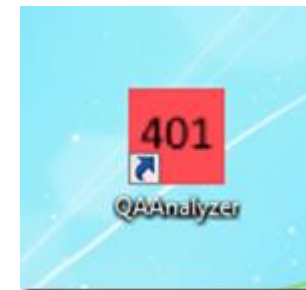
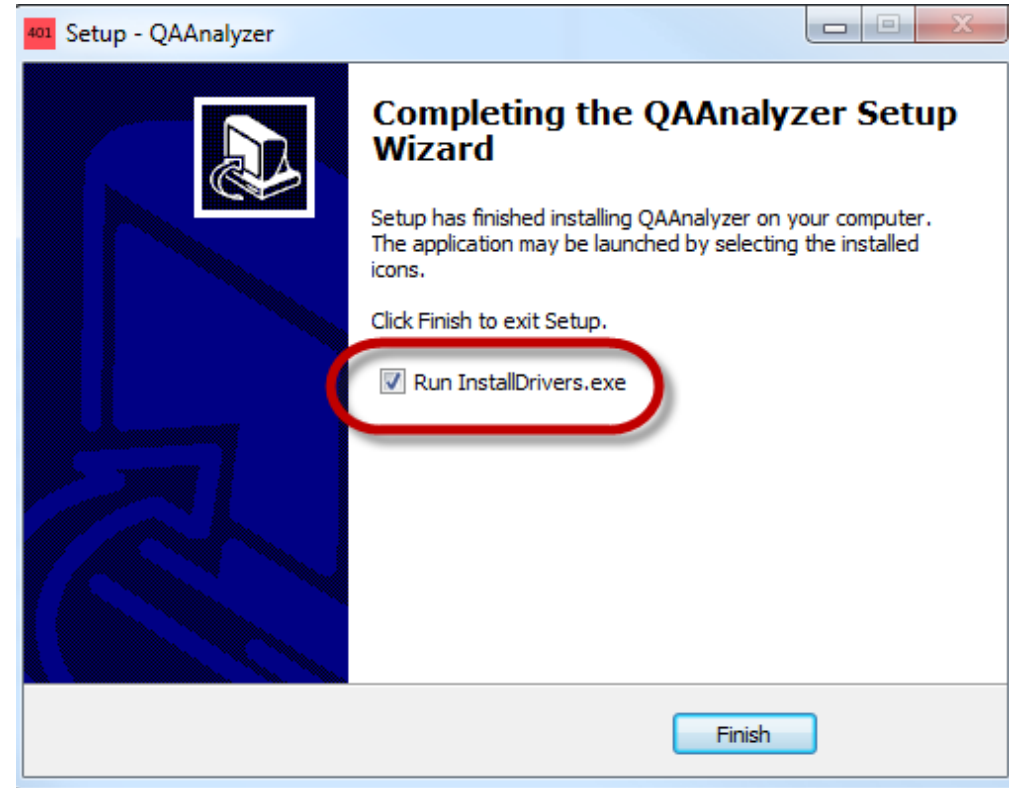


QA401 Quick Start

Download & Install the QA401 App

1. [Download](#) the QA401 Application
2. Make sure you opt to install drivers
3. After installation is complete, click the icon on your desktop



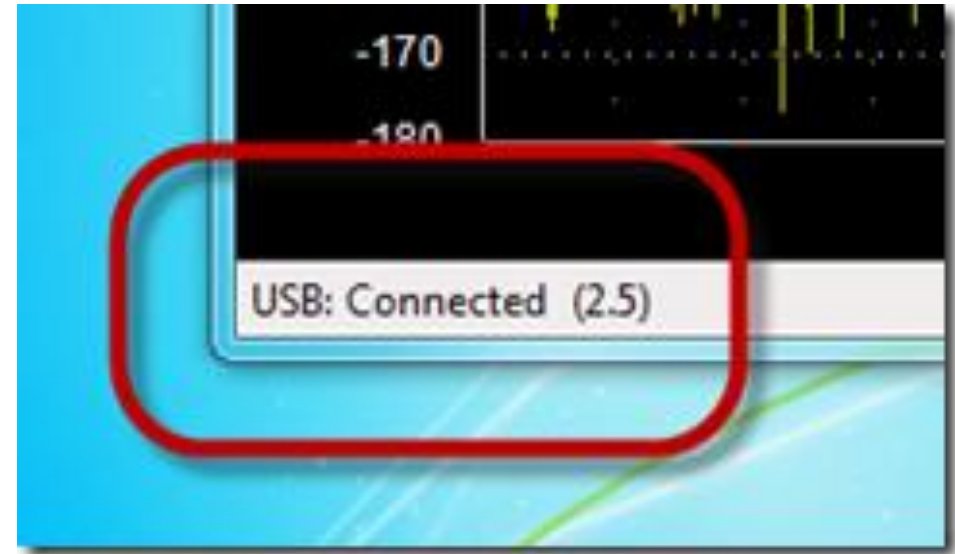
Navigation: Scrolling the Panel

Depending on your window size, the full control panel might not be visible. If it's not, click part of the panel without any control and drag up or down to expose more UI



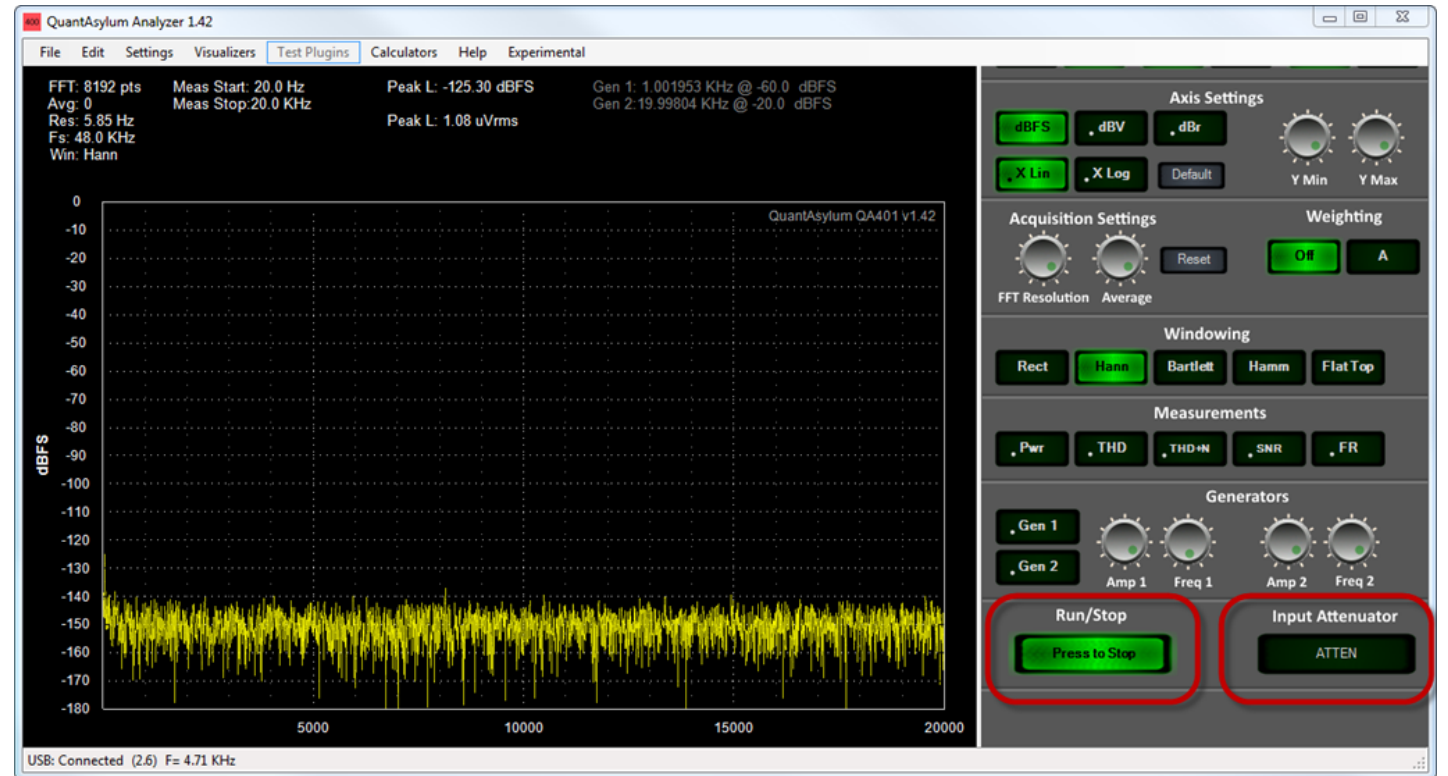
Connecting the Hardware

1. Plug in the QA401 hardware with a USB cable (not supplied). The OS should recognize the hardware, finish installing it and then you should see the application configure and connect.
2. Once connected, you'll see an indication in the lower left corner



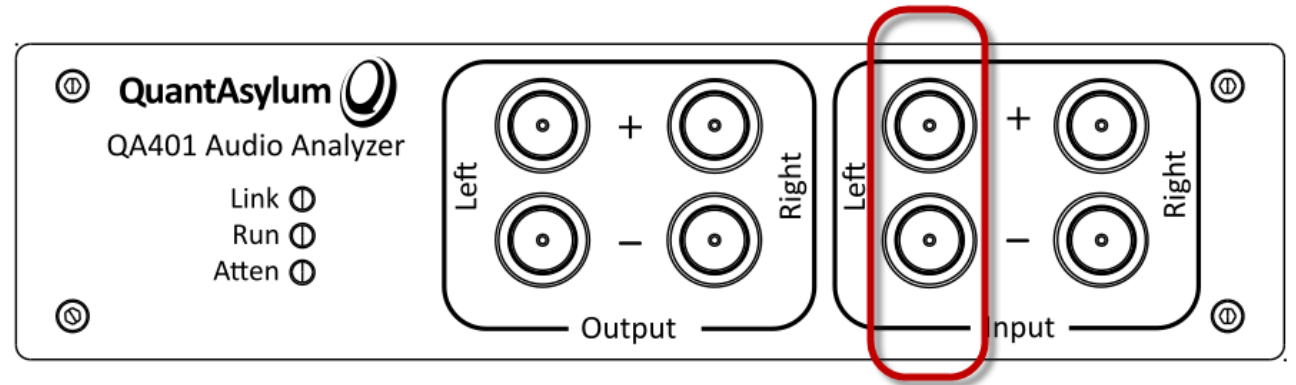
Starting Acquisition

1. Scroll the control panel so that you can see the Run/Stop button.
2. Press the Run/Stop button. When it is illuminated, you are running. You should see yellow spectrum data appear.
3. Disable the attenuator. When you click the ATTEN button, you should hear a relay click inside the QA401.



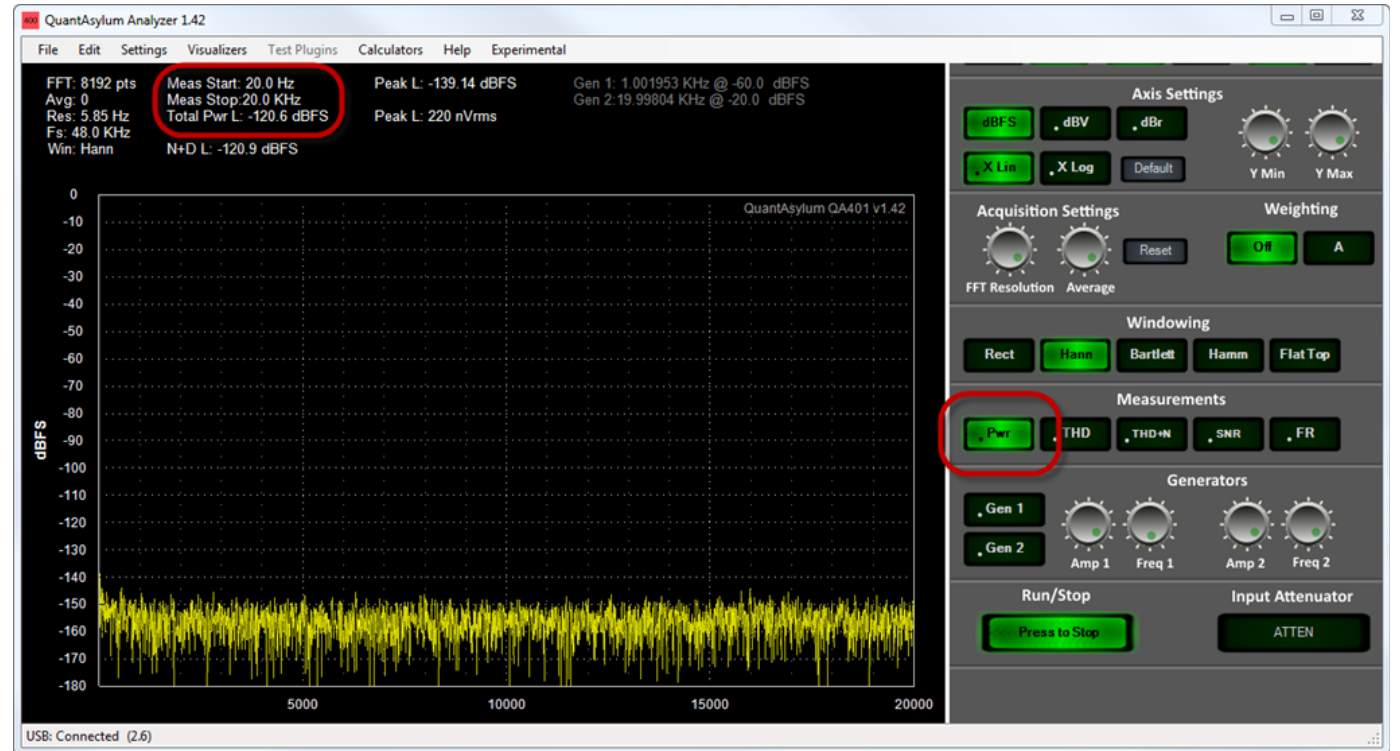
Shorting the inputs

1. To measure the noise floor of the device, you need to short the inputs with a low impedance shorting block (not included). These are often called “shorting blocks” or “terminators”. You can find these for sale on Amazon or your favorite component supplier. Search on “bnc 75 ohm terminator”. The precise impedance isn’t important, it just needs to be less than a few hundred ohms.
2. If you do not short the inputs, then you’ll measure the noise of the internal input resistors—and the noise contribution from the inputs 100K resistors can be quite high.



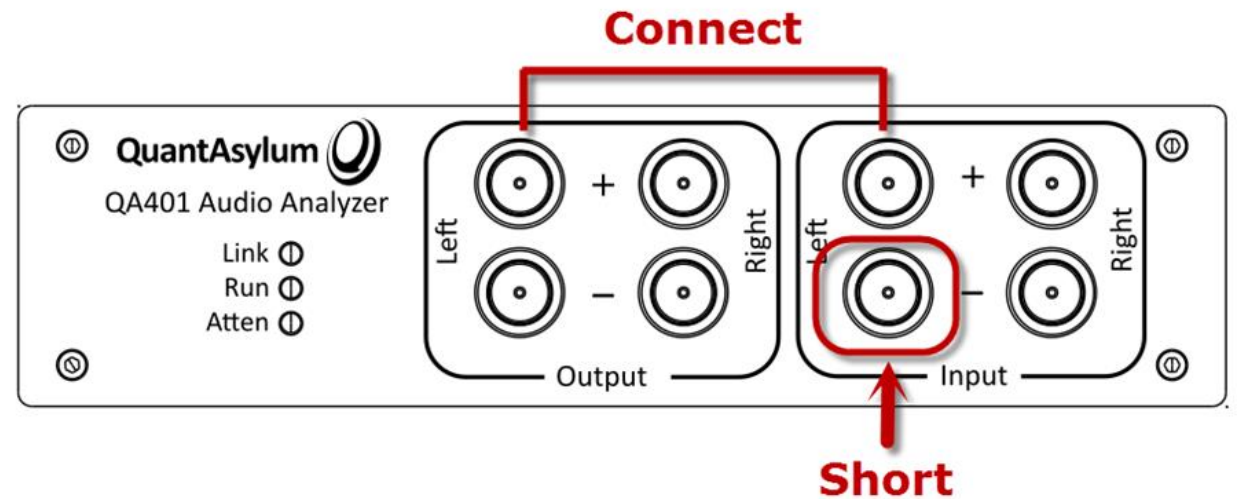
Making a noise measurement

In the application, press the PWR button. This will enable the reporting of measured power in the indicated bandwidth. Confirm this is around -120 dBFS. If not, verify you have correctly connected the input shorting blocks.



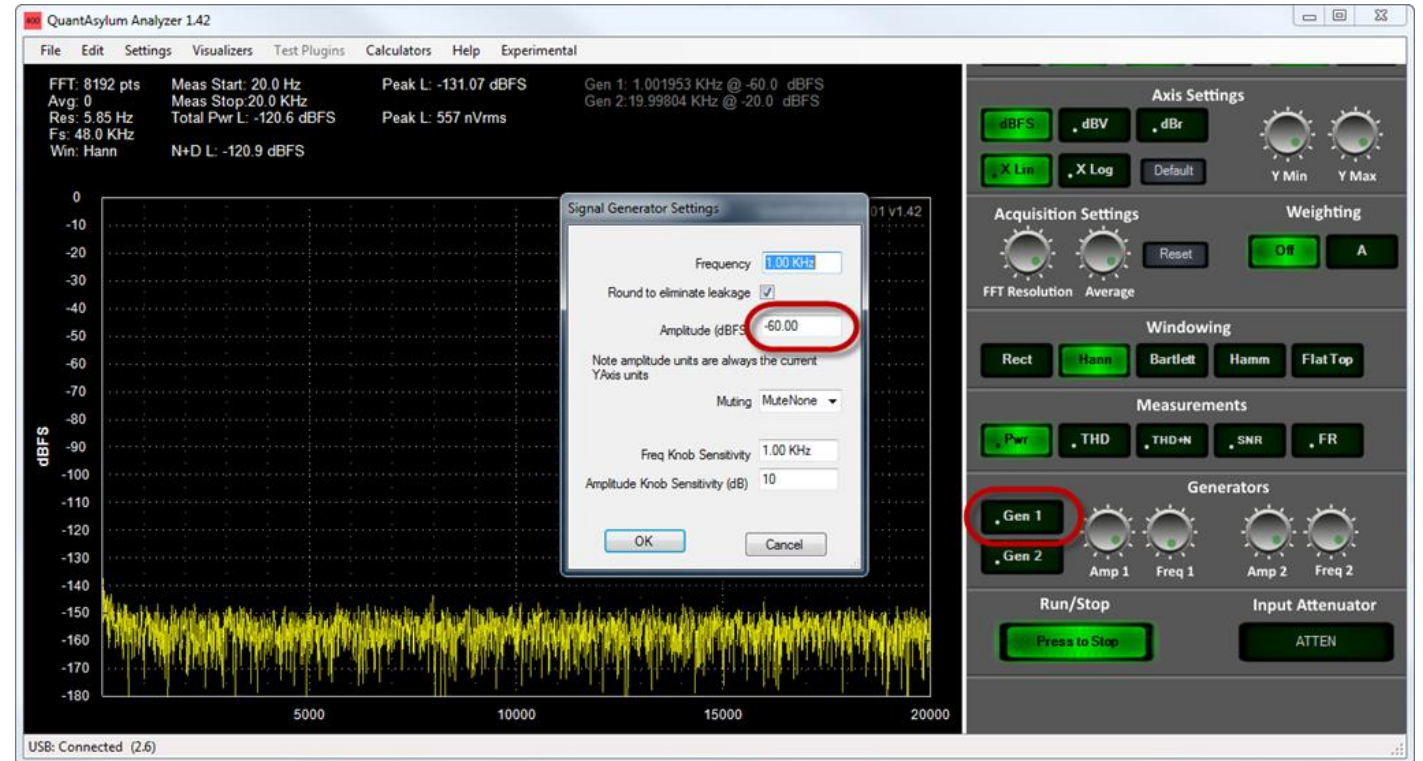
Loopback Connection

Leave the L- shorting block applied and using a BNC cable (not included) connect the left + output to the Left + input



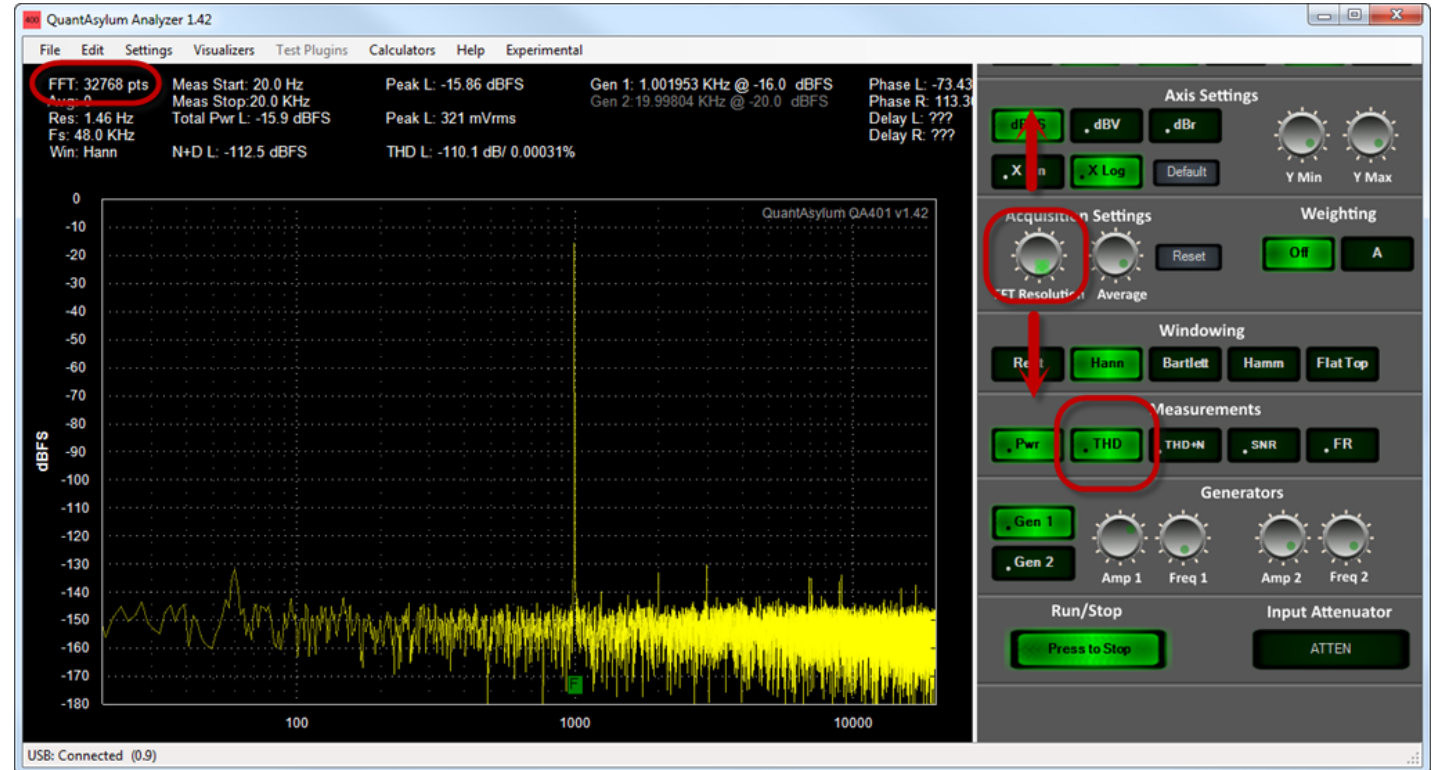
Loopback THD Measurement

Hold the control key while pressing the GEN1 button. This will bring up the GEN1 context menu. Change the amplitude to -16 dBFS. This is the sweet spot for THD measurements on the QA401



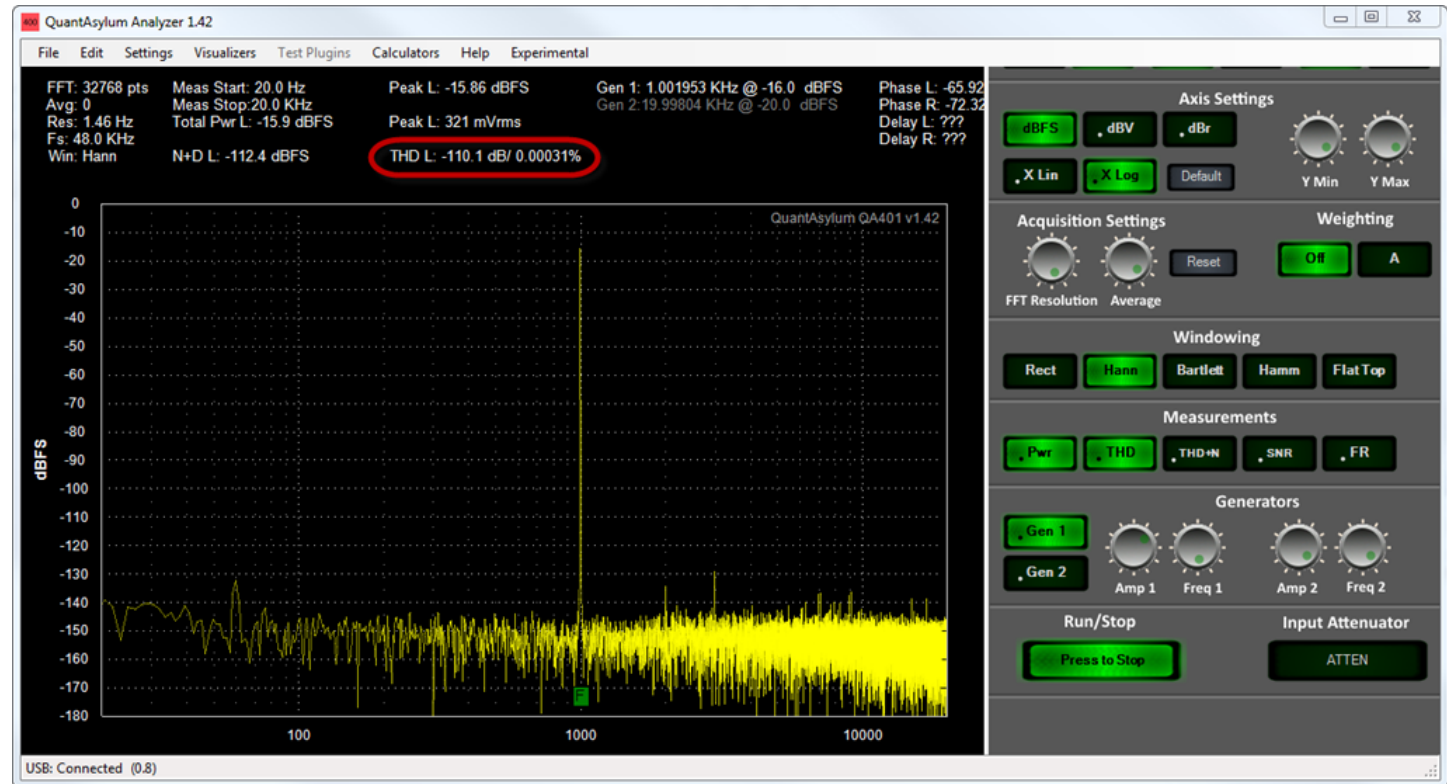
Using Knobs

1. Press the THD button. Increase the FFT depth to 32K. To change a knob setting, click on the knob and drag up or down until you see the value you desire appear in the on-screen indication. A small "LED" will light on the knob to indicate it can be dragged.
2. You can also use your mouse wheel to adjust knobs. Just move the mouse over the knob, click and you'll see the "LED" light. You can then use your mouse wheel to adjust the settings.



THD Measurement

With the output connected to the input, this is called "loopback" mode. You should see a THD figure around -110 dBFS



Need more help?

Contact: Support@QuantAsylum.com

The PDF manual is available from the application

Select "Help -> Launch Help"

Or, check in the installation directory

`C:\Program Files (x86)\QuantAsylum\QA401\Documentation`