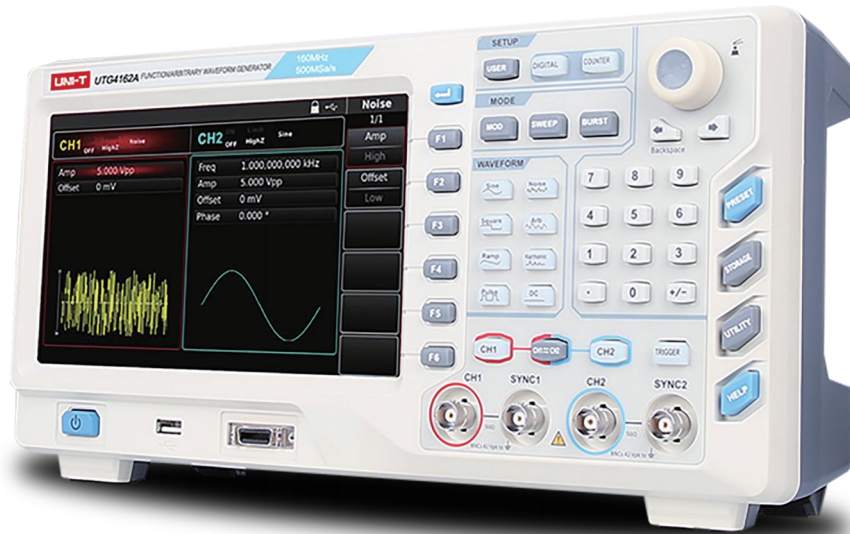


# Data Sheet

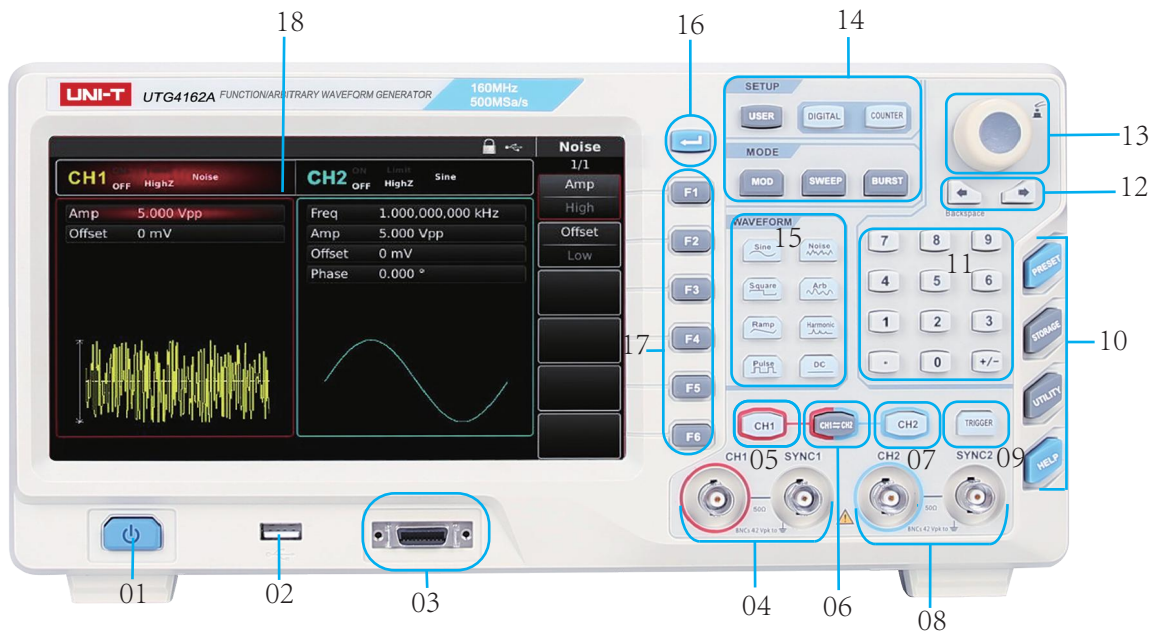
## UTG4000A Series Waveform Generators



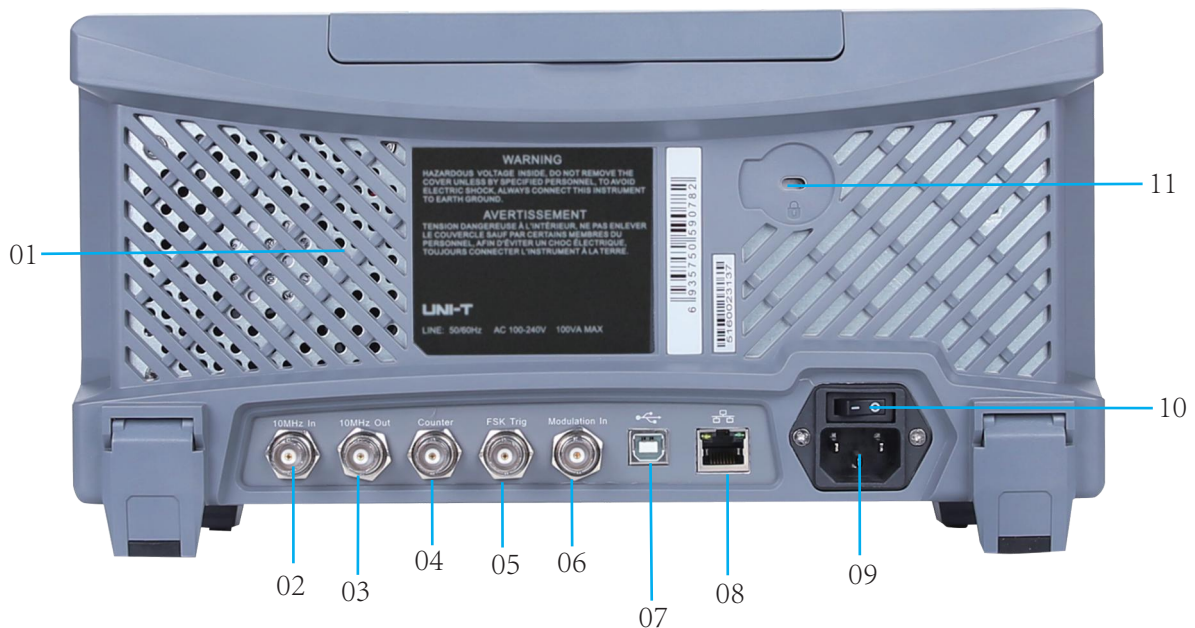
## Main Features

- 80MHz/120MHz/160MHz/200MHz sine waveform output, 1 $\mu$ Hz full-band resolution
- 30MHz/40MHz/50MHz pulse waveform, adjustable rise/fall time
- 500MSa/s sampling rate, 16 bits vertical resolution
- Standard dual channels, supporting stand-alone or channel-coupling output mode
- 32Mpts arbitrary waveform depth, 7GB non-volatile arbitrary waveforms
- Versatile modulation options: AM, FM, PM, ASK, FSK, PSK, BPSK, QPSK, OSK, PWM, SUM, QAM
- Frequency cymometer range: 100mHz~800MHz
- 8 inch TFT LCD,WVGA (800×480)
- Standard Ports: USB Host, USB Device, LAN, 10MHz Input, 10MHz Output, Frequency Counter, FSK Trig, Modulation In

# Panel Structure



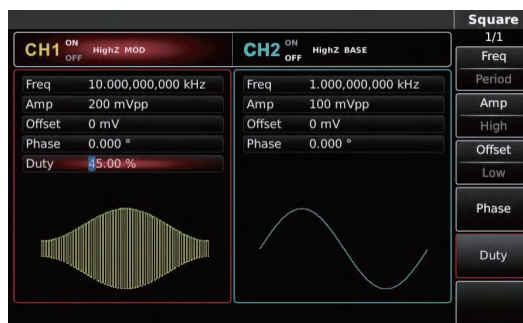
- (01) ON/OFF (02) USB interface (03) Protocol interface (04) CH1 output terminal/ sync output terminal (05) CH1 control terminal
- (06) Sync setting key (07) CH2 control terminal (08) CH2 output terminal/ sync output terminal (09) Manual trigger key
- (10) System function key (11) Numeric keyboard (12) Direction key (13) Multi-functional knob/key (14) Menu key
- (15) Quick selection of waveform type (16) Page Up/Down (17) Soft function key menu (18) Display screen



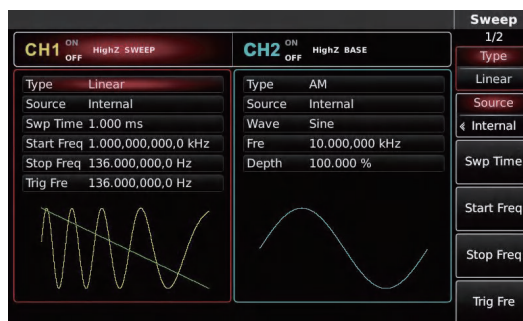
- (01) Heat emission hole (02) External 10MHz input terminal (03) Internal 10MHz output terminal (04) Frequency meter interface
- (05) External digital modulation interface (06) External analog modulation input terminal (07) USB Device (08) LAN port
- (09) AC power input terminal (10) Main power switch (11) Crate lock

# Product Introduction

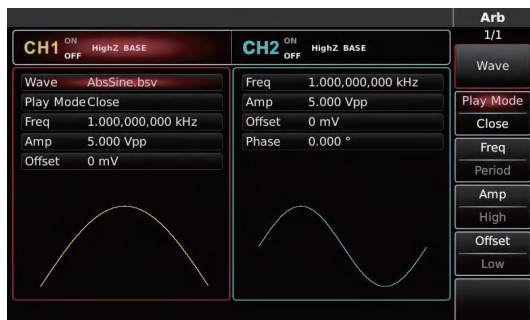
The UTG4000A Series waveform generators with multi-function design is ideal for various application scenarios. Featuring with the Function Generation, Arbitrary Waveform Generation, Pulse Generation, Harmonic Generation, Analog/Digital Modulation source, and cymometer, the UTG4000A series can handle a broad array of signal emulation applications from near DC up to 80MHz or even 200 MHz depending on model and function. The UTG4000A utilizes Direct Digital Synthesizer (DDS) technology delivers stable, precise, low distortion signals. The sleek, upright design features a high resolution 8 inch display screen, while the user-friendly interface design and panel layout improves efficiency.



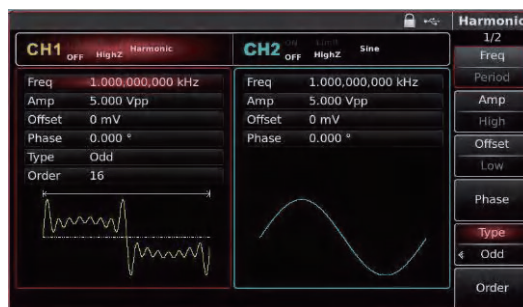
● Rich modulation functions



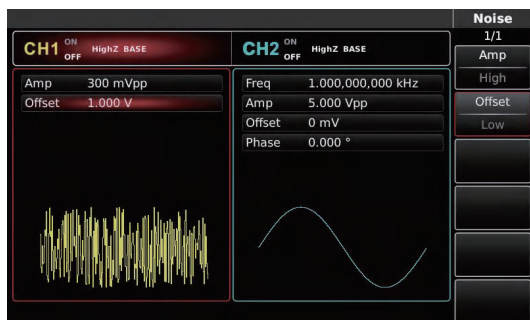
● Linear and logarithmic sweep waveform



● Built-in arbitrary waveform available at any time



● Customize harmonic generation function



● Noise modes



● Special digital interface (optional)

# Technical Specification

Key Specifications	UTG4082A	UTG4122A	UTG4162A	UTG4202A
Max. frequency	80MHz	120MHz	160MHz	200MHz
Channels	2			
Sampling rate	500MSa/s			
Waveforms	Sine,square,ramp,harmonic,pulse,noise,DC voltage,arbitrary			
Working modes	Continuous, modulation, sweep, burst			
Modulation types	AM,FM,PM,ASK,FSK,PSK,BPSK,QPSK,OSK,PWM,SUM,QAM			
Frequency Characteristics				
Sine	1µHz-80MHz	1µHz-120MHz	1µHz-160MHz	1µHz-200MHz
Square/Pulse	1µHz-30MHz	1µHz-40MHz	1µHz-50MHz	1µHz-60MHz
Ramp	1µHz-2MHz	1µHz-3MHz	1µHz-4MHz	1µHz-5MHz
Harmonic	1µHz-40MHz	1µHz-60MHz	1µHz-80MHz	1µHz-100MHz
Noise(-3dB)	80MHz	120MHz	160MHz	200MHz
Resolution	1µHz			
Arbitrary Waveform				
Frequency range	1µHz-20MHz	1µHz-30MHz	1µHz-40MHz	1µHz-50MHz
Memory depth	8pts-32Mpts	8pts-32Mpts	8pts-32Mpts	8pts-32Mpts
Vertical resolution	16bits			
Min rise/fall time(typical: 1Vpp)	<7ns	<6ns	<5ns	<5ns
Power	100V~240V AC, 50Hz/60Hz			
Display	8 inch TFT LCD, WVGA(800 x 480)			
Product net weight	3.5kg			
Product size(W×H×D)	336mm x 164mm x 108mm			
Standard quantity per carton	1pc			
Standard carton size	405mm x 225mm x 265mm			
Standard carton gross weight	4.8kg			

Ordering Information	
UTG4000A Series	UTG4162A: 160MHz, 500MSa/s, 32Mpts, 2-Channel
	UTG4122A: 120MHz, 500MSa/s, 32Mpts, 2-Channel
	UTG4082A: 80MHz, 500MSa/s, 32Mpts, 2-Channel
	UTG4202A: 200MHz, 500MSa/s, 32Mpts, 2-Channel
Standard Accessories	Power cord conforming to the standard of the destination country
	UT-D14: USB interface cable
	BNC cables(1M): 1 pair



\*The UTG4000A series have been certified by CE, UKCA, cTUVus

## Warranty

Three-years warranty, excluding probes and accessories.

Please visit [https://instruments.uni-trend.com/list\\_190/65.html](https://instruments.uni-trend.com/list_190/65.html) to learn more information.

To protect your investment, please purchase from UNI-T official authorized global distributors.

## Find a Distributor

Find an authorized distributor here: <https://instruments.uni-trend.com/Network>

## Contact UNI-T

E-mail: [info@uni-trend.com](mailto:info@uni-trend.com)

Test & Measurement Instruments Website: [instruments.uni-trend.com](https://instruments.uni-trend.com)

UNI-T Corporate Website: [www.uni-trend.com](http://www.uni-trend.com)

UNI-T group maintains a wide products category includes Digital Test & Measurement instruments, Field Testing Meter, Infrared thermal imaging products. As early as 2008, we continue to introduce self-developed Digital Test and Measurement instruments to the market and have made remarkable achievements. At present, we have formed a variety of product lines of Oscilloscope, AWG, Spectrum Analyzer, Bench Multi-meter, Power Supply, DC Load, Power Meter, LCR Meter, Micro Ohm Meter and Data logger. We have separated instruments sub-sites, [instruments.uni-trend.com](https://instruments.uni-trend.com), on the basis of the original website [www.uni-trend.com](http://www.uni-trend.com), in order to be more targeted to provide customers with better service and value.

UNIT/MKT-TMI-SC/AL-2305-040

[Instrument.uni-trend.com](https://Instrument.uni-trend.com)

**UNI-T**<sup>®</sup>