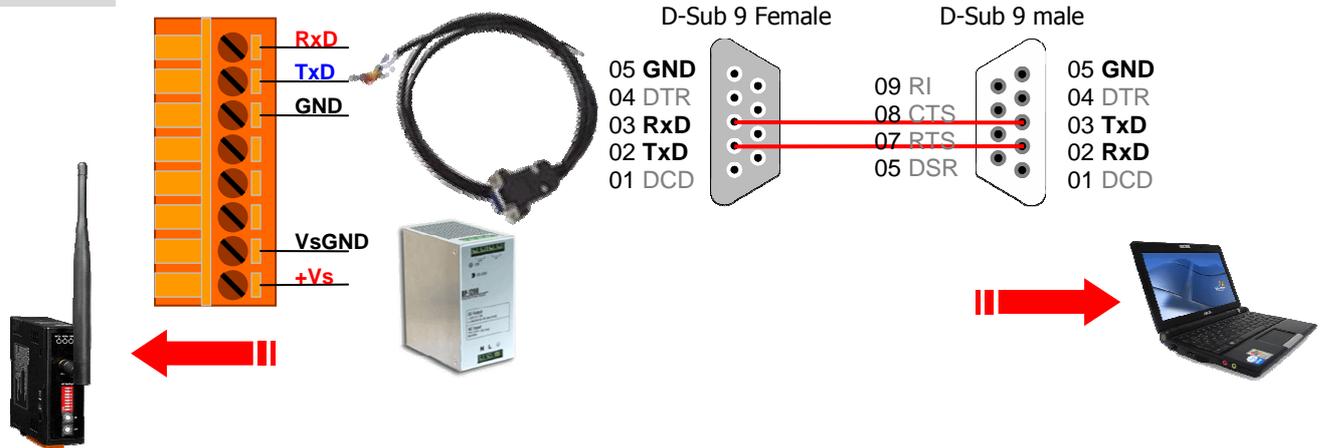
Debug message:

```
7188X W 1.28 [COM4:115200,N,8,1],FC=0,CTS=1, DIR=C:\Documents and ...
7188x for WIN32 version 1.28 (2005/01/27) [By ICPDAS, Tin.]
[Begin Key Thread...Current set: Use COM4 115200,N,8,1
AutoRun:
Autodownload files: None
Current work directory="C:\Documents and Settings\Tendo"
original baudrate = 115200!
now baudrate = 115200!
{change to Line Mode}
TM=11
BD=70
ID=30303131
CH=0C
```

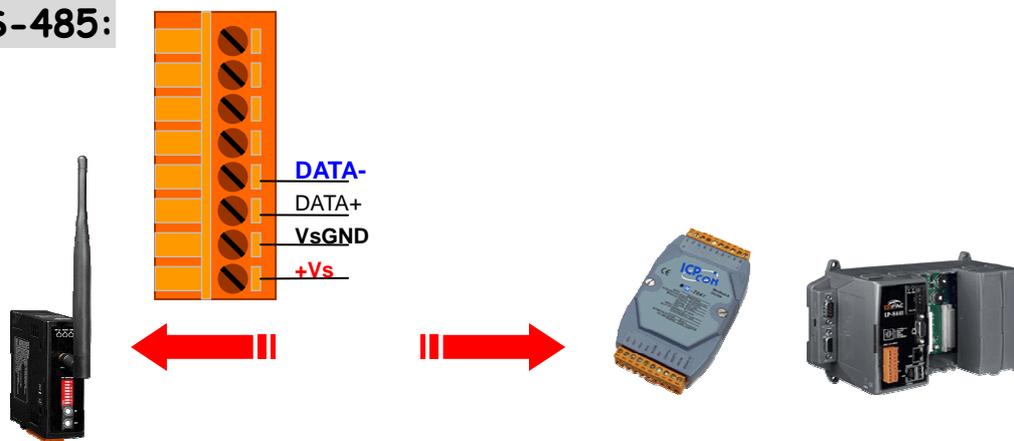
1. TM=11
11(0011) – Denotes that the AP mode is Slave/Broadcast
2. BD=70
7(0111) - Denotes that the Baud Rate 115200 bps
0(0x00) - Denotes that the Data Format is N,8,1
3. ID=30303131
30303131(0011) - Denotes that the Group ID is 3
4. CH=0C
0C(0x0C) - Denotes that channel C is being used.

4 Wire Connection

RS-232:



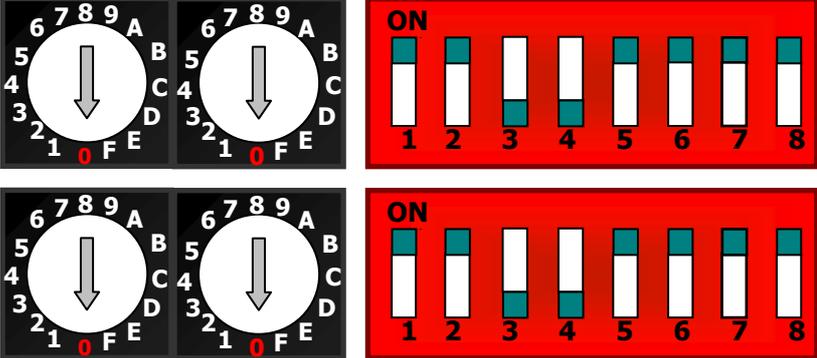
RS-485:



5 Testing the SST-900B

Set the dip switches to the correct positions to select the Channel, Group ID, AP Mode, Data Format and Baud Rate that you plan to use for your SST-900B module. Make sure that bit 8 is set for Normal Mode (0x01)

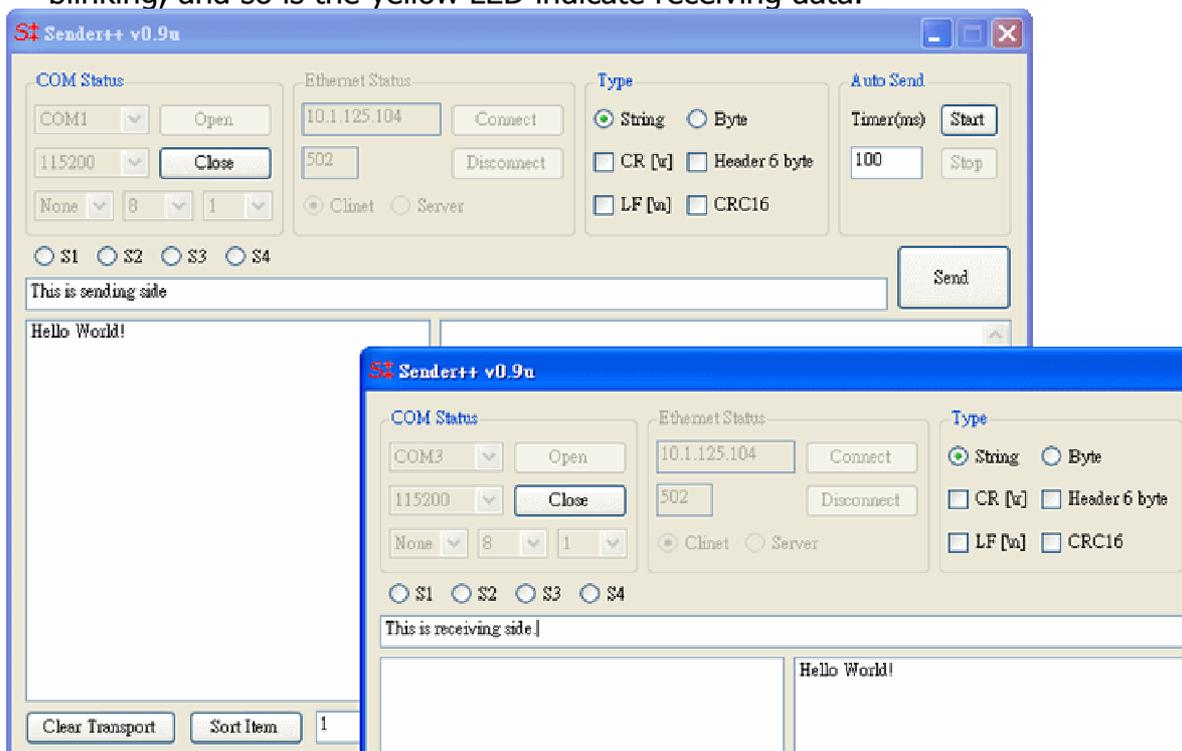
There is an example as following below.



Channel:	0
Group ID:	0
Broadcast/Slave	
Data Format:	N,8,1
Baud Rate:	115200
Mode:	Normal

We can use any tools sending test string for simulating serial port transmission. If the SST-900B external switch is in the correct position, we can use the SST-900B like a real wire.

When the SST-900B is sending any wireless signal, the green LED indicator will be blinking, and so is the yellow LED indicator receiving data.



6 Appendix

Module	SST-900B
Modulation Technique	FSK (Frequency-shift keying)
Wireless	
RF Channels	16
Receive Sensitivity	-100 dBm @ 150k bps
Transmit Power	Up to 20 dBm
Antenna	3 dBi Omni-directional antenna, Reverse Polarity SMA (RP-SMA) Plug (Male)
Transmission Range	1000 meters (LOS)
Maximum RF Data Rate	150k bps
Communication Interface	
COM0	RS-232
	RS-485
COM0 Settings	
Baud Rate	1200~115200 bps
Data Bit	8
Parity Check	Even, Odd, None
Stop Bit	1
LED Indicators	
Green	RF TxD
Yellow	RF RxD
Red	Power State
Power	
EMS Protection	ESD, Surge, EFT and Hi-Pot
Required Supply	+10 V _{DC} ~ +30 V _{DC}
Power Consumption	0.48W
Connection	8-pin 5.08 mm Removable Terminal Block
Environment	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-40 ~ +80°C
Relative Humidity	0~90% RH, non-condensing

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Relation Information

Website and CD path:

1. Document download location:

Web-site: <ftp://ftp.icpdas.com/pub/cd/usbcd/napdos/sst-900b/documents/>

CD path: [\Napdos\SST-900B\Documents](#)

2. Wireless Products website:

http://www.icpdas.com/products/GSM_GPRS/wireless/solutions.htm#1

3. Technical Service:

If you have any questions, send a description of your problem to:

service@icpdas.com