

# UTG9000C-II Series Function Arbitrary Waveform Generators



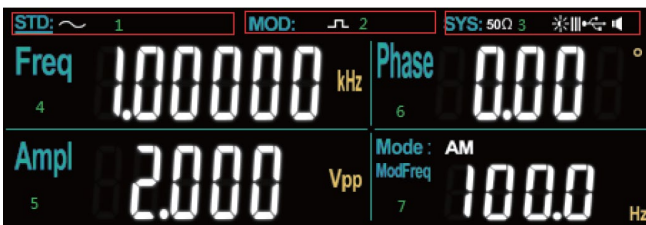
## ● Introduction

The UTG9000C-II Series Function/Arbitrary Waveform Generator uses the direct digital synthesis technology, which can generate the accurate, stable, pure and low-distortion waveform output, and the resolution is as low as 1 $\mu$ Hz. It is an economical, high-performance and multifunctional function/arbitrary waveform generator. With the convenient operation interface, excellent technical indicators and humanized graphic display, this multi-purpose equipment can meet your learning and testing requirements and improve work efficiency

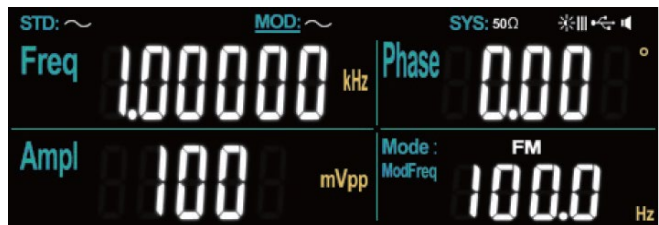
## ● Features

- ▶ 2/5MHz sine waveform output, 1 $\mu$ Hz full-band resolution
- ▶ DDS implementation with 125MSa/s sampling rate and 14bits vertical resolution
- ▶ 20 sets of non-volatile digital arbitrary waveform memory
- ▶ High-accuracy, broad-band 6 bit frequency counter, range: 100mHz~100MHz
- ▶ Easy to use modulation type: AM, FM
- ▶ Ultra-black EBTN LCD display

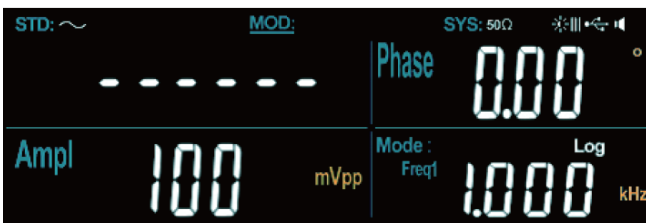
## Design Features



Single Channel, Clear and easy functional interface



Easy to use modulation type



Sweep function



Arbitrary wave output

Technical Specifications		
Model	UTG9002C-II	UTG9005C-II
channels	1	
Bandwidth	2MHz	5MHz
Sampling rate	125MSa/s	
Vertical resolution	14bits	
Waveforms	Sine, square, pulse, ramp, noise, DC, arbitrary (20 sets inside )	
Sweep modes	linear,Logarithmic,	
Modulation type	AM,FM	
<b>Output characteristics</b>		
Output impedance	50Ω/High Z	
Amplitude range	1mVpp ~ 10Vpp (50Ω) ,2mVpp ~ 20Vpp (High Z)	
Accuracy(1kHz sine wave)	3%±2mV	
DC offset range	-5Vpp ~ 5Vpp(50Ω) (AC+DC)	
	-10Vpp ~ 10Vpp(high Z)(AC+DC)	
Accuracy(1kHz sine wave)	3% of the amplitude set value 2 mV	
Amplitude resolution	1mV	
Amplitude flatness (relative to 1kHz sinewave 1Vpp 50Ω)	< 100kHz 0.1dB, 100kHz ~ 5MHz 0.3dB	
<b>Waveform characteristics</b>		
<b>Sine wave</b>		
Frequency range	1μHz ~ 2MHz	1μHz ~ 5MHz
Resolution	1μHz	
Harmonic distortion(typical)	Test condition: output power 0dBm	
	DC ~ 20kHz -55dBc	
	20kHz ~ 1MHz -50dBc	
	1MHz ~ 5MHz -40dBc	
Total harmonic distortion (typical)	DC ~ 20kHz, 1Vpp < 0.2%	
<b>Square/Pulse wave</b>		
Frequency range	1μHz ~ 2MHz	1μHz ~ 5MHz
Resolution	1 μHz	
Rise/fall time	< 50ns (typical value, 1kHz, 1Vpp)	
Overshoot(typical)	< 2% (50Ω)	
Duty ratio	0.01% ~ 99.99%	
Min pulse width	≥80ns	
Jitter (typical)	1ns + 100ppm of period	
<b>Ramp wave</b>		
Frequency range	1μHz ~ 200kHz	
Resolution	1 μHz	
Non-linearity	3% 2 mV (typical value, 1kHz, 1Vpp, duty of 50%)	
Duty	0.0%-100.0%	
Min. edge time	≤35ns	
<b>Arbitrary wave</b>		
Frequency range	1μHz ~ 1 MHz	1μHz ~ 1 MHz
Resolution	1 μHz	
Non volatile storage	Built-in 20 sets of waveforms	
<b>Frequency sweep</b>		
Carrier wave	Sine, pulse, ramp, arbitrary wave	
Type	Linear, logarithmic	
Frequency sweep time	1ms ~ 500s±0.1%	
Trigger source	Internal / external	
<b>Modulation type</b>		
<b>AM</b>		
Carrier wave	Sine, pulse, ramp, arbitrary wave	
source	Internal / external/BNC	
Modulation wave	Sine , pulse , noise, arbitrary wave	
Modulation Frequency	2mHz ~ 50kHz	
Modulation depth	0% ~ 120%	
<b>FM</b>		

Carrier wave	Sine, pulse, ramp, arbitrary wave	
source	Internal / external/BNC	
Modulation wave	Sine , pulse , noise, arbitrary wave	
Modulation Frequency	2mHz ~ 50kHz	
Frequency deviation	1MHz(mix)	2.5MHz(mix)
<b>Count</b>		
Input level	TTL compatible	
Input Frequency	100mHz ~ 100MHz	
Frequency Resolution	6bit/s	
Coupled mode	DC	
Optional power output		
4W power output	N/A	√
<b>General specifications</b>		
Interface	USB Device	
Display	EBTN LCD	
Power	110V~240VACrms, 50Hz/60Hz	
Product color	White and grey	
Product size	265mm×110mm×320mm	
Product net weight	3.1 Kg	
Standard quantity per carton	2pcs	
Standard carton measurement	380mm x 330mm x 320mm	
Standard carton gross weight	7kg	
<b>Ordering Information</b>		
UTG9000C-II Series	UTG9005C-II(5MHz, 125MSa/s, 2-Channel)	UTG9005C-II
	UTG9002C-II (2MHz, 125MSa/s, 2-Channel)	UTG9002C-II
Standard Accessories	Power cord conforming to the standard of the destination country	/
	USB interface cable	/
	1 BNC cables (1M)	UT-L45