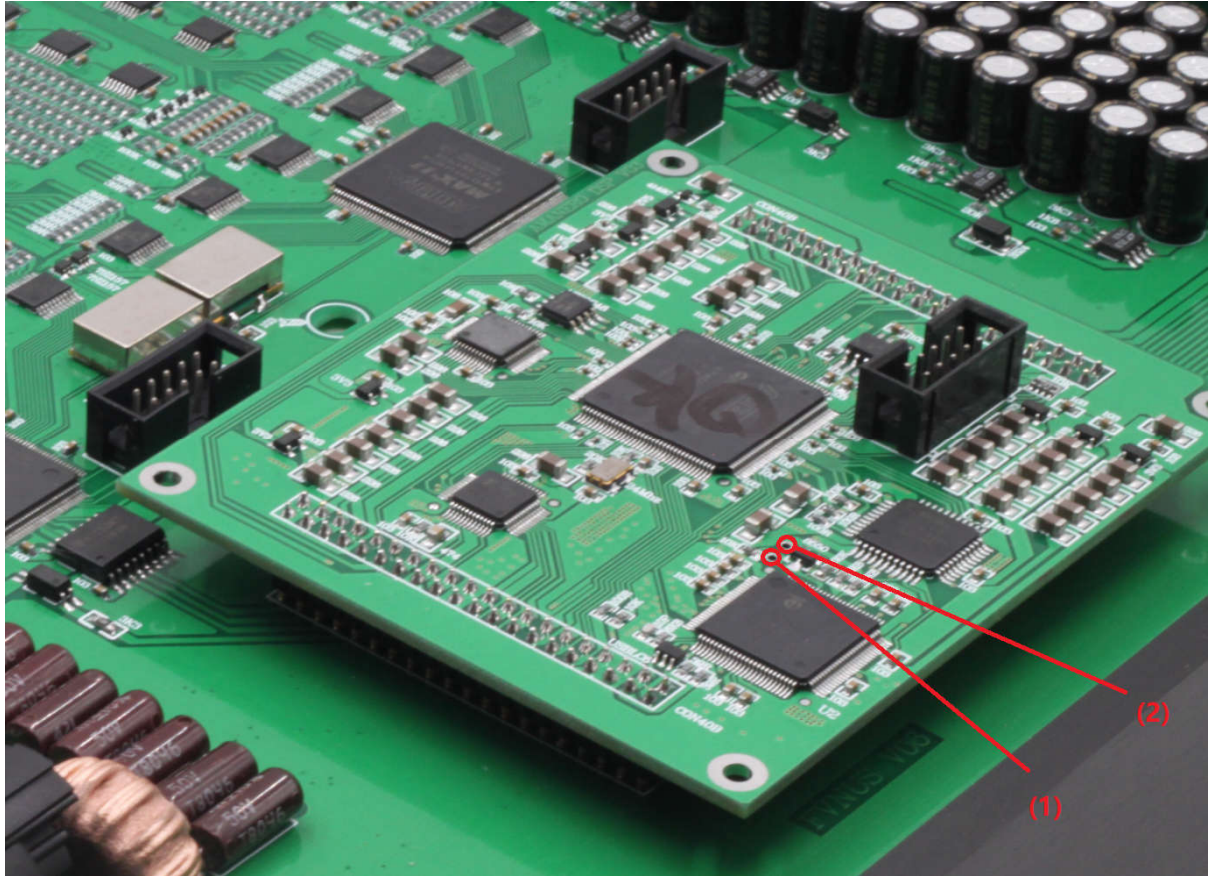


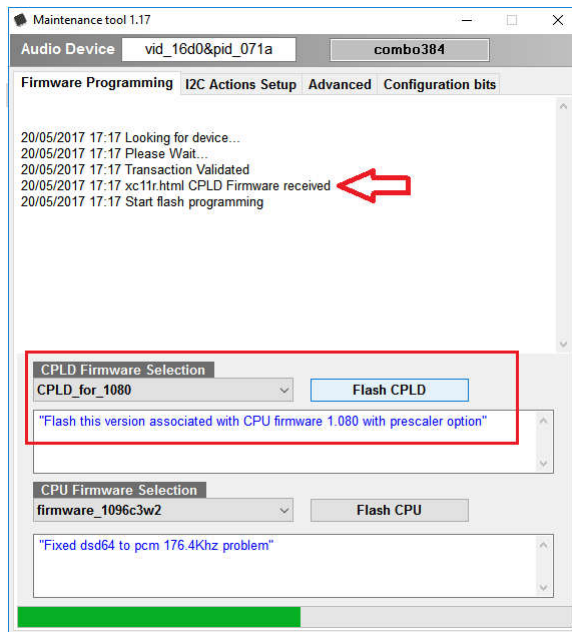
Procedure to update Amanero Firmware – 27th Oct 2017

WARNING: Users are advised to perform these steps with extreme care and cautions. Unforeseen / unfortunate short-circuit of other components may results in permeant damage of the DAC.



1. Install the Amanero Firmware Update Tool in a Windows 8/10 computer. Download Link: <https://amanero.com/oemtool117.zip>
2. Open the DAC metal cover, identify the two pin as above photo marked as pin (1) and (2)
3. Turn on the DAC, select USB input. Connect the DAC to a Windows 8/10 computer via USB cable. Make sure the computer is connected to internet.
4. **Erase the firmware:** Short the two holes by using a jumper cable to erase the firmware. Hold for one(1) second, remove the jumper.
5. Go to device manager of the Windows computer, check and verify Amanero USB serial port is detected (AT91 / Bossa Port). If Windows requested driver for the serial port, it can be found in the oemtool117 folder - atm6124_cdc

6. Make sure the windows computer is connected to internet. Launch oemtool117 – ConfigTool.exe
7. **Flash CPLD** – Select CPLD_for_1080, hold on, read step 8

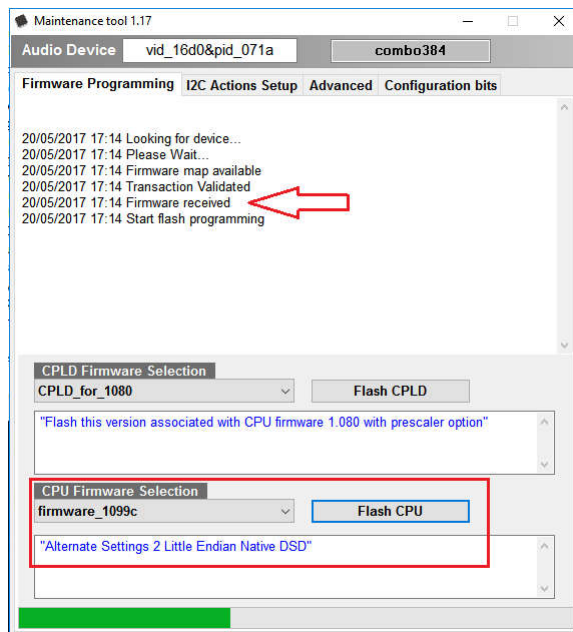


8. Now, it's the tricky part: use a jumper cable to short the two holes again. This is necessary to "validate the authorization" for firmware update. Select CPLD_for_1080, press the download button. When you see that the firmware successfully received, and "start flashing", remove the jumper immediately to allow the CPLD to be flashed into the Amanero board.
9. Wait for the download to complete. A "Done" status will be shown in oemtool117

Once CPLD flash successfully, we will need to flash the 1099c or later firmware. See next page.

IMPORTANT NOTE: Once CPLD is flashed successfully, you do not need to flash it again.

10. **Erase the firmware:** Short the two holes by using a jumper cable to erase the firmware. Hold for one(1) second, remove the jumper.
11. Go to device manager of the Windows computer, check and verify Amanero USB serial port is detected (AT91 / Bossa Port). If Windows requested driver for the serial port, it can be found in the oemtool117 folder - atm6124_cdc



12. Now, it's the tricky part: use a jumper cable to short the two holes again. This is necessary to "validate the authorization" for firmware update. Select 1099c firmware, press the download button. When you see that the firmware successfully received, and "start flashing", remove the jumper immediately to allow the firmware to be flashed into the Amanero board
13. Wait for the download to complete. A "Done" status will be shown in oemtool117
14. The windows computer should detect Amanero as a USB soundcard
15. Use windows test tone feature to test various sampling rate to verify the LED of the DAC reflect the correct sampling rate.
16. Bingo!