Arbitrary Waveform Generator

OAWG13700 Series

- Dual channel output.
- Sine waveform frequency range: 1 µHz ~ 80 MHz, 120 MHz, 160 MHz; 1 µHz frequency resolution.
- 6 standard waveforms, 137 arbitrary waveforms.
- Arbitrary Waveform Edit PC Software.
- Full and complete modulation types.
- Built-in 350 MHz frequency counter.
- 500 MSa/s sampling rate; 14 bit vertical resolution.
- USB host, USB device and LAN interface.

Model			OAWG13708	OAWG13712	OAWG13716
Frequency	Range	Sine	1 μHz ~ 80 MHz	1 μHz ~ 120 MHz	1 μHz ~ 160 MHz
		Square, Pulse	1 μHz ~ 30 MHz	1 μHz ~ 40 MHz	1 μHz ~ 50 MHz
		Arbitrary	1 μHz ~ 30 MHz		
		Ramp	1 μHz ~ 5 MHz		
	Resolution		1 μHz, 12 digits		
	Accuracy		±2 ppm+1 μHz		
Waveform	Standard Waveforms		Sine, square, ramp, pulse, noise, DC		
	Arbitrary Waveforms		137 kinds of waveforms including PBRS, exponential rise, exponential fall, logarithm, tangent, Sinc, semi-circle, Gaussian, cardiac, quake and so on		
Sine Wave Spectrum Purity	Harmonic Distortion		≤－60 dBc (＜10 MHz)		
			≤－55 dBc (＜80 MHz)		
			≤－50 dBc (＜100 MHz)		
			≤－45 dBc (≥100 MHz)		
	Total Distortion		≤0.1% (20 Hz ~ 20 kHz, 20 Vpp)		
Square, Pulse and Ramp	Square	Edge Time	≤8 ns		
		Overshoot	≤ 5 %		
		Duty Cycle	0.1% ~ 99.9% mini.pos/neg pulse width 10 ns)		
	Pulse	Edge Time	4 ns ~ 100 μs		
		Pulse Width	10 ns ~ 1000 s		
	Ramp	Symmetry	0.0% ~ 100.0%		
Arbitrary Waveforms	Arbitrary	Length	6-1 M points		
		Sampling Rate	500 MSa/s		
		Vertical Resolution	14 bits		
Amplitude	Range	Frequency≤40 MHz	2 mVpp ~ 20 Vpp (open circuit), 1 mVpp ~ 10 Vpp (50 Ω load)		
		Frequency≤80 MHz	2 mVpp ~ 10 Vpp (open circuit), 1 mVpp ~ 5 Vpp (50 Ω load)		
		Frequency≤120 MHz	2 mVpp ~ 5 Vpp (open circuit), 1 mVpp ~ 2.5 Vpp (50 Ω load)		
		Frequency≤160 MHz	2 mVpp ~ 4 Vpp (open circuit), 1 mVpp ~ 2 Vpp (50 Ω load)		
	Resolution		0.1 mVpp ~ 2 mVpp		
	Accuracy		± (setting value×1%＋2 mVpp)		
	Flatness		±0.2 dBm, frequency＜80 MHz		
	(Sine, relative to 1 MHz)		±0.3 dBm, frequency≥80 MHz		
Offset	Range		±5 Vpk (50 Ω load)		
	Resolution		0.1 mVdc ~ 2 mVdc		
	Accuracy		± (Setting value×1%＋2 mV + 0.5% of amplitude)		
Modulation Output (CHA, CHB)	FM, AM,	Modulation Frequency	1 mHz ~ 100 kHz		
	PM, PWM,	AM Modulating Depth	0% ~ 120%		
	SUM Modulation	Phase Deviation	0° ~ 360°		
		Pulse Width Deviation	0% ~ 99%		
		Sum Amplitude	0% ~ 100%		
		Source	internal, external		
	FSK, 3FSK, 4FSK	Hope Frequency	1 μHz ~ maximum frequency		
		Hope Rate	1 mHz ~ 1 MHz		
		Trigger Source	Internal, external (only FSK, 4FSK)		
Sweep Output (CHA, CHB)	Frequency Sweep	Sweep Time	1 ms ~ 500 s		
		Return/Hold Time	0 ~ 500 s		
		Sweep Type	Linear, log		
	List Sweep	Duration Time	1 ms ~ 500 s		
		Retention Time	0 s ~ 500 s		
Burst Output (CHA, CHB)	Waveform		Sine, square, sawtooth, etc.		
	Burst Period		1 μs ~ 500 s		
	Burst Count		1 ~ 1000000		
	Start/End Phase		0° ~ 360°		
	Trigger Source		Internal, external, manual		
Channel Coupling	Frequency Coupling		Frequency ratio, frequency difference		
	Amplitude Offset Coupling		Amplitude difference, offset difference		
	Waveform Coupling		Combination amplitude, 0% ~ 100%		
Sync	Waveform Characteristics		Square, edge time ≤10 nS		
	Output level		Compatible with TTL		
	Output Impedance		50 Ω nominal		

Modulation and Trigger Input	Modulation Input Voltage	±2.5 Vpp full scale
	Trigger Input Level	TTL
	Input Impedance	10 kΩ nominal
Counter	Frequency Measurement	0. 1 Hz ~ 350 MHz; resolution: 7 digits/s
	Period, Pulse Width Measurement	100 ns ~ 20 s
	Duty Cycle Measurement	0.1% ~ 99.6%
General Characteristics	Power	AC 100 ~ 240 V, 45 ~ 6 5 Hz, ＜30 VA
	Dimension & Weight	367 × 256 × 106 mm; 3.7 kg

Accessories:

OAWG13700-A1	Power Cord
OAWG13700-A2	BNC Testing Cable
OAWG13700-A3	CD (Software+ User Guide)