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Version History

Date	Version	What is new	Author
2013-10-18	1.00	New version	Yong.lu

Scope

This document presents the AT command of PCM operation and application examples. This document can apply to SIM800 series modules, including SIM800L and SIM800H.

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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_AUDIO, 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> <u>0</u> 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 <ul style="list-style-type: none"> ● This Command swaps the audio channels among different channels. ● This command is related to the actual module. ● PCM channel is only supported by SIM800H&SIM800L.

2.2. AT+CPCMCFG Set PCM Parameter

AT+CPCMCFG Set PCM Parameter	
Test Command AT+CPCMCFG =?	Response +CPCMCFG: (0-1) OK
	Parameter See Write Command
Read Command AT+CPCMCFG ?	Response +CPCMCFG: <format> OK
	Parameter See Write Command
Write Command AT+CPCMCFG =<format>	Response OK ERROR
	Parameter <format> <u>0</u> MSB 1 LSB
Reference	Note The command is only supported by SIM800H&SIM800L.

2.3. AT+CPCMSYNC Set PCM Sync Parameter

AT+CPCMSYNC Set PCM Sync Parameter	
Test Command AT+CPCMSYN C=?	Response +CPCMSYNC: (0-1),(1-8) OK
	Parameter See Write Command
Read Command AT+CPCMSYN C?	Response +CPCMSYNC: <sync>, <length> OK
	Parameter See Write Command
Write Command AT+CPCMSYN C=<sync>,<lengt	Response OK ERROR

h>	<p>Parameter</p> <p><sync> <u>0</u> PCM short sync 1 PCM long sync</p> <p><length> <u>1-8</u> PCM sync length(1-8)</p>
Reference	<p>Note</p> <p>The <length> is only supported 1 when PCM sync is short sync. The command is only supported by SIM800H&SIM800L.</p>

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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 pcmsync 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

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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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