SIM800 Series_PCM _Application Note

GPRS Module

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About Document

Version History

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1.00	2013-10-18	Yong.Lu	New version
1.01	2016-11-17	Yong.Lu	Scope
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Scope

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

Contents

1 Introduction

1.1 Purpose of the document

Based on module AT command manual, this document will introduce PCM application process.

Developers could understand and develop application quickly and efficiently based on this document.

1.2 Related documents

[1] SIM800 Series_AT Command Manual

1.3 Conventions and abbreviations

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

2 AT Commands

SIM800 series PCM AT command overview.

AT 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>** 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 **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>** 0 MSB 1 LSB
Reference	Note

2.3 AT+CPCMSYNC Set PCM Sync Parameter

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

	See Write Command
Write Command **AT+CPCMSYNC=<sync>,<length>**	Response **OK** **ERROR** Parameter **<sync>** 0 PCM short sync 1 PCM long sync **<length>** 1-8 PCM sync length(1-8)
Reference	Note The <length> is only supported 1 when PCM sync is short sync.

3 PCM Examples

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