

## **Revision History**

Date	Version	Revision
11/19/2024	6.01.01.37R6	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.
		<ol><li>Added burst hold setting function for burst output.</li></ol>
		8. Supported license installation by U-disk.
		<ol><li>Supported MAC address display.</li></ol>
		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	Fixed bug that the output amplitude becomes larger when
		upgrade from 6.01.01.36 to 6.01.01.36R3.
		Optimize Self-calibration algorithm and open self-
		calibration function in UI.
11/6/2022	6.01.01.36R3	Control the IQ output amplitude to avoid distortion
		Optimize phase noise when using external reference
		clock
		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
		Resolve potential key and touch not response issues     Fixed the bug that 128QAM cannot be demodulated
2/4/2021	6.01.01.36	Allowed one channel to modulate the other
_, ,, _ U _ I	3.01.01.00	Supported Burst in TrueArb mode
		Supported Burst Counter in Burst mode so the number of
		burst trains can be set to > 1 when trigger source =



Date	Version	Ro	vision
Date	Version	Re	external or manual
		1	
		4.	Added an option to let the SDG start with activated
		E	Outputs
		5.	Added 50 ohm output impedance text in the UI
		6.	Able to remember the digit of a parameter that had been
		7	modified
		7.	Fixed several bugs:
			a) DDS interpolation bug
			b) Switching on/off output causes random phase
			deviation between channels in Track mode
			<ul> <li>c) Incorrect square/pulse waveform initialization in some cases</li> </ul>
			d) Unable to store the level settings for noise
			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



Date	Version	Revision
		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	Optimized TrueArb algorithm and added 3 types of
		interpolation: sinc, sinc27 and sinc13
		2. Optimized jitter performance of Square and Pulse
		<ol> <li>Optimized algorithm of Noise generating so the bandwidth setting lower limit of Noise optimized from 80 MHz to 1 mHz</li> </ol>
		4. [2017/12/22-174663] Changed the clock switch strategy: When the clock source is set to External and no actual 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
		Offset LowLevel => Offset LowLevel
		<ul><li>8. Fixed the following bugs:</li><li>a) Crashes when downloading 20 Mpts waveform data from the EasyWave program</li><li>b) Inaccurate burst delay</li></ul>
		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
6.01.01.36R8	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 $\rightarrow$ Test/Cal $\rightarrow$ 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



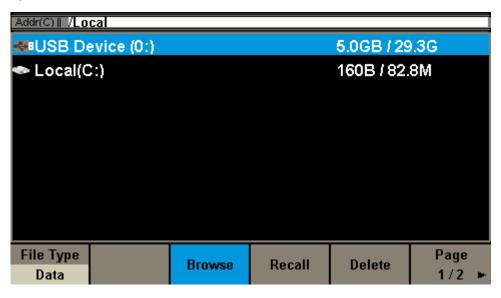
## **Update Instructions**

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.

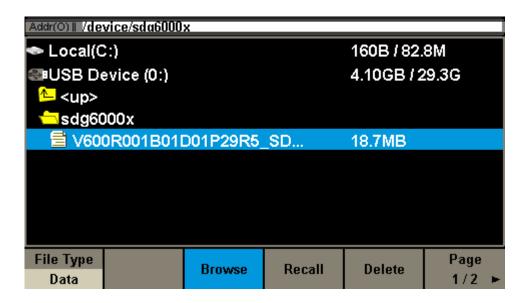


2. Press the Utility key on the front panel, and then softkey "System ->Page 1/2 -> Firmware Update", to enter the interface of the file browser.



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.