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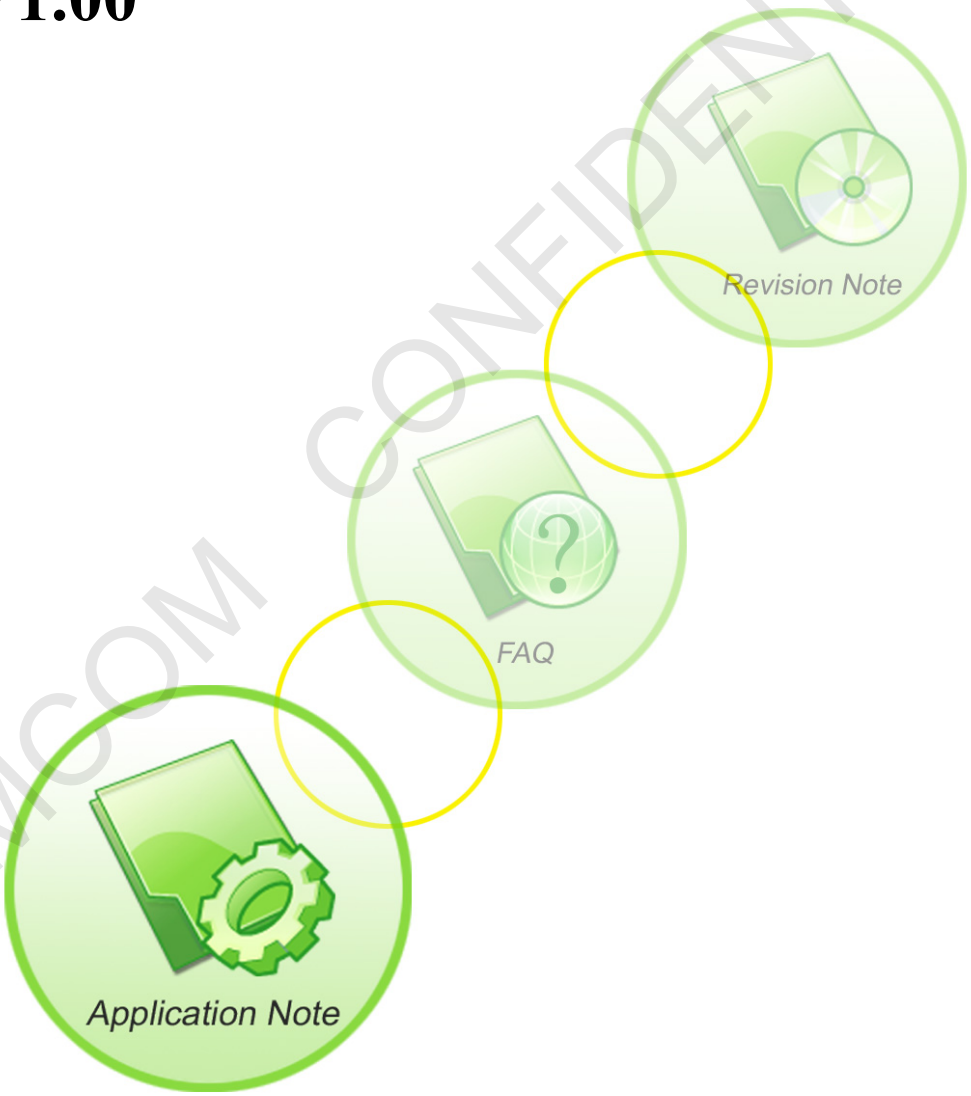
SIM7X00 Series_TTS_Application Note _V1.00



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Version History

Version	Chapter	Comments
V1.00	New Version	

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1. Introduction

1.1 Overview

This document gives the usage of SIM7100/SIM7600CE-A TTS functions. User can get useful information about the SIM7100/SIM7600CE-A TTS functions quickly through this document.

The TTS functions are provided in AT command format, and they are designed for customers to design their TTS applications easily. User can access these TTS AT commands through UART/ USB interface which communicates with SIM7100/SIM7600CE-A module. Now Chinese and English languages can be supported.

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2. TTS Related AT Commands

Below is the TTS associated with AT commands. Related.

Command	Description
At+CDTAM	Set TTS Play Path
AT+CTTS	TTS opteration
AT+CTTSPARAM	Set TTS parameters

2.1 AT+DTAM Set Local or Remote Audio Play

AT+CDTAM Set TTS Play Path	
Test Command **AT+CDTAM=?**	Response +CDTAM: (0-1) **OK**
	No parameter
Read Command **AT+ CDTAM?**	Response **+ CDTAM: <status>** **OK**
	Parameter **<status>** 0 Local Path 1 Remote Path
Write Command **AT+CDTAM=<mode>**	Response +CDTAM: **OK**
	Parameter **< mode >** 0 Local Path 1 Remote Path
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2.2 AT+CTTS TTS operation

AT+CTTS TTS Operation	
Test Command **AT+CTTS=?**	Response **OK**
	No parameter
Read Command **AT+CTTS?**	Response **+CTTS: <status>** **OK**
	Parameter **<status>** 0 Idle status 1 Play status
Write Command **AT+CTTS=<mode>,<text>**	Response If <mode>is 0，return： +CTTS: **OK** If <mode>is 1 or 2，return: +CTTS: **OK** **+CTTS:0** *//speech synth and play end* **Note:** AT+CTTS? return value is 5 before the end of voice play (+ CTTS: 0) If error is related to MS functionality,response： **+CME ERROR: <err>**
	Parameter **<mode>** 0 Stop the speech synth and play 1 Start to synth and play，<text> is in UCS2 coding format. 2 Start to synth and play，<text> is in ASCII coding format, Chinese text is in GBK coding format **<text>** The text which is synthetized to speed to be played,maximum data length is 250 bytes.。
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2.3 AT+CTTSPARAM Set TTS Parameters

AT+CTTSPARAM	Set TTS Parameters
Test Command **AT+CTTSPARAM =?**	Response **+CTTSPARAM: (0-2), (0-3),(0-3),(0-2),(0-2)** **OK**
	No parameter
Read Command **AT+CTTSPARAM ?**	Response **+CTTS: <volume>,<sysvolume>,<digitmode>,<pitch>,<speed>** **OK**
Write Command **AT+ CTTSPARAM =<volume>[,<sysvolume>[,<digitmode>[,<pitch>[,<speed>]]]**	Response **OK** If error is related to MS functionality,response: **+CME ERROR: <err>**
	Parameter **<volume>** TTS Speech Volume, 0-2 0 The mix volume 1 The normal volume 2 The max volume **< sysvolume>** The module system volume, 0-3 0 The mix system volume 1 The small system volume 2 The normal system volume 3 The max system volume **<digitmode>** The digit read mode 0-3 0 Auto read digit based on number rule first. 1 Auto read digit bases on telegram rule first. 2 Read digit based on telegram rule. 3 Read digit based on number rule. **<pitch>** The voice tone 0-2 0 The mix voice tone. 1 The normal voice tone. 2 The max voice tone. **<speed>** The voice speed 0-2 0 The mix speed 1 The normal speed

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	2 The max speed
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3. TTS Application example

Below is the TTS associated with application examples

3.1 Set Local or Remote Audio Play

```
AT+ CDTAM =1                    //Set Remote Path
+CDTAM:

OK

AT+ CDTAM =0                    //Set Local Path
+CDTAM:

OK
```

3.2 Play synthetic speech with UCS2 text

```
AT+CTTS=1,"6B228FCE4F7F75288BED97F3540862107CFB7EDF"   //note:txt UCS2 coding format.
+CTTS:                                                 //note:speech synthetic successful，the tts voice will play with the current channel。
OK                                                     //note:Speech played over,User need s to waiting this response to play the next speech!
+CTTS:0
```

3.3 Play synthetic speech with normal text

```
AT+CTTS=2,"hello，欢迎使用语音合成系统"                  //note:txt ASIIC coding format，chinese is GBK coding format。
+CTTS:                                                 //note:speech synthetic successful，the tts voice will play with the
OK
+CTTS:0
```

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	current channel。 *//note:Speech played over,User need s to waiting this response to play the next speech!*

3.4 Stop the synthetic speech

AT+CTTS=0 +CTTS: OK	*//note:stop playing synthetic speech.* *//note:synthetic speech.is successful end*

3.5 Set the speech parameters

AT+CTTSPARAM=1,3,0,1,1 OK	*//note:set the speech parameters* *//note:set the successful for parameter.*

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