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This document contains the firmware release notes for two models of SIGLENT SDS1000X-E oscilloscopes.

The SDS1202X-E is a dual channel 200 MHz scope.

The SDS1004X-E is a four channel scope available in 100 and 200 MHz options.

The firmware is specific for a particular model. The 2 channel firmware will not work with the 4 channel scope and vice versa.

The release notes document is for reference only.

The official release notes are located in the zipped folder that contains the actual firmware download.

Release Notes of the SDS1002X-E Follow

Revision History

Date	Version	Revision
2018/9/20	1.3.23	1. Changed the displayed system information screen. From ADS version of 1.3.23, the info screen now shows 5 sections of software versions, including the OS version ID.
		2. Added SCPI commands for Math waveforms (except FFT).
		3. Optimized accuracy of horizontal measurement, especially when there are only a few samples in very small timebase.
		4. Added ability to disable one direction of the full duplex encoders.
		5. Any arbitrary probe factor from 1e-6 to 1e6 can be set by universal knob.
		6. Attenuation and invert indicator were added into the channel tab.
		7. There are some times of quick calibration during warming up the SDS XE. Added a menu below Utility to disable the quick calibration so that the sampling can't be interrupted.
		8. Added SCPI to set up gated measurements on an SDS XE scope and return the data.
		9. Supported exiting the on-screen keyboard by OK button.
		10. Fixed the bug related to displaying long IC2 decoded packets.
		11. Fixed the channel inversion bug when changing timebase from 1ms to 2ms
		12. Fixed the bug: The setting of Educational mode can't be saved after power off.
		13. Fixed the bug: I2C address to 0x3F and the fist byte to 0x8C - trigger does not work
		14. Fixed the bug: The I2C trigger condition "7 bit Address&Data" does not work when the payload contains only a single byte.
		15. Fixed the bug: Looks like SDS1202X-E does not discard incomplete bytes in the payload although they are easily detectable.
		16. Optimized decoded data of I2C and got rid of suffix 'H' and 'A'.
		17. Fixed the bug: There is offset with Channel coupling of GND.
		18. Fixed the bug of failing to save Pass/Fail mask to U disk.
		19. Fixed the bug: Save data as CSV , but the data does not account for the vertical offset of the data.
		20. Fixed the bug: The binary block returned by the WAVEFORM command contains the length of the block in the "#9" header. This length is incorrect when the NP option of the WFSU command is used; the header then gives the memory depth instead of the actual size of the block.

Date	Version	Revision
		21. Fixed the bug of response from the WAVEFORM command prefixes the binary block with the string "ALL," even when "CHDR OFF" is used.
		22. Optimize self-calibration for channels.
2018/1/27	5.1.3.17R1	1. Fixed bug: Sometimes Auto setup fails on probe compensation output .
2017/11/20	5.1.3.17	1. Fixed bug: Corrected under-compensation from probe compensation waveform on 100 mV/div ranges.
		2. Fixed bug: FFT horizontal frequency div is incorrect. The wrong sequence is shown: 5 Hz, 2 Hz, 1 Hz, 2 Hz, 5 Hz, 100 mHz, 200 mHz.
		3. Optimized translation for German and English menus and pop-up messages.
		4. Fixed bug: The scope does not save the "limit range" of slope trigger while powered off.
		5. Fixed bug: The waveform disappears from the Zoom window at the edge of screen with the timebase set to 500ns/div.
		6. Fixed bug: There is an issue with the Y cursor offset/scaling, probe with x10 setting. The Y1/Y2 cursor values do not match the Y voltage division/offset of the selected input channel.
		7. Fixed bug: Track cursor source set to track the waveform in the zoom window, but it tracks main window.
2017/7/06	5.1.3.13	1. Cursor values not correct if probe attenuation was not set to 1X.
		2. Removed channel input impedance of 50Ω.
		3. Added extern load setting to FFT menu. If using an external load, amplitudes can be shown in dBm.
		4. Repaired intermittent lock up after enabling decoding function.
		5. Optimized translation for German and English menus and pop messages.
		6. Removed Option label from UI.
		7. Corrected cursor measurements for active Zoom with FFT.
		8. Added telnet(port 5024) and open socket(port 5025) for LAN communication.
		9. Fixed blank zoom bug. With both channels at 2 ms/div, 7 Mpts, and a zoom of 500 ns/div, the zoom window would blank.
		10. Fixed decode threshold levels for 10X probe attenuation selection.
		11. Fixed average mode. After pressing [Run/Stop] to halt acquisition, the display changed to the last waveform, rather

Date	Version	Revision
		than maintaining the averaged waveform.
		12. Remain the final message for firmware update until rebooted.
		13. Fixed the issue with Chinese language setting after self-calibration.
		14. Fixed the CAN source bug. If the source selected was CANH or CANL, decode would not work correctly.
		15. Decreased waveform jitter with active measurements or math with horizontal delay out of the screen.
		16. Added progress information while saving CSV files.
		17. Fixed the Cycle RMS measurement does not update when the input signal changes.
		18. Keep "Print" picture type in accordance with the type selected from "Save/Recall".
		19. Fixed user file renaming of a previously saved file.
		20. Enabled decoding for time bases above 20ms/div.
		21. Disable menu if cursors, measurement and math is disabled.
		22. Finished updates to support EasyScopeX and Labview driver.
		23. Optimized channel self-calibration.
2017/3/22	5.1.3.8	1. Initial formal release.

Compatibility between Versions

Source Version	Object Version	Compatibility

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Release Notes of the SDS1004X-E Follow

Date	Version	Revision
2018/09/20	6.1.26	1. Added SCPI command to set up gated measurements and return the data.
		2. Customers can save the result of decode list table to a CSV file.
		3. Modified the color of FFT to match the trace selected.
		4. There are some times of quick calibration during warming up the SDS XE. Added a menu below Utility to disable the quick calibration so that the sampling isn't interrupted.
		5. Created software that converts binary waveform data to CSV. It can be downloaded from the embedded web server on the scope.
		6. Fixed the bug: "Screen Save" button on web page does not work with some browsers.
		7. Fixed the bug: The setting of Educational mode can't be saved after power off.
		8. Fixed a bug with MSO decoding. and the SLA1016 firmware also needs to be updated to 8.1.11.
		9. Fixed the bug: The binary block returned by the WAVEFORM command contains the length of the block in the "#9" header. This length is incorrect when the NP option of the WFSU command is used; the header then gives the memory depth instead of the actual size of the block.
		10. Fixed the bug of the scope response from the WAVEFORM command prefixes the binary block with the string "ALL," even when "CHDR OFF" is used.
		11. Added exiting the on-screen keyboard by OK button.
2018/05/31	6.1.25R2	1. Fixed the bug: Once the acquisition is stopped, the scope often can't find search events in other channels.
		2. Fixed the bug: In certain situations, the scope freezes when the Auto Setup button is pressed.
		3. Fixed the bug: The Pass/Fail mask is not correct at edge of screen left and right.
		4. Attenuation and invert indicator were added into the channel tab.
		5. Any arbitrary probe factor from 1e-6 to 1e6 can be set by universal knob.
		6. Got rid of suffix 'A' that stands for 'Acknowledge' from I2C decode.
		7. Fixed the bug: The dedicated window for long I2C data sometime lose data at right edge.
		8. Fixed the bug: The decoder sometimes does not show any

Date	Version	Revision
		info.
		9. Fixed the bug: After updating to the last firmware and OS version, the remote panel/control interface can no longer be connected.
2018/05/02	6.1.25R1	1. Increased XY mode wave fresh speed.
		2. Changed the displayed system information screen. From ADS version of 6.1.25R1, the info screen now shows 5 sections of software versions, including the OS version ID.
		3. Optimized remote webpage screen update rate. Requires both OS and ADS update which are located on the SIGLENT product webpage.
		4. Add virtual control panel for PC and mobile terminals.
		5. Added SCPI commands for Math waveforms (except FFT) and digital channel waveforms (ADS version of SLA1016 should be $\geq$ 8.1.9).
		6. See the SIGLENT product webpage for software updates.
		7. Added Digital Channel cursor support.
		8. Optimized accuracy of horizontal measurement, especially when there are only a few samples in very small timebase.
		9. The 'Link to Trigger'menu modified to 'Copy setting'.
		10. Added ability to disable one direction of the full duplex encoders.
		11. Fixed the bug related to displaying long IC2 decoded packets.
		12. Fixed the bug: SDS1004X-E webpage update would sometimes fail.
		13. Fixed the channel inversion bug when changing timebase from 1ms to 2ms.
		14. Fixed the bug: Unreadable digital system information.
2018/02/27	6.1.20R1	1. Added Bode Plot support for all of Siglent's SDG instruments.
		2. Fixed a bug in 6.1.20 which maybe cause signal disappear after self-calibration for Channel.
2018/02/01	6.1.20	1. Add MSO/Logic functionality.
		2. Added automatic vertical scale (volts/div) in Bode Plot mode.
		3. Added USB WiFi support.
		4. Optimized the WiFi GUI.
		5. Automatic Roll mode selection will be disabled if manually disabled once.
		6. Renamed Runt-Trigger in German.
		7. Fixed a bug in the I2C triggering system of 7 bit Address& Data.
		8. Improved Auto Setup function with1K compensation output.
		9. Improved waveform update when using sequence mode on

Date	Version	Revision
		long timebases.
		10. Optimize self-calibration for channels.
2017/12/18	6.1.12R1	1. Modified Pass/Fail output pulse to 5us.
2017/11/16	6.1.12	1. Initial formal release of SDS1004X-E.

Compatibility between Versions

Source Version	Object Version	Compatibility
6.1.25R1	6.1.25R2	Yes
6.1.20R1	6.1.25R2	Yes
6.1.20	6.1.25R2	Yes
6.1.12R1	6.1.25R2	Yes
6.1.12	6.1.25R2	Yes

Update instructions

◆   Very important!

Because 6.1.20R1 fixed a bug with self- calibration for the each channel, the oscilloscope will need to perform a self-calibration once if the machine is updated to 6.1.20R1(or higher).