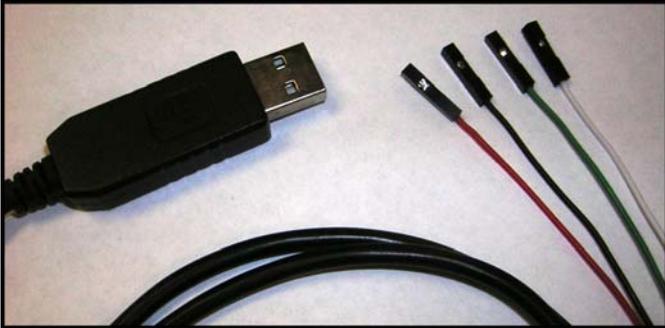


GEOSATpro microHD Firmware Update via Internal TTL Serial connection

08/24/2012

Requirements:

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

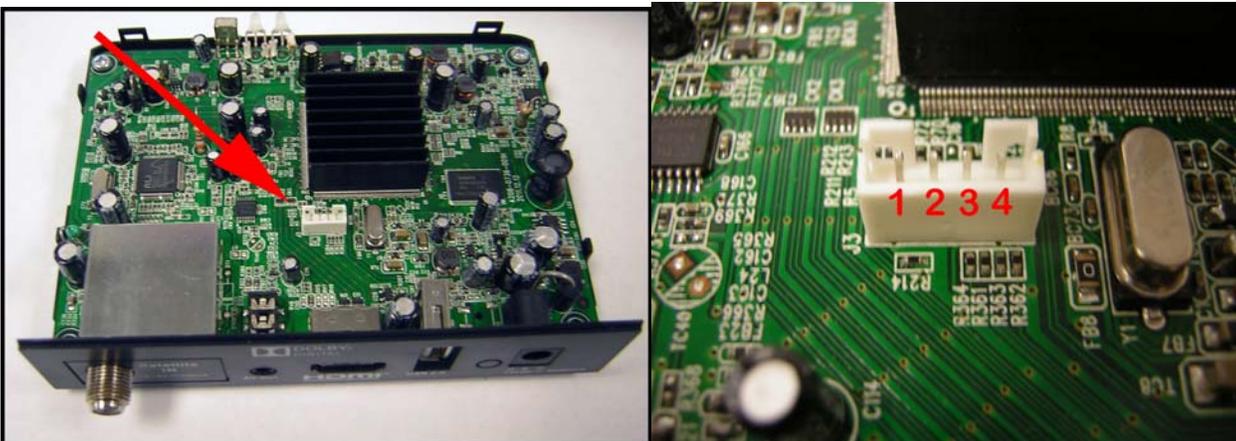


Example of the USB to TTL Cable

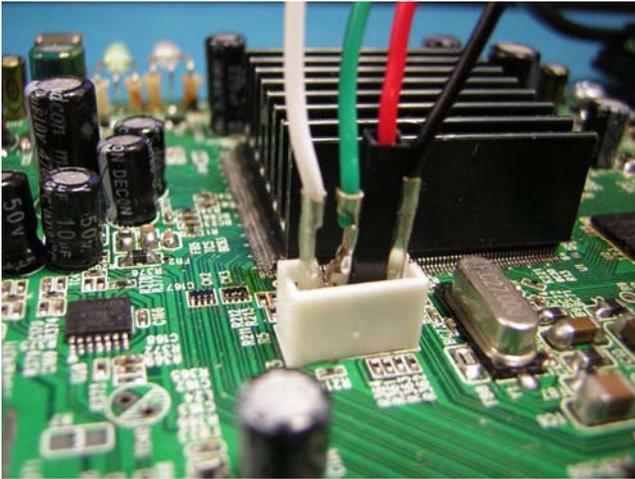
1. Download and Install ALI Editor on a PC
2. Disconnect the power plug from the DC IN jack on the rear panel of the microHD



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

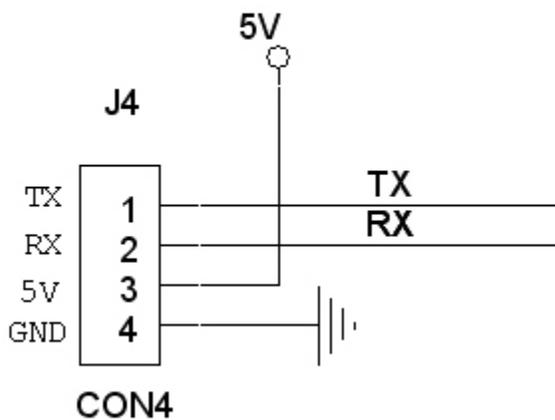


5. Locate the serial 4 pin header on the microHD main board and identify pins 1- 4



- 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

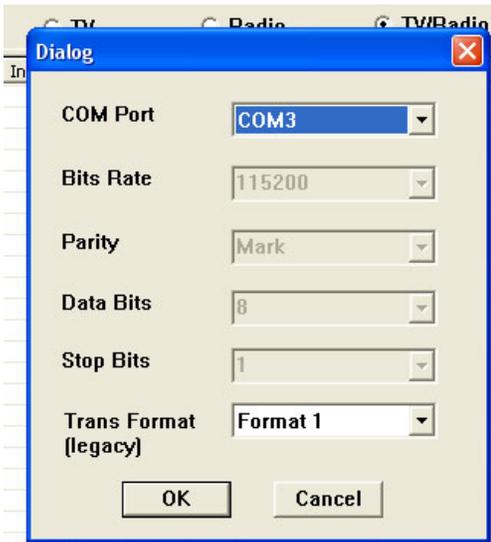
microHD Serial Port



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



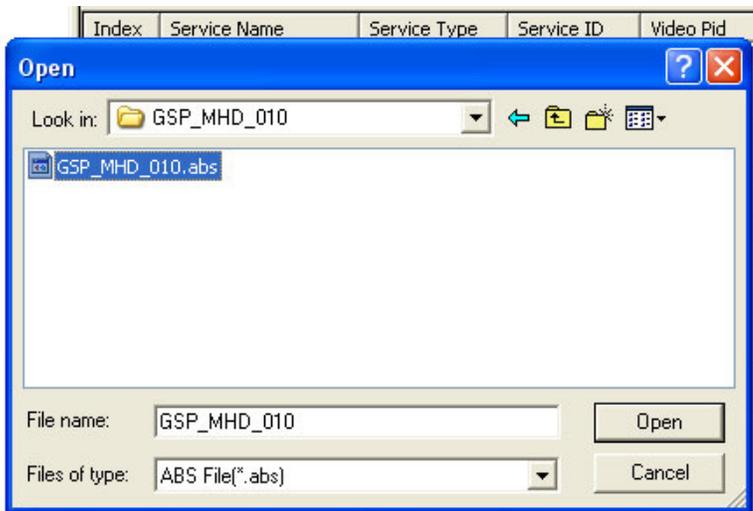
9. Select the Serial Port in the Setting Tab



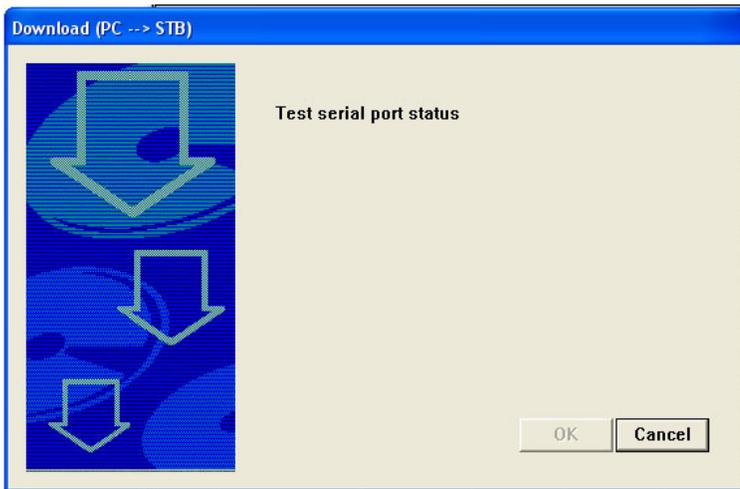
10. Select the Com Port with the USB / TTL converter connected
11. Plug the power plug into the DC IN port on the rear panel of the microHD



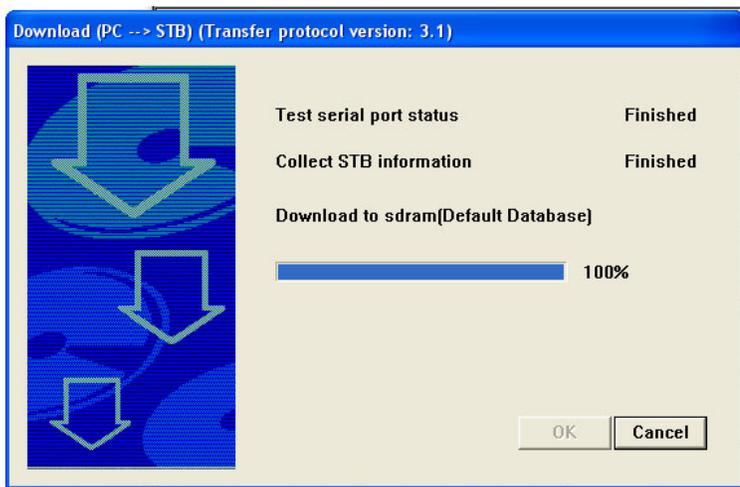
12. Select "DownLoad File (PC to STB)" Select File Type: ABS (.abs)



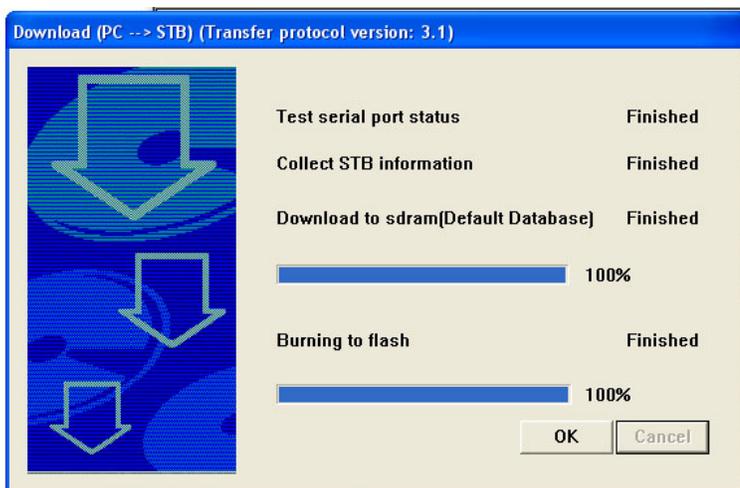
13. Select the most recent microHD .abs firmware file
14. Press OPEN to start transfer process



15. The Serial link will be verified then the new .abs file will be transferred to the microHD



16. The file will Download to the STB



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

18. Disconnect the power plug from the DC IN jack on the rear panel of the microHD

19. Remove the USB / TTL converter connections from the 4 pin header.

20. Install the microHD top case cover

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

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

The update / firmware restore is now complete