

# QMulti\_DL\_CMD User Guide

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# About the Document

## Revision History

Version	Date	Author	Description
1.0	2020-03-23	Kawhi HE	First official release
1.1	2020-04-29	Kawhi HE	<ol style="list-style-type: none"><li>1. Added applicable modules in Chapter 1.2.</li><li>2. Added firmware upgrade procedures for EC25/ BG95/ BG96 in Chapter 2.</li></ol>
1.2	2020-06-02	Kawhi HE	<ol style="list-style-type: none"><li>1. Added applicable module: M66 in Chapter 1.2.</li><li>2. Added firmware upgrade procedures for M66 in Chapter 2.</li><li>3. Added settings for QuecOpen firmware upgrade in Chapter 2.1.</li></ol>
1.3	2020-09-28	Anne QIU	<ol style="list-style-type: none"><li>1. Added upgrading procedures for RG500Q/ RM500Q.</li><li>2. Added upgrading procedures for BC95-G/ BC66.</li><li>3. Added upgrading procedures for SC20.</li></ol>
1.4	2020-10-23	Anne QIU	Upgraded the tool to V2.0
1.5	2020-11-23	Shirly WANG	Upgraded the tool version to V2.1

## Contents

About the Document .....	3
Contents .....	4
Figure Index .....	5
<b>1 Introduction .....</b>	<b>6</b>
1.1. OS and Version .....	6
1.2. Applicable Modules .....	6
1.3. Parameter Introduction .....	7
<b>2 Firmware Upgrade Procedures .....</b>	<b>8</b>
2.1. Set Multi_Config.ini (Only for QuecOpen Firmware Upgrade) .....	8
2.2. Select Serial Port .....	9
2.2.1. Select COM Port for EC2x/AG35/BGxx/RG500Q/RM500Q .....	9
2.2.2. Select COM Port for MC60/M66/BC95-G .....	9
2.2.3. Select COM Port for BC66 .....	9
2.2.4. Select COM Port for SC20 .....	9
2.3. Select Baud Rate .....	9
2.4. Select Firmware Files .....	10
2.4.1. Select Firmware File for EC2x/AG35/BG95/RG500Q/RM500Q .....	10
2.4.2. Select Firmware File for BG96 .....	10
2.4.3. Select Firmware File for MC60/M66 .....	11
2.4.4. Select Firmware File for BC95-G .....	11
2.4.5. Select Firmware File for BC66 .....	12
2.4.6. Select Firmware File for SC20 .....	12
2.4.7. Select Firmware File for M66 QuecOpen .....	13
2.5. Upgrade Firmware .....	14

## Figure Index

Figure 1: Set Multi_Config.ini .....	8
Figure 2: Firehose Files .....	10
Figure 3: Sahara Files.....	10
Figure 4: MC60/M66 Firmware File .....	11
Figure 5: BC95-G Firmware File .....	11
Figure 6: BC66 Firmware File .....	12
Figure 7: SC20 Firmware File .....	12
Figure 8: M66 QuecOpen Firmware File.....	13
Figure 9: Command for Firmware Upgrade .....	14
Figure 10: Upgrade Process .....	14
Figure 11: Upgrade Success.....	15

# 1 Introduction

QMulti\_DL\_CMD is a multi-port firmware upgrade tool. It supports firmware upgrade of 8 modules simultaneously.

This document mainly introduces how to upgrade the firmware of Quectel modules with the tool.

## 1.1. OS and Version

The tool can run on a PC without installation if the OS is as below:

- Windows 7 (64-bit)
- Windows 10 (64-bit)

Any newer version of the tool and notification thereof will be provided in advance.

### NOTE

The storage path of the tool and the firmware should NOT contain any spaces or “()”, and English characters are preferred.

## 1.2. Applicable Modules

QMulti\_DL\_CMD is applicable to the following Quectel modules.

**Table 1: Applicable Modules**

<b>LTE Standard Module Series</b>	EC2x: EC20 R2.1/ EC25
<b>Automotive Module Series</b>	AG35
<b>LPWA Module Series</b>	BGxx: BG95/ BG96 BCxx: BC95-G/ BC66

<b>GSM/GPRS/GNSS Module Series</b>	MC60/ M66
<b>Smart Module Series</b>	SC20
<b>5G Module Series</b>	RG500Q/ RM500Q

**NOTE**

Quectel modules listed above may include multiple models. Please refer to the corresponding module specifications for details.

### 1.3. Parameter Introduction

The QMulti\_DL\_CMD tool supports firmware upgrade of up to 8 modules simultaneously and the parameters of the tool are as below:

Parameter1–8: port number

Parameter9: baud rate

Parameter10: firmware path

The parameters will be applied to the firmware upgrade command in the following format:

**QMulti\_DL\_CMD\_V1.9.exe Parameter1 Parameter2 Parameter3 Parameter4 Parameter5  
Parameter6 Parameter7 Parameter8 Parameter9 Parameter10**

For actual use, see the commands in **Chapter 2.5**.

**NOTE**

If less than 8 serial ports are being used simultaneously, parameters for the unused ports are omitted.



## 2 Firmware Upgrade Procedures

The firmware can be upgraded through the following five steps with the QMulti\_DL\_CMD tool.

1. Set Multi\_Config.ini (only for QuecOpen firmware upgrade)
2. Select serial port
3. Select baud rate
4. Select firmware files
5. Upgrade firmware

The following chapters will introduce in detail how to use the tool to upgrade the firmware.

### 2.1. Set Multi\_Config.ini (Only for QuecOpen Firmware Upgrade)

For QuecOpen firmware upgrade, first you need to set the parameter “**OCPU\_Name**” in *Multi\_Config.ini*. Otherwise, skip this step.

For M66 QuecOpen, set “**OCPU\_Name**” at 6.

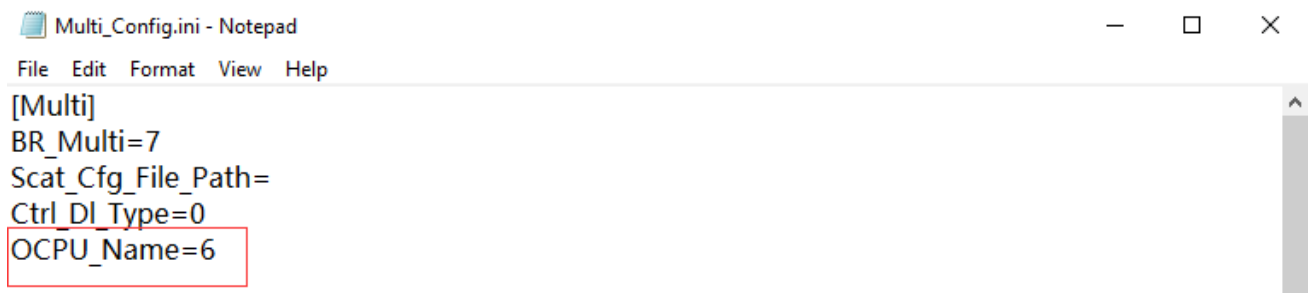


Figure 1: Set Multi\_Config.ini

## 2.2. Select Serial Port

### 2.2.1. Select COM Port for EC2x/AG35/BGxx/RG500Q/RM500Q

For EC2x/AG35/BGxx/RG500Q/RM500Q, use USB DM port for firmware upgrade.

### 2.2.2. Select COM Port for MC60/M66/BC95-G

For MC60/M66/BC95-G, use main UART for firmware upgrade.

### 2.2.3. Select COM Port for BC66

For BC66 module, use Interface 0 for firmware upgrade.

### 2.2.4. Select COM Port for SC20

For SC20, use HS-USB Diagnostics 9091 port for firmware upgrade.

## 2.3. Select Baud Rate

There are different baud rate values to be selected and the hardware environment determines whether a specified baud rate can be supported. If not supported, an error message will be returned.

- For firmware upgrade of EC2x/AG35/BG95/RG500Q/RM500Q/SC20, the default baud rate is 115200.
- For firmware upgrade of BG96, set baud rate at 921600. Other baud rates may lead to upgrade failure.
- For firmware upgrade of MC60/M66/BCxx, set baud rate at 460800. Other baud rates may lead to upgrade failure.

## 2.4. Select Firmware Files

The storage path of the tool and the firmware should NOT contain any spaces or “()”, and English characters are preferred.

### 2.4.1. Select Firmware File for EC2x/AG35/BG95/RG500Q/RM500Q

Select the .mbn file in the *firehose* folder.

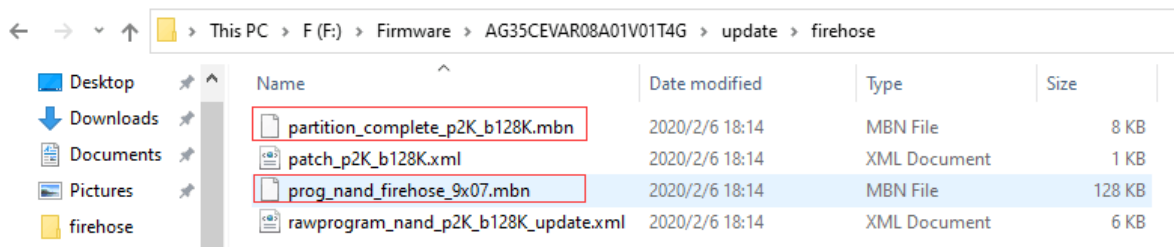


Figure 2: Firehose Files

#### NOTE

When *firehose* folder exists in the firmware package, it is recommended to upgrade the firmware in Firehose mode. Otherwise, upgrade in Sahara mode.

### 2.4.2. Select Firmware File for BG96

Select the .mbn file which needs to be downloaded to the module.

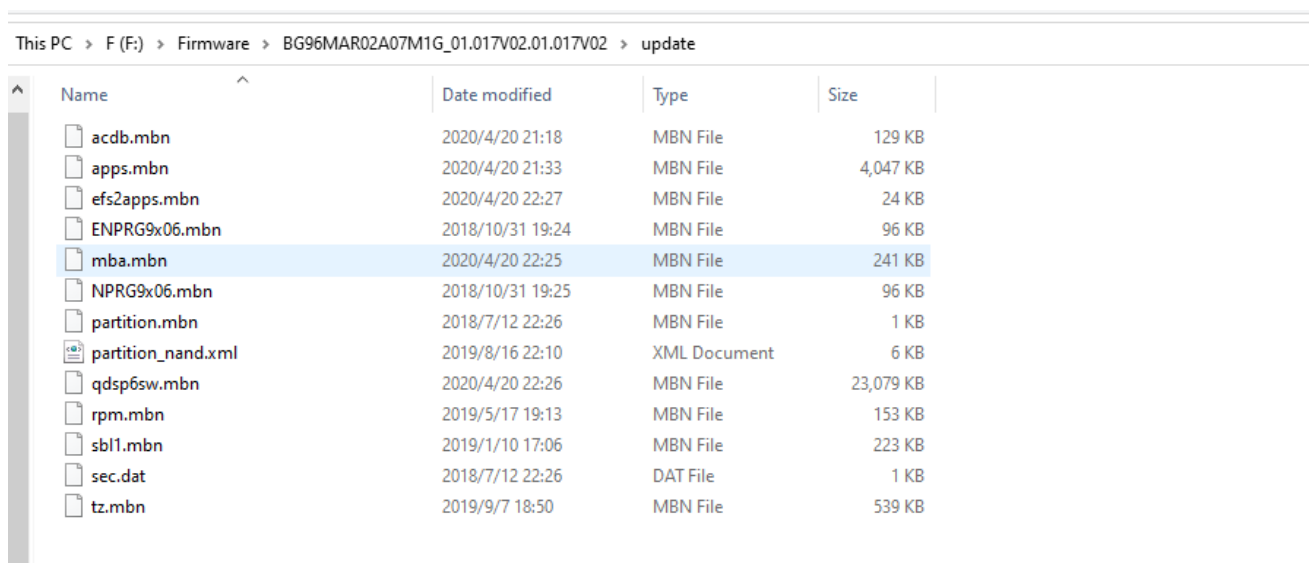


Figure 3: Sahara Files

### 2.4.3. Select Firmware File for MC60/M66

Select the .cfg file which needs to be downloaded to the module.

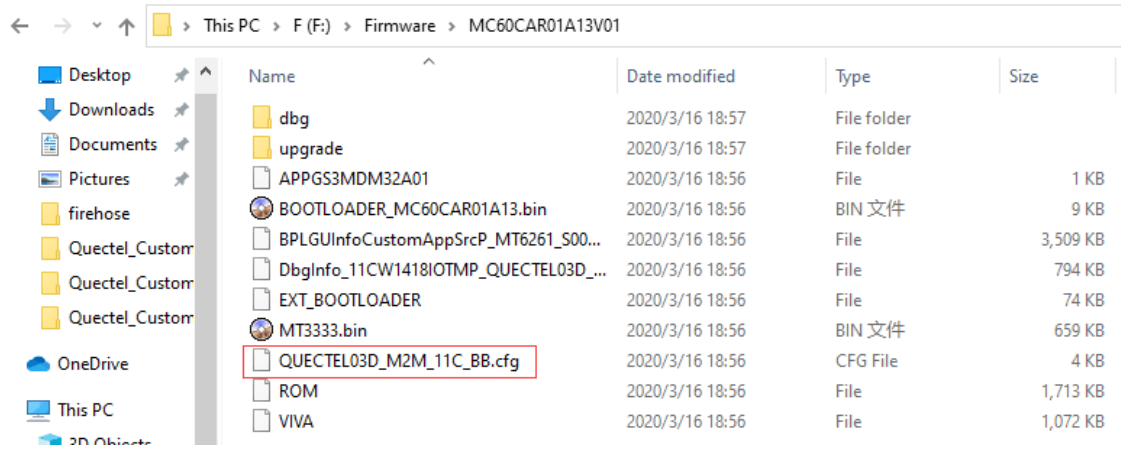


Figure 4: MC60/M66 Firmware File

### 2.4.4. Select Firmware File for BC95-G

Select the .fwpkg file which needs to be downloaded to the module.

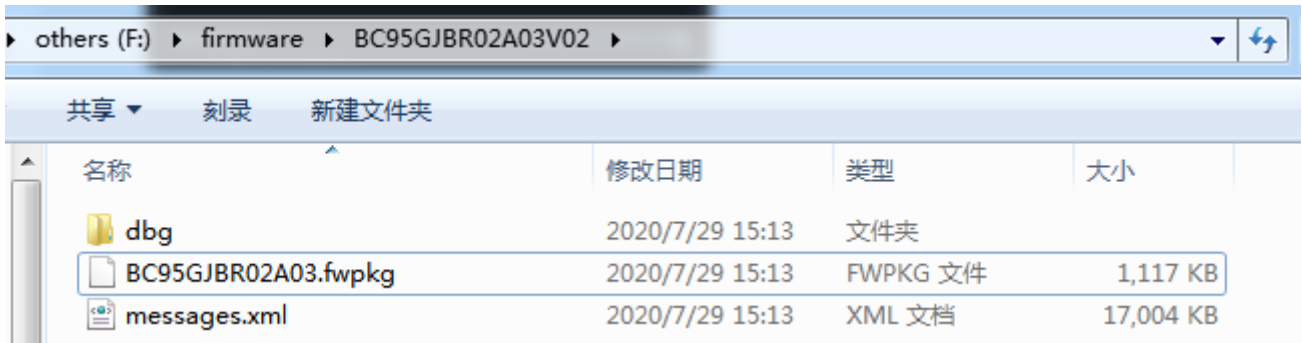


Figure 5: BC95-G Firmware File

### 2.4.5. Select Firmware File for BC66

Select the .cfg file which needs to be downloaded to the module.

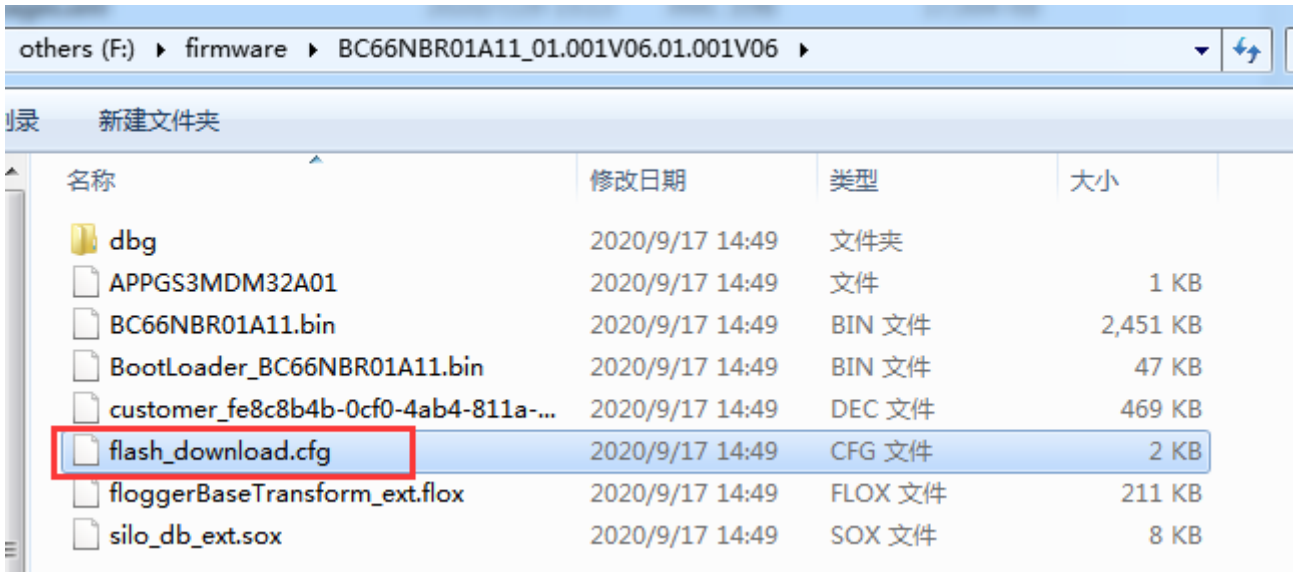


Figure 6: BC66 Firmware File

### 2.4.6. Select Firmware File for SC20

Select the .mbn file which needs to be downloaded to the module.

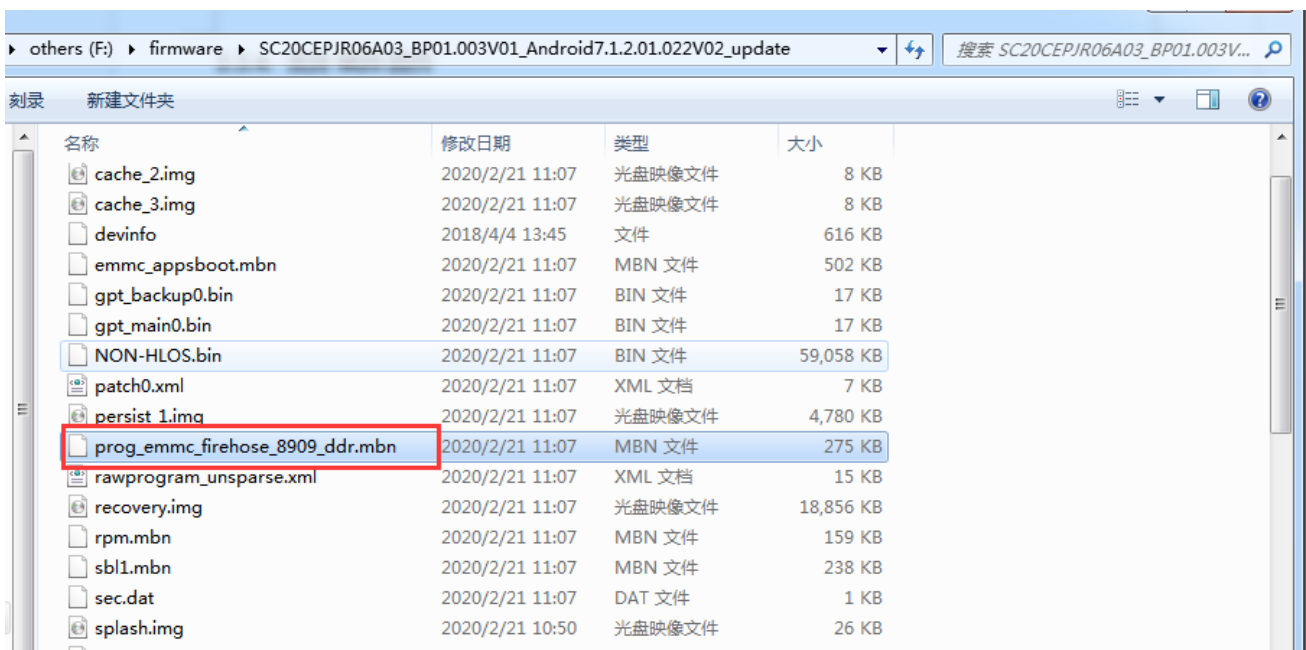


Figure 7: SC20 Firmware File

### 2.4.7. Select Firmware File for M66 QuecOpen

Select the .cfg file which needs to be downloaded to the module.

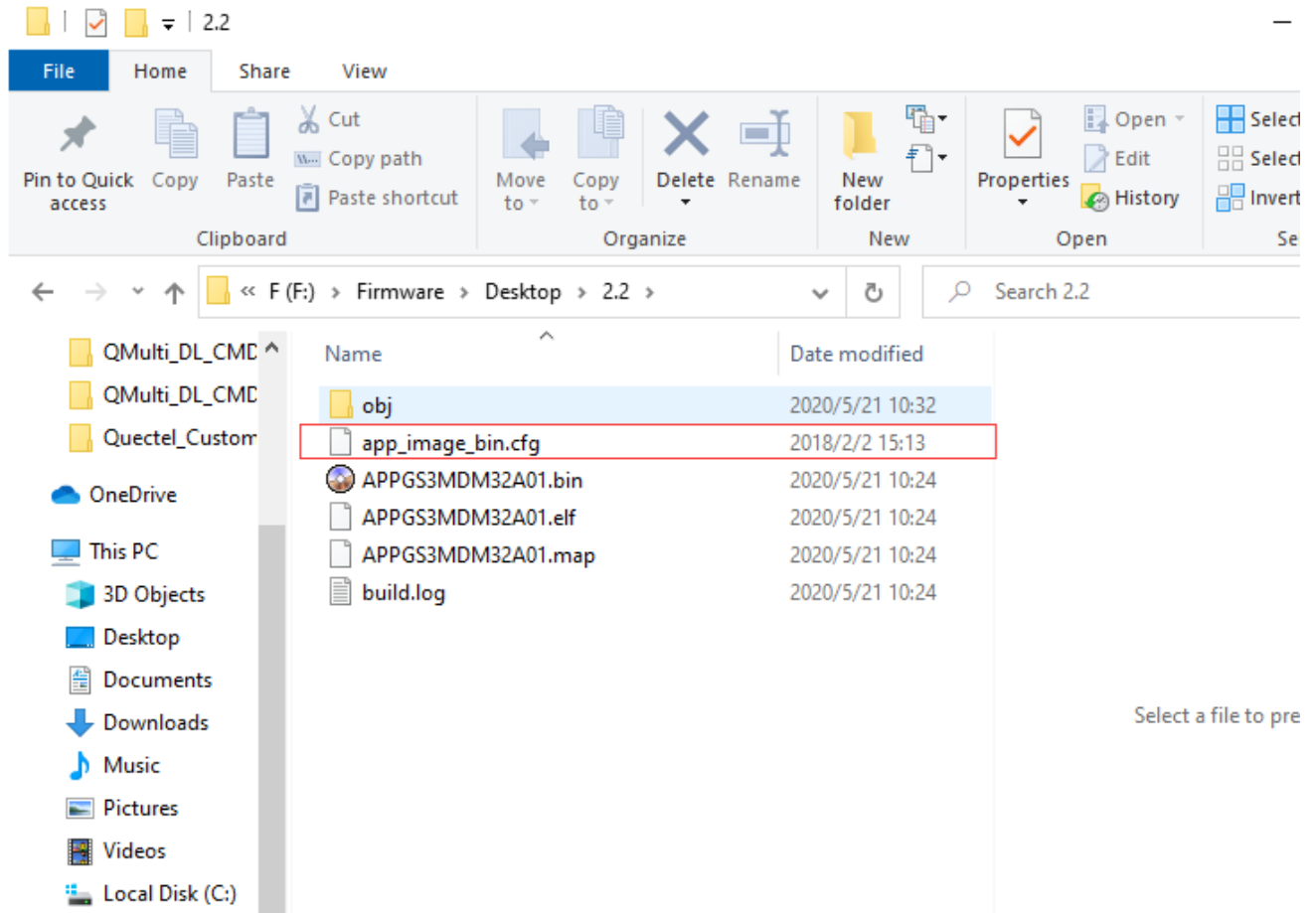


Figure 8: M66 QuecOpen Firmware File

**NOTE**

Before upgrading M66 QuecOpen firmware, set “**OCPU\_Name**” parameter at 6 in *Multi\_Config.ini*. For details, see **Chapter 2.1**.

## 2.5. Upgrade Firmware

**Step 1:** Open the terminal on the system and input the following command.

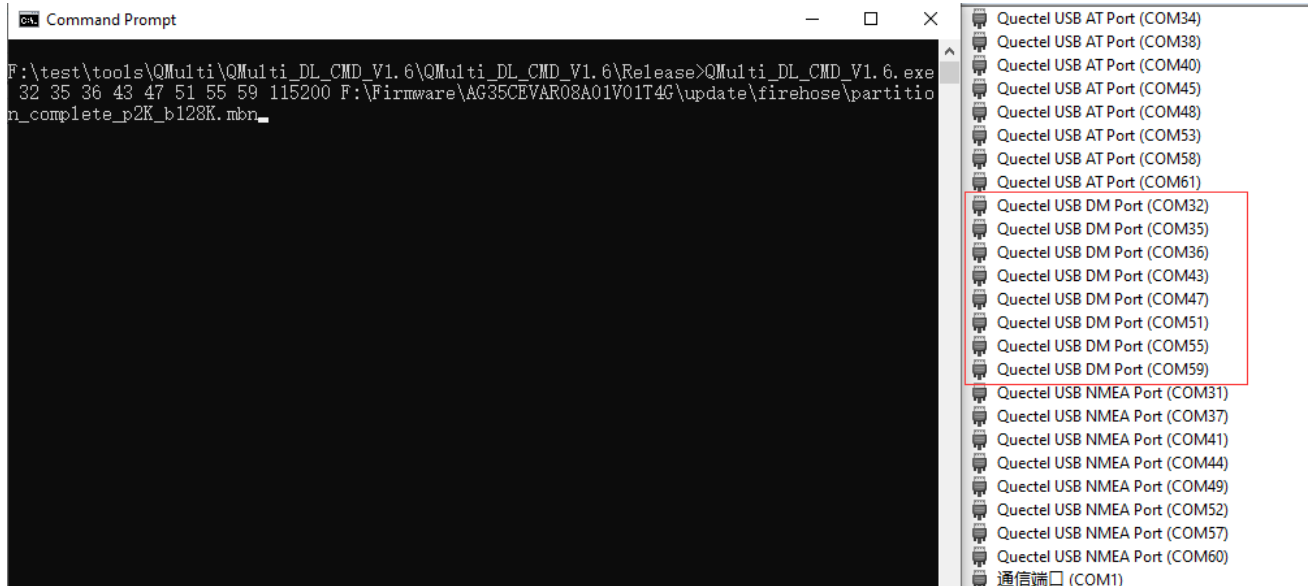


Figure 9: Command for Firmware Upgrade

**Step 2:** Press the Enter key to execute command and wait for download to succeed.

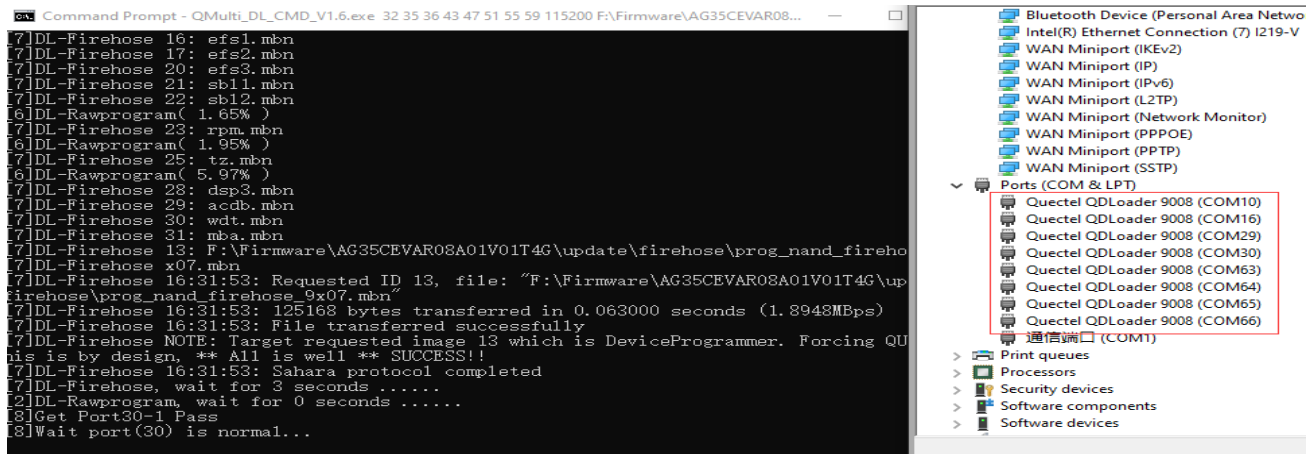
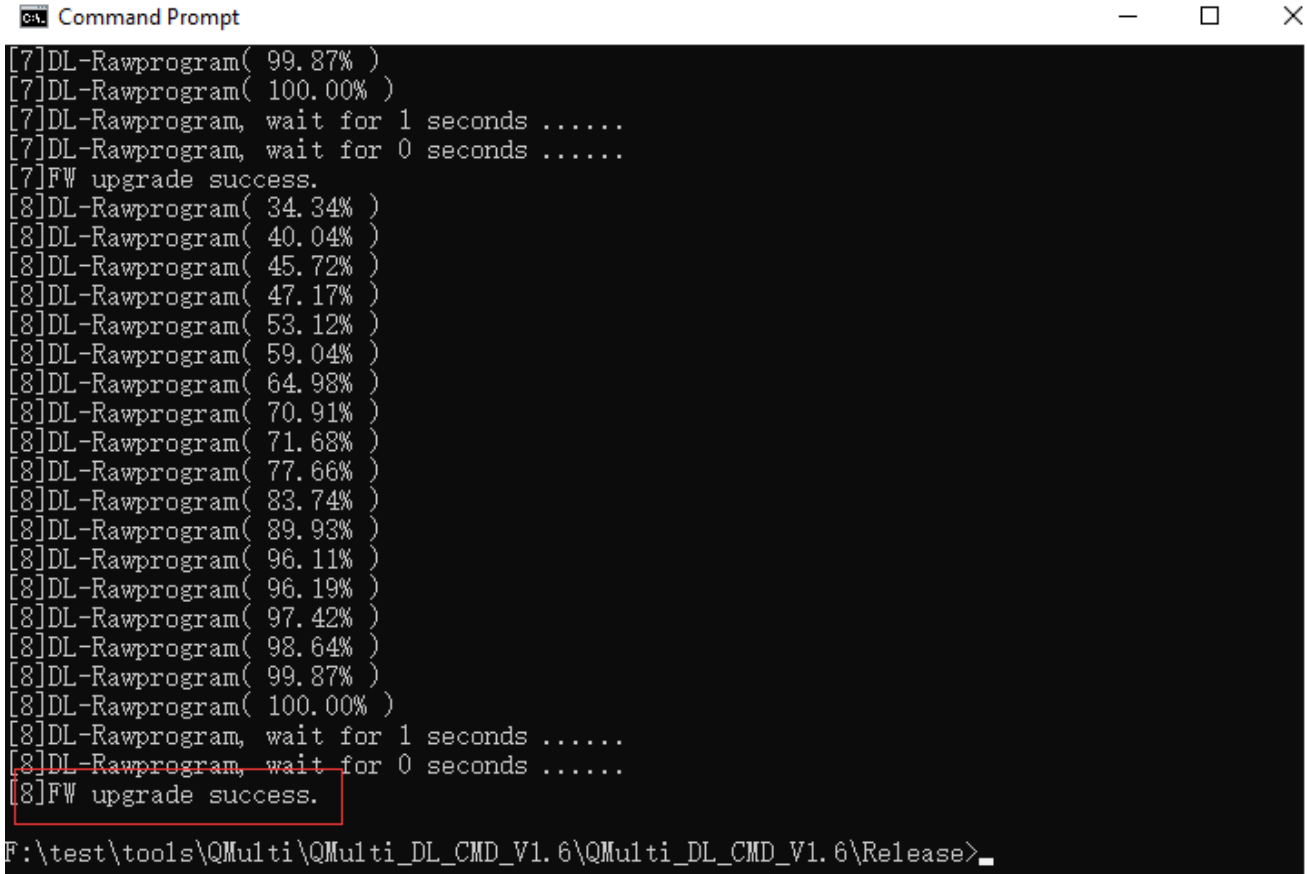


Figure 10: Upgrade Process



```
ca. Command Prompt
[7]DL-Rawprogram( 99.87% )
[7]DL-Rawprogram( 100.00% )
[7]DL-Rawprogram, wait for 1 seconds .....
[7]DL-Rawprogram, wait for 0 seconds .....
[7]FW upgrade success.
[8]DL-Rawprogram( 34.34% )
[8]DL-Rawprogram( 40.04% )
[8]DL-Rawprogram( 45.72% )
[8]DL-Rawprogram( 47.17% )
[8]DL-Rawprogram( 53.12% )
[8]DL-Rawprogram( 59.04% )
[8]DL-Rawprogram( 64.98% )
[8]DL-Rawprogram( 70.91% )
[8]DL-Rawprogram( 71.68% )
[8]DL-Rawprogram( 77.66% )
[8]DL-Rawprogram( 83.74% )
[8]DL-Rawprogram( 89.93% )
[8]DL-Rawprogram( 96.11% )
[8]DL-Rawprogram( 96.19% )
[8]DL-Rawprogram( 97.42% )
[8]DL-Rawprogram( 98.64% )
[8]DL-Rawprogram( 99.87% )
[8]DL-Rawprogram( 100.00% )
[8]DL-Rawprogram, wait for 1 seconds .....
[8]DL-Rawprogram, wait for 0 seconds .....
[8]FW upgrade success.
F:\test\tools\QMulti\QMulti_DL_CMD_V1.6\QMulti_DL_CMD_V1.6\Release>
```

Figure 11: Upgrade Success

**NOTES**

1. For MC60, when it prompts “**Waiting (Module Power On Reset)**”, restart the module manually.
2. For BC66, when it prompts “[**INFO**]Start connect with target,Please reset DUT...”, restart the module manually.
3. For BC95-G module, when it prompts “**Reset**”, restart the module manually.