

GL53MG(Plus) Firmware Upgrade User Guide

GL53MGFTUGUM001

V1.01



Driving Smarter IoT

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History

	Revision	Date	Author	Description of Change
I	1.00	March 22, 2022	Mihoo Zhu	Initial
I	1.01	Nov 13,2024	Shirley zhou	optimization



1. Tool Introduction

Queclink_Firmware_Upgrade_Tool_MDM is a PC tool which can be used to upgrade firmware provided by Queclink.

1.1. System Requirements

The tool can run directly on a PC with no installation required and can run on all Windows operating systems. You will receive a notification when there is an upgrade of this tool by Queclink.





2. Upgrade Preparation

Get the following list of items ready:

Name	Picture	Use
GL53MG(Plus) Locator	A STORE OF THE S	
USB Cable 0.5M		1. Upgrade firmware Driver: Driver_qud.win.1.1_instal ler_x.x
UART Cable 0.5M		1. Configure the device with Manage Tool Driver: PL2303_Prolific_DriverIn staller_Vxx

Table 1: Device List



3. Firmware Upgrade

3.1. Upgrade Baseband and Modem Firmware

3.1.1. Prepare

	Name
Cable	GL53MG USB Data Cable
File	FULL package
Tools	Queclink_Firmware_Upgrade_Tool_MDM_Vx.xx

3.1.2. Step

Install **Driver_qud.win.1.1_installer_x.x** for the USB cable before upgrading the firmware with the tool.



Figure 1: USB cable connect with device

Note: Make sure the USB cable is connected to the PC before the upgrade.

Step 1

Open Queclink_Firmware_Upgrade_Tool_MDM_Vx.xx.exe. Click Load FW Files and select qld.cfg file in GL53MGR00AxxVxxM512_FULL folder.

Step 2

For **Option**, you can choose whether to clear user data.



Step 3

Select Start.

Step 4

Wait for the firmware upgrade to succeed.

P1.Load the qld.cfg file	2.Choose whether to clear user	data
Static		
Comm Mathadi Upp		
Load FW Files Comm Method: USB	Option: Upgrade FW and Clear User Data	
Reboot After Downloading Note: If	f load software with xqcn, this Item will not work.	
lame Lo	rcation	-
sbl1.mbn C:	\Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\sbl1.mbn	
partition_complete_p2K_b128K.mbn C:\	\Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\partition_co	mplete_(
dsp6sw_paging.bin C:	\Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\qdsp6sw_pa	aging.bin
dgsp6sw.mbn C:	\Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\qdsp6sw.mb	on 🗉
dsp6sw_2.mbn C:	\Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\qdsp6sw_2.	mbn
tz.mbn C:\	\Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\tz.mbn	
/ rpm.mbn C:\	\Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\rpm.mbn	
devcfg.mbn C:\	\Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\devcfg.mbn	
tz_devcfg_fota.mbn C:\	\Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\tz_devcfa_fi	ota mhn
		ocarmon
apps.mbn C:\	Users/Dirk/Desktop/Mihoo/GL53MGR00A04V05M512_FULL/apps.mbn	•
apps.mbn C:1	Users/Dirk/Desktop/Mihoo/GL53MGR00A04V05M512_FULL\apps.mbn	•
Z apps.mbn C:1	Users/Dirk/Desktop/Mihoo/GL53MGR00A04V05M512_FULL\apps.mbn	
apps.mbn C:1	Users/Dirk/Desktop/Mihoo/GL53MGR00A04V05M512_FULL\apps.mbn	66 s
apps.mbn C:1	Users/Dirk/Desktop/Mihoo/GL53MGR00A04V05M512_FULL\apps.mbn	66 s
apps.mbn C:1	Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\apps.mbn	66 s
apps.mbn C:1	Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\apps.mbn	66 s
apps.mbn C:1	Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\apps.mbn	66 s
apps.mbn C:1	Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\apps.mbn	66 s
apps.mbn C:1	Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\apps.mbn	66 s
apps.mbn C:1	3.Click start Exit	66 s
apps.mbn C:1	3.Click start Exit	66 s
apps.mbn C:1	Society (Dirk/Desktop/Mihoo/GL53MGR00A04V05M512_FULL/apps.mbn	66 s
apps.mbn C:1	Goshofield (Coshofield of the coshofield of	66 s
apps.mbn C:1	Jusers/Dirk/Desktop/Mihoo/GL53MGR00A04V05M512_FULL/apps.mbn Mihoo/GL53MGR00A04V05M512_FULL/apps.mbn Exit Figure 2: Basic setting 04V05M512 2022/3/18 10:16	66 s
apps.mbn C:1	Jusers/Dirk/Desktop/Mihoo/GL53MGR00A04V05M512_FULL/apps.mbn 3.Click start Exit Figure 2: Basic setting 04V05M512 2022/3/18 10:16 2022/3/18 10:15	66 s

Figure 3: Load Firmware File



p		
Static		
Load FW Files Comm Method: Us	SB v Option: Upgrade FW and Clear User Data v	
Reboot After Downloading Not	e: If load software with xqcn, this Item will not work.	
Name	Location	
sbl1.mbn	C:\Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\sbl1.mbn	
partition_complete_p2K_b128K.mbn	C:\Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\partition_comple	te_i
🗹 qdsp6sw_paging.bin	C:\Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\qdsp6sw_paging	.bin
🗹 qdsp6sw.mbn	C:\Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\qdsp6sw.mbn	
🗹 qdsp6sw_2.mbn	C:\Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\qdsp6sw_2.mbn	
🗹 tz.mbn	C:\Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\tz.mbn	
🗹 rpm.mbn	C:\Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\rpm.mbn	
🗹 devcfg.mbn	C:\Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\devcfg.mbn	
tz_devcfg_fota.mbn	C:\Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\tz_devcfg_fota.r	mbn
🗹 apps.mbn	C:\Users\Dirk\Desktop\Mihoo\GL53MGR00A04V05M512_FULL\apps.mbn	
PASS, FW upgrade success	sfully!:100.00%	66 :
,	*	
Start	Exit	
otart		

Figure 4: Upgrade success



3.2. Upgrade Baseband Firmware Only

3.2.1. Prepare

	Name
Cable	GL53MG USB Data Cable
File	UPD package
Tools	Queclink_Firmware_Upgrade_Tool_MDM_Vx.xx

3.2.2. Step

Install **Driver_qud.win.1.1_installer_x.x** for the USB cable before upgrading the firmware with the tool.



Figure 5: USB cable connect with device

Note: Make sure the USB cable is connected to the PC before the upgrade.

Step 1

Open Queclink_Firmware_Upgrade_Tool_MDM_Vx.xx.exe. Click Load FW Files and select qld.cfg file in GL53MGR00AxxVxxM512 folder.

Step 2

For **Option**, you can choose whether to clear user data.

Step 3 Select Start.

Step 4



Wait for the firmware upgrade to succeed.

🥝 Queclink_Firmware_Upgrade	e_Tool_MDM_V2.12	-	
Help 1.Load the	qld.cfg file 2 Choose whether to	clear user da	ta
Static		cieai usei ua	la
	• • • • • • • • • • • • • • • • • • •		
Load FW Files	Comm Method: USB Option: Don't clear user data	~	
Name	Location		
✓ qtracker.bin ✓ oem app path.in	c:\Users\sqs2\Desktop\GL53MGR00A09V36M512\qtracker.bin c:\Users\sqs2\Desktop\GL53MGR00A09V36M512\oem_app_path	ı.ini	
putilities			
<			>
Load Files Successf	fully!		0 s
	Start 3.Click start	Exit	
	Figure 6: Basic setting		
	dtracker.bg 2024/9/23	10:10	
	Figure 7: Load Firmware File		
	-		



Load FW Files C	omm Method: USB	Option: Don't clear	user data	~	
me	Location				
qtracker.bin oem_app_path.ini	C:\Users\sqs2\Deskto C:\Users\sqs2\Deskto	p\GL53MGR00A09V36M51; p\GL53MGR00A09V36M51;	2\qtracker.bin 2\oem_app_path.ini		
					>
SS, FW upgrade su	ccessfully!				41 s
ISS, FW upgrade su	ccessfully!				41 s





3.3. Upgrade MCU Firmware

3.3.1. Prepare

	Name
Cable	GL53MG USB Data Cable
File	UPD package
Tools	Queclink_MCU_Firmware_Upgrade_Tool_GBL_Vx.xx

3.3.2. Step

Install **Driver_qud.win.1.1_installer_x.x** for the USB cable before upgrading the firmware with the tool.



Figure 9: USB cable connect with device

Note: Make sure the USB cable is connected to the PC before the upgrade.

Step 1

Open Queclink_MCU_Firmware_Upgrade_Tool_GBL_Vx.xx.exe. Select Load FW Files, then choose the upd.gbl file in Firmware Image folder.

Step 2

Select Start.

Step 4

Wait for the firmware upgrade to succeed.



	ool_GBL_V1.01		
Static			
Load FW Files COM Port:	USB 👻		
Name	Location		
GL53MG_McuR12V4.04_upd.gbl	C:\Users\Dirk\Desktop\Mihoo\GL	53MG_McuR12V4.04\GL53MG_McuR	12V4.04_upd.gb
			Þ
Load Files Successfully!			0 s
Start	3.Click start	Exit	1
Start	3.Click start	Exit	
Start	Figure 10: Basic sett	Exit]
Start	Figure 10: Basic sett	Exit]
Start	Figure 10: Basic sett	Exit]
Start	Figure 10: Basic sett	Exit]
Start	Figure 10: Basic sett	Exit ing 2022/7/28 10:49	
Start GL53MG_M GL53MG_M	Figure 10: Basic sett	Exit ing 2022/7/28 10:49 2022/7/28 10:54	
Start GL53MG_M GL53MG_M GL53MG_M	4 3.Click start Figure 10: Basic sett 4cuR12V4.04.bin 4cuR12V4.04_upd.gbl	Exit ing 2022/7/28 10:49 2022/7/28 10:54 2022/7/28 10:54	

Figure 11: Load Firmware File



Static Load FW Files	COM Port: USB	~			
Name V GL53MG_McuR12V4.2	Location C:\Users\sqs2\Desktop\GL53MG_McuR12V4.25\GL53MG_McuR12V4.25.gbl				
					;
PASS, FW upgrade success	sful!				113 s
		•			

Figure 12:Upgrade success



120 s

4. Troubleshooting

4.1. Port Error

Search Com Port Fail!.

Ports (COM & LPT)
 Qualcomm HS-USB Diagnostics 90B2 (COM4)

Figure 13: The USB port is not available

Note: We suggest to operate only one device for upgrade; when multiple devices are together, the serial port may not work.

4.2. Caution

- a) If the USB port keeps disconnecting while downloading the firmware, the upgrade tool will stop downloading and prompt Download Fail in seconds. In this case, please disconnect the external power supply, reconnect and try again.
- b) If the upgrade tool is closed while downloading the firmware, open the upgrade tool but an error message will appear. In this case, please disconnect the external power supply, reconnect and try again.
- c) If other unexpected errors occur, please disconnect the external power supply, reconnect and try again.
- d) Because the upgrade cable is charged, we recommend to turn off the internal battery switch during the upgrading.