

# **SIM20** Configuration Manual

# SIM20\_Conf\_UGD\_V1.00





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# Contents

1.	Intro	oduction
	1.1.	Scope
2.	Proc	luct Package5
	2.1.	Development boards
	2.2.	Configuration software
	2.3.	Delivery list
3.	Con	figuration6
	3.1.	Connect SIM20 and host PC
	3.2.	Run Configuration Software
	3.3.	SIM20 Parameters
	3.3.1	1. RF Parameter Set7
	3.3.2	2. Serial Parameter set
	3.3.3	3. Network Parameter set
	3.4.	Load and Save Settings



# List of Figures

Figure 1: Serial port setting	6
Figure 2: SIM20 Parameter Configuration	7



# 1. Introduction

# 1.1. Scope

This document is a user's manual for the SIM20 wireless module configuration software. The configuration software provides an interface for users to set the profile of a SIM20 module. This document is subject to change without notice at any time.



# 2. Product Package

# 2.1. Development boards

The configuration software uses the SIM20-EVB\_V1.01 SIMCOM board fitted with a SIM20 wireless module. Please refer to *Development Kit Manual SIM20-EVB\_UGD\_V1.01* for detail information of the EVB board.

# **2.2.** Configuration software

The configuration software is packed into a zip file named *sim20.zip*. It supports windows 2000 and windows XP platforms. The software does not need an installation process. Instead, just unzip the zip file into a folder of your hard disk before using it.

# 2.3. Delivery list

Part NO.	Description	Quantity
1	SIM20 wireless module	1
2	SIM20-EVB	1
3	Configuration software	1
	package( sim20.zip)	



# 3. Configuration

# 3.1. Connect SIM20 and host PC

Insert the SIM20 wireless module into the 12-pin connector on the SIM20-EVB, and then connect the SIM20-EVB to the host PC with a serial cable. This is detailed in *Development Kit Manual SIM20-EVB\_UGD\_V1.01*.

A switching adapter should be used to supply the power of EVB and module.

# **3.2. Run Configuration Software**

Run the configuration software by double clicking *sim20.exe*. A serial port setting box as following will ask user to select the serial port number and band rate. The default baud rate of the serial communication between the SIM20 and the host is 9600bps. If the module has never been configured before, 9600bps must be selected.

串口属性设置	$\overline{\mathbf{X}}$
端口号:	СОМЗ -
计传统	▼ 0039
(双1寸 <del>卒</del> :	5000
	Cancel

Figure 1: Serial port setting

After users select the parameters of the serial port, and click *OK* button, the SIM20 configuration window appears.



📲 SII 20 客户配置工具						
RF Parameters		-Series Parameters	5			
RF frequency:	434.000 MHz	Series rate:	9600bps 💌			
RF Tx/Rx Rate:	9600br 💌	Series Parity:	Disable 🔻			
Freq Deviation:	28.8 💌 KHz	RS485/RS232:	RS232 💌			
RF Power:	10 (MAX 💌					
RFID Enable:	Disable 💌	Si				
RFID Index:	65535	SIM Tec	hnology			
Write <u>W</u>	Rea	<u>I R</u>	About			
port open ok 🕅 Debug						

Figure 2: SIM20 Parameter Configuration

# 3.3. SIM20 Parameters

There are three sets of parameter settings provided by the configuration software, RF, serial and address.

#### 3.3.1. RF Parameter Set

Users can change four RF parameters of the SIM20 module, frequency, data rate, frequency deviation and output power level

#### **RF Frequency**

The frequency bands of the SIM20 are 431MHZ to 478MHZ and 862MHZ to 956MHZ. user can select an appropriate frequency for the carrier wave. 434MHZ is recommended.

# RF Tx/Rx Rate

9600bps is recommended. The rate must greater than the band rate of the serial.

#### **Freq Deviation**

Set the deviation from the center frequency. Several pre-defined deviations are provided for users to select.



### **RF** Power

The output power is programmable. Users can select one of the ten levels for the output power.

#### **3.3.2.** Serial Parameter set

These parameters apply to serial communication between sim20 modules and host PC. Users can select the band rate and parity mode. The stop bit is 1 and can not be changed

#### Serial Rate

Five band rates are provided for users to select: 1200bps, 2400bps, 4800bps, 9600bps, and 19200bps.

### **Serial Parity**

Users can select one of the serial parity modes, Disable, Even, and Odd.

#### RS485/RS232

Only RS232 interface is available.

### 3.3.3. Address Parameter set

Users can assign each SIM20 wireless an address. The configuration software refers it as RFID Index. The address is two byte long. If the address mode is enabled, users who want to send data must include the destination module's address at the first two bytes of data. The peer module that receives the data will compare the first two bytes with its address. If matched, the module accept the data, send it to host PC or other devices via the serial port. If not, the data is aborted.

#### **RFID Enable**

Users can enable or disable the address mode of the SIM20 module by selecting the value of this option.

#### **RFID Index**

Users can assign the address of the SIM20 here. The range of the address is 0 to 65535.

## 3.4. Load and Save Settings

Users can load the parameters from the SIM20 by clicking **Read** button and save the parameters to the SIM20 by clicking **Write** button.



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