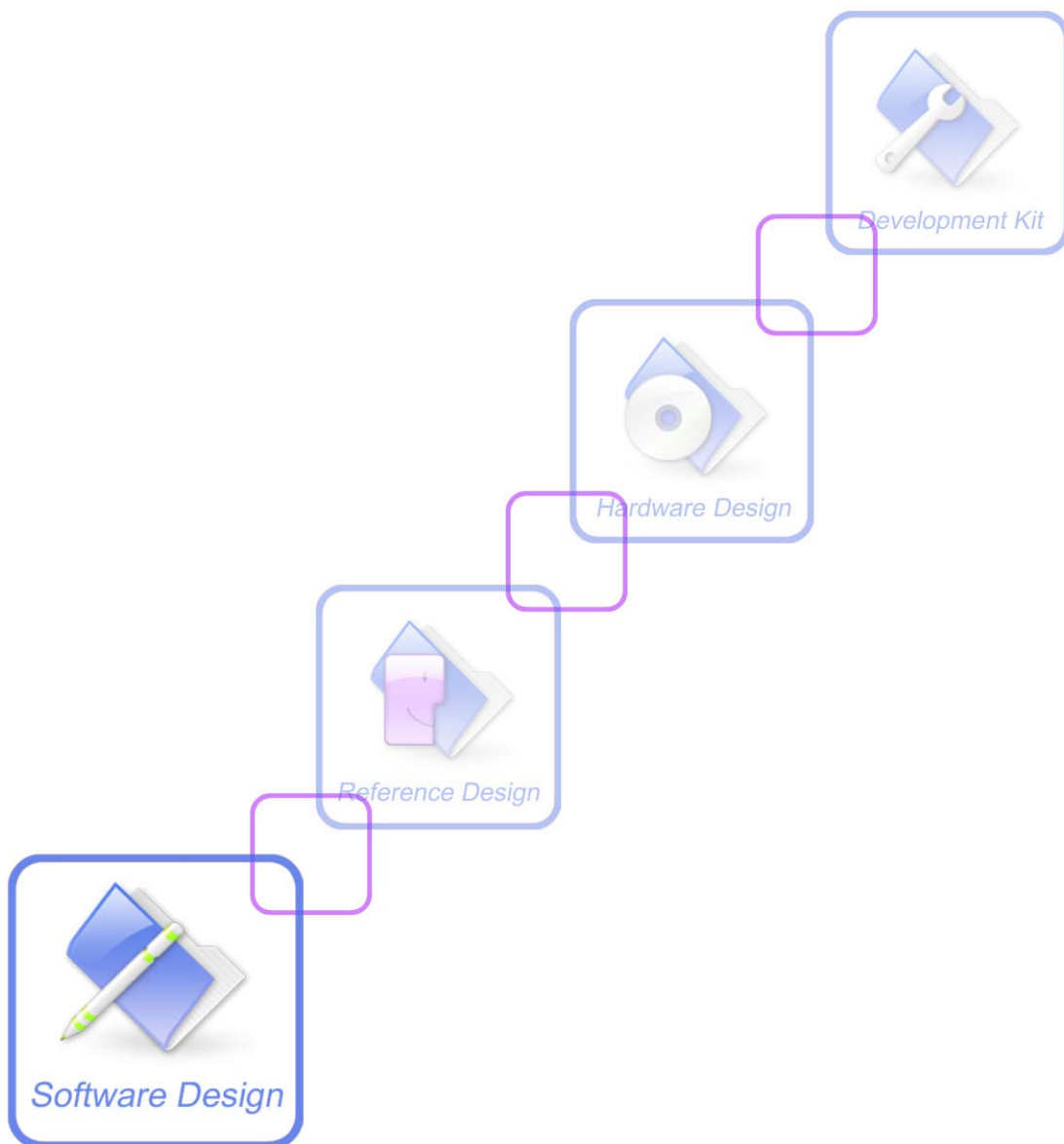


AT Commands Set

SIM20_ATC_V1.02



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Version History

Date	Version	Description of change	Author
2009/10/10	V1.00	Origin Version	Wei.zheng
2009/12/02	V1.01	AT+SRDSEND	Wei.zheng
2010/01/10	V1.02	AT+SRDRSSI AT+SRDRESET AT+SRDPARAM AT+SRDCONF AT+SRDSLEEP AT+SRDEPS	Wei.zheng

Scope of the document

This document is intended for the following versions of the SIMCOM modules

- 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 AT Commands for SIM20 Application Toolkits

1.1 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 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

1.2 Detailed Descriptions of Commands

1.2.1 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

1.2.2 AT+SRDSN Get/Set SIM20 SN

AT+ SRDSN Get/Set SIM20 SN	
Read command AT+SRDSN?	Response <sn> OK

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	Parameter <sn>	A 15 digit/alpha string to identify a unique SIM20.
Reference	Note	Support remote read

1.2.3 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	This value is the signal strength when SIM20 receive a packet last time, and update every time after SIM20 received packet.

1.2.4 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 channel, the default value is 0. The total channel-numbers is determined by to data rate and RF band.(Refer to User Guide)
Read command AT+SRDCHA?	Response +SRDCHA:<channel> OK	
	Parameter see Write command	
Reference	Note	Support power off save Support remote read/write

1.2.5 AT+SRDDATAR Get/Set SIM20 Data Rate

AT+SRDDATAR Get/Set SIM20 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 date rate. 0---represent 2400 bps 1---represent 4800 bps 2---represent 9600 bps 3---represent 10000 bps 4---represent 20000 bps 5---represent 50000 bps 6---represent 100000 bps 7---represent 128000 bps
Read command AT+SRDDATAR?	Response +SRDDATAR:<rate> OK
	Parameter see Write command
Reference	Note Support power off save Support remote read/write

1.2.6 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

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	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 Support power off save Support remote read/write	

1.2.7 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
Read command AT+SRDCID?	Response +SRDCID:<cid> OK	
	Parameter see Write command	
Reference	Note Support power off save Support remote read/write	

1.2.8 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	

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	Parameter <sid>	An integer number 0-254 to identify a unique SIM20 in a sub network
Read command AT+SRDSID?	Response +SRDSID:<sid> OK	
	Parameter see Write command	
Reference	Note Support power off save Support remote read/write	

1.2.9 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 0-254 to identify a unique destination SIM20, 255 is the broadcast address.
Read command AT+SRDDID?	Response +SRDDID:<did> OK	
	Parameter see Write command	
Reference	Note Support power off save Support remote read/write	

1.2.10 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	

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	Parameter <param> 0---disable forward 1---enable forward
Read Command AT+SRDFOWARD?	Response +SRDFORWARD: <param> OK
	Parameter see Write command
Reference	Note Support power off save Support remote read/write

1.2.11 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 <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 Support power off save Support remote read/write

1.2.12 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:(1-65534) OK
	Parameter see Write command

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Write Command AT+SRDSLEEP= <time>	Response OK ERROR	
	Parameter <time>	An integer number 1-65534 (Unit: ms) to set SIM20 sleep time in power save mode
Read Command AT+SRDSLEEP?	Response +SRDSLEEP:<time> OK	
	Parameter see Write command	
Reference	Note The time take effect only when in power save mode and wake up by RF timer Support remote read/write	

1.2.13 AT+SRDEPS Get/Set SIM20 Power Save Mode

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

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	Parameter see Write command
Reference	Note Support power off save Support remote read/write

1.2.14 AT+SRDCONREMOTE Enable/Disable Configure Remote SIM20

AT+ SRDCONREMOTE Enable/Disable Configure Remote SIM20	
Write command AT+SRDCONREM OTE=<param>	Response OK ERROR
	Parameter <param> 0---disable configure remote SIM20 1---enable configure remote SIM20
Read Command AT+ SRDCONREMOTE?	Response + SRDCONREMOTE: <param> OK
	Parameter see Write command
Reference	Note

1.2.15 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
	Parameter <sn> String of SIM20 SN <sid> An integer number 0-254 to identify a SIM20 whose SN is same with the <sn> parameter in a sub network.
Reference	Note

1.2.16 AT+SRDRESET Reset SIM20

AT+ SRDRESET Reset SIM20	
Write command AT+SRDRESET= <mode>	Response OK ERROR

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	Parameter <mode>	0--- reset SIM20 and restore channel, data rate, tx power, sid, cid, did, forward, srdeps to the default value 0,2,3,1,1,255,0,0 1---reset SIM20 only
Reference	Note Support remote write SIM20 will execute reset about 1s later after response “OK”	

1.2.17 AT+SRDSEND SEND DATA

AT+ SRDSEND Send Data		
Write command AT+SRDSEND= <did>,<data>	Response	OK ERROR
	Parameter <did>	An integer number 0-255 to identify the destination SIM20 to whom this packet will send, 255 is broadcast address.
	<data>	Data string to send, the max length is 63
Reference	Note	

Contact us:

Shanghai SIMCom Wireless Solutions Ltd.

Add: SIM Technology Building, No.633, Jinzhong Road, Changning District,
Shanghai, P. R. China 200335

Tel: +86 21 3252 3300

Fax: +86 21 3252 3020

URL: www.sim.com/wm