

# **AG35 TTS**

# **Application Note**

**LTE Module Series**

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**Our aim is to provide customers with timely and comprehensive service. For any assistance, please contact our company headquarters:**

**Quectel Wireless Solutions Co., Ltd.**

7<sup>th</sup> Floor, Hongye Building, No.1801 Hongmei Road, Xuhui District, Shanghai 200233, China

Tel: +86 21 5108 6236

Email: [info@quectel.com](mailto:info@quectel.com)

**Or our local office. For more information, please visit:**

<http://quectel.com/support/sales.htm>

**For technical support, or to report documentation errors, please visit:**

<http://quectel.com/support/technical.htm>

Or email to: [support@quectel.com](mailto:support@quectel.com)

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# About the Document

## History

Revision	Date	Author	Description
1.0	2017-10-13	Running QIAN/ Yironny HE	Initial

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# 1 Introduction

This document describes how to use the TTS function of Quectel AG35 module. User can input text and output speech by using this function via the auxiliary channel of the module.

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## 2 Description of TTS AT Commands

### 2.1. AT+QTTS Start/Stop TTS

The command can be used to start or stop the function of broadcasting text.

AT+QTTS Start/Stop TTS	
Test Command <b>AT+QTTS=?</b>	Response <b>+QTTS: (0-2),&lt;text&gt;</b>  <b>OK</b>
Read Command <b>AT+QTTS?</b>	Response <b>+QTTS: &lt;status&gt;</b>  <b>OK</b>
Write Command <b>AT+QTTS=&lt;mode&gt; [,&lt;text&gt;]</b>	Response <b>OK</b>  If there is any error related to ME functionality: <b>+CME ERROR: &lt;err&gt;</b>  Report when broadcasting text is over: <b>+QTTS: 0</b>

#### Parameter

<b>&lt;mode&gt;</b>	Start or stop TTS, and define the format of text. 0 Stop TTS, and <text> is omitted. 1 Start TTS, and <text> is in UCS2 format. 2 Start TTS, and <text> can be inputted directly. Normal characters are in ASCII format and Chinese characters are in GBK.
<b>&lt;text&gt;</b>	Text to be played. The format depends on <mode>. The maximum length is 960 bytes.
<b>&lt;status&gt;</b>	TTS status. 0 Idle 1 Playing

## Example

```

AT+QTTS=?                                     //Query the parameters
+QTTS: (0-2),<text>

OK
AT+QTTS?                                     //Query the current state
+QTTS: 0

OK
AT+QTTS=1,"6B228FCE4F7F752879FB8FDC6A215757" //Start to play text encoded in UNICODE
OK

+QTTS: 0
AT+QTTS=2,"Welcome to use the module of QUECTEL" //Start to play text encoded in ASCII
OK

+QTTS: 0
AT+QTTS=2,"欢迎使用移远模块!"                //Start to play text encoded in GBK
OK

+QTTS: 0
AT+QTTS=0                                     //Stop TTS
OK

```

## 2.2. AT+QWTTTS Play TTS during Voice Call

### AT+QWTTTS Play TTS during Voice Call

Test Command <b>AT+QWTTTS=?</b>	Response <b>+QWTTTS: (0,1),(0,1),(0-2),&lt;text&gt;</b>  <b>OK</b>
Read Command <b>AT+QWTTTS?</b>	Response <b>+QWTTTS: &lt;status&gt;</b>  <b>OK</b>
Write Command <b>AT+QWTTTS=&lt;ulmute&gt;,&lt;dlnmute&gt;,&lt;mode&gt;[,&lt;text&gt;]</b>	Response <b>OK</b>  If there is any error related to ME functionality: <b>+CME ERROR: &lt;err&gt;</b>



Report when broadcasting text is over:

**+QWTTTS: 0**

## Parameter

<b>&lt;ulmute&gt;</b>	Uplink mute. Range: 0-1. 0 Enable mute 1 Disable mute
<b>&lt;dlmute&gt;</b>	Downlink mute. Range: 0-1. 0 Enable mute 1 Disable mute
<b>&lt;mode&gt;</b>	Start or stop TTS, and define the format of text. 0 Stop TTS, and <text> is omitted. 1 Start TTS, and <text> is in UCS2 format. 2 Start TTS, and <text> can be inputted directly. Normal characters are in ASCII format and Chinese characters are in GBK.
<b>&lt;text&gt;</b>	Text to be played. The format depends on <mode>. The maximum length is 960 bytes.
<b>&lt;status&gt;</b>	TTS status. 0 Idle 1 Playing

## NOTES

1. This command must be executed during voice call.
2. Hex string should be placed in big-endian sequence if <mode> is 2.
3. Some module versions only support English TTS library.

## Example

```

AT+QWTTTS=? //Query parameters
+QWTTTS: (0,1),(0,1),(0-2),<text>

OK
AT+QWTTTS? //Query the current state
+QWTTTS: 0

OK
AT+QWTTTS=1,1,1,"6B228FCE4F7F752879FB8FDC6A215757" //Start to play text encoded in UNICODE
OK

+QWTTTS: 0
AT+QWTTTS=1,1,2,"Welcome to use the module of QUECTEL" //Start to play text encoded in ASCII

```

```

OK

+QTTS: 0
AT+QWTTTS=1,1,2,"欢迎使用移远模块!"           //Start to play text encoded in GBK
OK

+QWTTTS: 0
AT+QWTTTS=0,0,0           //Stop TTS during voice call
OK
  
```

## 2.3. AT+QTTSETUP Set/Get TTS Parameters

The command is used to adjust the TTS speed and volume of broadcasting.

### AT+QTTSETUP Set/Get TTS Parameters

Test Command <b>AT+QTTSETUP=?</b>	Response <b>+QTTSETUP: (1,2),(1-3),(-32768~32767)</b>  <b>OK</b>
Read Command <b>AT+QTTSETUP?</b>	Response <b>OK</b>
Write Command <b>AT+QTTSETUP=&lt;mode&gt;,&lt;ID&gt;[,&lt;value&gt;]</b>	Response If the <value> is omitted, the current configuration is queried: <b>+QTTSETUP: 2,&lt;ID&gt;,&lt;value&gt;</b> <b>OK</b>  If <value> is inputted: <b>OK</b> Or <b>ERROR</b>

### Parameter

<b>&lt;mode&gt;</b>	Integer type. Set or query parameter values. 1 Set TTS parameters 2 Get TTS parameters
<b>&lt;ID&gt;</b>	Integer type. Parameter ID. Set speed or volume or language library. 1 Set TTS speed 2 Set TTS volume 3 Set TTS language library
<b>&lt;value&gt;</b>	When <ID>=1, the range is from -32768 to 32767, and the default value is 0.

When <mode> is 2, this parameter can be omitted.

This command only supports getting TTS parameters when playing TTS, otherwise “ERROR” will be returned.

### Example

```
AT+QTTSETUP=? //Query the parameters
```

**+QTTSETUP: (1,2),(1-3)[,(-32768-32767)]**

OK

## AT+QTTSETUP?

```
//Read command
```

OK

**AT+QTTSETUP=1,1,-32768**

```
//Set TTS speed
```

OK

AT+QTTS=1,"6B228FCE4F7F752879FB8FDC6A215757"

OK

**AT+QTTSETUP=2,1**

```
//Get TTS speed
```

**+QTTSETUP: 2,1,-32768**

OK

## 3 Summary of Error Codes

The error code <err> indicates an error related to mobile equipment or network. The details about <err> are described in the following table.

**Table 1: Summary of Error Codes**

<err>	Description of Error Codes
901	Audio unknown error
902	Audio invalid parameters
903	Audio operation not supported
904	Audio device busy

## 4 Appendix A References

Table 2: Related Document

SN	Document Name	Remark
[1]	Quectel_AG35_AT_Commands_Manual	AG35 AT Commands Manual

Table 3: Terms and Abbreviations

Abbreviation	Description
ASCII	American Standard Code for Information Interchange
GBK	Guo-Biao Kuozhan (Chinese Internal Code Extension Specification)
TTS	Text to Speech
UCS	Universal Coded Character Set