Siglent Technologies SDS1202X-E Oscilloscope

Details

Serial: SDS1EDEX5R4250

Front Panel

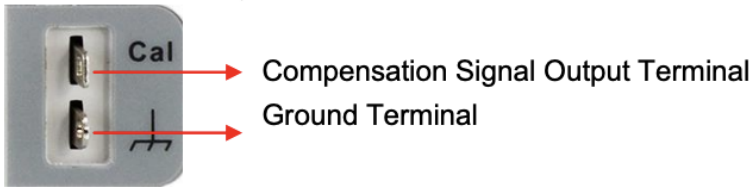
Figure 6 Front Panel Overview

NO.	Description	NO.	Description
1	LCD Display	9	Trigger Control
2	Universal Knob	10	Vertical Control
3	Common Function Menus	11	Probe Comp
4	Wave Gen	12	Analog Channel Input
5	Decode Control	13	One- Button shortcut for Save
6	Run/Stop	14	Menu Softkey
7	Auto Setup	15	USB Host
8	Trigger Control	16	Power Button

The Basics

Function Inspection

1. Press the **Default** button on the front panel to restore the instrument to its default configuration.
2. Connect the ground alligator clip of the probe to the “Ground Terminal” under the probe compensation signal output terminal.



3. Use the probe to connect the input terminal of CH1 of the oscilloscope and the “Compensation Signal Output Terminal” of the probe.
4. Press the **Auto Setup** softkey.
5. Observe the waveform on the display. In normal condition, the display should be a square waveform as shown in the figure below:

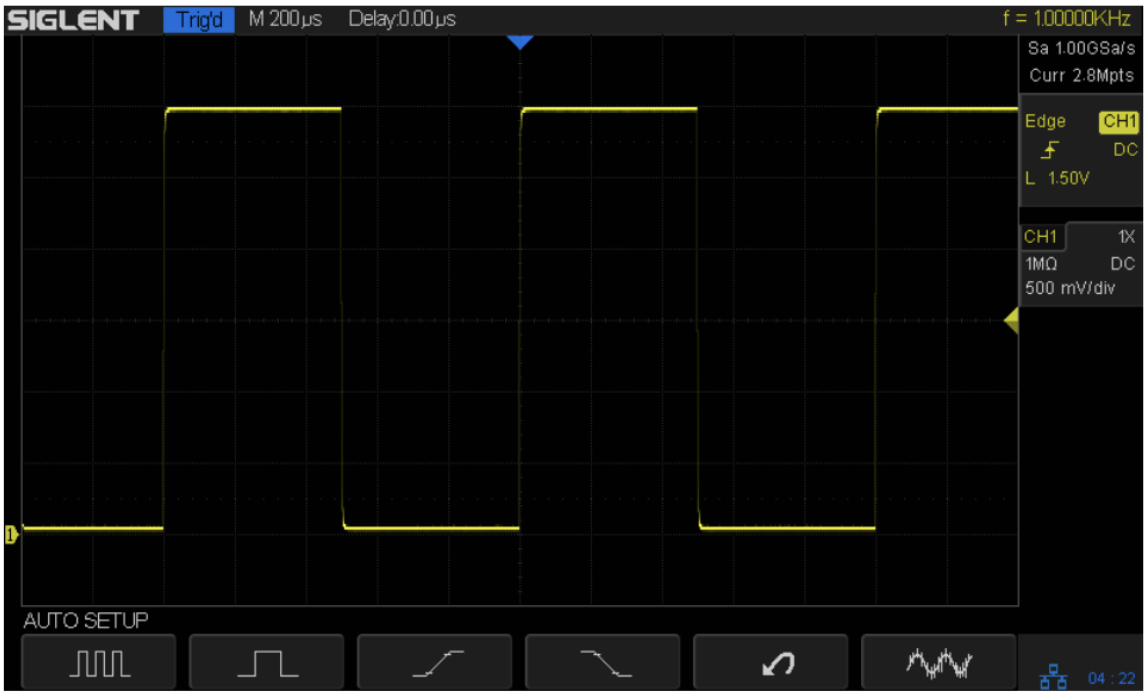


Figure 5 Function Inspection

6. Use the same method to test the other channels. If the square waveforms actually shown do not match that in the figure above, please perform **“Probe Compensation”** in the next section.

Specifying Probe Attenuation Factor

Set the probe attenuation factor to match the type of the probe that you are using to ensure correct vertical readouts.

- press the **CH1 button** on the front panel
- press the **Probe** softkey and turn the Universal Knob to select the desired value and push the knob to confirm.

Probe Compensation

When the probes are used for the first time, you should compensate the probes to match the input channels of the oscilloscope. Non-compensated or poorly compensated probes may cause measurement inaccuracy or error. The probe compensation procedures are as follows.

1. Set the switch to 10X on the probe.
2. Perform steps 1, 2, 3 and 4 of "**Function Inspection**" in the previous section.
3. Check the waveforms displayed and compare them with the following:

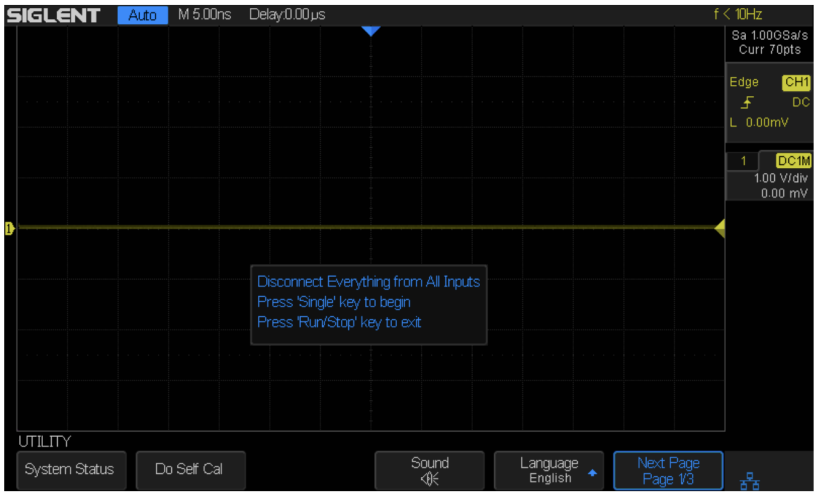
Over Compensated | Perfectly Compensated | Under Compensated

4. Use a nonmetallic driver to adjust the low-frequency compensation adjustment hole on the probe until the waveform displayed is as the "Perfectly compensated" in the figure above.

Self Calibration

The self calibration program can quickly make the oscilloscope reach the best working state to get the most precise measurement values. You can perform self calibration at anytime especially when the change of the environment temperature is up to or more than 5°C. Make sure that the oscilloscope has been warmed up or operated for more than 30minutes before the self calibration.

Do the following steps to do self calibration:
1. Disconnect all the input channels.
2. Press the Utility button on the front paneland then press the Do Self Cal soft-key, and the oscilloscope will pop-out the message box shown as below



3. Press the Single button on the front panel to perform the self calibration program. During the calibration, most of the keys are disabled.
4. When the self calibration program is finished, it will pop-out the message "**press Run/Stop key to exit**. Press the **Run/Stop** button on the front panel to exit the calibration interface.

To Specify Probe Attenuation Factor

Set the probe attenuation factor to match the type of the probe that you are using to ensure correct vertical readouts.

- press the **CH1 button** on the front panel
- press the **Probe** softkey and turn the Universal Knob to select the desired value and push the knob to confirm.

The default setup is 1X. The current probe attenuation factor is displayed in the channel label at the right side of the screen. You can also press the Probe softkey continuously to switch the probe attenuation factor.

References

Reference	URL
Quick Start Guide	https://siglentna.com/wp-content/uploads/2020/11/SDS1000X-ESDS1000X-U_QuickStart_QS0101E-E05A.pdf
User Manual	https://siglentna.com/wp-content/uploads/dlm_uploads/2021/08/SDS1000X-ESDS1000X-U_UserManual_EN05B.pdf
Siglent SDS 1202X-E Unboxing Calibration and self test	https://www.youtube.com/watch?v=NMrozZz6xM0