Point-by-point replies to the comments of Referee #3

To esteemed anonymous referee #3.

Your comments impress us a lot. We really appreciate your time and energy for reviewing our manuscript. It is hard for us to express our grateful feeling. In fact, we have learned many things during this revision process, and such experience would be very helpful for our future study. We herewith provide our response to your comments as below:

1. Text and labels in figures 6, 7, 8 and 9 are very small. They are difficult to read and understand. Please solve this.

   Our response:

   We have replaced Figure 6, 7, 8, 9 with clearer pictures. The changes we made in manuscript are as follows.
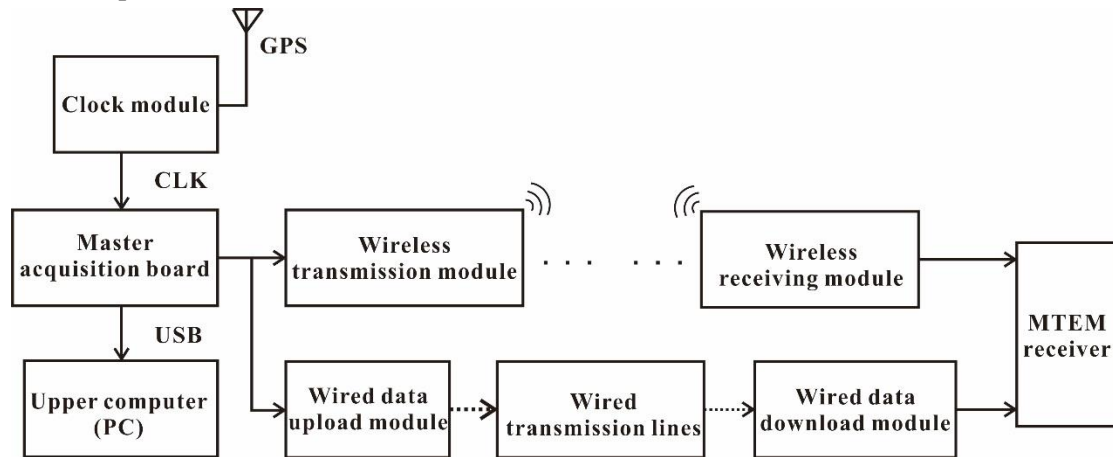

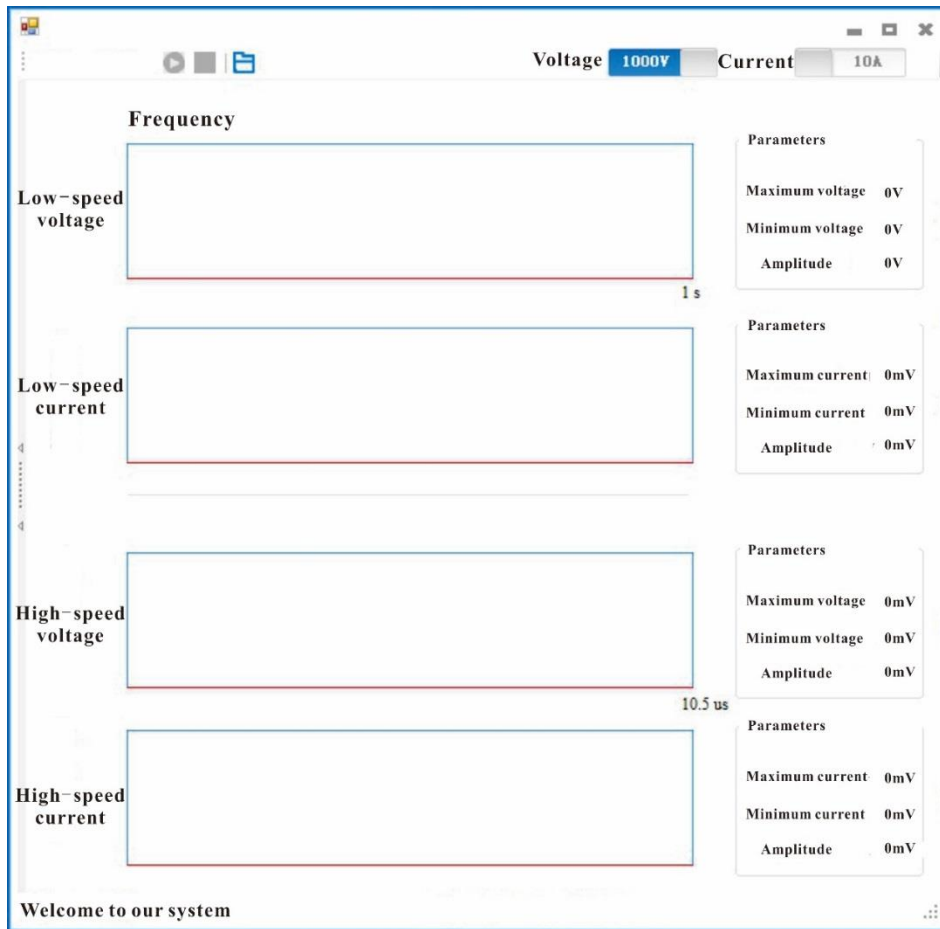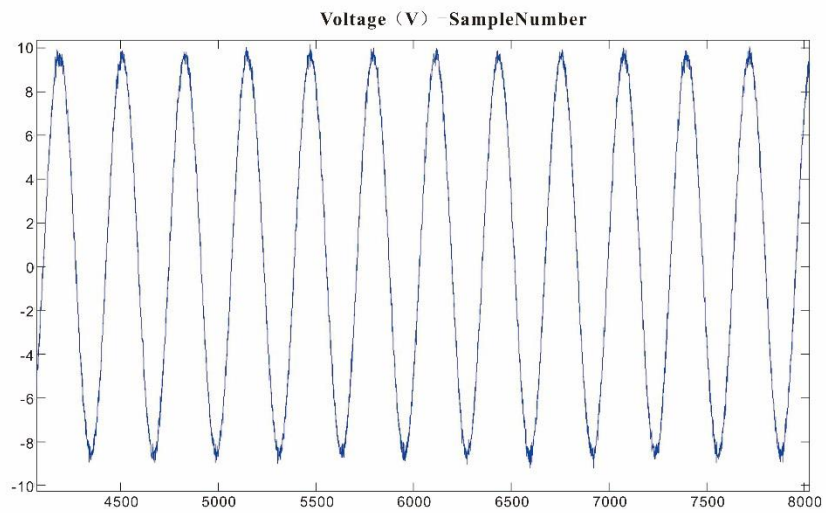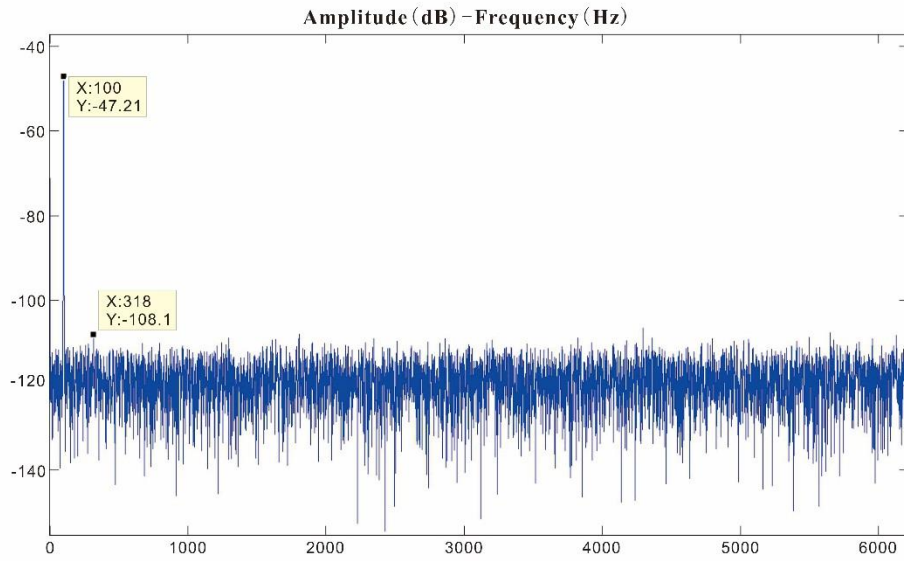Figure 6: Block diagram of the Bluetooth and 485 module transmission.

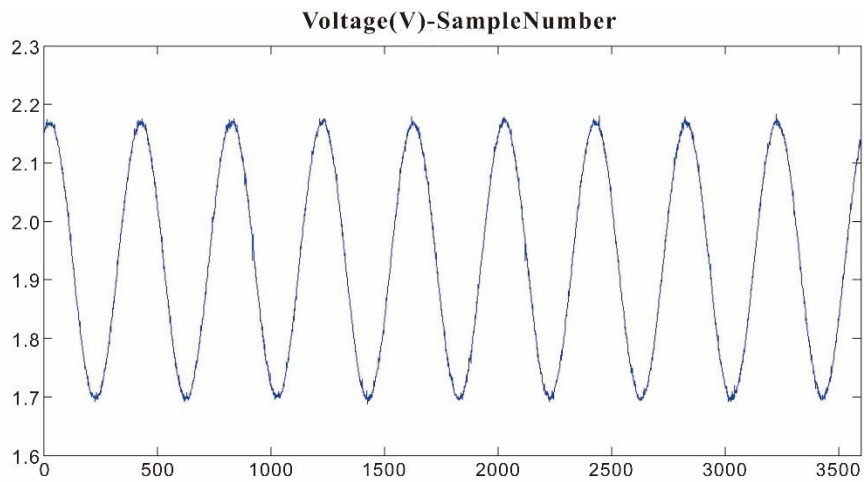Figure 7: Interface display of the Main Window form on the upper computer.

a. Time domain waveform of the 20-Vpp, 100-Hz sinusoid acquired by the recording device at a 1000-V level
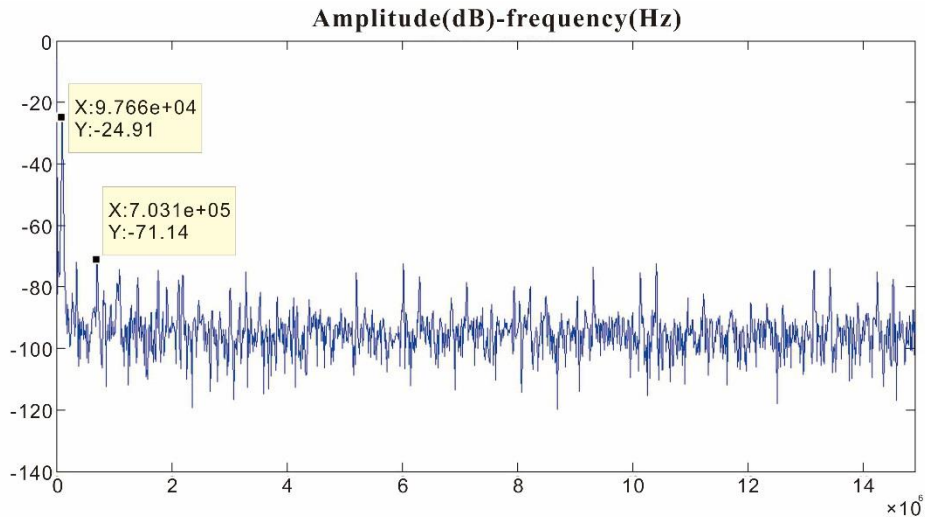
b. Amplitude-frequency characteristics of the 32000 samples subjected to FFT (Hanning window truncation)

Figure 8: Test results of the low-speed voltage acquisition channel.

a. Time domain waveform of the 20-Vpp, 100-kHz sinusoid acquired by the high-speed voltage recording device at a 100-V level

Amplitude(dB)-frequency(Hz)

X:9.766e+04
Y:-24.91

X:7.031e+05
Y:-71.14

b. Amplitude-frequency characteristics of the 4906 samples subjected to FFT (Hanning window truncation)

Figure 9: Test results of the high-speed voltage acquisition channel.

2. Software is built in a MS Windows PC with Visual Studio using C# forms. Would it be possible to run in other operating systems (Mac OS, Linux,...)? Some comment about this would be appreciated.

    Our response:

    Thanks for your suggestion. It is possible to run in other operating systems (Mac OS, Linux,...) as long as users write the appropriate software program.

3. It is not clear whether if device has been tested out of lab or not. Have the authors done some real-time live measures? If so, some comments about efficiency compared to other methods such as traditional transient electromagnetic method should be done. If not, please ignore this.

    Our response:

The device we develop has been tested out of lab, and we have done some real-time live measures. While so far, we can't find a similar device for comparative testing, so there are no comments about efficiency compared to other methods.