

MasterBIOS Tool (used to generate Master BIOS having customized settings)

Support for KTQM67, KTQM77, KTHM65, KTHM76, KTQ67 and KTQ77.

The MasterBIOS Tool is a collection of files:

Bf.exe, Default.exe, MakeMast.bat, MBUpd.bat, MBUpdRec.bat and RdMast80.bat.

These files are used to generate a MastBIOS.rom file on a Master System and to flash the MastBIOS.rom to target systems.

Notes:

Command included in bat files:

RdMast80.bat: bf read MastSett.rom 0 800000

MBUpd.bat: bf safewrite MastBIOS.rom fullupdate

MBUpdRec.bat: bf safewrite MastBIOS.rom fullupdate recovery

MakeMast.bat: defaults.exe KTQM7714.bin MastSett.rom MastBIOS.rom

The KTQM7714.bin is an example of original BIOS (still not customized) and it could have any type of file name and extension name, so KTQM7714.rom or MyBIOS01.001 will also do as long as the name is max 8 characters and the extension is 3 characters. In other words, you decide what original BIOS you want for the actual project and then you can rename it almost as you prefer, but please modify the MakeMast.bat file in accordingly.

It is recommended to rename MastBIOS.rom, MBUpd.bat and MBUpdRec.bat to prevent mistakes in case you are using more than one MastBIOS.

Master BIOS generation on master system

The implementation of a Master BIOS is implemented in several steps:

1. Prepare a DOS bootable USB stick etc.
2. Load bf.exe and RdMast80.bat to the USB stick
3. Make a Master System with the requested settings.
4. On the Master System, boot to DOS and execute RdMast80.bat

MastSett.rom is generated.

5. On any Windows (32b) system:

5.1 Copy MastSett.rom, Defaults.exe, original BIOS like KTQM7714.bin and MakeMast.bat to the same directory.

- 5.2 Execute the MakeMast.bat

MastBIOS.rom is generated.

Master BIOS flashing to target system

On the target system the MastBIOS.rom can be flashed by MBUpd.bat (Master BIOS Update Default) and MBUpdRec.bat (Master BIOS Update Recovery).

Prepare DOS bootable device (typically USB stick) with access to the files included in the BIOS package. Make sure the bat files are modified to match the final name of the Master BIOS (MastBIOS.rom).

Upgrade Default BIOS.

1. Connect the DOS bootable device.
2. Skip when KTHM65 or KTHM76, otherwise boot into BIOS and select BIOS settings:
Advanced / AMT configuration / Intel AMT = Enabled
Advanced / AMT configuration / Disable ME = Enabled
Save settings and Exit.
3. Boot into DOS and execute Upd.bat.
(If programming doesn't succeed then restart the procedure)
4. Completely power off the board (no Standby 5V)
5. Remove the Bootable device.
6. Turn on power and wait until the board has restarted a few times.
(With no bootable device (or PXE Boot) system automatically enter BIOS Menu)
7. Verify BIOS version is as expected.

Upgrade Recovery BIOS.

1. Connect the DOS bootable device.
2. Connect the "SPI Recovery Jumper"
3. Skip when KTHM65 or KTHM76, otherwise boot into BIOS and select BIOS settings:
Advanced / AMT configuration / Intel AMT = Enabled
Advanced / AMT configuration / Disable ME = Enabled
Save settings and Exit.
4. Boot into DOS and execute UpdRec.bat.
(If programming doesn't succeed then restart the procedure)
5. Completely power off the board (no Standby 5V)
6. Remove the Bootable device.
7. Turn on power and wait until the board has restarted a few times.
(With no bootable device (or PXE Boot) system automatically enter BIOS Menu)
8. Verify BIOS version is as expected.
9. Remove "SPI Recovery Jumper"

Upgrade Default and Recovery BIOS.

(For serial production).

1. Connect the DOS bootable device.
2. Skip when KTHM65 or KTHM76, otherwise boot into BIOS and select BIOS settings:
Advanced / AMT configuration / Intel AMT = Enabled
Advanced / AMT configuration / Disable ME = Enabled
Save settings and Exit.
3. Boot into DOS and execute Upd.bat.
(If programming doesn't succeed then restart the procedure)
4. Connect the "SPI Recovery Jumper"
5. Execute UpdRec.bat.
(If programming doesn't succeed then restart the procedure)
6. Remove "SPI Recovery Jumper"
7. Completely power off the board (no Standby 5V)
8. Remove the Bootable device.
9. Turn on power and wait until the board has restarted a few times.
(With no bootable device (or PXE Boot) system automatically enter BIOS Menu)
10. Verify BIOS version is as expected.

Note that if/when later the Recovery BIOS is selected for the first time it will restart a few times (4-5 times).