Revision History

Date	Version	Revision
2023/3/27	6.1.37R10	1. Optimized VGA configuration
2022/5/20	6.1.37R9	1. Fixed the problem: The skew of the two ADCs is not accuracy for hardware of 09 version (System Status shows Hardware Version: 09-xx). The other hardware version has no this problem.
2021/11/09	6.1.37R8	2. Fixed the problem: very few SDS1xx4X-e stuck at self-calibration 3. Be Compatible with a new VGA chip
2021/10/15	6.1.37R6	1. Fixed the bug in 6.1.37R2 which cause the WiFi does not work
2021/07/26	6.1.37R2	1. Added data logger featuring Sample and Measurement Logger functions 2. Added counter function 3. Added Labels 4. Added NTP (Network Time Protocol) and Time Zone. Also requires OS update to SDS1xx4X-E_OSV2 which is located on the SIGLENT product webpage. The OS Update Instructions is also included SDS1xx4X-E_OSV2.zip 5. Modified negative or positive of horizontal delay: Time zero is in trigger. Before trigger, time position is -time (negative delay relative to trigger) and after trigger is +time (positive delay relative to trigger) 6. Fixed a bug with Bin2CSV for ROLL mode 7. Rebuilt Bin2CSV to File Converter which can also convert data logger file to CSV. 8. Fixed a bug: some case there is a blue line on decode bus 9. Fixed a bug with saving hex MSO CSV file 10. Fixed a bug: After rebooting , Bode Plot cursor can't be moved 11. Fixed a bug: fine adjusting with customer probe 12. WiFi supported Spaces and Special Characters
2020/02/25	6.1.35R2	1. Added support for the SAG1021I USB Isolated AWG Module Hardware 2. Fixed the bug: Sometimes PNSU command returns invalid value (Need referring to the latest Program Guide) 3. Added 9 data bits for UART decoding 4. Fixed the bug of UART decoder with some special settings 5. Increased baud rate of UART trigger from 5 Mbps to 20 Mbps 6. Fixed the bug: The command 'WF? DAT2'returns error length of waveform when digital is enable 7. Fixed the bug: CSV file of waveform has no indication of the trigger point in the data 8. Fixed the bug: After repowering all FFT markers are on just

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		one peak
		9. Fixed the bug: After repowering, signal level of CAN trigger can't be recalled
		10. Fixed a few SCPI Commands errors: MATH: CURSOR_VALUE? C3:INVERT_SET? is missing HISTORY_LIST? is missing DIGITAL:LOW8_SWICHT, typo in name C5:COUPLING? typo in name
		11. Fixed the Bode Plot bug: Sometime there isn't enough delay after the scope switches timebase values before it tries to take a measurement
		12. Fixed the bug：Matlab can't import 14 M Matlab waveform files
		13. Fixed the bug：'WF?'command ignores the length set by 'WFSU' for digital
2019/05/15	6.1.33	1. Optimized communication between SDS1xx4X-E and SLA1016. This revision (and higher) requires the SLA1016 MUST be upgraded to 8.1.16 (or higher) first. Please take a look at 'Compatibility with SLA1016' at the end of the release notes.
		2. AWG Optimized Bode Plot: Accuracy and Sensitivity Improvement, New Vari-level Mode for Testing Loop Response, Miscellaneous Function and UI Improvements.
		3. Optimized FFT UI: Added Peaks, Markers, and search within FFT.
		4. Optimized accessing USB drive so that when a USB drive is moved to a computer, Windows will not prompt a restoration of the USB drive.
		5. Optimize WIFI connection: 63 characters can now be used for a WPA2 PSK key.
		6. Added parity options of MARK/SPACE for UART of 9-bit Decode.
		7. Optimized behavior of the cursors (x-axis): Added a mode that the cursors remain at the set position on the waveform when changing time base.
		8. Optimize self-calibration for channels. (Recommend to perform a self-calibration after upgrading.)
		9. Added a pop message: If there are too many serial frames in one sample, the Scope does not decode all of the serial frames and pop up message of 'Decoding to maximum frame number limitation!'
		10. Fixed the bug of ROV measurement.

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		11. Fixed the bug: Normal trigger can show more-than-one trigger event on the display at one time.
		12. Fixed the bug: Erratic triggering, randomly jumping between the first and the second edge of a signal.
		13. Fixe the bug: The acquire time of history is reset to zero if the time reach 1 hour and 11 minutes. The delta time is also wrong if the period is longer than 1 hour and 11 minutes.
		14. Fixed The SPI triggering issue: the 16-bit trigger wouldn't work for a gap >360 ns between the two 8-bit packets.
		15. Fixed the bug: Save/Recall setup of trigger and scale issue. (SalesForce ID：P-00199) (SalesForce ID：P-00200)
		16. Fixed the bug: Reading cursors by SCPI is not accuracy. (SalesForce ID：P-00201)
		17. Fixed the bug: In fine adjust mode, some scale such as 302 mV/DIV is in the wrong position.
		18. Fixed the bug: LIN decoder doesn't decode frames with zero-length response.
		19. Fixed the bug: If the Courser Offset is not a multiple of zoom time base, the curser will be replaced when zoomed.
		20. Fixed the bug: The measurements made with the cursor in Ref. Give wrong values for all the different probes of X1.
		21. Fixed the bug: Measures fairs with GATE give completely random values in signals of low frequency.
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.

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		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 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) See the SIGLENT product webpage for software updates.
		6. Added Digital Channel cursor support
		7. Optimized accuracy of horizontal measurement, especially when there are only a few samples in very small timebase

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		8. The 'Link to Trigger'menu modified to 'Copy setting'
		9. Added ability to disable one direction of the full duplex encoders
		10. Fixed the bug related to displaying long IC2 decoded packets
		11. Fixed the bug: SDS1xx4X-E webpage update would sometimes fail
		12. Fixed the channel inversion bug when changing timebase from 1ms to 2ms
		13. Fixed the bug: Unreadable digital system information
2018/02/27	6.1.20R1	2. Added Bode Plot support for all of Siglent's SDG instruments
		3. Fixed a bug in 6.1.20 which maybe cause the signal disappear after self-calibration for channels
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 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 SDS1xx4X-E

Compatibility between Versions

Source Version	Object Version	Compatibility
6.1.37R9	6.1.37R10	Yes
6.1.37R8	6.1.31R10	Yes
6.1.37R6	6.1.37R10	Yes
6.1.37R2	6.1.37R10	Yes
6.1.26	6.1.37R10	Yes
6.1.25R2	6.1.37R10	Yes

Source Version	Object Version	Compatibility
6.1.25R1	6.1.37R10	Yes
6.1.20R1	6.1.37R10	Yes
6.1.20	6.1.37R10	Yes
6.1.12R1	6.1.37R10	Yes
6.1.12	6.1.37R10	Yes
6.1.33	6.1.37R10	Yes
6.1.35R2	6.1.37R10	Yes

Compatibility with SLA1016

Source Version	Object Version	Compatibility
8.1.16	6.1.33/6.1.37R10	Yes
8.1.11	6.1.33/6.1.37R10	No
8.1.9	6.1.33/6.1.37R10	No
8.1.8	6.1.33/6.1.37R10	No

Update instructions

◆ Important!

Because 6.1.33 fixed a bug with self- calibration for each channel. Please perform a self-calibration if the machine is updated to 6.1.33 (or higher)

◆ Very important!

Optimized communication between SDS1xx4X-E and SLA1016. If the SDS1xx4X-E will be upgraded to this version (or higher), the SLA1016 **MUST** be upgraded to 8.1.16 (or higher) first.

◆ Very important!

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