

QMulti DL User Guide

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About the Document

Revision History

Version	Date	Author	Description
1.0	2020-07-01	Kidd CHEN	Initial
1.1	2020-07-21	Kidd CHEN	Updated the tool version to V1.5
1.2	2020-09-02	Anne QIU	Updated the tool version to V1.6
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1.6	2020-11-20	Kitty WANG	Updated the tool version to V2.0
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1.8	2021-06-18	Shirly WANG	Updated the tool version to V2.2
1.9	2022-04-29	Kitty WANG	<ol style="list-style-type: none">1. Updated the tool version to V2.42. Added the support for EC200U
2.0	2022-05-07	Kitty WANG	<ol style="list-style-type: none">1. Updated the tool version to V2.52. Added the support for EC200A Series
2.1	2022-05-25	Nadia GAO	Updated the tool version to V2.6
2.2	2022-12-20	Cherry Zhao	<ol style="list-style-type: none">1. Updated the tool version to V2.92. Deleted EOL module EC200T3. Omitted the model suffixes of module names that contain 3 digits.4. Added tool Registration and Authentication information (Chapter 1.2).
2.3	2023-05-04	Cherry Zhao	<ol style="list-style-type: none">1. Updated the tool version to V3.02. Added the support for EG060W

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1 Introduction

QMulti DL is a multi-port firmware upgrade tool developed by Quectel. It features automatic identification of firmware download ports.

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

1.1. Operating System

The tool can run on a PC without actual installation, if the PC runs one of the following operating systems.

- Windows 7
- Windows 10

NOTE

1. Right-click on the executable file of the toolkit and select **“Run as administrator”** to run the tool.
2. The storage path of the tool and the firmware package should NOT contain any space. Choose English characters for the storage path.
3. The storage/loading path of the firmware package has to be a local path instead of a USB device path or a network path.

1.2. Registration and Authentication

When you run the tool for the first time, you have to register and authenticate to ensure the normal use of the tool. When the prompt window as shown below pops up, copy and send the “Information Code” to Quectel Technical Support (support@quectel.com) to apply for the “License Code”, and then input the “License Code” and click **“OK”** to complete authentication.

Please Register

Information Code
DE104F8A12E2ABE5AC95619702730262E960937EB52E8881A48F70AA942AB3BB0DD8260748A208A5C776B5D2BC17719CEDA97173

License Code

QUECTEL OK Cancel

Figure 1: Registration and Authentication

1.3. Applicable Modules

QMulti DL is applicable to the following Quectel modules.

Table 1: Applicable Modules

Product Line	Module
LTE-A	EG060W
	EC200A
LTE Standard	EC200S
	EC200U
Smart	SC20

NOTE

Quectel modules listed above may include only a single model or multiple models. See the corresponding module specifications for more specific information.

2 Firmware Upgrade Procedures

Firmware upgrade procedures with QMulti DL tool are illustrated below.

Table 2: Firmware Upgrade Procedures

SN	Description	Comment
1	Check Table 3 to confirm the firmware file(s) to be downloaded to modules, then run the tool and click the “ Load FW Files ” button to load the corresponding file as illustrated in Figure 3 .	The storage path of the tool and the firmware package should NOT contain any space. Choose English characters for the storage path.
2	Power on the module. When the firmware download port is loaded normally and the correct firmware file is loaded, the tool will automatically identify the firmware download port (Figure 2).	Some modules should be powered on only after the tool runs. See the “Comment” column in Table 4 for details.
3	Start firmware upgrade.	<ul style="list-style-type: none"> ● Automatic Upgrade: Once “Auto All” option (Figure 6) is checked, the tool automatically starts firmware upgrade after the previous steps are completed successfully. ● Manual Upgrade: Click “Start” buttons (Figure 4) one by one or click the “Start All” button (Figure 5) directly to start firmware upgrade manually.
4	Firmware upgrade completes.	As shown in Figure 7 , when the tool prompts “FW upgrade success”, the firmware is upgraded successfully.

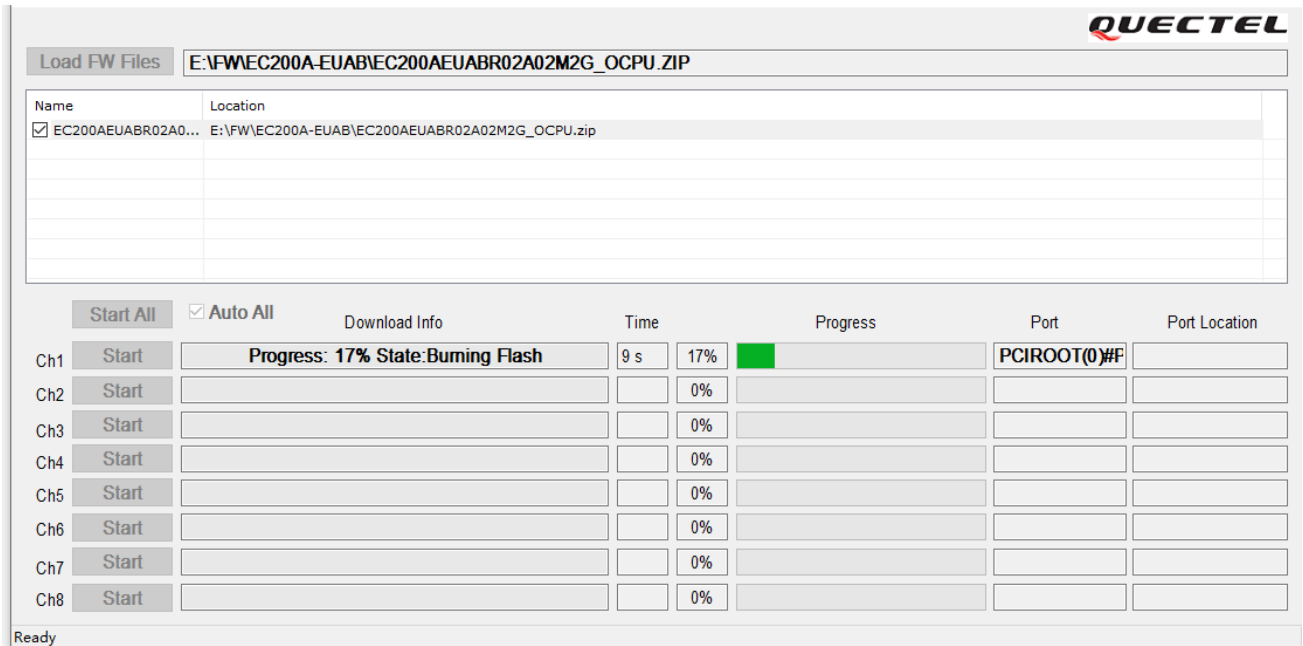


Figure 2: Identify Firmware Download Port Automatically

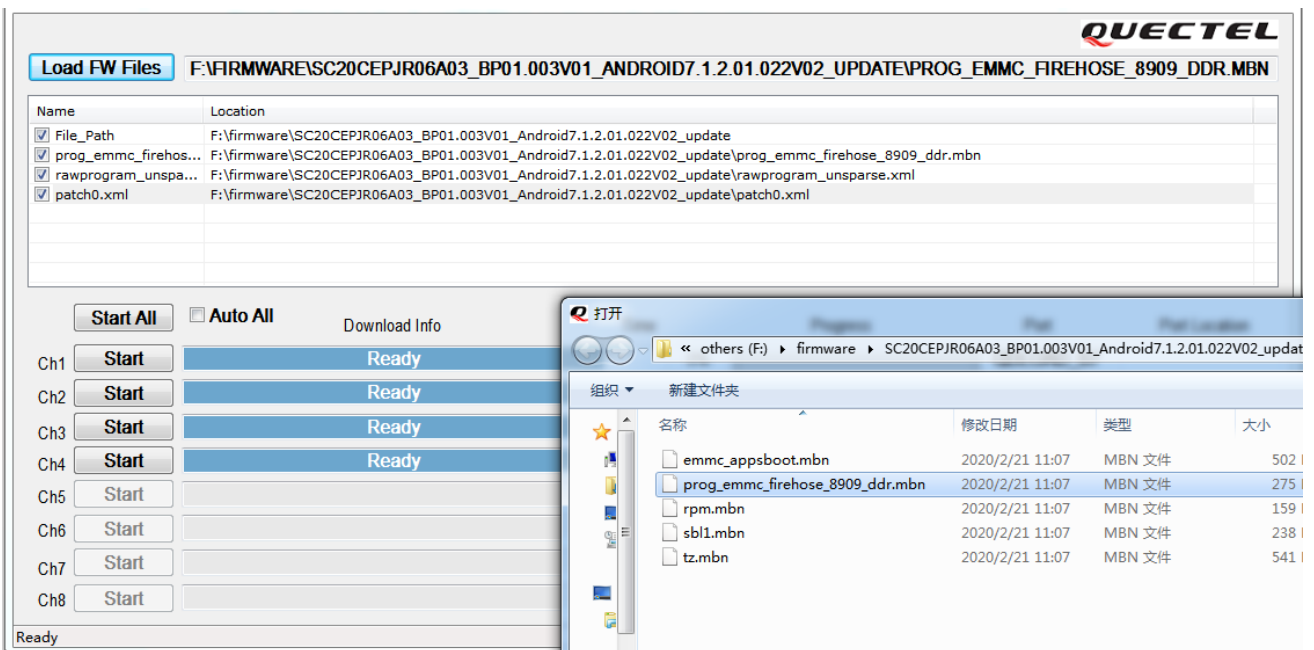


Figure 3: Select the Firmware File to Be Downloaded

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Load FW Files **F:\FIRMWARE\SC20CEPJR06A03_BP01.003V01_ANDROID7.1.2.01.022V02_UPDATE\PROG_EMMC_FIREHOSE_8909_DDR.MBN**

Name	Location
<input checked="" type="checkbox"/> File_Path	F:\firmware\SC20CEPJR06A03_BP01.003V01_Android7.1.2.01.022V02_update
<input checked="" type="checkbox"/> prog_emmc_firehos...	F:\firmware\SC20CEPJR06A03_BP01.003V01_Android7.1.2.01.022V02_update\prog_emmc_firehose_8909_ddr.mbn
<input checked="" type="checkbox"/> rawprogram_unspa...	F:\firmware\SC20CEPJR06A03_BP01.003V01_Android7.1.2.01.022V02_update\rawprogram_unsparse.xml
<input checked="" type="checkbox"/> patch0.xml	F:\firmware\SC20CEPJR06A03_BP01.003V01_Android7.1.2.01.022V02_update\patch0.xml

Auto All

	Download Info	Time	Progress	Port	Port Location
Ch1	<input type="button" value="Start"/> DL-Rawprogram(11.09%), percent files transferr	34 s	26%	QDLOAD_70	
Ch2	<input type="button" value="Start"/> Download rawprogram file	28 s	20%	QDLOAD_68	
Ch3	<input type="button" value="Start"/> Ready		0%	DIAG_129	
Ch4	<input type="button" value="Start"/> Ready		0%	DIAG_142	
Ch5	<input type="button" value="Start"/>		0%		
Ch6	<input type="button" value="Start"/>		0%		
Ch7	<input type="button" value="Start"/>		0%		
Ch8	<input type="button" value="Start"/>		0%		

Ready

Figure 4: Click “Start” Buttons One by One to Upgrade Manually

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Load FW Files **F:\FIRMWARE\SC20CEPJR06A03_BP01.003V01_ANDROID7.1.2.01.022V02_UPDATE\PROG_EMMC_FIREHOSE_8909_DDR.MBN**

Name	Location
<input checked="" type="checkbox"/> File_Path	F:\firmware\SC20CEPJR06A03_BP01.003V01_Android7.1.2.01.022V02_update
<input checked="" type="checkbox"/> prog_emmc_firehos...	F:\firmware\SC20CEPJR06A03_BP01.003V01_Android7.1.2.01.022V02_update\prog_emmc_firehose_8909_ddr.mbn
<input checked="" type="checkbox"/> rawprogram_unspa...	F:\firmware\SC20CEPJR06A03_BP01.003V01_Android7.1.2.01.022V02_update\rawprogram_unsparse.xml
<input checked="" type="checkbox"/> patch0.xml	F:\firmware\SC20CEPJR06A03_BP01.003V01_Android7.1.2.01.022V02_update\patch0.xml

Auto All

	Download Info	Time	Progress	Port	Port Location
Ch1	<input type="button" value="Start"/> DL-Rawprogram(5.56%), percent files transferr	34 s	23%	QDLOAD_67	
Ch2	<input type="button" value="Start"/> EDL port 68	34 s	10%	QDLOAD_68	
Ch3	<input type="button" value="Start"/> Download firehose file	34 s	10%	QDLOAD_129	
Ch4	<input type="button" value="Start"/> DL-Rawprogram(10.53%), percent files transferr	34 s	26%	QDLOAD_70	
Ch5	<input type="button" value="Start"/>		0%		
Ch6	<input type="button" value="Start"/>		0%		
Ch7	<input type="button" value="Start"/>		0%		
Ch8	<input type="button" value="Start"/>		0%		

Ready

Figure 5: Click “Start All” Button to Upgrade Manually

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Load FW Files F:\FIRMWARE\SC20CEPJR06A03_BP01.003V01_ANDROID7.1.2.01.022V02_UPDATE\PROG_EMMC_FIREHOSE_8909_DDR.MBN

Name	Location
<input checked="" type="checkbox"/> File_Path	F:\firmware\SC20CEPJR06A03_BP01.003V01_Android7.1.2.01.022V02_update
<input checked="" type="checkbox"/> prog_emmc_firehos...	F:\firmware\SC20CEPJR06A03_BP01.003V01_Android7.1.2.01.022V02_update\prog_emmc_firehose_8909_ddr.mbn
<input checked="" type="checkbox"/> rawprogram_unspa...	F:\firmware\SC20CEPJR06A03_BP01.003V01_Android7.1.2.01.022V02_update\rawprogram_unsparse.xml
<input checked="" type="checkbox"/> patch0.xml	F:\firmware\SC20CEPJR06A03_BP01.003V01_Android7.1.2.01.022V02_update\patch0.xml

Auto All

	Download Info	Time	Progress	Port	Port Location
Ch1	DL-Rawprogram(8.68%), percent files transfere	53 s	25%	QDLOAD_70	
Ch2	DL-Rawprogram(9.60%), percent files transfere	32 s	25%	QDLOAD_76	
Ch3	DL-Rawprogram(5.56%), percent files transfere	32 s	23%	QDLOAD_68	
Ch4	Download rawprogram file	32 s	20%	QDLOAD_67	
Ch5			0%		
Ch6			0%		
Ch7			0%		
Ch8			0%		

Ready

Figure 6: Check “Auto All” to Upgrade Automatically

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Load FW Files F:\FIRMWARE\SC20CEPJR06A03_BP01.003V01_ANDROID7.1.2.01.022V02_UPDATE\PROG_EMMC_FIREHOSE_8909_DDR.MBN

Name	Location
<input checked="" type="checkbox"/> File_Path	F:\firmware\SC20CEPJR06A03_BP01.003V01_Android7.1.2.01.022V02_update
<input checked="" type="checkbox"/> prog_emmc_firehos...	F:\firmware\SC20CEPJR06A03_BP01.003V01_Android7.1.2.01.022V02_update\prog_emmc_firehose_8909_ddr.mbn
<input checked="" type="checkbox"/> rawprogram_unspa...	F:\firmware\SC20CEPJR06A03_BP01.003V01_Android7.1.2.01.022V02_update\rawprogram_unsparse.xml
<input checked="" type="checkbox"/> patch0.xml	F:\firmware\SC20CEPJR06A03_BP01.003V01_Android7.1.2.01.022V02_update\patch0.xml

Auto All

	Download Info	Time	Progress	Port	Port Location
Ch1	FW upgrade success.	218 s	100%	QDLOAD_70	
Ch2	FW upgrade success.	200 s	100%	QDLOAD_76	
Ch3	FW upgrade success.	217 s	100%	QDLOAD_68	
Ch4	FW upgrade success.	171 s	100%	QDLOAD_67	
Ch5			0%		
Ch6			0%		
Ch7			0%		
Ch8			0%		

Ready

Figure 7: Successful Firmware Upgrade

3 Summary of Firmware Upgrade Information

3.1. Summary of Firmware File(s) to Be Downloaded

Table 3: Firmware File(s) to Be Downloaded

Product Line	Module	Firmware File(s)	Comment
LTE-A	EG060W	.zip file	
	EC200A	.zip file	
LTE Standard	EC200S	.zip file	
	EC200U	.pac file	
Smart	SC20	.mbn file	

3.2. Summary of Firmware Download Ports

Table 4: Firmware Download Ports

Product Line	Module	Firmware Download Ports	Comment
LTE-A	EG060W	Identifies Automatically	Make sure to run the tool first and then power up and turn on the modules. Only in this case, the tool can automatically load and identify the download port and upgrade firmware automatically.
	EC200A	Identifies Automatically	
LTE Standard	EC200S	Identifies Automatically	
	EC200U	Identifies Automatically	
Smart	SC20	Identifies Automatically	

3.3. Summary of Firmware Upgrade Methods

Table 5: Firmware Upgrade Methods

Product Line	Module	Upgrade Methods	Comment
LTE-A	EG060W	Automatically	"Auto All" will be checked automatically when the firmware files are loaded. And only "Auto All" mode is supported.
	EC200A	Automatically	
LTE Standard	EC200S	Automatically	
	EC200U	Manually or Automatically	
Smart	SC20	Manually or Automatically	