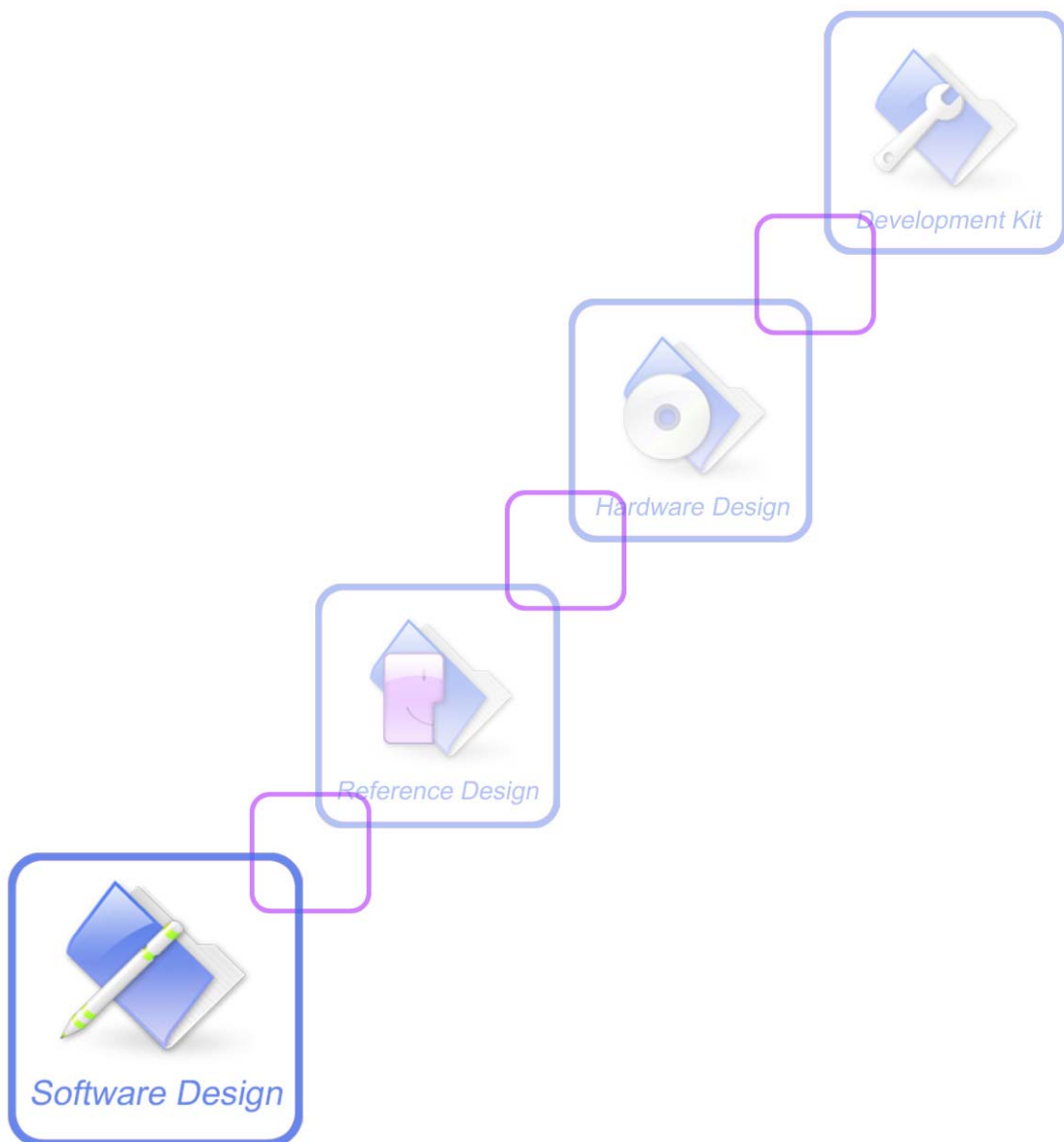




SIM20_AT Manual_V1.04

Command



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Version History

Version	Chapter	What is new	Author
V1.00	Origin Version	Origin Version	Wei.zheng
V1.01	AT+SRDSEND	Add	Wei.zheng
V1.02	AT+SRDRSSI AT+SRDRESET AT+SRDPARAM AT+SRDCONF AT+SRDSLEEP AT+SRDEPS	Add Add Add Add Add Add	Wei.zheng
V1.03	1.Introduction 2.2.4.1 RF channel numbers 2.2.12 AT+SRDSLEEP 2.2.12 AT+SRDEPS 2.2.14.1 Configure remote SIM20 2.2.18 AT+SRDUART 2.2.19 AT+SRDACK	Add Add Modify the parameter format Modify the parameter format Add Add Add	Yan.gu Gang.li Weixing.li
V1.04	1.4 Data mode and Command mode 2.2.4AT+SRDCHA 2.2.5 AT+SRDDATAR 2.2.11AT+SRDPARAM 2.2.17 AT+SRDSEND	Modify Modify Modify Modify the parameter setting Modify the parameter setting	Yan.gu Gang.li Weixing.li

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1 Introduction

1.1 Scope of the document

This document presents the AT Command Set for SIMCom SIM20 series.

- SIM20-A 433MHz: SRD RF 433MHz– 434.79MHz Version
- SIM20-B 868MHz: SRD RF 863MHz – 870MHz Version
- SIM20-C 915MHz: SRD RF 902MHz – 928MHz Version

1.2 Related documents

SN	Document name	Remark
[1]	SIM20 HD_V2.02	
[2]	SIM20-TE_UGD_V1.01	

You can visit the SIMCom Website using the following link:

<http://www.sim.com>

1.3 Conventions and abbreviations

In this document, the SIM20 module is referred to as following terms:

- 1) ME (Mobile Equipment);
- 2) MS (Mobile Station);
- 3) TA (Terminal Adapter);
- 4) DCE (Data Communication Equipment) or facsimile DCE (FAX modem, FAX board);

In customer's application, controlling device controls the SIM20 modules by sending AT command via its serial interface. The controlling device which is connected to SIM20 by serial cable is referred to as following terms:

- 1) TE (Terminal Equipment);
- 2) DTE (Data Terminal Equipment) or plainly "the application" which runs on an embedded system;

1.4 Data Mode and Command Mode

SIM20 has two normal work modes: data mode and command mode, these two modes can be switched via C2D pin. The default status of SIM20 C2D pin is at high level and SIM20 is in data mode after powered on. When C2D pin is open or connected to high level (via Resistor > 4.7K) SIM20 will work in data mode. When C2D pin is pulled down to GND, SIM20 will be switched to command mode.

Note:

Once SIM20 is switched to command mode, all AT commands can be used.

SIM20 module supports Transparent Mode which is a special data mode for receiving and sending data. Once the local module (TX side) is switched to this special data mode -- Transparent Mode, all data received from serial port will be treated as data packets which will be transferred later, similarly all data received from remote module (RX side) will be sent to serial port directly.

There are 2 important parameters to trig sending packets over the air interface in data mode--WaitTime and FrameSize. WaitTime is the interval between receiving two characters at SIM20 module's UART Rx. If WaitTime > 120ms, SIM20 will be triggered to send packets inside UART Rx buffer to the air; FrameSize is the size of data frame, and data are received at UART Rx. Either WaitTime or FrameSize will trig sending data over the air.

Note:

The default value of the WaitTime is about 120 milliseconds. The value of the FrameSize is 255 characters.

The UART port of SIM20 has a RX buffer in data mode and the RX buffer size is 255-character long; if the data frame received from serial port is more than 255 characters, the first 255 characters will be sent, the rest of it will be discarded. When customer's MCU sends data to SIM20 during its data mode, make sure there is enough time intervals between two frames, the

recommended intervals are in the following table.

Table 1: Recommend intervals

Data frame length	Air data rate	Recommend intervals
Length≤60	SRDDATAR=0	1100 millisecond
length≤60	SRDDATAR=7	460 millisecond
60<length<255	SRDDATAR=0	2260 millisecond
60<length<255	SRDDATAR=7	1130 millisecond
255≤length	SRDDATAR=0	2100 millisecond
255≤length	SRDDATAR=7	960 millisecond

1.5 AT Command syntax

The "AT" or "at" prefix must be set at the beginning of each Command line. To terminate a Command line user needs to enter <CR>. SIM20 does not support type over when user enters characters wrongly, it will return "ERROR" if you retype a character. In order to ensure that the AT command will be executed effectively, user must type it correctly.

Commands are usually followed by a response that includes "<CR><LF><response><CR><LF>". Throughout this document, only the responses are presented, <CR><LF> are omitted intentionally.

Note:

<CR> = 0x0D, <LF> = 0x0A, <NUL> = 0x00.

All these AT commands can be operated in several modes, as in the following table:

Table 2: Types of AT commands and responses

Test Command	AT+<x>=?	The SIM20 module returns the list of parameters and value ranges with the corresponding Write Command or by internal processes.
Read Command	AT+<x>?	This command returns the currently set value of the parameter or parameters.
Write Command	AT+<x>=<...>	This command sets the user-definable parameter values.

2 AT Commands for SIM20 Application Toolkits

2.1 Overview

Command	Description
AT+SRDFIRM	GET SIM20 FIRMWARE INFORMATION
AT+SRDSN	GET SIM20 SN
AT+SRDRSSI	GET RSSI (RECEIVED SIGNAL STRENGTH INDICATOR)
AT+SRDCHA	GET/SET SIM20 RF CHANNEL
AT+SRDDATAR	GET/SET SIM20 AIR INTERFACE DATA RATE
AT+SRDTPWR	GET/SET SIM20 TX POWER
AT+SRDCID	GET/SET SIM20 NETWORK ID
AT+SRDSID	GET/SET LOCAL SIM20 ID
AT+SRDDID	GET/SET DESTINATION SIM20 ID
AT+SRDFORWARD	ENABLE/DISABLE FORWARD
AT+SRDPARAM	GET/SET SIM20 PARAMETERS
AT+SRDSLEEP	GET/SET SIM20 SLEEP TIME IN POWER SAVE MODE
AT+SRDEPS	GET/SET SIM20 POWER SAVE MODE
AT+SRDCONREMOTE	ENABLE/DISABLE CONFIGURE REMOTE SIM20
AT+SRDCONF	SET REMOTE SIM20 SID ACCORDING TO SN
AT+SRDRESET	RESET SIM20
AT+SRDSEND	SEND DATA TO DEDICATED TARGET
AT+SRDUART	GET/SET SIM20 UART BAUD RATE
AT+SRDACK	GET/SET SIM20 ACK FUNCTION

2.2 Detailed Descriptions of Commands

2.2.1 AT+SRDFIRM Get SIM20 Firmware Information

AT+SRDFIRM Get SIM20 Firmware Information	
Read command AT+SRDFIRM?	Response (Firm Information) OK
	Parameter
Reference	Note ● Support remote read

2.2.2 AT+SRDSN Get/Set SIM20 SN

AT+ SRDSN Get/Set SIM20 SN	
Read command AT+SRDSN?	Response <sn> OK
	Parameter <sn> A 15 digit/alpha string to identify a unique SIM20.
Reference	Note <ul style="list-style-type: none"> ● Support remote read

2.2.3 AT+SRDRSSI Get RSSI (Received Signal Strength Indicator)

AT+ SRDRSSI Get RSSI (Received Signal Strength Indicator)	
Read command AT+SRDRSSI?	Response +SRDRSSI:<signal> OK
	Parameter <mode> An integer number 0-230 to identify received signal strength, 0 means either no signal or not receive any data before check RSSI.
Reference	Note <ul style="list-style-type: none"> ● This value is the signal strength when SIM20 receive a packet last time, and update every time after SIM20 receives a packet ● Support remote read

2.2.4 AT+SRDCHA Get/Set SIM20 RF Channel

AT+ SRDCHA Get/Set SIM20 RF Channel	
Test command AT+SRDCHA=?	Response +SRDCHA: (list of supported <channel>s) OK
	Parameter see Write command
Write command AT+SRDCHA= <channel>	Response OK ERROR
	Parameter <channel> An integer parameter to indicate SIM20 RF channel, the default value is 0.
Read command AT+SRDCHA?	Response +SRDCHA:<channel> OK

	Parameter see Write command
Reference	Note <ul style="list-style-type: none"> ● The total RF channel numbers is determined by data rate and RF band. ● When data rate is changed, current channel number may mismatch with data rate (The max srddcha value is determined by srddatar value, when srddatar is changed, for example, when Srddatar=0, srddcha will be 0~3, while srddatar=7, srddcha must be 0. srddcha), and then the channel number will be changed to 0. ● SIM20 modules should communicate with the same RF channel. ● Support power off save function ● Support remote read/write operation

2.2.4.1 RF channel number

The RF channel numbers, start frequency and frequency step size are different according to the frequency band and data rate. The number of available frequencies depends on the data rate (for higher data rates, the required bandwidth is higher; so that less frequency channel can be allocated).

The actual center_frequency is defined by three parameters: the start frequency, the frequency step, and the frequency ID. These parameters are different for different data rates and frequency bands.

The actual frequency is calculated as follows:

$$\text{center_frequency} = \text{start_frequency} + (\text{Fx} * \text{frequency_step})$$

Where Fx is the frequency ID. The first channel is identified with Fx = 0 (e.g. if the maximum number of the channels is 14, then the valid range for the frequency ID is 0...13).

The detailed frequency assignment for different frequency band is shown in the tables below.

Table 3: Frequency Assignment for SIM20-A 434 MHz module

DATAR	Data Rate [bps]	Start Frequency [MHz]	Frequency Step Size [kHz]	Number of Available Channels
0	2,400	433.33	330	4
1	4,800	433.33	330	4
2	9,600	433.33	330	4
3	10,000	433.33	330	4
4	20,000	433.53	390	3
5	50,000	433.61	360	2
6	100,000	433.91	0	1
7	128,000	433.91	0	1

Table 4: Frequency Assignment for SIM20-B 868 MHz module

DATAR	Data Rate [bps]	Start Frequency [MHz]	Frequency Step Size [kHz]	Number of Available Channels
0	2,400	863.55	450	14
1	4,800	863.55	450	14
2	9,600	863.55	450	14
3	10,000	863.55	450	14
4	20,000	863.70	550	11
5	50,000	863.75	780	8
6	100,000	864.00	1000	6
7	128,000	864.00	1000	6

Table 5: Frequency Assignment for SIM20-C 915 MHz module

DATAR	Data Rate [bps]	Start Frequency [MHz]	Frequency Step Size [kHz]	Number of Available Channels
0	2,400	900.84	480	60
1	4,800	900.84	480	60
2	9,600	900.84	480	60
3	10,000	900.84	480	60
4	20,000	900.84	550	52
5	50,000	900.84	780	37
6	100,000	900.84	1000	29
7	128,000	900.84	1000	29

2.2.5 AT+SRDDATAR Get/Set SIM20 Air Interface Data Rate

AT+SRDDATAR Get/Set SIM20 Air Interface Date Rate	
Test command AT+SRDDATAR=?	Response +SRDDATAR: (list of supported <rate>s) OK
	Parameter see Write command
Write command AT+SRDDATAR= <rate>	Response OK ERROR

	Parameter <rate>	Parameter to indicate SIM20 air interface data rate. 0---2400 bps 1---4800 bps 2---9600 bps (default value) 3---10000 bps 4---20000 bps 5---50000 bps 6---100000 bps 7---128000 bps
Read command AT+SRDDATAR?	Response +SRDDATAR:<rate> OK	
	Parameter see Write command	
Reference	Note <ul style="list-style-type: none"> ● SIM20 modules should communicate with the same air interface data rate ● Support power off save function ● Support remote read/write operation 	

2.2.6 AT+SRDTPWR Get/Set SIM20 TX Power

AT+SRDTPWR Get/Set SIM20 TX Power		
Test command AT+SRDTPWR=?	Response +SRDTPWR: (list of supported <level>s) OK	
	Parameter see Write command	
Write command AT+SRDTPWR= <level>	Response OK ERROR	
	Parameter <level>	An integer parameter 0-3 indicates TX power level, which corresponds to 9, 12, 15, 18dbm respectively. The default value is 3.
Read command AT+SRDTPWR?	Response +SRDTPWR:<level> OK	
	Parameter see Write command	
Reference	Note <ul style="list-style-type: none"> ● Support power off save function 	

- Support remote read/write operation

2.2.7 AT+SRDCID Get/Set SIM20 Network ID

AT+ SRDCID Get/Set SIM20 Network ID	
Test command AT+SRDCID=?	Response +SRDCID: (list of supported <cid>s) OK
Write command AT+SRDCID=<cid>	Response OK ERROR
	Parameter <cid > An integer number 0-255 to identify a SIM20 sub network. The default value is 1.
Read command AT+SRDCID?	Response +SRDCID:<cid> OK
	Parameter see Write command
Reference	Note <ul style="list-style-type: none"> ● SIM20 modules should communicate with the same network ID ● Support power off save function ● Support remote read/write operation

2.2.8 AT+SRDSID Get/Set Local SIM20 ID

AT+ SRDSID Get/Set Local SIM20 ID	
Test command AT+SRDSID=?	Response +SRDSID: (list of supported <sid>s) OK
Write command AT+SRDSID=<sid >	Response OK ERROR
	Parameter <sid> An integer number 0-254 to identify a unique SIM20 in a sub network. The default value is 1.
Read command AT+SRDSID?	Response +SRDSID:<sid> OK
	Parameter see Write command
Reference	Note <ul style="list-style-type: none"> ● Support power off save function

- Support remote read/write operation

2.2.9 AT+SRDDID Get/Set Destination SIM20 ID

AT+ SRDDID Get/Set Destination SIM20 ID	
Test command AT+SRDDID=?	Response +SRDDID: (list of supported <did>s) OK
Write command AT+SRDDID=<did>	Response OK ERROR
	Parameter <did> An integer number 0-255 to identify the destination SIM20, 0-254 to identify a unique destination SIM20, 255 is the broadcast address. The default value is 255.
Read command AT+SRDDID?	Response +SRDDID:<did> OK
	Parameter see Write command
Reference	Note <ul style="list-style-type: none"> ● Support power off save function ● Support remote read/write operation

2.2.10 AT+SRDFORWARD Enable/Disable SIM20 Forward

AT+ SRDFORWARD Enable/Disable SIM20 Forward	
Test command AT+ SRDFORWARD=?	Response +SRDFORWARD: (list of supported <param>s) OK
Write command AT+SRDFORWARD =<param>	Response OK ERROR
	Parameter <param> 0---disable forward (default value) 1---enable forward
Read Command AT+SRDFORWARD?	Response +SRDFORWARD: <param> OK
	Parameter see Write command
Reference	Note <ul style="list-style-type: none"> ● Support power off save function

- Support remote read/write operation

2.2.11 AT+SRDPARAM Get/Set SIM20 Parameters

AT+ SRDPARAM Get/Set SIM20 Parameters															
Write command AT+SRDPARAM= [<cha>],[<cid>],[<sid>],[<did>],[<datar>],[<txpwr>],[<forward>]	Response OK ERROR														
	Parameter <table border="1"> <tr> <td><cha></td> <td>RF channel</td> </tr> <tr> <td><cid></td> <td>Network ID</td> </tr> <tr> <td><sid></td> <td>Local SIM20 ID</td> </tr> <tr> <td><did></td> <td>Destination SIM20 ID</td> </tr> <tr> <td><datar></td> <td>SIM20 air interface data rate</td> </tr> <tr> <td><txpwr></td> <td>TX power</td> </tr> <tr> <td><forward></td> <td>Forward Enable/Disable</td> </tr> </table>	<cha>	RF channel	<cid>	Network ID	<sid>	Local SIM20 ID	<did>	Destination SIM20 ID	<datar>	SIM20 air interface data rate	<txpwr>	TX power	<forward>	Forward Enable/Disable
<cha>	RF channel														
<cid>	Network ID														
<sid>	Local SIM20 ID														
<did>	Destination SIM20 ID														
<datar>	SIM20 air interface data rate														
<txpwr>	TX power														
<forward>	Forward Enable/Disable														
Read Command AT+SRDPARAM?	Response +SRDPARAM: <cha>,<cid>,<sid>,<did>,<datar>,<txpwr>,<forward> OK														
Reference	Note <ul style="list-style-type: none"> ● Support power off save function ● Support remote read/write operation ● The parameter is optional; if it is missing, then the default value is assigned. 														

2.2.12 AT+SRDSLEEP Get/Set SIM20 Sleep Time in Power Save Mode

AT+ SRDSLEEP Get/Set SIM20 Sleep Time in Power Save Mode					
Test Command AT+SRDSLEEP=?	Response +SRDSLEEP:(1-255, 0-2) OK				
	Parameter see Write command				
Write Command AT+SRDSLEEP= <time>,<unit>	Response OK ERROR				
	Parameter <table border="1"> <tr> <td><time></td> <td>The default value is 10,0 An integer number 1-255(Unit: according to <unit>) to set SIM20 sleep-wakeup cycle time in at+srdeps=2/3/6/7 power save mode</td> </tr> <tr> <td><unit></td> <td>An integer number 0-2 to identify the unit</td> </tr> </table>	<time>	The default value is 10,0 An integer number 1-255(Unit: according to <unit>) to set SIM20 sleep-wakeup cycle time in at+srdeps=2/3/6/7 power save mode	<unit>	An integer number 0-2 to identify the unit
<time>	The default value is 10,0 An integer number 1-255(Unit: according to <unit>) to set SIM20 sleep-wakeup cycle time in at+srdeps=2/3/6/7 power save mode				
<unit>	An integer number 0-2 to identify the unit				

	<p>0---represent second, with this unit the <time> value should exceed 3.</p> <p>1---represent minute</p> <p>2---represent hour, with this unit the <time> value should not exceed 48.</p>
Read Command AT+SRDSLEEP?	<p>Response</p> <p>+SRDSLEEP:<time>,<unit></p> <p>OK</p>
	<p>Parameter</p> <p>see Write command</p>
Reference	<p>Note</p> <ul style="list-style-type: none"> ● The set timer value will take effect at the 2nd cycle. ● The sleep-wakeup cycle time is calculated from the time of one “MCU WakeUp” to the next time “MCU WakeUp” if no interrupt during the cycle. ● Support power off save function ● Support remote read/write operation

2.2.13 AT+SRDEPS Get/Set SIM20 Power Save Mode

AT+ SRDEPS Get/Set SIM20 Power Save Mode	
Test command AT+SRDEPS=?	<p>Response</p> <p>+SRDEPS: (list of supported <mode>s)</p> <p>OK</p>
	<p>Parameter</p> <p>see Write command</p>
Write command AT+SRDEPS= <mode>	<p>Response</p> <p>OK</p> <p>ERROR</p>
	<p>Parameter</p> <p><mode></p> <p>0---normal (default value)</p> <p>1---enable power save, wake up by UART</p> <p>2---enable power save, wake up by timer</p> <p>3---enable power save, wake up by timer or UART</p> <p>5---enable power save, wake up by UART and send self SID when wake up</p> <p>6---enable power save, wake up by timer and send self SID when wake up</p> <p>7---enable power save, wake up by timer or UART, and send self SID when wake up</p>
Read command AT+SRDEPS?	<p>Response</p> <p>+SRDEPS:<mode></p> <p>OK</p>

	Parameter see Write command
Reference	<p>Note</p> <ul style="list-style-type: none"> ● The timer is set by AT+SRDSLEEP command ● When SIM20 turns into power save mode the module will output <NUL> via UART port, and when it wakes up it will output “MCU WakeUp” ● After user enables power save mode and no UART & RF data need to be dealt with, SIM20 will enter power save mode in about 2100 millisecond ● After user enables EPS=1/3/5/7 to input any ASCII character, this will wake up SIM20 via UART port ● Support power off save function ● Support remote read/write operation

2.2.14 AT+SRDCONREMOTE Enable/Disable Configure Remote SIM20

AT+ SRDCONREMOTE Enable/Disable Configure Remote SIM20	
Write command AT+SRDCONREM OTE=<param>	<p>Response</p> <p>OK ERROR</p>
	<p>Parameter</p> <p><param> 0---disable SIM20 remote configuration function (default value) 1---enable SIM20 remote configuration function</p>
Read Command AT+ SRDCONREMOTE?	<p>Response</p> <p>+ SRDCONREMOTE: <param> OK</p>
	<p>Parameter</p> <p>see Write command</p>
Reference	<p>Note</p> <ul style="list-style-type: none"> ● The param will change to 0 after SIM20 switches to data mode.

2.2.14.1 Configure remote SIM20

When user enables remote configuration function, the AT commands which support remote read/write will be executed by the remote SIM20 module, and the feedback will be sent back to local SIM20 module (controller).

For remote read command, the response is shown below:

- a) Incorrect AT command or parameters
ERROR
- b) The AT command executed successfully at the local SIM20 side but failed at the remote side.
OK

RM(SID):Fail

- c) The AT command executed successfully at both the local and remote SIM20 side.

OK**RM(SID):result**

For remote write command, the response information is as below:

- a) Incorrect AT command or parameters

ERROR

- b) The AT command executed successfully at the local SIM20 side but failed at the remote side.

OK**RM(SID):Fail**

- c) The AT command executed successfully at the local and remote SIM20 side.

OK**RM(SID):Success****Note:**

- 1) *AT+SRDCONREMOTE/AT+SRDCONF and all their test commands (AT+<x>=?) are executed at the local side, whether remote configuration function is enabled or disabled.*
- 2) *If remote configuration function is enabled, AT+SRDSEND/AT+SRDUART command will return “Not support remote configure”.*
- 3) *Local SIM20 identifies remote SIM20 by its SID in a sub network, the remote SIM20 could be in either command mode or data mode.*

Only parts of the AT commands support remote read/write function, Please see the table below.

Table 6: AT command support remote read or write

Commands	Support remote read	Support remote write	Remark
AT+SRDFIRM	Yes	No	
AT+SRDSN	Yes	No	
AT+SRDRSSI	Yes	No	
AT+SRDCHA	Yes	Yes	Note
AT+SRDDATAR	Yes	Yes	Note
AT+SRDTPWR	Yes	Yes	
AT+SRDCID	Yes	Yes	Note
AT+SRDSID	Yes	Yes	
AT+SRDDID	Yes	Yes	
AT+SRDFORWARD	Yes	Yes	
AT+SRDPARAM	Yes	Yes	Note
AT+SRDSLEEP	Yes	Yes	
AT+SRDEPS	Yes	Yes	
AT+SRDRESET	No	Yes	
AT+SRDACK	Yes	Yes	

Note:

The local SIM20 can not receive the response information, as the local SIM20 can not communicate with remote SIM20 after the SRDCHA/SRDDATAR/SRDCID parameters are changed by remote set commands.

2.2.15 AT+SRDCONF Set Remote SIM20 SID According To SN

AT+ SRDCONF Set Remote SIM20 SID According to SN						
Write Command AT+SRDCONF= <sn>,<sid>	Response OK ERROR					
	<table border="1"> <thead> <tr> <th>Parameter</th> <th></th> </tr> </thead> <tbody> <tr> <td><sn></td> <td>String of SIM20 SN</td> </tr> <tr> <td><sid></td> <td>An integer number 0-254 will be assigned to a SIM20 whose SN is same with the <sn> parameter</td> </tr> </tbody> </table>	Parameter		<sn>	String of SIM20 SN	<sid>
Parameter						
<sn>	String of SIM20 SN					
<sid>	An integer number 0-254 will be assigned to a SIM20 whose SN is same with the <sn> parameter					
Reference	Note <ul style="list-style-type: none"> ● This command can be used to set remote SIM20 SID only according to its SN at the beginning of setting up a sub network. Local SIM20 identifies remote SIM20 by its SN. 					

2.2.16 AT+SRDRESET Reset SIM20

AT+ SRDRESET Reset SIM20				
Write command AT+SRDRESET= <mode>	Response OK ERROR			
	<table border="1"> <thead> <tr> <th>Parameter</th> <th></th> </tr> </thead> <tbody> <tr> <td><mode></td> <td>0---reset SIM20 and restore all parameters to the default value, except SRDSN and SRDUART 1---reset SIM20 only</td> </tr> </tbody> </table>	Parameter		<mode>
Parameter				
<mode>	0---reset SIM20 and restore all parameters to the default value, except SRDSN and SRDUART 1---reset SIM20 only			
Reference	Note <ul style="list-style-type: none"> ● Support remote write function ● SIM20 will reset about 1 second later after response “OK” 			

2.2.17 AT+SRDSEND SEND DATA

AT+ SRDSEND Send Data						
Write command AT+SRDSEND= <did>,<data>	Response OK ERROR					
	<table border="1"> <thead> <tr> <th>Parameter</th> <th></th> </tr> </thead> <tbody> <tr> <td><did></td> <td>An integer number 0-255 to identify the destination SIM20 to whom this packet will send, 255 is broadcast address.</td> </tr> <tr> <td><data></td> <td>Data frame to send, the max length is 60 characters.</td> </tr> </tbody> </table>	Parameter		<did>	An integer number 0-255 to identify the destination SIM20 to whom this packet will send, 255 is broadcast address.	<data>
Parameter						
<did>	An integer number 0-255 to identify the destination SIM20 to whom this packet will send, 255 is broadcast address.					
<data>	Data frame to send, the max length is 60 characters.					

Reference	Note
2.2.18 AT+SRDUART Get/Set SIM20 UART Baud Rate	
AT+ SRDUART Get/Set SIM20 UART Baud Rate	
Test command AT+SRDUART=?	Response +SRDUART: (0-6, 0-5) OK
	Parameter see Write command
Write command AT+SRDUART = <rate>,<mode>	Response OK ERROR
	Parameter <rate> An integer parameter to indicate SIM20 UART baud rate. 0---2400 bps 1---4800 bps 2---9600 bps(default value) 3---19200 bps 4---38400 bps 5---57600 bps 6---115200 bps <mode> An integer parameter to indicate SIM20 UART format. 0---8/N/1 (default value) 1---8/O/1 2---8/E/1 3---7/N/2 4---7/O/1 5---7/E/1
Read command AT+SRDUART?	Response +SRDUART:<rate>,<mode> OK
	Parameter see Write command
Reference	Note ● Support power off save function

2.2.19 AT+SRDACK Get/Set SIM20 ACK Function

AT+ SRDACK Get/Set SIM20 ACK Function	
Test command AT+SRDACK=?	Response +SRDACK: (list of supported < mode >s) OK
	Parameter see Write command
Write command AT+SRDACK= <mode>	Response OK ERROR
	Parameter <mode> 0---ACK function off (default value) 1---ACK function on
Read command AT+SRDACK?	Response +SRDACK:<mode> OK
	Parameter see Write command
Reference	Note <ul style="list-style-type: none"> ● If ACK function is on, SIM20 will wait ACK after it transmits a data packet (no broadcast packet), after receiving ACK it will output “success send to X”, otherwise it will output “fail send to X”,X is the DID ● If a broadcast packet is trasmitted, SRDACK’s value will change to 0. ● Support power off save function ● Support remote read/write operation

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