Revision History

Date	Version	Revision
7/8/2025	6.01.01.38R3	1. Support IQ waveform generated by customIQ of SigIQPro; 2. Screenshot files support PNG and BMP formats; 3. MOD, SWEEP, BURST add RUN/Stop control function; 4. Support display of current output frequency during frequency sweep; 5. Fixed the bug that the waveform is discontinuous when the length of the sequence wave is not an integer multiple of 16; 6. Enhance the sequence function, and the number of loops of segment no longer occupies storage space multiple times; 7. Delete the true arb mode of arb wave, and only keep the DDS mode. The true arb mode is implemented by the sequence (sequence with only one segment); 8. Solve the problem of abnormal output when the frequency between 250MHZ and 300MHz during sweep; 9. Modify the default output polynomial of PRBS and support programmable polynomial; 10. Sync output supports 50% duty cycle output mode; 11. IQ waveform information diaplay add data source information; 12. Solve the problem of duty cycle is changed during frequency change when square or pulse output; 13. Added a new DC output mode to solve the problem that when changing the voltage, the output will jump to 0 before outputting. This method will reduce the output accuracy; 14. Support amplitude sweep function.
11/19/2024	6.01.01.37R6	1. Supported multi-pulse waveform output. 2. Supported sequence playback. 3. Added new “step” sweep mode, and changed the minimum sweep time to 5us. 4. Added the function of long pressing knob to save screenshots. 5. Optimized knob response to solve the problem of occasional code loss. 6. Added SCPI command for synchronous output of two channels. 7. Added burst hold setting function for burst output.

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		8. Supported license installation by U-disk. 9. Supported MAC address display. 10. Solved the problem of output error under FSK modulation when frequency above 300 MHz. 11. Solved the problem of occasional non-response for SCPI command when connected by socket. 12. Solved the problem of system crash when importing large CSV waveform file by U-disk.
2/14/2023	6.01.01.36R8	1. Fixed bug that the output amplitude becomes larger when upgrade from 6.01.01.36 to 6.01.01.36R3. 2. Optimize Self-calibration algorithm and open self-calibration function in UI.
11/6/2022	6.01.01.36R3	1. Control the IQ output amplitude to avoid distortion 2. Optimize phase noise when using external reference clock 3. Fixed bug in FM modulation on square waveform 4. Fixed bug that the output amplitude of square wave, pulse wave and PRBS is smaller than the set value 5. Fixed bug that VPP was still displayed on the UI when control the output amplitude in dBm by the SCPI command 6. Fixed the problem of abnormal pulse output when pressing output in burst mode 7. Resolve potential key and touch non response issues 8. Fixed the bug that 128QAM cannot be demodulated
2/4/2021	6.01.01.36	1. Allowed one channel to modulate the other 2. Supported Burst in TrueArb mode 3. Supported Burst Counter in Burst mode so the number of burst trains can be set to > 1 when trigger source = external or manual 4. Added an option to let the SDG start with activated outputs 5. Added 50 ohm output impedance text in the UI 6. Able to remember the digit of a parameter that had been modified 7. Fixed several bugs: a) DDS interpolation bug b) Switching on/off output causes random phase deviation between channels in Track mode c) Incorrect square/pulse waveform initialization in some cases d) Unable to store the level settings for noise

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		e) Unable to recognize the command MODE PHASE-LOCKED f) Freezing issue when being written a 20MB long file with the EasyWaveX g) The setting "BANDSET" with Waveform = NOISE leads to inconsistent behavior on the Noise Bandwidth of the output signal; The real-time noise bandwidth on channel 2 is changed if an AM sine modulation is switched on channel 1 h) Unable to install the IQ option before 30 trials run out
9/17/2019	6.01.01.35R5B1	1. Changed the upper limit of carrier frequency (sine) in Burst mode from 300 MHz to 500 MHz 2. Added some missing SCPI commands 3. Fixed several bugs: a) Messed up signal after switching from 500 MHz sine to square in independent mode b) Glitches when outputting pulses under certain circumstances in independent mode
5/6/2019	6.01.01.33R2	1. Removed the warning message when parameter is set to a value beyond the limit 2. Supported to copy/paste/delete folder in Store/Recall file manager 3. Optimized initialization time when the waveform is switched between IQ and other waveforms 4. Supported phase compensation in IQ mode 5. Fixed several bugs: a) [2018/09/14-924144, 2018/09/14-937446] Signals get interrupted upon timing-related change of the settings in Independent mode b) Anomaly on square/pulse waveform with some setting c) [2018/11/06-92208] Anomaly on arb waveform when toggle the "ArbMode" from DDS to TrueArb and back to DDS in Independent mode
7/20/2018	6.01.01.29R10	1. Optimized TrueArb algorithm and added 3 types of interpolation: sinc, sinc27 and sinc13 2. Optimized jitter performance of Square and Pulse 3. Optimized algorithm of Noise generating so the bandwidth setting lower limit of Noise optimized from 80 MHz to 1 mHz 4. [2017/12/22-174663] Changed the clock switch strategy: When the clock source is set to External and no actual

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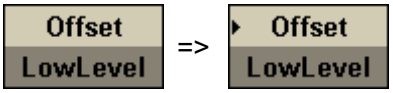
		external clock signal is being received, the clock source will not switch to Internal automatically but the clock icon  will indicate that external clock is lost 5. [2017/12/22-174663] Changed default state of 10 MHz Out to "Disable" 6. Added Slave Delay option in Multi-Device Synchronization function 7. Added indicator for double function of the soft keys  8. Fixed the following bugs: a) Crashes when downloading 20 Mpts waveform data from the EasyWave program b) Inaccurate burst delay c) In TrueArb mode enabling AM with large amplitude may trigger OVP d) Switching the waveform from IQ to sine with large amplitude may trigger OVP e) Switching off the output on the SDG6kX only drops the output level by approx 20 dB but does not completely switch it off
11/10/2017	6.01.01.28R1	The first formal release

Compatibility between Versions

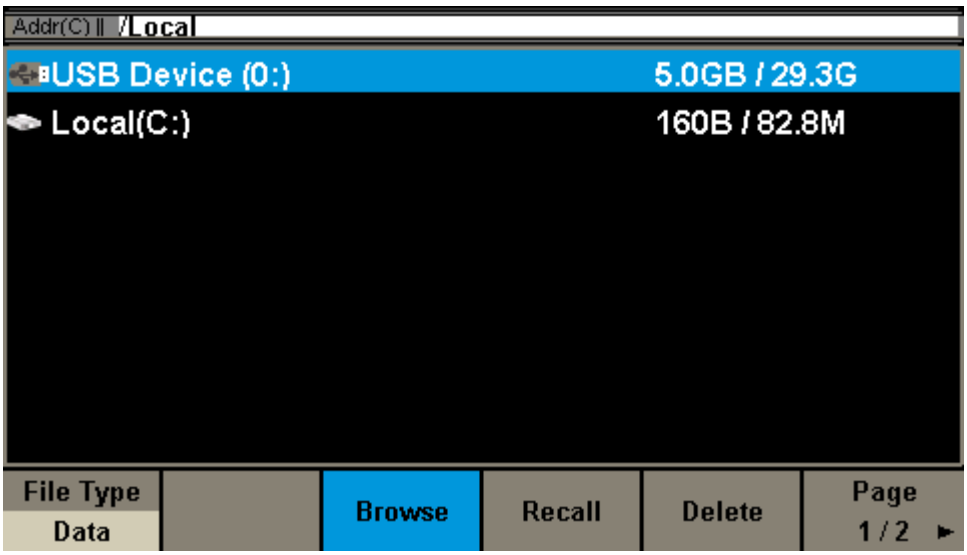
Source Version	Object Version	Compatibility
6.01.01.37R6	6.01.01.38R3	Tested.
6.01.01.36R8	6.01.01.37R6	Tested.
6.01.01.36R3	6.01.01.36R8	Tested. A self-calibration is required after upgrading from 6.01.01.36R3: Utility -> Test/Cal -> SelfCal.
6.01.01.36	6.01.01.36R8	Tested.
6.01.01.35R5B1	6.01.01.36	Tested
6.01.01.33R2	6.01.01.36	Tested
6.01.01.33R2	6.01.01.35R5B1	Tested
6.01.01.29R10	6.01.01.35R5B1	Tested
6.01.01.29R10	6.01.01.33R2	Tested
6.01.01.28R1	6.01.01.33R2	Tested

Update Instructions

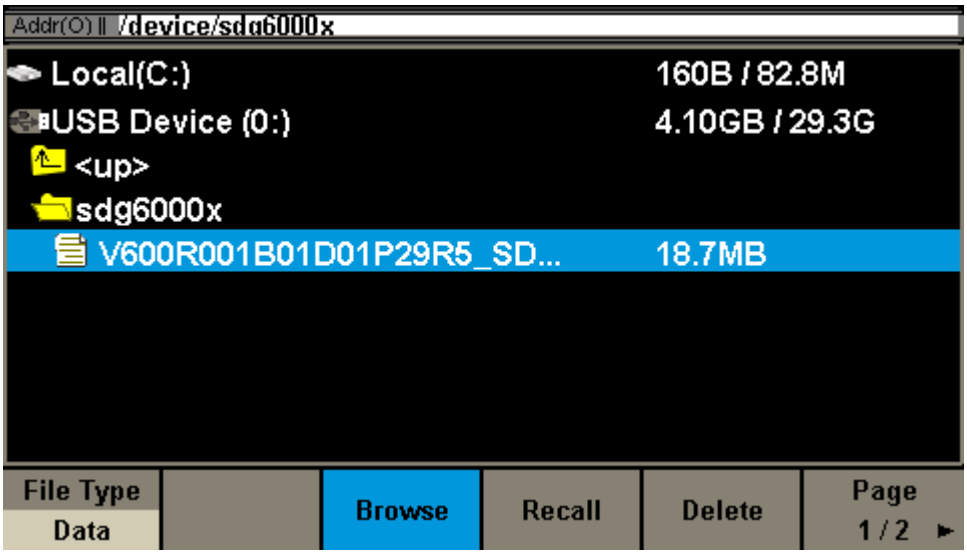
WARNING: DO NOT shut off the instrument until the update is completed.

1. Copy the update file (*.ads) to a FLASH type U-disk, and then connect the U-disk to the USB host port of the instrument.

2. Press the Utility key on the front panel, and then softkey “System ->Page 1/2 -> Firmware Update”, to enter the interface of the file browser.



3. Select “ USB Device” thru the knob on the front panel, press “Browse”, and then select the correct ads file using the knob



4. Press “Recall” to start the update. A progress bar is displayed during the update. After the update is completed, the generator will restart automatically.

WARNING: DO NOT shut off the instrument until the update is completed.