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SIM800 Series_GSM Location_Application Note_V1.01



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Version History

Date	Version	Description	Author
2014-09-24	1.00	New version	ZhuDingFen
2015-03-12	1.01	Modify CLBS format Modify catalogue error Add AT+CLBS=3,1 example	ZhuDingFen

Scope

This document presents the AT command of GSM location operation and application examples. This document can apply to SIM800 series modules with GSM location function, that the SW version will include “LBS” characters.

1 Introduction

This chapter introduces the GSM location feature of SIM800 series modules

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2 AT Commands

2.1 AT+CLBS

AT+CLBS Base station Location	
Test Command AT+CLBS=?	Response +CLBS: (1,3,4,9),(1-3),(-180.000000-180.000000),(-90.000000-90.000000),(0,1) OK Parameters See Write Command
Write Command AT+CLBS=<type>,<cid>,[<longitude>,<latitude>],[<lon_type>,<lat_type>]	Response OK 1)type = 1,get longitude and latitude +CLBS: <locationcode>[,<longitude>,<latitude>,<acc>] OK 2)type = 3,get access times +CLBS: <locationcode>[,<times>] OK 3)type = 4,get longitude latitude and date time +CLBS: <locationcode>[,<longitude>,<latitude>,<acc>,<date>,<time>] OK 4)type = 9, report positioning error +CLBS: <locationcode> OK If error is related to ME functionality: +CME ERROR:<err>
	Parameters <type> <ul style="list-style-type: none"> 1 use 3 cell's information 3 get access times 4 get longitude latitude and date time

	<p>9 report positioning error</p> <p><cid> network parameters, refer to AT+SAPBR</p> <p><locationcode> 0 Success</p> <p>If the operation failed, the location code is not 0, such as:</p> <ol style="list-style-type: none"> 1 Location Failed 2 Time Out 3 NET Error 4 DNS Error 5 Service Overdue 6 Authenticate Failed 7 Other Error 80 Report LBS to server success 81 Report LBS to server parameter error 82 Report LBS to server failed <p><longitude> Current longitude in degrees</p> <p><latitude> Current latitude in degrees</p> <p><acc> Positioning accuracy</p> <p><lon_type> The type of longitude and latitude</p> <ol style="list-style-type: none"> 0 WGS84, the default type 1 GCJ02 <p><times> access service times</p> <p><date> service date</p> <p><time> service time</p>
Reference	<p>Note</p> <p>If customers feel that the positioning error is too large, <type>=9 can be used to report this information, we will improve this error by this information.</p>

2.2 AT+CLBSCFG

AT+CLBSCFG Base station Location configure	
<p>Test Command</p> <p>AT+CLBSCFG=?</p>	<p>Response</p> <p>+CLBSCFG: 0,(1-2),"Param Value"</p> <p>OK</p> <p>Parameters</p> <p>See Write Command</p>
<p>Write Command</p> <p>AT+CLBSCFG=<operate>,<para></p>	<p>Response</p> <p>+CLBSCFG: 0,<para>,<value></p> <p>OK</p> <p>If error is related to ME functionality:</p>

	<p>+CME ERROR:<err></p>
	<p>Parameters</p> <p><operate> 0 read operator</p> <p><para> 1 customer ID</p> <p> 2 times have used positioning command</p> <p><value> the value of parameter</p>
Reference	Note

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3 Examples

SIM800 GSM location module provides GSM location solution. The following is the examples for application.

In the "Grammar" columns of following tables, input of AT commands are in black, module return values are in blue.

3.1 Activate Bearer Profile

Grammar	Description
AT+SAPBR=3,1,"Contype","GPRS" OK	Set bearer parameter
AT+SAPBR=3,1,"APN","CMNET" OK	Set bearer context
AT+SAPBR=1,1 OK	Active bearer context
AT+SAPBR=2,1 +SAPBR: 1,1,"10.89.193.1" OK	Read bearer parameter

3.2 Get Location

Grammar	Description
AT+CLBSCFG=0,1 +CLBSCFG: 0,1,"CUSTES" OK	Get customer ID
AT+CLBSCFG=0,2 +CLBSCFG: 0,2,0 OK	Get Times have used positioning command
AT+CLBS=1,1 +CLBS: 0,121.359505,31.217055,637 OK	Get current longitude , latitude and Precision
AT+CLBS=3,1 +CLBS: 0,1280 OK	Get access times

<p>AT+CLBS=4,1 +CLBS: 0,121.359505,31.217055,637 ,14/11/03,10:09:00 OK</p>	<p>Get current longitude , latitude , Precision and date time</p>
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3.3 Report Really Location

Grammar	Description
<p>AT+CLBS=9,1 +CLBS: 80 OK</p>	<p>If the position info is error, customer can use this command to report. Report cell information of positioning error to server</p>
<p>AT+CLBS=9,1,121.360046,31.218135,0 +CLBS: 80 OK</p>	<p>Report cell information of positioning and really longitude and latitude to server</p>

3.4 Deactivate Bearer Profile

Grammar	Description
<p>AT+SAPBR=0,1 OK</p>	<p>Deactivate bearer context</p>

Appendix

A Related Documents

SN	Document name	Remark
[1]	SIM800 Series AT Command Manual	

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