



Arbitrary Waveform Generator

OAWG6000 Series

- Dual channel output.
- Sine waveform frequency range: 1 μ Hz ~ 20 MHz, 60 MHz; 1 μ Hz frequency resolution.
- 5 standard waveforms, 50 built-in and 5 user-defined arbitrary waveforms.
- Arbitrary Waveform Edit PC software.
- AM, FM, PM, PWM, FSK, BPSK and SUM modulation types.
- Sweep and burst function.
- Built-in 350 MHz frequency counter.
- 120 MSa/s sampling rate; 14 bit vertical resolution.
- Channel coupling and feature combining on Channel B.
- USB device, RS-232 interface.

Model		OAWG6020	OAWG6060	
Frequency	Range	Sine	1 μ Hz ~ 20 MHz	
		Square, Pulse	1 μ Hz ~ 10 MHz	
		Others	1 μ Hz ~ 5 MHz	
	Resolution	1 μ Hz		
Accuracy	\pm (50 ppm+1 μ Hz)			
Waveform	Type	Standard	Sine, Square, Ramp, Pulse, Noise	
		Arbitrary	50 built-in waveforms + 5 user-defined waveforms	
	Sine	Harmonic Distortion	\leq -60 dBc; Frequency <5 MHz	\leq -60 dBc; Frequency <5 MHz
			\leq -50 dBc; Frequency \geq 5 MHz	\leq -50 dBc; Frequency <30 MHz
		Total Distortion	\leq 0.1% (20 Hz to 20 kHz, 20 Vpp)	
	Square	Edge Time	\leq 20 ns	
	Pulse	Overshoot	\leq 10%	
		Duty Cycle	0.1% to 99.9%	
		Pulse Width	50 ns to 2000 s	
	Ramp	Symmetry	0.0% to 100.0%	
	Arbitrary	Length	4096 points	
		Sampling Rate	120 MSa/s	
Vertical Resolution		14 bits (CHA); 10 bits (CHB)		
Filter Bandwidth		50 MHz		
Non-volatile Memory	5			
Amplitude	Range	Frequency \leq 20 MHz	0.1 mVpp to 10 Vpp (50 Ω); 0.2 mVpp to 20 Vpp (open circuit)	
		Frequency > 20 MHz	0.1 mVpp to 7.5 Vpp (50 Ω); 0.2 mVpp to 15 Vpp (open circuit)	
	Resolution	50 Ω	1 mVpp (amplitude \geq 1 Vpp); 0.1 mVpp (amplitude <1 Vpp)	
		Open Circuit	2 mVpp (amplitude \geq 2 Vpp); 0.2 mVpp (amplitude <2 Vpp)	
	Accuracy	(at 1 kHz, 0 V offset)	\pm (1% of setting + 1 mVpp)	
Flatness	(relative to 100 kHz sine)	\pm 0.2 dBm; frequency <5 MHz		
		\pm 0.3 dBm; frequency <20 MHz		
		\pm 0.5 dBm; frequency \geq 20 MHz		
DC Offset (Ampl. 0.2 mVpp)	Range	\pm 5 Vdc (50 Ω); \pm 10 Vdc (High z)		
	Accuracy	\pm (1% of setting+1 mVdc)		
Modulation (CHA)	FM, AM,	Carrier Waveform	Sine, square, ramp, etc. (only pulse for PWM)	
	PM, PWM,	Modulating Waveform	Sine, square, ramp, etc.	
	SUM	Modulating Frequency	1 μ Hz ~ 100 kHz	
		Source	Internal / external	
	FSK, BPSK	Carrier Waveform	Sine, Square, Ramp, etc.	
		Hope Frequency	1 μ Hz ~ 20 MHz	1 μ Hz ~ 60 MHz
Hope Rate		1 μ Hz ~ 100 kHz		
Source	Internal / external			
Sweep (CHA)	Carrier Waveform	Sine, square, ramp, etc.		
	Sweep Mode	Linear, log		
	Sweep Range	Whole range		
	Sweep Time	5 ms ~ 500 s		
	List Sweep	Length: 600, stop time: 5 ms to 500 s hold time: 0 to 500 s		
Source	Internal, external and manual			
Burst (CHA)	Burst Waveform	Sine, square, ramp, etc.		
	Burst Count	1 ~ 1000000		
	Internal Period	1 μ s ~ 500 s		
	Start/Stop Phase	0° ~ 360°		
	Trigger Source	Internal, external, manual		
Double Channels Operation (CHB)	Frequency Coupling	Frequency ratio, frequency difference		
	Amplitude-Offset Coupling	Amplitude difference, offset difference		
	Waveform Combine	Combine amplitude 0% ~ 100%		
SYNC Output	Waveform Characteristic	Square, edge time \leq 10 ns		
	Output Level	5 V (open circuit) 2.5 V (50 Ω)		

Modulation and Trigger Input	Modulation Input	Voltage: ± 5 Vpp (full scale); impedance: 10 k Ω
	Trigger Input	Level: TTL, impedance: 10 k Ω
Frequency Counter	Frequency Range	0.0 1 Hz ~ 350 MHz, resolution: 6 digits/s
	Period, Pulse Width	100 ns ~ 20 s
	Duty Cycle	1% ~ 99%
	Trigger Level	-3 V ~ 3 V
General Characteristics	Power	AC 100 ~ 240 V, 45 ~ 6.5 Hz, < 30 VA
	Dimension & Weight	256 × 102 × 322 mm, Approx. 3 kg

Accessories

OAWG6000-A1	Power Cord
OAWG6000-A2	BNC Testing Cable
OAWG6000-A3	CD (Software+ User Guide)

Options

OAWG6000-A4	Power Amplifier (8 W, Load 8 Ω)
OAWG6000-A5	TCXO (Frequency Stability ± 2 ppm)