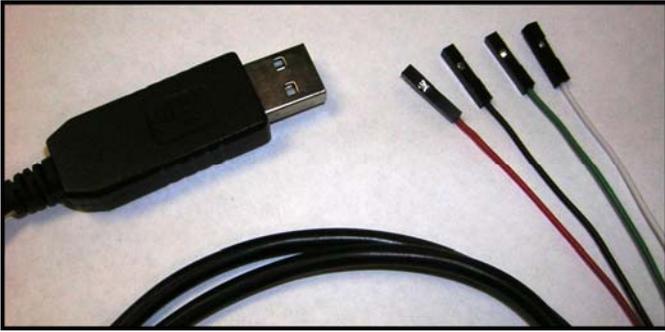


GEOSATpro microHD User Data Base Update (.udf) via Internal TTL Serial connection

09/06/2012

Requirements:

- PC (XP, Windows 7, etc.) with an open USB port
- ALI Editor software for GEOSATpro microHD
- Default User Data Base file (.udf)
- USB to TTL 4 pin, VCC +5, Conversion Cable
- Medium Phillips Head Screwdriver

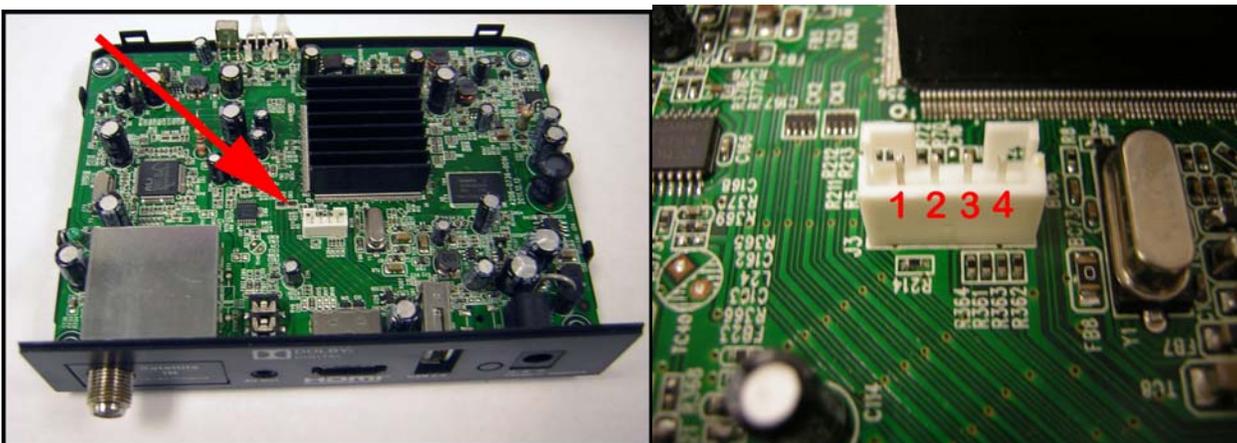


Example of the USB to TTL Cable

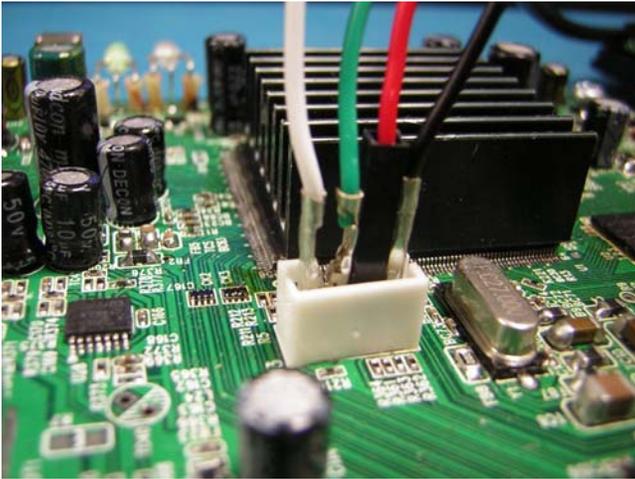
1. Download and Install ALI Editor on a PC
2. Disconnect the power plug from the DC IN jack on the rear panel of the microHD



3. Remove the two Phillips head screws from the bottom panel of the microHD
4. Gently lift forward and up to remove the microHD top case cover

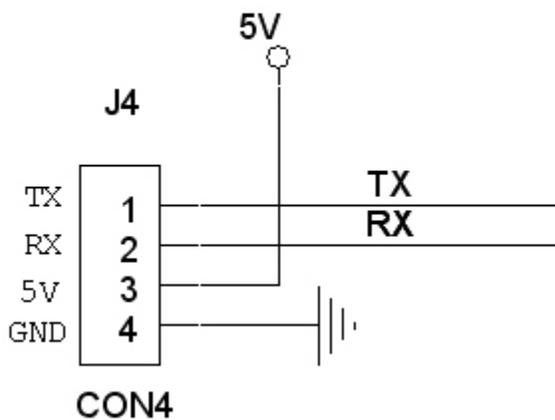


5. Locate the serial 4 pin header on the microHD main board and identify pins 1- 4

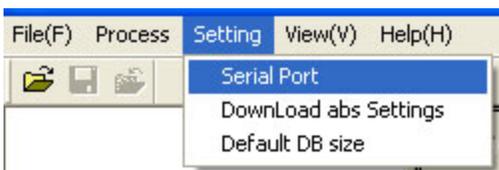


- White color wire - TX (Transmit) to Pin 1
- Green color wire - RX (Receive) to Pin 2
- Red color wire - VCC +5 to Pin 3
- Black color wire - Ground to Pin 4

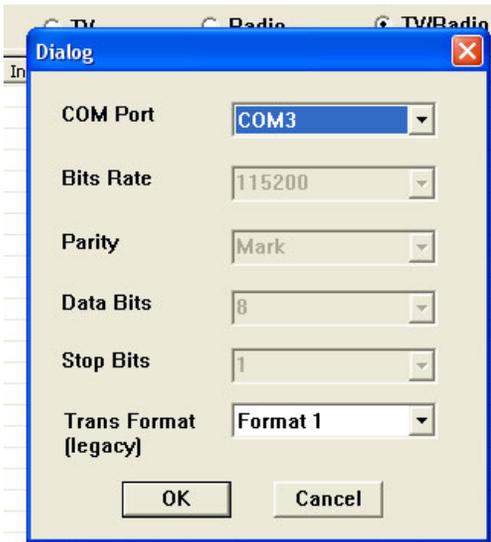
microHD Serial Port



6. Connect the White, Green, Red and Black connections of the USB / TTL converter cable to the microHD Plug the USB connector into the PC. If necessary, install the USB / Serial driver from the software provided with the USB / TTL converter cable
7. Identify the port that the USB/TTL converter cable is plugged into
8. Launch the ALI Editor software on the PC



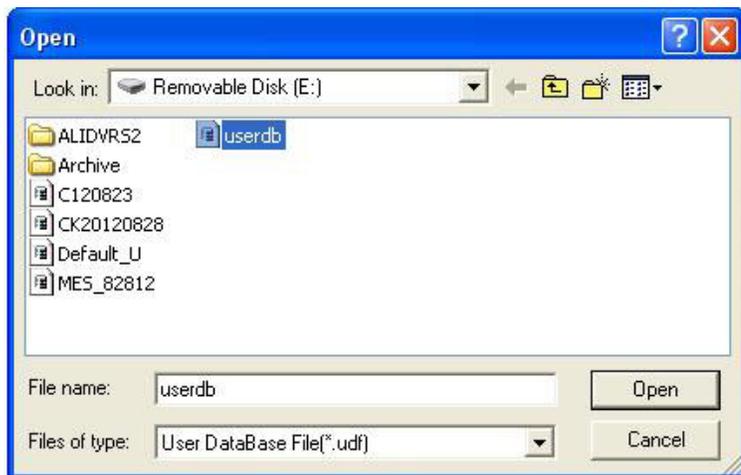
9. Select the Serial Port in the Setting Tab



10. Select the Com Port with the USB / TTL converter connected

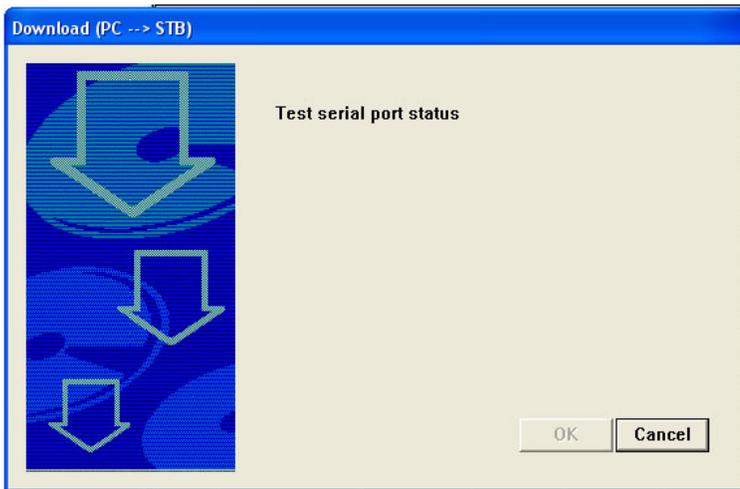


11. Select "DownLoad File (PC to STB)" Select File Type: udf

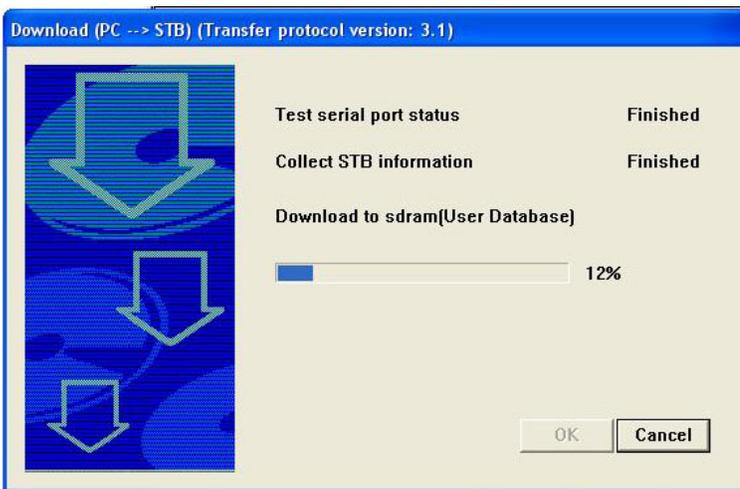


12. Select the most recent microHD .udf firmware file

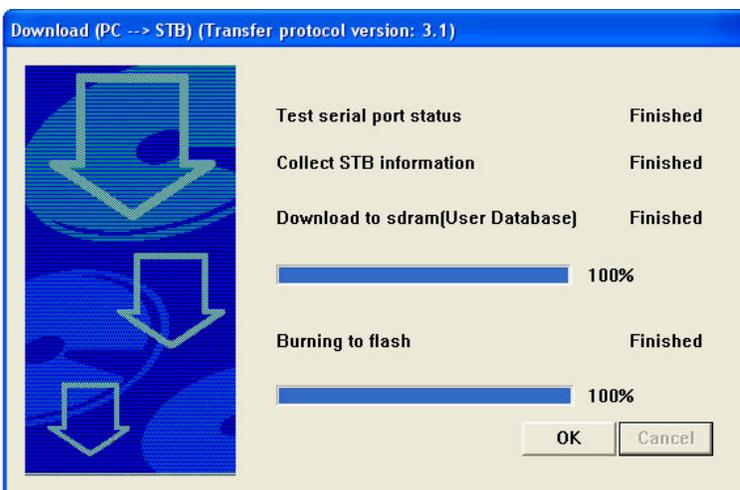
13. Press OPEN to start transfer process



14. The Serial link will be verified then the new .udf file will be transferred to the microHD



15. The file will Download to the STB



16. The file is burned to Flash. When the Flash Burn status is 100%, Press OK to complete the Update

17. Remove the USB from the PC

18. Remove the USB / TTL converter connections from the 4 pin header on the microHD PCB.

19. Install the microHD top case cover

20. Install the two Phillips head screws from the bottom panel of the microHD

21. Reconnect the power plug to the DC IN jack on the rear panel of the microHD

The User Data Base update is now complete