EC200U&EG915U Series
Camera Application Note

LTE Standard Module Series

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About the Document

Revision History

Version	Date	Author	Description
-	2021-06-03	Evan MENG	Creation of the document
1.0	2021-07-27	Evan MENG	First official release
1.1	2021-08-17	Evan MENG	Added an applicable module series EG915U.

Contents

Table Index

1 Introduction

This document introduces camera related AT commands of Quectel EC200U and EG915U series modules.

2 Camera Related AT Commands

2.1. AT Command Introduction

2.1.1. Definitions

- **<CR>**   Carriage return character.
- **<LF>**   Line feed character.
- **<...>**   Parameter name. Angle brackets do not appear on the command line.
- **[...]**   Optional parameter of a command or an optional part of TA information response. Square brackets do not appear on the command line. When an optional parameter is not given in a command, the new value equals to its previous value or the default settings, unless otherwise specified.
- **Underline**   Default setting of a parameter.

2.1.2. AT Command Syntax

All command lines must start with **AT** or **at** and end with **<CR>**. Information responses and result codes always start and end with a carriage return character and a line feed character: **<CR><LF><response><CR><LF>**. In tables presenting commands and responses throughout this document, only the commands and responses are presented, and **<CR>** and **<LF>** are deliberately omitted.

Table 1: Types of AT Commands

Command Type	Syntax	Description
Test Command	**AT+<cmd>=?**	Test the existence of corresponding Write Command and return information about the type, value, or range of its parameter.
Read Command	**AT+<cmd>?**	Check the current parameter value of a corresponding Write Command.
Write Command	**AT+<cmd>=<p1>[,<p2>[,<p3>[...]]]**	Set user-definable parameter value.
Execution Command	**AT+<cmd>**	Return a specific information parameter or perform a specific action.

2.2. Declaration of AT Command Examples

The AT command examples in this document are provided to help you learn about the use of the AT commands introduced herein. The examples, however, should not be taken as Quectel's recommendation or suggestions about how you should design a program flow or what status you should set the module into. Sometimes multiple examples may be provided for one AT command. However, this does not mean that there exists a correlation among these examples and that they should be executed in a given sequence.

2.3. AT Command Details

2.3.1. AT+QCAMOPEN   Turn on Camera Function

AT+QCAMOPEN Turn on Camera Function	
Test Command **AT+QCAMOPEN=?**	Response **+QCAMOPEN: (**range of supported **<height>**s**),(**range of supported **<width>**s**)** **OK**
Write Command **AT+QCAMOPEN=<height>,<width>**	Response **OK** If there is any error related to ME functionality: **+CME ERROR: <err>**
Maximum Response Time	500 ms
Characteristic	The command takes effect immediately. The configurations will not be saved.

Parameter

<height>	Integer type. The height of the image. Range: 50–480. Unit: pixel.
<width>	Integer type. The width of the image. Range: 50–640. Unit: pixel.
<err>	Integer type. Error code. See *Chapter 3* for details.

> **NOTE**
>
> 1. When the camera is not recognized, this command returns error code 7300.
> 2. If all the functions of the module are supported, the space allocated to the camera will be limited. At this time, the range of the **<height>** will be 50–240, and the range of the **<width>** will be 50–320.

2.3.2. AT+QCAMIDFY   Start/Stop Decoding

AT+QCAMIDFY Start/Stop Decoding	
Test Command **AT+QCAMIDFY=?**	Response **+QCAMIDFY: (**list of supported **<op>**s**),(**range of supported **<decodecnt>**s)** **OK**
Write Command **AT+QCAMIDFY=<op>**	Response **OK** If there is any error related to ME functionality: **+CME ERROR: <err>**
Maximum Response Time	300 ms
Characteristic	The command takes effect immediately. The configurations will not be saved.

Parameter

<op>	Integer type. Start/stop decoding. 0 Stop decoding. 1 Start decoding.
<decodecnt>	Integer type. Sets the times of decoding. Decoding will stop when the times of decoding reaches the set value. Range: 0–255. The value is 0 by default, which indicates there is no limitation on the times of decoding.
<err>	Integer type. Error code. See *Chapter 3* for details.

2.3.2.1. URC Reporting Decoding Results

URC Reporting Decoding Results	
+QCAMPRES: <result>,<type>,<length>, <out_data>	Reporting Decoding Results

Parameter

<result>	Integer type. Decoding Results.
	0 Successful decoding.
	1 No decoding library.
	Other value Decoding failure.
<type>	Integer type. One-dimensional code or two-dimensional code to be decoded.
	Decoding type output varies with different decoding libraries.
<length>	Integer type. The length of data to be decoded. Unit: byte.
<out_data>	Data to be decoded. The output result is related to the decoding library.

Example

```
AT+QCAMOPEN=480,640
OK
AT+QCAMIDFY=1
OK

+QCAMPRES: 0,1,6,456789
```

2.3.3. AT+QCAMCLOSE   Turn off Camera Function

AT+QCAMCLOSE Turn off Camera Function	
Test Command **AT+QCAMCLOSE=?**	Response **OK**
Write Command **AT+QCAMCLOSE**	Response **OK**
Maximum Response Time	300 ms
Characteristic	The command takes effect immediately. The configurations will not be saved.

Example

```
AT+QCAMOPEN=240,320
OK
AT+QCAMIDFY=1
OK

+QCAMPRES: 0,1,6,456789
AT+QCAMCLOSE
OK
```

2.3.4. AT+QCAMAPPVER   Get Decoding Library Version Information

AT+QCAMAPPVER Get Decoding Library Version Information	
Test Command **AT+QCAMAPPVER=?**	Response **OK**
Write Command **AT+QCAMAPPVER**	Response **+QCAMAPPVER: <App_version>** **OK**
Maximum Response Time	300 ms
Characteristic	The command takes effect immediately. The configurations will not be saved.

Parameter

<App_version>   Version information of the decoding library.

2.3.5. AT+QAUTHCODE   Read and Write Authorization Code of Decoding Library

This command reads and writes the authorization code of the decoding library. When the decoding library runs, it reads the authorization code for verification. If the verification passes, the complete decoding result will be output.

AT+QAUTHCODE Read and Write Authorization Code of Decoding Library	
Test Command **AT+QAUTHCODE=?**	Response **+QAUTHCODE: (**list of supported **<mode>**s),(range of supported**<len>**s),**<authcode>**

	OK
Write Command **AT+QAUTHCODE=\<mode\>,\<len\>[,\<authcode\>]**	Response If **\<mode\>**=1 and **\<authcode\>** is ommitted, read the authorization code of decoding library: **+QAUTHCODE: \<authcode\>** **OK** If **\<mode\>**=2 and **\<authcode\>** is specified, write the authorization code of decoding library: **+QAUTHCODE: \<authcode\>** **OK** If there is any error related to ME functionality: **+CME ERROR: \<err\>**
Maximum Response Time	300 ms
Characteristic	The command takes effect immediately. The configurations will not be saved.

Parameter

\<mode\>	Integer type. 1 Read the authorization code. 2 Write the authorization code.
\<len\>	Integer type. The length of the authorization code to be read or written. Range: 0–108. Unit: byte.
\<authcode\>	String type. Authorization code.
\<err\>	Integer type. Error code. See *Chapter 3* for details.

Example

```
AT+QAUTHCODE=2,20,"1234567890asdfghjk#l"
+QAUTHCODE: "1234567890asdfghjk#l"

OK
AT+QAUTHCODE=1,20
+QAUTHCODE: "1234567890asdfghjk#l"

OK
```

3 Error Codes

Table 2: Description of +CME ERROR: <err>

Code of <err>	Description
7100	Unknown error
7200	Parameter error
7300	Initialization error
7400	Decoding error