SIM20X Quick Start Guide

Contents

Section 1. Kit Contents


SCCAN1ASY Rev4 ("SCD")


Low profile 6 pin CAN cable


TTL-232R-5V
(FTDI cable)


Low profile chassis cable

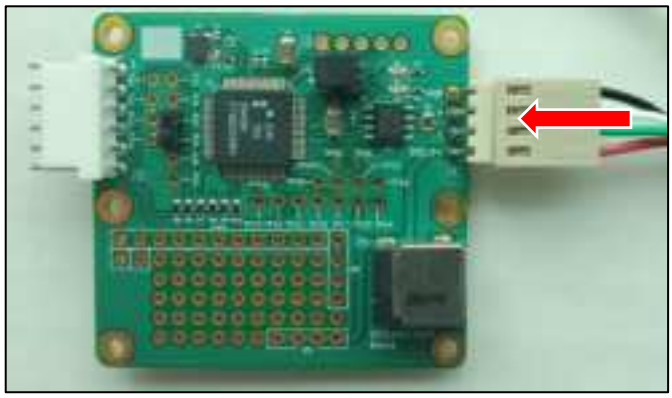

Low profile red voltage cable

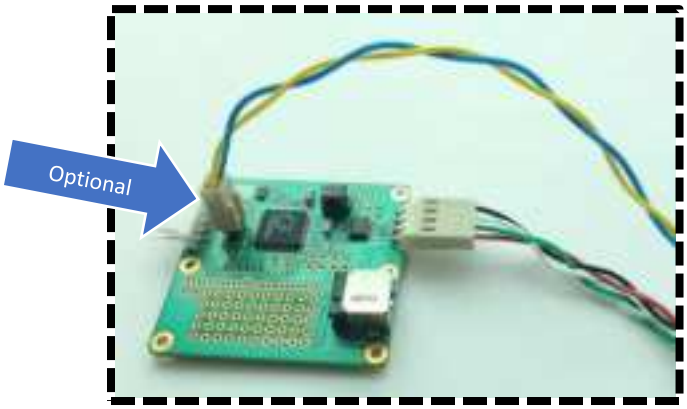

Low profile black voltage cable


AC/DC Wall Mount Adapter 12V 5W

Section 2. Quick Start

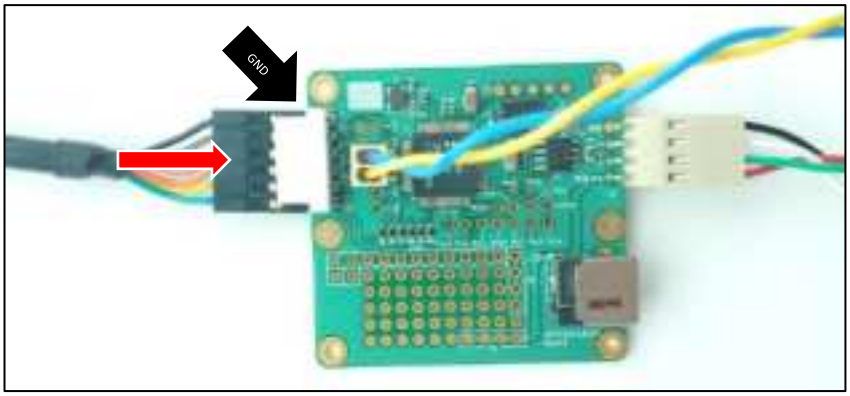
1. Plug the 4-pin connector on the 6-strand CAN+Power cable into the SCD (Serial to CAN dongle). The 2-pin connector on the 6-strand CAN+Power cable can be connected onto the dedicated two pins header (not included) on the SCD if the digital outputs of the SIM20X need to be acquired.



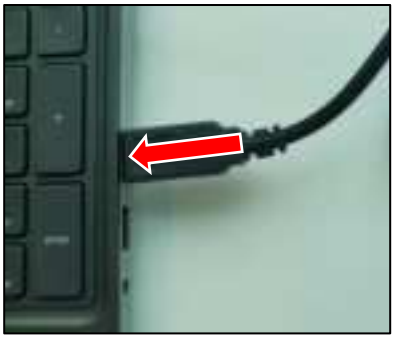


2. Plug the other end of the CAN+Power cable into the CAN connector on the SIM20X module. You should hear a click-sound when the connector has been properly connected.

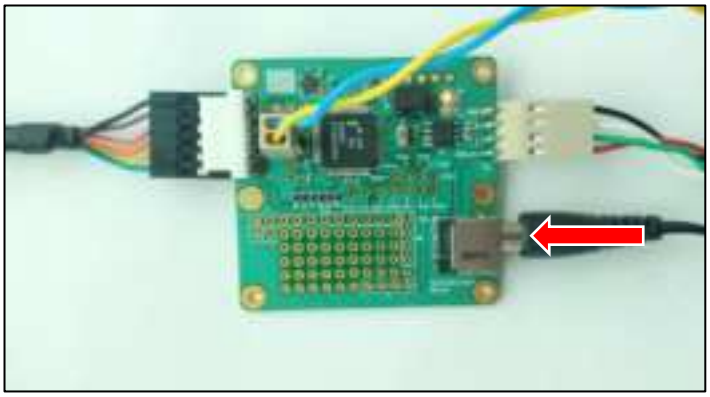
3. Plug the 6-pin connector on the FTDI USB to Serial cable into the 6-pin header connector on the SCD. Align the black wire on the FTDI cable with “GND” on the SCD.



4. Plug the USB side of the FTDI cable into the computer you will be using. Windows should auto detect the drivers and install them for this device.



5. Plug the external power supply into the SCD.



6. The orange LED lights on the SIM20X module should now be blinking. If not, please re-check steps 1-3 to ensure that all cables have been properly connected.

Section 3. Voltage cables

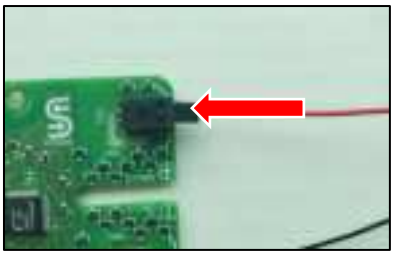
7. The SIM20X evaluation kit comes with three voltage cables (red, black, and green with yellow stripes) that are to be connected from the module to a testing system.

Low profile chassis cable

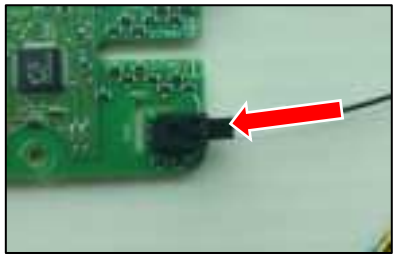
Low profile red voltage cable

Low profile black voltage cable

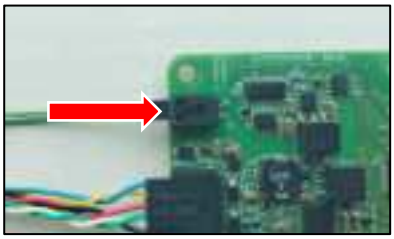
8. The red voltage cable connects to the positive terminal of the battery. Plug the connector on the red voltage cable into the connector on the SIM20X module marked Vx1. When the connector is plugged all the way in, you should hear a “click” sound.



9. The black voltage cable connects to the negative terminal of the battery. Plug the connector on the black voltage cable into the connector on the SIM20X module marked Vx2. When the connector is plugged all the way in, you should hear a “click” sound.



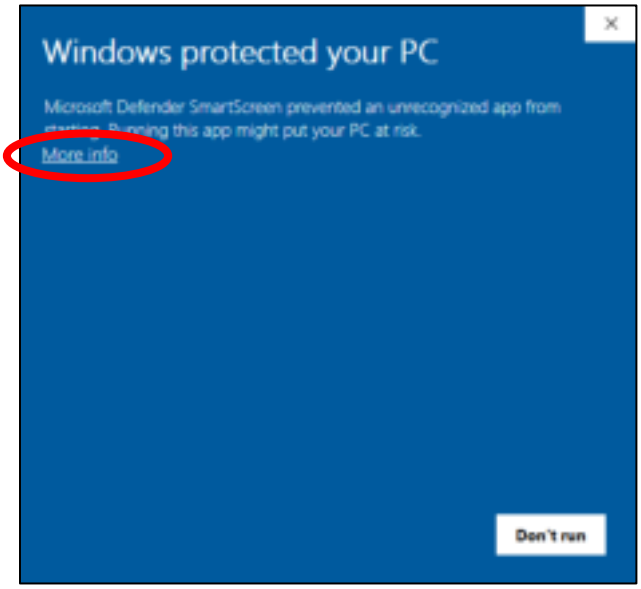
10. The green voltage cable (two wires) provides the two chassis connections. Plug the connector on the green and yellow striped voltage cable into the connector on the SIM20X module marked Chassis 1 /Chassis 2. When the connector is plugged all the way in, you should hear a “click” sound.



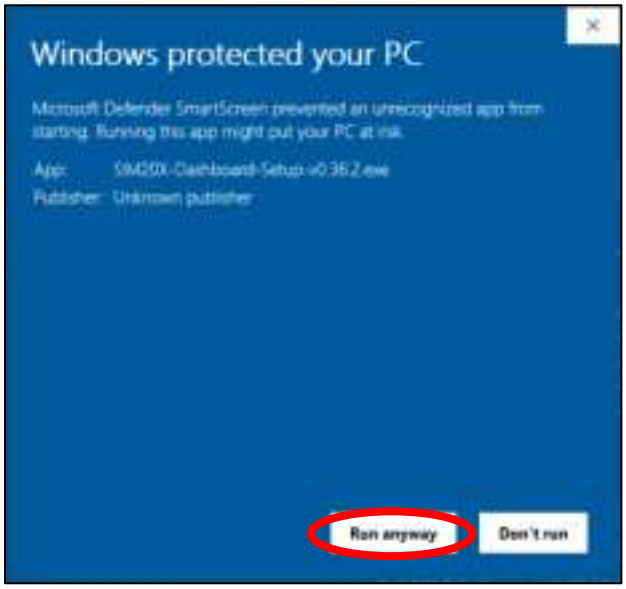
11. The SIM20X requires a minimal level of total Y-capacitance (capacitance between the HV rails and chassis) in the system to operate properly. Make sure your system meets this minimum level otherwise the SIM20X will not operate correctly. Refer to the technical specifications for more details.

Section 4. SIM20X-Dashboard Software (Installation)

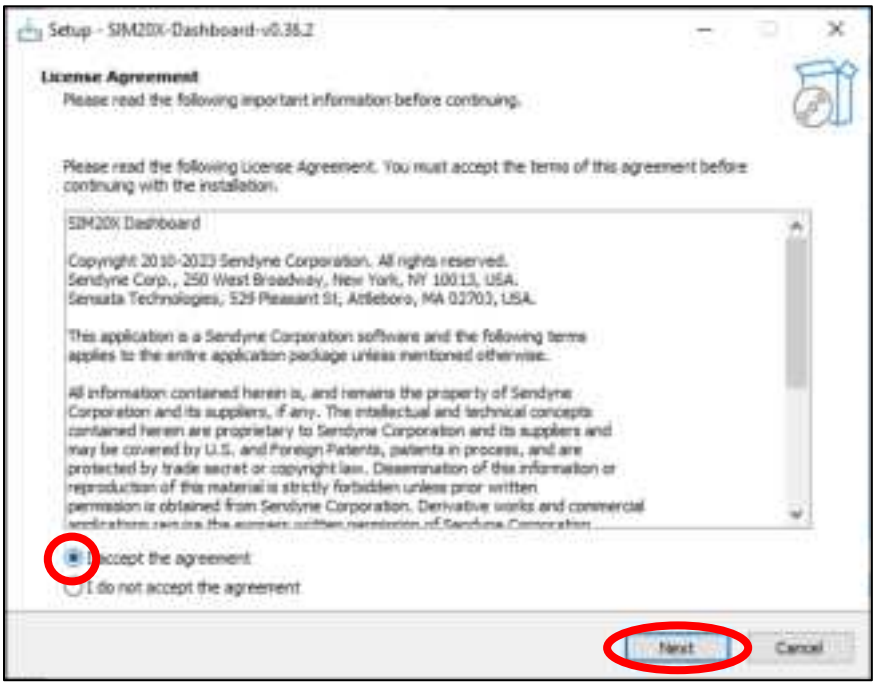
12. Download SIM20X-Dashboard-Setup-v.0.41.15.exe (or latest version)
13. Select “More info” on the windows protected you PC window



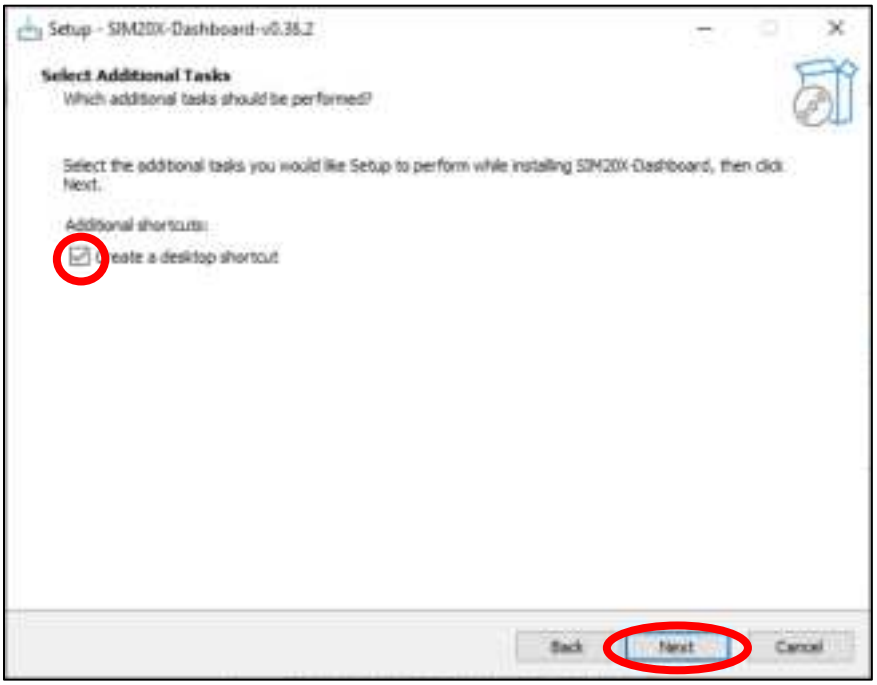
14. Select “Run Anyway”



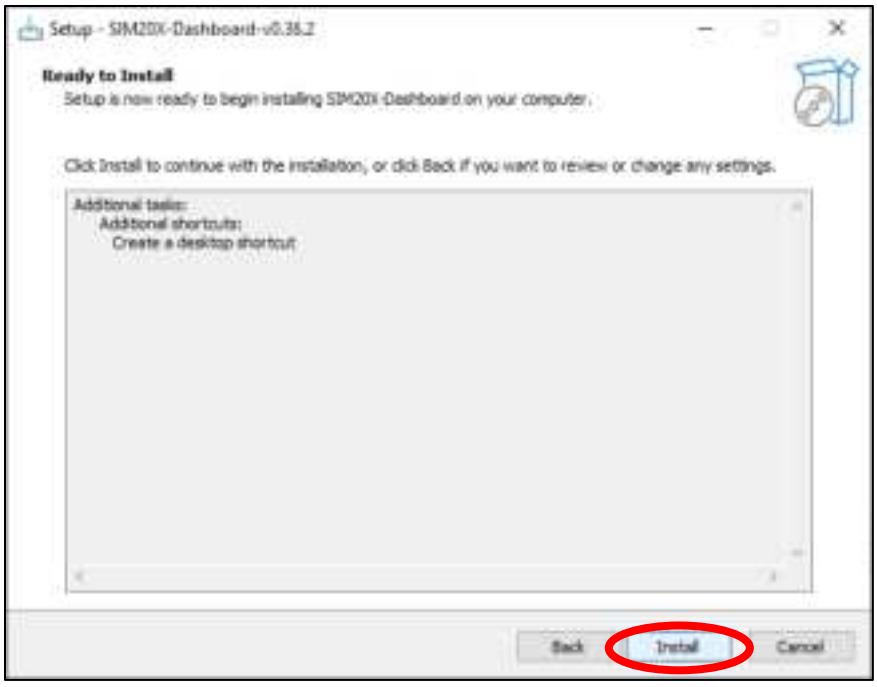
15. Accept the License Agreement



16. Select desktop shortcut if you would like a desktop shortcut



17. Select Install

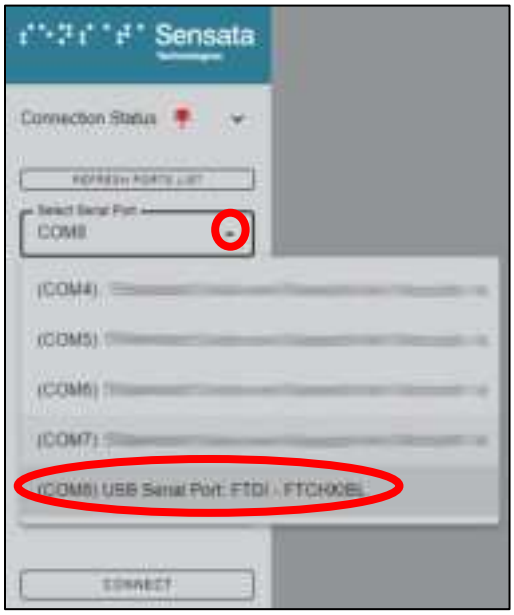


Section 5. SIM20X-Dashboard Software (Running and connecting)

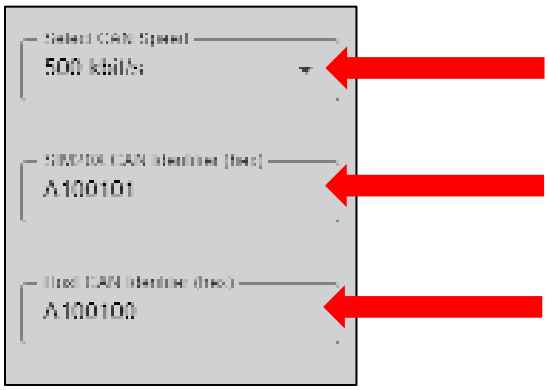
18. Make sure all steps from section 1 – 4 have been completed before proceeding with section 5.
19. Run the application by selecting the exe

20. Select Refresh Ports List

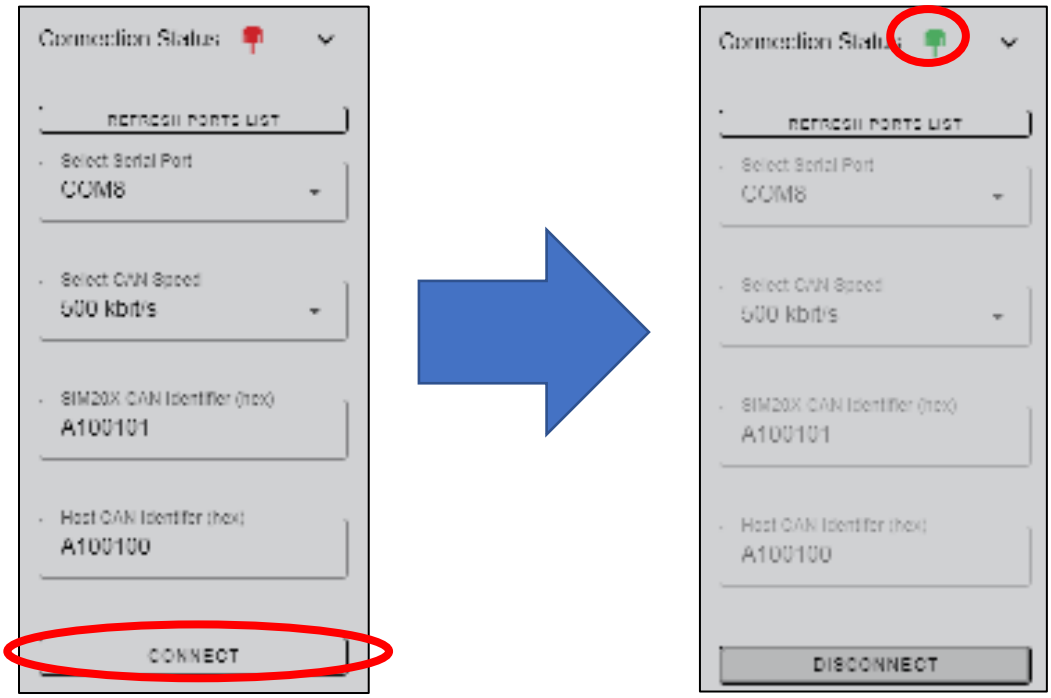
21. Using the drop down, select the COM port that the FTDI cable is connected to. It will show up like below – you may have more or less COM options than the picture below.



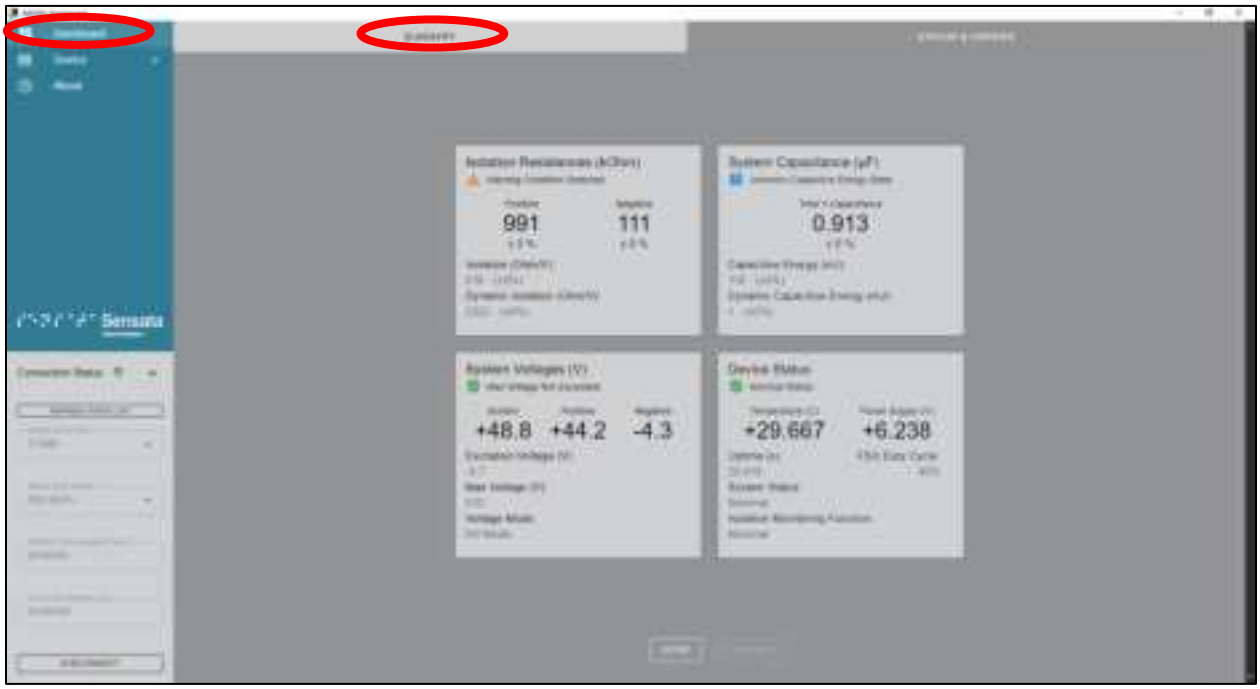
22. Make sure the CAN Speed, and CAN identifiers match the configuration on the module you have



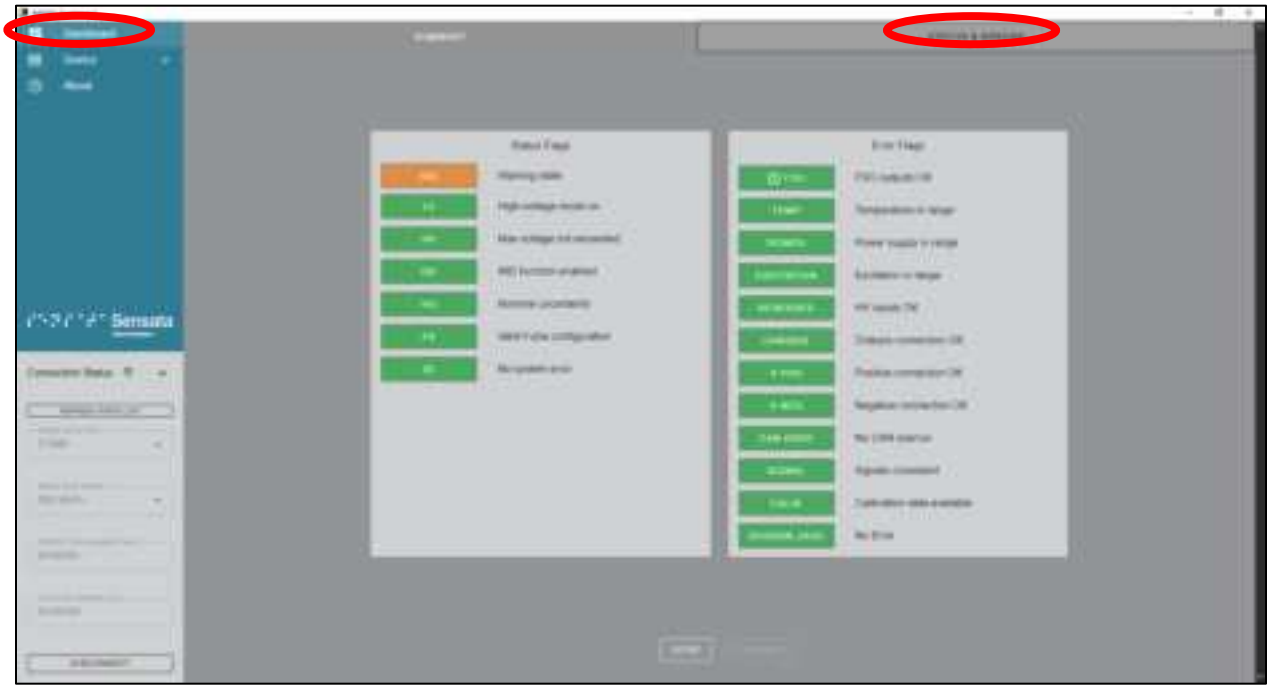
23. Select connect. If the module connected successfully, you will notice a green indicator next to "Connection Status"



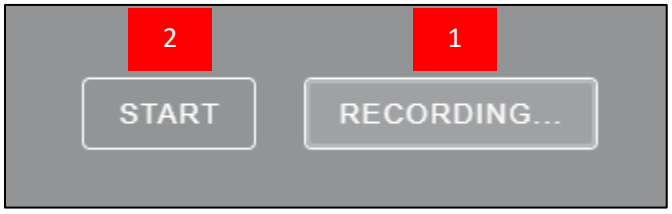
24. Once connected all of the dashboard pages become available. The **Dashboard Summary page** shows an overview of the SIM20X status including (1) Isolation resistance measurements, (2) System capacitance measurements, (3) System voltage measurements, and (4) Device status. To start reading from the module, click the “start” button.



25. The **Dashboard Status & Errors page** shows all the status and error flags. For more information on each of these flags, please reference the CAN protocol documentation.



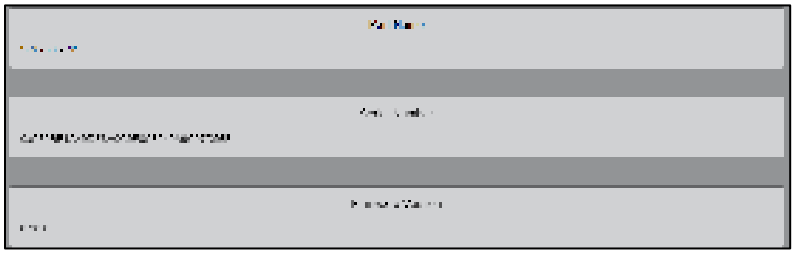
26. The dashboard can also **log data** and save it to a .xlsx output file. To collect data, first click the "Record button" then "Start." When



27. Click "Stop" to stop data collection, you will be prompted to download the saved .xlsx file.

28. The “Device” tab allows you too see more information about the SIM20X module

29. Information tab provides the Part Name, Serial number and Firmware Version of the connected SIM20X.



30. The Setup Mode tab allows access to the Device Configuration. Here you can read the CAN speed, RX and TX identifier, System Max Voltage and Isolation Warning and Fault thresholds. These options can be updated by first selecting the red lock (notice it turns green), making the desired change, and selecting configure.

31. The Calibration tab presents data related to the factory calibration.