

AD7746 Rain Demo Test Procedure

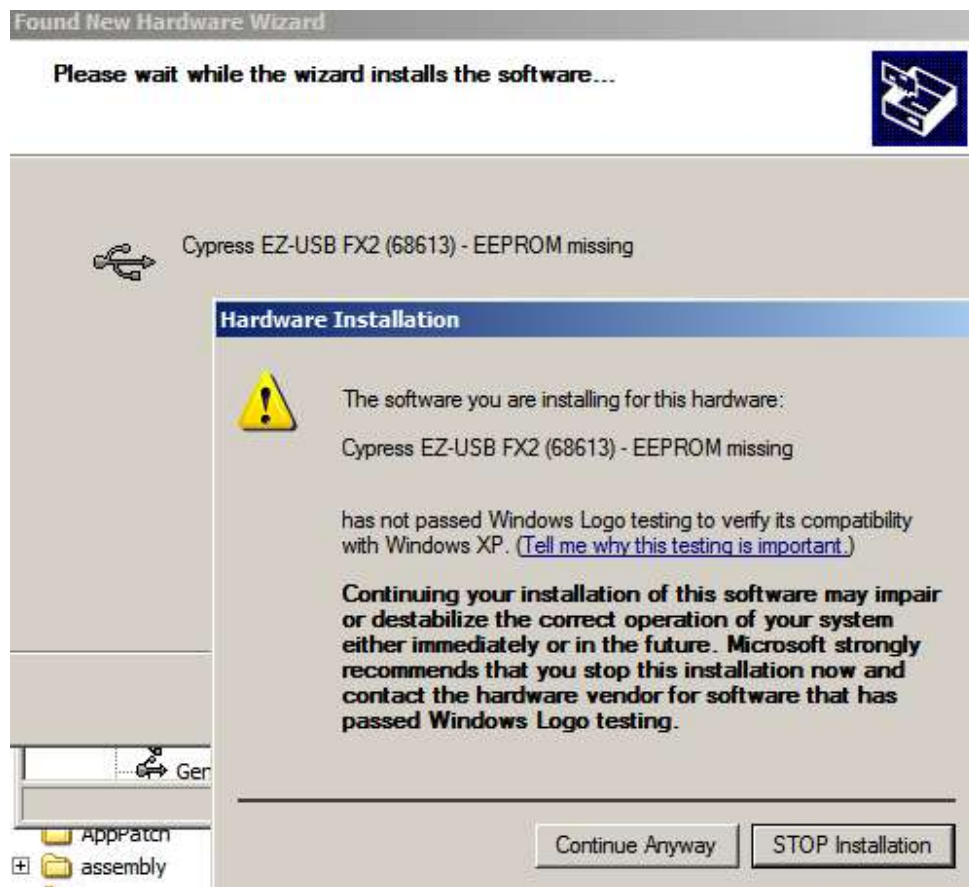
Software setup

N.B. Install the AD7745/46 Evaluation kit CD software before connecting the AD7745/46 Evaluation board to the PC

- Place the AD7745/56 CD ROM in the CD-ROM drive of the PC and follow the instructions that appear automatically.

Setting up the board

- Connect the board to the USB port of the PC via the USB Cable.
- The PC will detect that the board has been connected. (This may take a few seconds). A message should appear stating that a Cypress device has been found, then click 'next'
- During the installation, if the following window appears:



- Click 'Continue Anyway'. And then click Finish.

Note: this procedure will only be present the first time you connect the board to your PC, this will not occur for any subsequent board tests.

Test Procedure

- Connect the evaluation board to the PC using a USB cable
- Run the evaluation software from windows start menu -> All Programs -> Analog Devices -> AD7745-46 Evaluation Software -> AD7745-46 Evaluation Software
 - *When first opening the program whatever message appears click ok*

(Test can be repeated for another board from this point)

- Connect the Rain Demo board to the evaluation board using the Ribbon cable
- Click on the Download firmware button
 - *If message 'Firmware Downloaded', click ok and continue the test procedure*
 - *If any other message the board fails*
- Click 'Quick Setup CH1'
- Click 'Setup'
 - Change the capacitive channel Input from 'Differential' to 'Single Ended'
 - Click OK
- Click START
 - *The Capacitance (middle left text-box) should be around 2pF, changing (flickering), and if you place your hand around the sensing area of the board, the capacitance should decrease.*
- If the capacitance is constant 4.096pF, code FFFFFFFF, not changing, than the capacitance is higher and the AD7746 CAPDAC needs to be adjusted
 - Click 'Setup'
 - Change "CAP DAC Setup" "CAP DAC A" from 'OFF' to 'ON' and increase the code by 20 hex, which adds about 4.25pF to the CAP DAC value.
 - Click OK
 - Click START again
- If the capacitance result is still stuck to 4.096pF, code FFFFFFFF, repeat adjusting CAPDAC by another 20 hex, i.e., 40 hex, 60 hex, 7F hex, until the code starts moving and the capacitance changes with the hand close to the sensing area on the board.
- Click Stop
 - *This board has now passed*
- Unplug the demo board from the ribbon cable and repeat the procedure for the next board