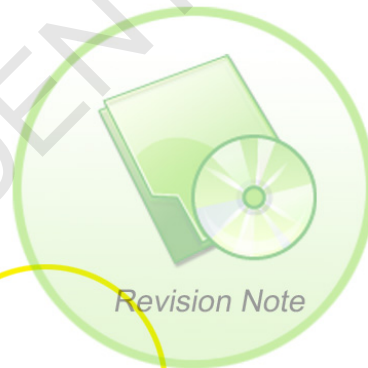




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# SIM800 Series\_PCM\_Application Note\_V1.01



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## Version History

Date	Version	What is new	Author
2013-10-18	1.00	New version	Yong.lu
2016-11-17	1.01	Scope	Yong.lu

## Scope

This document presents the AT command of PCM operation and application examples. This document can apply to SIM800 series modules with PCM function.

## 1. Introduction

This chapter introduces the PCM application features of SIM800 series modules.

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## 2. AT Commands

SIM800 series PCM AT command overview.

Command	Description
AT+CHFA	Swap the audio channels
AT+CPCMCFG	Set PCM parameter
AT+CPCMSYNC	Set PCM Sync parameter

### 2.1 AT+CHFA Swap the Audio Channels

AT+CHFA Swap the Audio Channels	
Test Command AT+CHFA=?	Response +CHFA: (0=NORMAL_AUDIO, 1=AUX_AUDIO,2=HANDFREE_AUDIO,3=AUX_HANDFREE_AU DIO, 4=PCM_AUDIO)  OK
Read Command AT+CHFA?	Response +CHFA: <n>  OK  Parameter See Write Command
Write Command AT+CHFA=<n>	Response OK If error is related to ME functionality: +CME ERROR: <err>  Parameter <n>    0    Main audio channel 1    Aux audio channel 2    Main audio channel hand free mode 3    Aux audio channel hand free mode 4    PCM channel
Reference	Note ● <n> must equal to 4 when using PCM function.

### 2.2 AT+CPCMCFG Set PCM Parameter

AT+CPCMCFG Set PCM Parameter
------------------------------

Test Command <b>AT+CPCMCFG</b> <b>=?</b>	Response <b>+CPCMCFG: (0-1)</b>  <b>OK</b>
	Parameter See Write Command
Read Command <b>AT+CPCMCFG</b> <b>?</b>	Response <b>+CPCMCFG: &lt;format&gt;</b>  <b>OK</b>
	Parameter See Write Command
Write Command <b>AT+CPCMCFG</b> <b>=&lt;format&gt;</b>	Response <b>OK</b> <b>ERROR</b>
	Parameter <b>&lt;format&gt;</b> <u>0</u> MSB 1    LSB
Reference	Note

### 2.3 AT+CPCMSYNC    Set PCM Sync Parameter

<b>AT+CPCMSYNC    Set PCM Sync Parameter</b>	
Test Command <b>AT+CPCMSYN</b> <b>C=?</b>	Response <b>+CPCMSYNC: (0-1),(1-8)</b>  <b>OK</b>
	Parameter See Write Command
Read Command <b>AT+CPCMSYN</b> <b>C?</b>	Response <b>+CPCMSYNC: &lt;sync&gt;, &lt;length&gt;</b>  <b>OK</b>
	Parameter See Write Command
Write Command <b>AT+CPCMSYN</b> <b>C=&lt;sync&gt;,&lt;length&gt;</b> <b>h&gt;</b>	Response <b>OK</b> <b>ERROR</b>
	Parameter <b>&lt;sync&gt;</b> <u>0</u> PCM short sync 1    PCM long sync <b>&lt;length&gt;</b> <u>1-8</u> PCM sync length(1-8)
Reference	Note

- The <length> is only supported **1** when PCM sync is short sync.

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### 3. Examples

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

Grammar	Description
AT+CPCMCFG=0 OK	Set PCM data format to MSB
AT+CPCMSYNC=0,1 OK	Set pcm sync signal to short sync, and set sync length to 1
AT+CHFA=4 OK	Swap the audio channels to PCM mode for opening PCM function
AT+CHFA=0 OK	Swap the audio channels to main audio channel for closing PCM function

## Appendix

### A Related Documents

SN	Document name	Remark
[1]	SIM800 Series_AT Command Manual	

### B Terms and Abbreviations

Abbreviation	Description
PCM	Pulse-Code Modulation
MSB	Most Significant Bit
LSB	Least Significant Bit

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