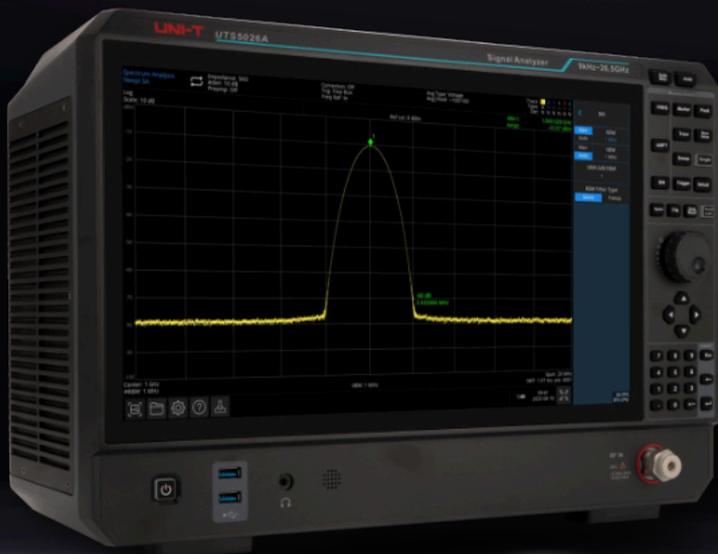


# UNI-T®

## 2024 Test & Measurement Instruments



***Unite your test bench with Uni-T***



# The Never Ending Pursuit Since 1988

## ■ About Us

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Established in 1988 and officially registered as UNI-Trend (China) Technology Co., Ltd. in 2003, UNI-T leads in crafting advanced test and measurement solutions. Our commitment to technology pioneer status aligns with our vision for a sustainable future. A prominent figure in the industry, UNI-T innovates across Education, Scientific Research, Industrial Automation, Automobile, Transportation, Energy, Semiconductors, Network and Communications, Medical, and Environmental Protection. Globally, we've expanded with branches in the USA and Germany, reinforcing our commitment to top-notch solutions. A significant milestone was going public on the SSE STAR stock market in February 2021 (Stock code 688628), highlighting our continuous growth and dedication to excellence.

## ■ R&D focused

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UNI-T has three R&D centers in Dongguan, Chengdu and Changzhou, where more than 200 skilled R&D engineers work to ensure our products are reliable, innovative and affordable. Our factory covers 100,000 square meters and can produce over 10 million units per year. We are experts in testing and we offer cutting-edge solutions to assist our partners and customers worldwide solve their measurement needs today and for tomorrow.

## ■ Wide-Range Production Line

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As a growing company with solutions that span multiple sectors, there's a lot to talk about with UNI-T. In North America, we focus on three major product lines: Test & Measurement Instruments, Field Measurement Instruments and Thermal Imagers. With extensive applications across industries and fields, you can count on UNI-T on the tasks from R&D to production to education. Our Test & Measurement Instruments portfolios includes Digital Oscilloscopes, Waveform Generators, Spectrum Analyzers, Linear DC Power Supplies and Bench Multimeters.

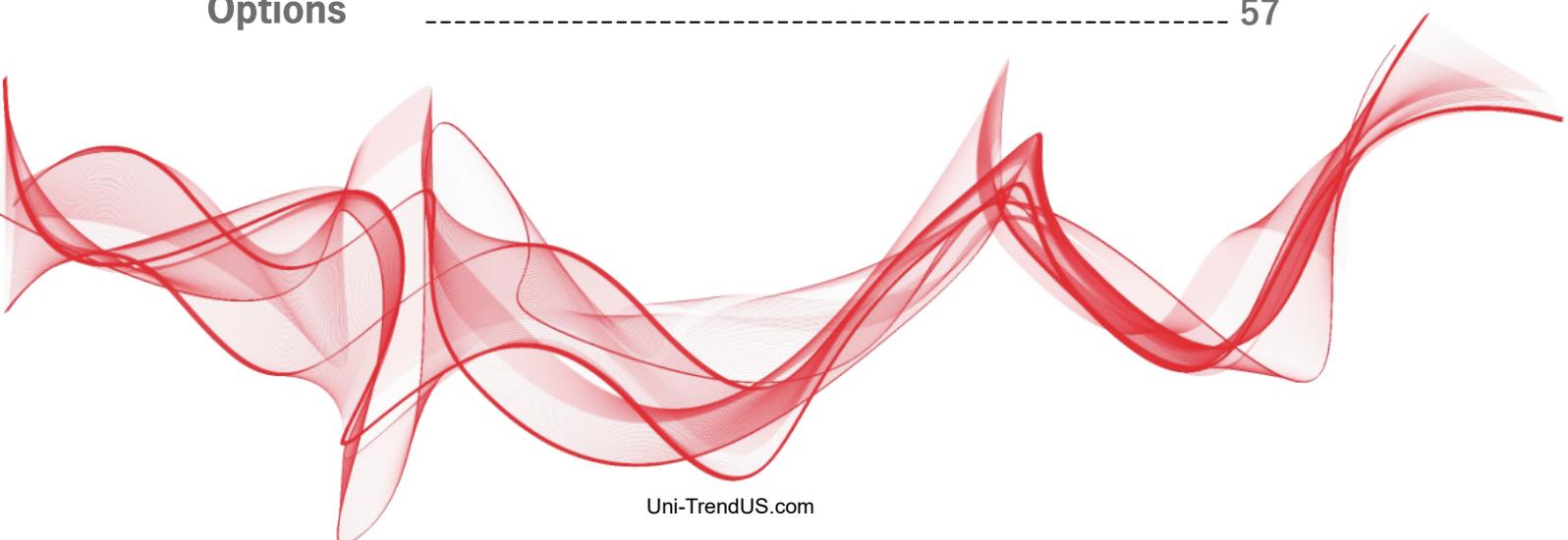
## ■ Customer-Centric Sales

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UNI-T works with partners in more than 80 countries to provide our customers with prompt services whenever they need them. We collaborate with our partners on product and technical issues as well as channel and business strategies to ensure customer satisfaction. Together with our partners, UNI-T aims to deliver the highest quality products and services to scientists, engineers and technicians around the world for their future success.

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# Digital Oscilloscopes Selection Guide

Series	Model	Channel	Memory depth	Sampling rate	Bandwidth								
					2 GHz	1 GHz	500 MHz	350 MHz	200 MHz	150 MHz	100 MHz	70 MHz	50 MHz
 MSO7000X	MSO7204X	4+16Digit	1Gpts	10GSa/s	●								
	MSO7104X	4+16Digit	1Gpts	10GSa/s		●							
 MSO/UPO3000E	MSO/UPO3504E	4+16Digit/4	250Mpts	2.5GSa/s			●						
	MSO/UPO3502E	2+16Digit/2	250Mpts	2.5GSa/s			●						
	MSO/UPO3352E	4+16Digit/4	250Mpts	2.5GSa/s				●					
	MSO/UPO3354E	2+16Digit/2	250Mpts	2.5GSa/s				●					
	MSO3504E-S	4+16Digit	250Mpts	2.5GSa/s				●					
	MSO3354E-S	4+16Digit	250Mpts	2.5GSa/s				●					
 MSO/UPO2000	MSO/UPO2204	4+16Digit/4	56Mpts	2GSa/s				●					
	MSO/UPO2202	2+16Digit/2	56Mpts	2GSa/s				●					
	MSO2204-S	4+16Digit	56Mpts	2GSa/s				●					
	MSO2202-S	2+16Digit	56Mpts	2GSa/s				●					
	MSO/UPO2104	4+16Digit/4	56Mpts	2GSa/s						●			
	MSO/UPO2102	2+16Digit/2	56Mpts	2GSa/s						●			
	MSO2104-S	4+16Digit	56Mpts	2GSa/s						●			
 UPO1000CS	UPO1202CS	2	56Mpts	1GSa/s				●					
	UPO1102CS	2	56Mpts	1GSa/s						●			
 UPO1000	UPO1204	4	56Mpts	2GSa/s				●					
	UPO1104	4	56Mpts	2GSa/s						●			
	UPO1054	4	56Mpts	2GSa/s								●	
 UTD2000CEX+	UTD2202CEX+	2	64Kpts	1GSa/s				●					
	UTD2102CEX+	2	64Kpts	1GSa/s						●			
	UTD2052CEX+	2	64Kpts	1GSa/s								●	
 UTD2000CL+/CL	UTD2152CL	2	64Kpts	500MSa/s					●				
	UTD2102CL+	2	64Kpts	500MSa/s						●			
	UTD2052CL+	2	64Kpts	500MSa/s								●	
	UTD2072CL	2	64Kpts	500MSa/s							●		

# Digital Oscilloscopes Accessories

Model	Information	Certification	Oscilloscopes Series
UT-H01	 Probe factor: (10:1) Bandwidth: 25MHz Voltage: 600Vpp	CE&UKCA	UTD1000CL
UT-H03	Probe factor: (10:1) Bandwidth: 60MHz Voltage: 600Vpp	CE&UKCA	UTD1000CL
UT-P01	Probe factor: (10:1) Bandwidth: 25MHz Voltage: 600Vpp	CE&UKCA	UTD2000CL/CL+
UT-P03	Probe factor: (10:1) Bandwidth: 60MHz Voltage: 600Vpp	CE&UKCA	UTD2000CEX+/CL/CL+
UT-P04	 Probe factor: (10:1) Bandwidth: 100MHz Voltage: 600Vpp	CE&UKCA	MSO/UPO2000; UPO1000CS; UPO1000; UTD2000CEX+/CL/CL+
UT-P05	Probe factor: (10:1) Bandwidth: 200MHz Voltage: 600Vpp	CE&UKCA	MSO/UPO3000E; MSO/UPO2000; UPO1000CS; MSO/UPO1000; UTD2000CEX+/CL/CL+
UT-P06	Probe factor: (10:1) Bandwidth: 300MHz Voltage: 600Vpp	CE&UKCA	MSO/UPO3000E
UT-P07	Probe factor: (10:1) Bandwidth: 500MHz Voltage: 600Vpp	CE&UKCA	MSO/UPO3000E
UT-P08A	Probe factor: (10:1) Bandwidth: 350MHz Voltage: 600Vpp	CE	MSO/UPO3000E
UT-P20	 Passive probe: (100:1) Bandwidth: 250MHz Voltage: 1500Vpp	CE&UKCA	
UT-P21	 Passive high voltage probe: (1000:1) Bandwidth 50MHz Voltage: DC 15kVrms/AC 10kV	CE&UKCA	
UT-P30	Differential probe: (1/1000:1) Bandwidth: 100MHz Differential voltage: $\pm 800$ Vpp	CE&UKCA	
UT-P31	High voltage differential probe: (10:1/100:1) Bandwidth: 100MHz Differential voltage: $\pm 1500$ Vpp	CE&UKCA	MSO7000X; MSO/UPO3000E; MSO/UPO2000; MSO/UPO1000; UPO1000CS; UTD2000CEX+/CL/CL+
UT-P32	Differential probe: (100:1/1000:1) Bandwidth: 50MHz Differential voltage: $\pm 3000$ Vpp	CE&UKCA	
UT-P33	Differential probe: (100:1/1000:1) Bandwidth: 120MHz Differential voltage: $\pm 14$ KVpp	CE&UKCA	
UT-P35	 High voltage differential probe: 1:50, 130V (DC+peakAC) 1:500, 1300V(DC+peakAC), Bandwidth: 50MHz, Precision: 2%	ROW	
UT-P36	High voltage differential probe: 1:200, 560V (DC+peakAC) 1:500, 5600V(DC+peakAC), Bandwidth: 100MHz, Precision: 2%	ROW	
UT-V23	 High voltage probe: (100:1) Bandwidth: 100MHz Voltage: 2000Vpp	CE&UKCA	
UT-P40	Conversion ratio: 50mV/A, 5mV/A, Current range : 0.4A-60A Frequency: DC-100kHz Voltage: 600Vrms	CE&UKCA	
UT-P41	Conversion ratio: 100mV/A, 10mV/A, Current range: 50mA-100A Frequency: DC-100kHz, Voltage: 600Vrms	CE&UKCA	
UT-P42	 Conversion ratio: 50mV/A, 5mV/A, Current range: 0.4A-200A Frequency: DC-150kHz, Voltage: 600Vrms	CE&UKCA	MSO/UPO3000E; MSO/UPO2000; UPO1000CS; MSO/UPO1000;

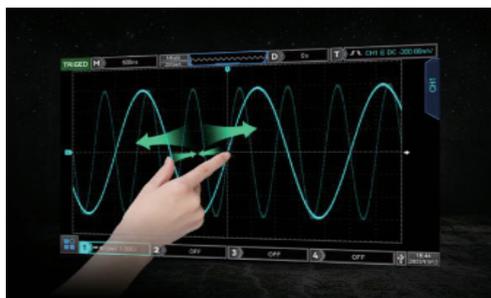
# MSO/UPO3000E Series



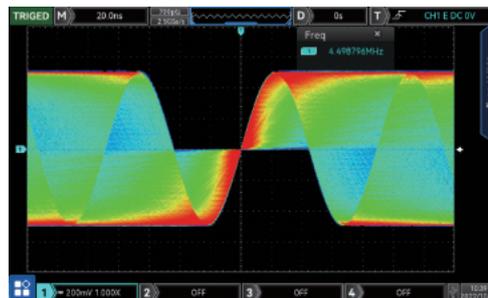
The MSO/UPO3000E series digital phosphor oscilloscope is the upgrade you need to unite your test bench. It's a high-performance instrument based on Ultra Phosphor 2.0 technology. It seamlessly integrates ease of use, excellent technical indicators, and a multitude of functional features to expedite measurement tasks. Specifically designed to meet the general needs of design, debugging, and testing across various fields.

These include computers, communication, semiconductors, industrial electronics, instrumentation, education, consumer electronics, automotive electronics, on-site maintenance, and R&D. It excels in tasks such as video analysis, jitter measurement noise assessment, and low-frequency signal analysis. Fast Acquire technology enables accurate capture of abnormal events.

- Analog channel bandwidth: 350MHz, 500MHz
- Real time sampling rate of analog channel 2.5GSa/s, Real time sampling rate of digital channel 1.25GSa/s (only MSO)
- Input impedance: 1M $\Omega$ , 50 $\Omega$
- Storage depth of each channel: 250Mpts
- Waveform capture rate up to 1,000,000 wfms/s
- Built in 50MHz dual channel function/arbitrary waveform generator (only MSO-S).
- Auto measurement of 36 waveform parameters
- Supports Bode Plot loop test and analysis function (optional)
- Ultra Phosphor 2.0, up to 256 levels of gray display
- 8-inch 800  $\times$  480 capacitive touch.
- Support web access and control
- Hardware real-time waveform uninterrupted recording and analysis up to 120,000 frames
- 1M points enhanced FFT
- Multi-Scopes 2.0 supports multi-channel independent trigger and fluorescent display
- Multi-channel independent 7-bit hardware frequency counter
- Digital Volt Meter (DVM) supports multi-channel independent
- AC/DC True RMS measurement
- Protocol trigger and decoding function (optional): RS232, I2C, SPI, CAN, CAN-FD, LIN, FlexRay
- Rich interfaces: USB Host, USB Device, LAN, EXT Trig, AUX Out (Trig Out, Pass/Fail), AWG, VGA



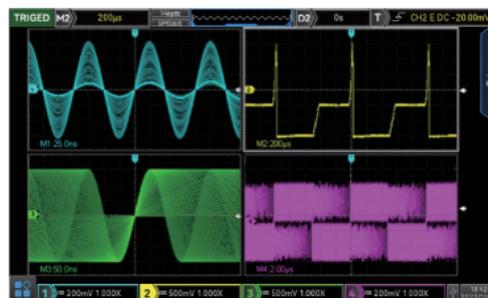
Brand new interactive experience



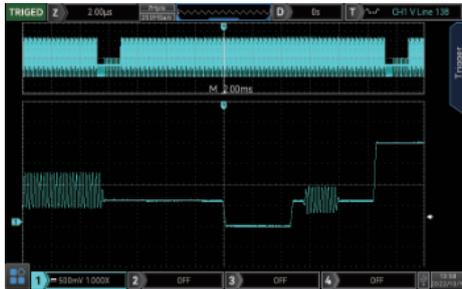
256-level grayscale display



Ultra high capture rate 1,000,000 wfms/s in Fast Acquire mode



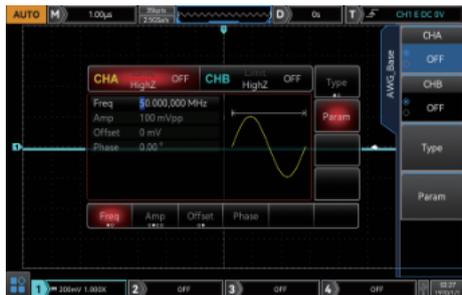
Channel split screen function Multi-Scopes 2.0



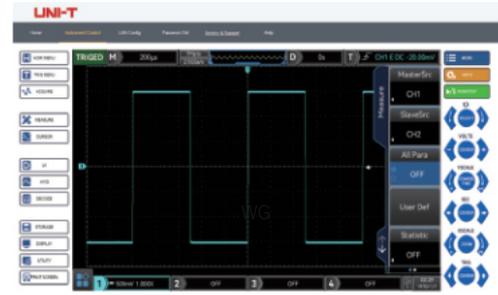
Memory depth 250Mpts per channel



Rich trigger function



Arbitrary Waveform Generator (AWG) Function



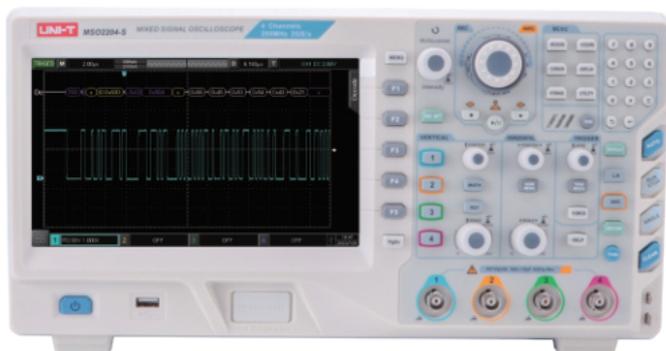
Embedded with Web Server

Key Specifications	MSO3354E-S	MSO3352E	MSO3354E	MSO3502E	MSO3504E	MSO3504E-S
		UPO3352E	UPO3354E	UPO3502E	UPO3504E	
Bandwidth	350MHz			500MHz		
Channels	4+16digital, 2CH AWG	2+16digital/2	4+16digital/4	2+16digital/2	4+16digital/4	4+16digital, 2CH AWG
Sampling rate (analog)	2.5GS/s (Single channel), 1.25GS/s (all channels)					
Sampling rate (digital)	1.25GS/s					
Max. memory depth	250Mpts per channel					
Waveform capture rate	200,000wfms/s; 1,000,000wfms/s (Fast Acquire)					
Time base scale (s/div)	1ns/div–1000s/div (Display current sampling rate and storage depth)					
Input impedance	$(\pm 2\% @ 1M\Omega, \pm 1.5\% @ 50\Omega) \parallel (18pF \pm 3pF)$					
Input impedance (digital)	$(101k\Omega \pm 1\%) \parallel (9pF \pm 1pF)$					
Vertical scale (V/div)	1mV/div–10 V/div (1 M $\Omega$ ); 1mV/div–1V/div (50 $\Omega$ )					
DC gain accuracy	$< 5mV: \pm 3\%, \geq 5mV: \pm 2\%$					
Waveform record	120,000 frames					
Trigger types	Edge, Runt, Window, Nth Edge, Delay, Time out, Duration, Setup/Hold, Pulse Width, Slope, Video, Pattern; Optional: RS232/UART, I2C, SPI, CAN, CAN-FD, LIN, FlexRay					
Bus decode	Optional: RS232/UART, I2C, SPI, CA, CAN-FD, LIN, FlexRay					
Mathematical operations	A+B, A-B, A×B, A/B, Enhanced FFT, digital filtering, editable advanced and logical operations					
Auto measurements	Analog channel: Max, Min, High, Low, Ampl, Pk-Pk, Middle, Mean, Cycmean, RMS, CycRMS, AC RMS, Period, Freq, Rise, Fall, RiseDelay, FallDelay, +Width, -Width, FRFR, FRFF, FFFR, FFFF, FRLF, FRLR, FFLR, FFLF, +Duty, -Duty, Area, CycArea, Oversht, Presht, Phase, Pulse Width, 36 measurement parameters; Digital channel: Freq, period, +Width, -Width, +Duty, -Duty, RiseDelay A→B, FallDelay A→B, phase A→B, phase B→A					
Number of measurements	Display 5 measurements at the same time					
Measurement statistics	Average, Max, Min, standard deviation, number of measurements					
Frequency counter	7-bit hardware frequency meter					
Standard interfaces	USB-host, USB-Device, LAN, EXT Trig, AUX Out (Trig Out: Pass/Fail), AWG (only MSO-S model), VGA					

General Characteristics	
Power	100V-240V AC, 50Hz/60Hz
Display	8 inch TFT LCD, WVGA (800x480), touch screen
Product net weight	4.5kg
Product size (W × H × D)	370mm × 185mm × 115mm

Ordering Information	
MSO3000E Series	MSO3504E-S: 500MHz, 2.5GS/s, 250Mpts, 4+16CH MSO,2CH 50MHz AWG
	MSO3504E: 500MHz, 2.5GS/s, 250Mpts, 4+16CH MSO
	MSO3502E: 500MHz, 2.5GS/s, 250Mpts, 2+16CH MSO
	MSO3354E-S: 350MHz, 2.5GS/s, 250Mpts, 4+16CH MSO,2CH 50MHz AWG
	MSO3354E: 350MHz, 2.5GS/s, 250Mpts, 4+16CH MSO
	MSO3352E: 350MHz, 2.5GS/s, 250Mpts, 2+16CH
UPO3000E Series	UPO3504E: 500MHz, 2.5GS/s, 250Mpts, 4CH
	UPO3502E: 500MHz, 2.5GS/s, 250Mpts, 2CH
	UPO3354E: 350MHz, 2.5GS/s, 250Mpts, 4CH
	UPO3352E: 350MHz, 2.5GS/s, 250Mpts, 2CH
Standard Accessories	Power cord
	UT-D04: USB interface cable
	UT-P07: Passive probe x 2/4 (1x, 10x switchable, 500MHz) (MSO/UPO3502E, MSO/UPO3504E)
	UT-P08A: Passive probe x 2/4 (1x, 10x switchable, 350MHz) (MSO/UPO3352E, MSO/UPO3354E)
	UT-M15: 16CH logic analyzer probe(MSO3000E series)
	UT-L45: BNC-BNC straight-through cable (only MSO-S) × 1
Options	UT-L02A: BNC - red and black alligator clip cable (only MSO-S) × 1
	MSO/UPO3000CS-BND: All Serial Bus Trigger and Decode Options
	MSO/UPO3000CS-EMBD: Serial bus trigger and decode options (includes RS232, UART, I2C, SPI)
	MSO/UPO3000CS-AUTO: Automotive serial bus triggering and decoding options (CAN, CAN-FD, LIN, FlexRay)
	MSO/UPO3000CS-COM: RS232/UART trigger and decode options
	MSO/UPO3000CS-I2C: I2C trigger and decode options
	MSO/UPO3000CS-SPI: SPI trigger and decode options
	MSO/UPO3000CS-CAN: CAN trigger/decode option
	MSO/UPO3000CS-CAN-FD: CAN-FD trigger/decode option
	MSO/UPO3000CS-LIN: LIN trigger/decode option
MSO/UPO3000CS-FlexRay: FlexRay trigger/decode option	
Optional accessories	MSO3000CS-S-BODE: Bode plot loop test analysis (software); used with UT-ISOT
	High Voltage Probe: UT-V23/UT-P21
	High Voltage Differential Probe: UT-P30/UT-P31/UT-P32/UT-P33/UT-P35/UT-P36
	Current Probe: UT-P40/UT-P41/UT-P42/UT-P43/UT-P44
	16-channel logic analyzer probe: UT-M15
Isolation transformer: UT-ISOT	

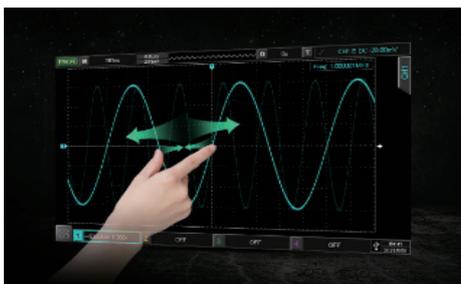
# MSO/UPO2000 Series



The MSO/UPO2000 series digital phosphor oscilloscope stands as a versatile and high-performance instrument giving you outstanding features and Ultra Phosphor 2.0 technology. This oscilloscope seamlessly combines user-friendly operation, impressive technical specifications, and a multitude of functional features, facilitating faster completion of measurement tasks.

Specifically designed to meet the general design, debugging, and testing requirements across various fields including communication, semiconductor, computer, instrumentation, industrial electronics, consumer electronics, and automotive electronics. It excels in tasks such as video analysis, jitter measurement, noise assessment, and low-frequency signal analysis.

- Analog channel bandwidth: 200MHz, 100MHz
- Memory depth of each channel: 56Mpts
- Built in 50MHz dual channel function/arbitrary waveform generator (only MSO-S)
- Support Bode Plot loop test and analysis function
- 4M points enhanced FFT, supporting frequency setting, waterfall diagram, detection setting and mark measurement, etc.
- Multi-Scopes supports multi-channel independent trigger and fluorescent display
- Protocol trigger and decoding function. Optional : RS232, I2C, SPI, CAN, CAN-FD, LIN, FlexRay
- Hardware real-time waveform uninterrupted recording and analysis up to 120,000 frames/s
- Real time sampling rate of analog channel 2GSa/s
- Waveform capture rate up to 1,000,000 wfms/s
- 8-inch 800 × 480 capacitive touch
- DVM supports multi-channel independent AC/DC true RMS measurement
- Auto measurement of 36 waveform parameters
- Multi Scope 2.0 allows independent channel time bases
- Hardware 7-bit frequency meter
- Area trigger function
- Interfaces: USB Host, USB device, LAN, AUX
- Support real-time loading of oscilloscope screen data to AWG arbitrary wave output



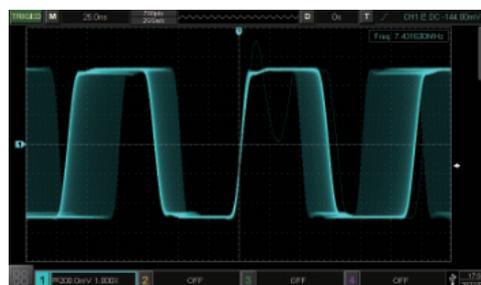
The 8-inch touch screen design supports a variety of gesture operations, such as click, slide, zoom, edit, drag, etc



The full-memory hardware decoding under the deep storage of 56Mpts, Decoding speed in milliseconds.



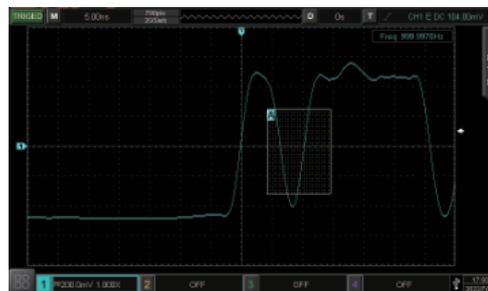
XY mode cursor measurement can quickly measure the phase difference between two signals.



Using innovative digital signal parallel processing technology, it can reach an ultra-high capture rate of 200,000wfms/s in normal sampling and 1,000,000 wfms/s in FastAcq mode.



Bode plot option available for loop analysis



Combine area and basic triggers, along with advanced and protocol triggers to capture elusive and complex signals.

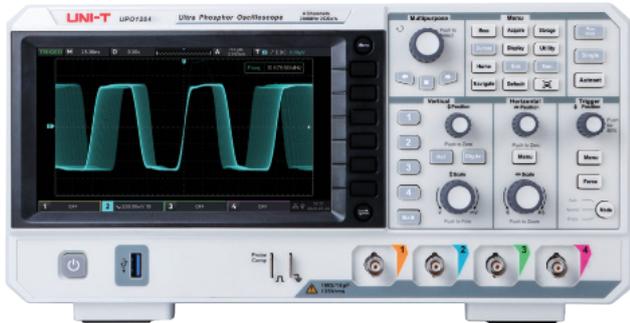
Technical Specifications	MSO2102-S	MSO2102	MSO2104-S	MSO2104	MSO2202-S	MSO2202	MSO2204-S	MSO2204
	UPO2102		UPO2104		UPO2202		UPO2204	
Bandwidth	100 MHz				200 MHz			
Channels	2+16digital/2		4+16digital/4		2+16digital/2		4+16digital/4	
Sampling rate	2GSa/s							
Sampling rate (digital)	1GSa/s (only MSO)							
Max. memory depth	56Mpts							
Waveform capture rate	200,000wfms/s, 1,000,000wfms/s (FastAcq)							
Timebase scale (s/div)	2ns/div–1000s/div (Display sampling rate and memory depth)				1ns/div–1000s/div (Display sampling rate and memory depth)			
Input impedance	(1MΩ ± 2%)    (18pF ± 3pF)							
Input impedance (digital)	(101kΩ ± 1%)    (9pF ± 1pF)							
Vertical scale (V/div)	1mV/div–20 V/div (1 MΩ)							
DC gain accuracy	<5mV: ± 3%, ≥5mV: ± 2%							
Waveform record	120,000 frames							
Trigger types	Edge, Runt, Window, Nth Edge, Delay, Overtime, Duration, Setup/Hold, Pulse Width, Slop, Video, Pattern, RS232/UART, I2C, SPI, CAN (optional), CAN-FD (optional), LIN (optional), FlexRay (optional)							
Bus decode	Optional: RS232/UART, I2C, SPI, CAN, CAN-FD, LIN							
Mathematical operations	A+B, A-B, A × B, A/B, FFT, digital filtering, editable advanced and logical operations							
Auto measurements	Analog channel: Max, Min, Top, Bottom, Mid, Peak-to-Peak, Amplitude, Mean, Cycle Mean, RMS, Cycle RMS, AC RMS, Area, Cycle Area, Overshoot, Preshoot, Frequency, Period, Rise Time, Fall Time, Positive Pulse Width, Negative Pulse Width, Positive Duty Cycle, Negative Duty Cycle, Rise Delay, Fall Delay, Phase, FRFR, FRFF, FFFR, FFFF, FRLF, FRLR, FFLR, FFLF, 36 measurement parameters; Digital channel: Frequency, Period, Positive Pulse Width, Negative Pulse Width, Positive Duty Cycle, Negative Duty Cycle, Rise Delay A→B, Fall Delay A→B, Phase A→B, Phase B→A							
Number of measurements	Display 5 measurements at the same time							
Measurement statistic	Average, Max, Min, Standard Deviation, Number of Measurements							
Frequency counter	7 bits							
Standard interfaces	USB Host, USB Device, LAN, EXT Trig, AUX Out (Trig Out, Pass/Fail), AWG (only MSO), VGA							
Power	100V–240V AC, 50Hz/60Hz							
Display	8 inches TFT LCD, WVGA (800x480), touch screen							
Product net weight	4.5kg							
Product size (W × H × D)	370mm x 185mm x 115mm							

Ordering Information	
MSO2000 Series	MSO2204-S: 200MHz, 2GSa/s, 56Mpts, 4+16CH MSO, 2CH 50MHz AWG
	MSO2202-S: 200MHz, 2GSa/s, 56Mpts, 2+16CH MSO, 2CH 50MHz AWG
	MSO2104-S: 100MHz, 2GSa/s, 56Mpts, 4+16CH MSO, 2CH 50MHz AWG
	MSO2102-S: 100MHz, 2GSa/s, 56Mpts, 2+16CH MSO, 2CH 50MHz AWG
	MSO2204: 200MHz, 2GSa/s, 56Mpts, 4+16CH MSO
	MSO2202: 200MHz, 2GSa/s, 56Mpts, 2+16CH MSO
	MSO2104: 100MHz, 2GSa/s, 56Mpts, 4+16CH MSO
	MSO2102: 100MHz, 2GSa/s, 56Mpts, 2+16CH MSO

Ordering Information	
UPO2000 Series	UPO2204: 200MHz, 2GS/s, 56Mpts, 4CH
	UPO2104: 100MHz, 2GS/s, 56Mpts, 4CH
	UPO2202: 200MHz, 2GS/s, 56Mpts, 2CH
	UPO2102: 100MHz, 2GS/s, 56Mpts, 2CH
Standard Accessories	Power cord
	UT-P04: Passive probe x 2/4 (1x, 10x switchable, 100MHz) (MSO/UPO2102, MSO/UPO2104, MSO2102/4-S)
	UT-P05: Passive probe x 2/4 (1x, 10x switchable, 200MHz) (MSO/UPO2202, MSO/UPO2204, MSO2202/4-S)
	UT-D14: USB interface cable
	UT-M15: 16CH logic analyzer probe(MSO2000 series)
Options	UT-45: BNC-BNC through leads (MSO2000-S series)
	MSO/UPO2000-BND: Serial bus trigger and decode options (MSO/UPO2000-EMBD& MSO/UPO2000-AUTO)
	MSO/UPO2000-EMBD: Serial bus trigger and decode options (includes RS232, UART, I2C, SPI)
	MSO/UPO2000-AUTO: Automotive serial bus triggering and decoding options (CAN, CAN-FD, LIN, FlexRay)
	MSO/UPO2000-COM: RS232/UART trigger and decode options
	MSO/UPO2000-I2C: I2C trigger and decode options
	MSO/UPO2000-SPI: SPI trigger and decode options
	MSO/UPO2000-CAN: CAN trigger/decode option
	MSO/UPO2000-CAN-FD: CAN-FD trigger/decode option
	MSO/UPO2000-LIN: LIN trigger/decode option
	MSO/UPO2000-FlexRay: FlexRay trigger/decode option
MSO-BODE: Bode plot loop test analysis option; used with UT-ISOT	
Optional accessories	High Voltage Probe: UT-V23/UT-P21
	High Voltage Differential Probe: UT-P30/UT-P31/UT-P32/UT-P33/UT-P35/UT-P36
	Current Probe: UT-P40/UT-P41/UT-P42/UT-P43/UT-P44
	16-channel logic analyzer probe: UT-M15 (incl. with MSO models)
	Isolation transformer: UT-ISOT



# UPO1000 Series



The UPO1000 series digital oscilloscope is here to take center stage on your test bench. It incorporates Ultra Phosphor 2.0 technology for high signal fidelity. This series is available in three bandwidth options: 50MHz, 100MHz, and 200MHz, boasting a high real-time sampling rate of up to 2GSa/s. Standard across the series is the inclusion of 4 channels, support for an independent DVM module, rich trigger and bus decoding functions, and the capability for full-memory hardware real-time decoding. Designed for versatility, these oscilloscopes find applications in various fields including communication, semiconductor, computer, integrated circuit design, instrumentation, industrial electronics, consumer electronics, automotive electronics, field maintenance, research & development, and education.

- Analog channel bandwidth: 50MHz, 100MHz, 200MHz
- Number of analog channels: 4
- Maximum sampling rate: 2GSa/s
- Vertical scale: 500 $\mu$ V/div-20 V/div
- Low noise floor: <100 $\mu$ Vrms
- Storage depth: 56Mpts/CH
- Waveform capture rate up to 500,000 wfms/s
- Can automatically measure 36 kinds of waveform parameters the measurement range is optional: screen or cursor area
- Hardware real-time waveform recording 120,000 frames
- 7-bit hardware frequency meter
- DVM supports four-channel true RMS measurement



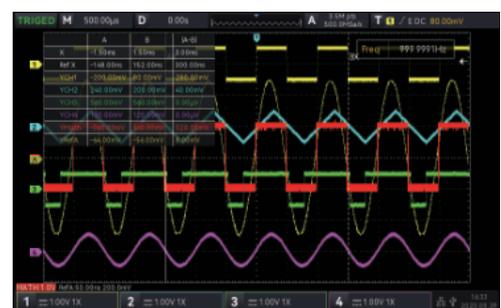
The maximum storage depth is 56Mpts. At the same time, the whole and details of the waveform are considered.



Innovative hardware decoding enables real-time decoding



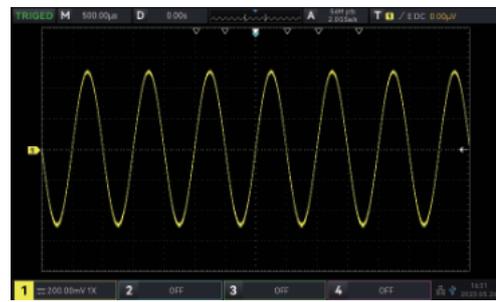
1M sampling point enhanced FFT



The cursor function can measure the time and voltage of CH1, CH2, CH3, CH4, MATH, REF at the same time.



When Cursor is turned on, the parameters of the waveform in the cursor area can be measured



Navigation functions include time navigation, marker navigation, and segment navigation.

Key Specification	UPO1054	UPO1104	UPO1204
Bandwidth	50 MHz	100 MHz	200 MHz
Channels	4	4	4
Sampling rate	2GSa/s		
Max. memory depth	56Mpts (Per channel)		
Waveform capture rate	150,000wfms/s; 500,000wfms/s (Fast Acquire mode)		
Time base scale (s/div)	2s/div–1000s/div	2ns/div–1000s/div	1ns/div–1000s/div
Input impedance	(1MΩ ± 2%)    (16 pF ± 3pF)		
Vertical scale (V/div)	500uV/div–20V/div (1MΩ)		
DC gain accuracy	<10mV: ± 4.0% full scale; ≥10mV: ± 3.0% full scale		
Waveform record	120,000 frames		
Trigger types	Edge, Runt Set, Window Set, Nth Edge, Delay, Timeout, Pattern, Duration, Build/hold, Pulse, Slope, Video, RS232/UART, I2C, SPI		
Bus decode	RS232/UART, I2C,SPI		
Mathematical operations	A+B, A-B, A × B, A/B, Enhanced FFT, Editable operations (Log, Exp, Sin, Cos, Tan, Sqrt, Intg, Diff), Logical operations		
Auto measurements	Max, Min, High, Low, Ampl, Pk- Pk, Middle, Mean, Cycmean , RMS, CycRMS, AC RMS, Period, Freq, Rise, Fall, RiseDelay, FallDelay, +Width, -Width, FRFR, FRFF, FFFR, FFFF, FRLF, FRLR, FFLR, FFLF, +Duty, -Duty, Area, CycArea, Overshot, Presh, Phase, Pulse, 36 measurement parameters		
Number of measurements	5 measurements are displayed simultaneously		
FFT points	1Mpts		
Frequency counter	7-bit hardware frequency meter		
Standard interfaces	USB Host, USB Device, LAN, EXT Trig, AUX Out (Trig Out/Pass/Fail)		
Power	100V–240V AC, 50Hz/60Hz		
Display	7 inch TFT LCD, WVGA(800 × 480)		
Product net weight	2.45 kg		
Product size (W × H × D)	306mm × 138mm × 107mm		

Ordering Information	
UPO1000 Series	UPO1054: 50MHz, 2GS/s, 56Mpts, 4-Channel
	UPO1104: 100MHz, 2GS/s, 56Mpts, 4-Channel
	UPO1204: 200MHz, 2GS/s, 56Mpts, 4-Channel
Standard Accessories	Power cord
	UT-D04: USB interface cable
	UT-P03: Passive probe x 4 (1x, 10x switchable, 60MHz) (UPO1054)
	UT-P04: Passive probe x 4 (1x, 10x switchable, 100MHz) (UPO1104)
Optional accessories	UT-P05: Passive probe x 4 (1x, 10x switchable, 200MHz) (UPO1204)
	High Voltage Probe: UT-V23/UT-P21
	High Voltage Differential Probe: UT-P30/UT-P31/UT-P32/UT-P33/UT-P35/UT-P36
Options	Current Probe: UT-P40/UT-P41/UT-P42/UT-P43/UT-P44
	MSO/UPO1000X-1MT2M: Bandwidth upgrade option for MSO/UPO1104 to 200 MHz bandwidth

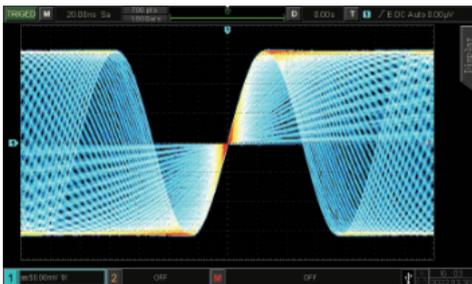
# UPO1000CS Series



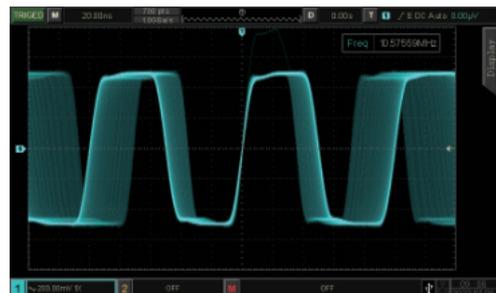
The UPO1000CS Series offers unprecedented value in customer applications with its innovative technology, industry leading specifications, powerful trigger functions and analysis capabilities.

The Series is available in 100 and 200 MHz bandwidths and all have 2 analog channels. It adopts Ultra Phosphor 2.0 visualization technology, has a maximum sample rate of 1GSa/s and a standard memory depth of 56Mpts. It comes with an innovative digital trigger system with high sensitivity and low jitter, and a waveform capture rate of 150,000 wfms/s.

- 1GSa/s real-time sampling rate per channel, 2 analog channels
- Bandwidth: 100MHz, 200MHz
- Memory depth 56Mpts (per channel)
- Up to 150000wfms/s waveform capture rate
- 256-level intensity grading display
- Alternative triggers
- Low noise floor, minimum vertical scale 1mV / div
- A variety of trigger modes, and a variety of serial bus trigger and real-time decoding
- 100,000 frames waveform record
- 7 inch TFT LCD, WVGA (800x480)
- Interfaces: USB Host, USB device, LAN, EXT Trig, AUX



Using the original Ultra Phosphor display technology, it is easy to display the details of the waveform information



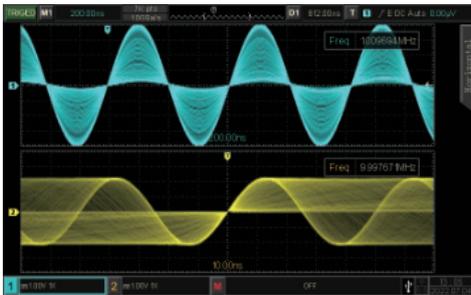
Innovative digital signal parallel processing technology, normal sampling waveform capture up to 150,000 wfms/s, Fast Acquire mode up to 500,000 wfms/s



Standard 56Mpts per channel. Takes into account the overall and details of the waveform



Innovative hardware decoding enables real-time decoding. The decoding time under the deep storage 56Mpts can reach the millisecond level



Multi-Scopes technology, which can be used for testing signals with different clock sources and different frequencies

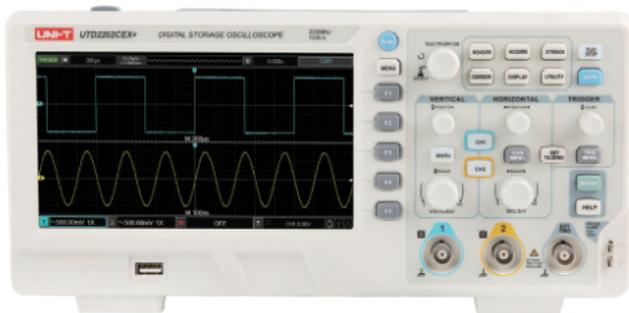


64kpts enhanced FFT for easy frequency domain analysis of signals

Key Specifications	UPO1102CS	UPO1202CS
Bandwidth	100 MHz	200 MHz
Channels	2	2
Sampling rate	1GSa/s	
Max. memory depth	56Mpts (Per channel)	
Waveform capture rate	150,000wfms/s; 500,000 wfms/s (Fast Acquire mode)	
Time base scale (s/div)	2ns/div–1000s/div	1ns/div–1000s/div
Input impedance	(1MΩ ± 2%)    (16 pF ± 3pF)	
Vertical scale (V/div)	1mV/div–20V/div (1MΩ)	
DC gain accuracy	<10mV: ± 4.0% full scale; ≥10mV: ± 3.0% full scale	
Waveform record	100,000 frames	
Trigger types	Edge, pulse width, slope, alternation, video, delay, timeout, duration, build/hold, under amplitude pulse, over amplitude pulse, RS232/UART, I2C, SPI, Optional: CAN, LIN	
Bus decode	RS232/UART, I2C, SPI, Optional: CAN, LIN	
Mathematical operations	A+B, A-B, A × B, A/B, Enhanced FFT, Editable advanced, operations (Log, Exp, Sin, Cos, Tan, Sqrt, Intg, Diff), Logical operations	
Auto measurements	Max, Min, High, Low, Ampl, Pk-Pk, Middle, Mean, Cyc mean, RMS, Cyc RMS, AC RMS, Period, Freq, Rise, Fall, Rise Delay, Fall Delay, +Width, -Width, FRFR, FRFF, FFFR, FFFF, FRLF, FRLR, FFLR, FFLF, +Duty, -Duty, Area, CycArea, Overshot, Preshot, Phase, Pulse, 36 measurement parameters	
Number of measurements	5 measurements are displayed simultaneously	
Measurement statistic	Mean, maximum, minimum, standard deviation, and number of measurements	
Frequency counter	7-bit hardware frequency meter	
Standard interfaces	USB Host, USB Device–LAN, EXT Trig, AUX Out (Trig Out, Pass/Fail)	
Power	100–240V AC, 50-60Hz	
Display	7 inch TFT LCD, WVGA(800 × 480)	
Product color	White and gray	
Product net weight	3.0 Kg	
Product size (W x H x D)	306mm × 138mm × 107mm	

Ordering Information	
UPO1000CS Series	UPO1102CS: 100MHz, 1GSa/s, 56Mpts, 2-Channel UPO1202CS: 200MHz, 1GSa/s, 56Mpts, 2-Channel
Standard Accessories	Power cord
	UT-D14: USB interface cable
	UT-P04: Passive probe x 2 (1x, 10x switchable, 100MHz) UT-P05: Passive probe x 2 (1x, 10x switchable, 200MHz)
Options	UPO1000CS-AUTO: CAN Decoding options, LIN Decoding options
Optional accessories	High Voltage Probe: UT-V23/UT-P21
	High Voltage Differential Probe: UT-P30/UT-P31/UT-P32/UT-P33/UT-P35/UT-P36 Current Probe: UT-P40/UT-P41/UT-P42/UT-P43/UT-P44

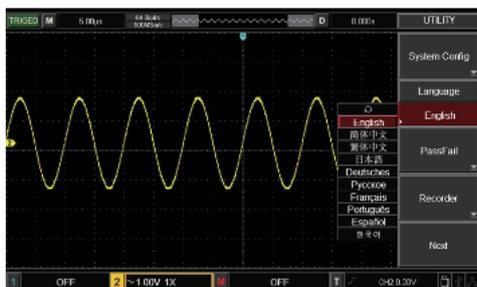
# UTD2000CEX+ Series



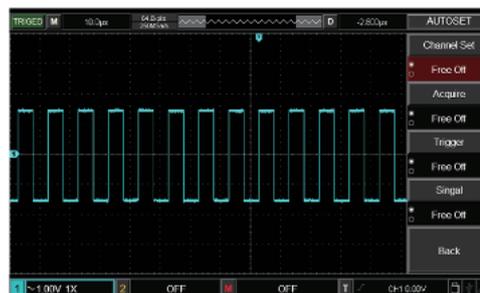
The UTD2000CEX+ Series digital storage oscilloscope serves as an entry-level bench solution, addressing the fundamental requirements of basic measurements. Its straightforward and intuitive front panel is designed for easy operation. The UTD2000CEX+ Series offers bandwidth options of 50MHz, 100MHz, and 200MHz, a real-time sampling rate of 1GSa/s, dual channels, and a storage depth of 64kpts.

With its versatile capabilities, this model is well-suited for a broad range of application scenarios in communication, semiconductor, computer, instrumentation, industrial electronics, consumer electronics, automotive electronics, on-site maintenance, and R&D/education, among others.

- 50/100/200MHz bandwidth
- 2 channels, low noise floor, wide vertical range: 1mV/div-20V/div
- Memory depth: 64kpts
- System software upgrade via USB drive
- 7 inch TFT LCD
- Supports plug-and-play USB storage device; communication with and remote control of computer through the USB device



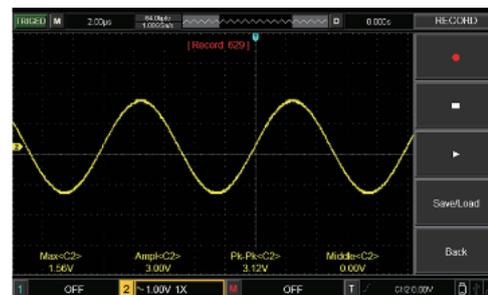
Multilingualism to meet the needs of more users in a variety of countries



8div x 16div Wider display range



Automatic Measurement of Waveform Parameters

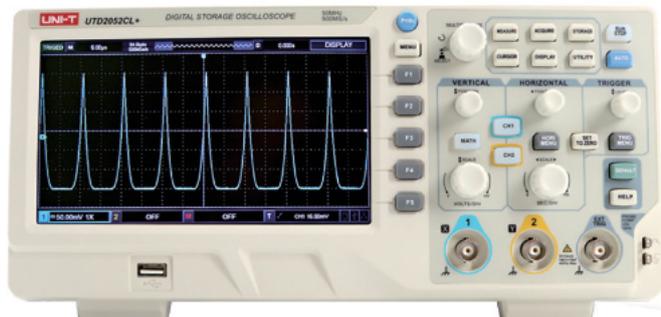


Waveform recording functions

Key Specifications	UTD2052CEX+	UTD2102CEX+	UTD2202CEX+
Bandwidth	50MHz	100MHz	200MHz
Channels	2		
Sampling rate	1GSa/s		
Memory depth	64kpts		
Waveform capture rate	5,000wfms/s		
Rise time	<7ns	<3.5ns	<1.8ns
Vertical scale (V/div)	1mV/div-20V/div		
Vertical resolution	8bit		
Time base scale (s/div)	2ns/div-50s/div		
Deviation from scope	±8div(away from screen center)		
Input impedance	1MΩ ± 2%, 18 ± 3pF		
Input coupling	DC, AC, GND		
Timing accuracy	≤ ± (50+2 × service life ) ppm		
Time base mode	Y-T, X-Y, Roll		
Storage methods	Setup, wave, bitmap		
Trigger types	Edge, pulse, alternate, slope, video		
Mathematical operations	+ , - , × , ÷ , FFT		
Auto measurements	Max, Min, High, Low, Ampl, Pk-Pk, Middle, Mean, CycMean, RMS, CycRMS, Period, Freq, Rise, Fall, RiseDelay, FallDelay, +Width, -Width, FRR, FRF, FFR, FFF, LRF, LRR, LFR, LFF, +Duty, -Duty, Area, CycArea, OverSht, PreSht, Phase, 34 parameters in total		
Displayed measurements	Display 5 measurements at the same time		
Frequency counter	6bits		
Interface	USBHost, USB Device, Pass/Fail		
Power	100-240VAC, 45-440Hz		
Display	7inch TFT LCD, 800 × 480		
Product color	White and gray		
Product net weight	2.5kg		
Product size (W × H × D)	306mm × 138mm × 124mm		

Ordering Information	
UTD2000CEX+	UTD2202CEX+: 200MHz, 1GSa/s, 64kpts, 2 Channel
	UTD2102CEX+: 100MHz, 1GSa/s, 64kpts, 2 Channel
	UTD2052CEX+: 50MHz, 1GSa/s, 64kpts, 2 Channel
Standard Accessories	Powercord
	UT-D14: USB interface cable
	UT-P03: Passive Probe x 2 (1x, 10x switchable, 60MHz) (UTD2052CEX+)
	UT-P04: Passive Probe x 2 (1x, 10x switchable, 100MHz) (UTD2102CEX+)
	UT-P05: Passive Probe x 2 (1x, 10x switchable, 200MHz) (UTD2202CEX+)

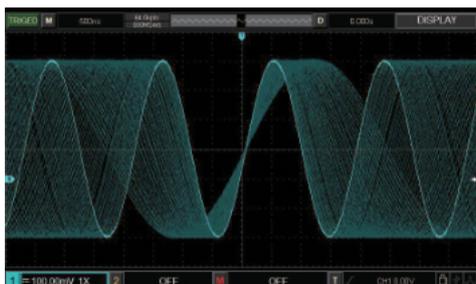
# UTD2000CL/CL+ Series



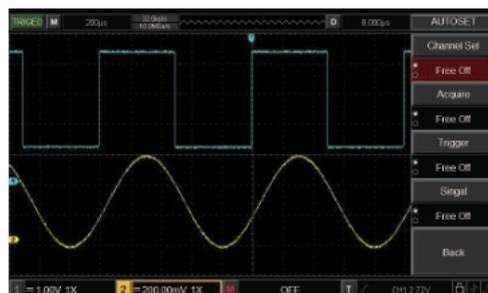
The UTD2000CL/CL+ Series is a highly favored option among entry-level digital oscilloscopes, meticulously created to meet the demands of mainstream testing. Featuring a timeless front panel design and an easily navigable user interface, this model is exceptionally well suited for your everyday testing requirements.

Any of the models in the Uni-T UTD2000CL/CL+ Digital Storage Oscilloscope (DSO) series will empower electrical engineers and professors with the tools they need for affordable, accurate and insightful waveform analysis.

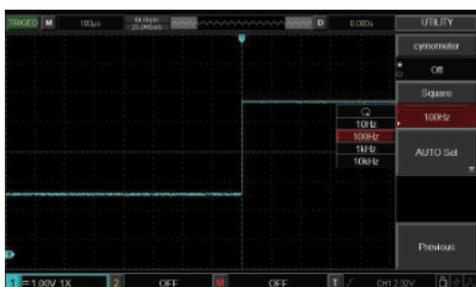
- Bandwidth options of 50MHz, 70MHz, 100MHz, and 150MHz.
- 2 channels with a low noise floor and a wide vertical range from 1mV/div to 20V/div.
- Memory depth of 64kpts.
- Wider display range of 8div × 16div.
- New auto-set function for easy handling of complex test scenarios.
- Multiple frequency output options with a standard square wave.
- Abundant math functions, including math operations, FFT, and digital filtering.
- Automatic measurement of waveform parameters. Lissajous figure phase measurement capability.
- System software upgrade via USB drive.
- 7-inch TFT LCD display.
- Supports plug-and-play USB storage devices, enabling communication with and remote control of computers through the USB device.



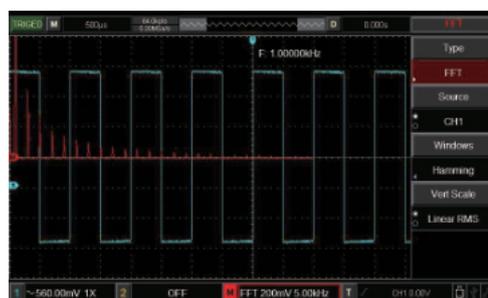
Wide display range 8div × 16div



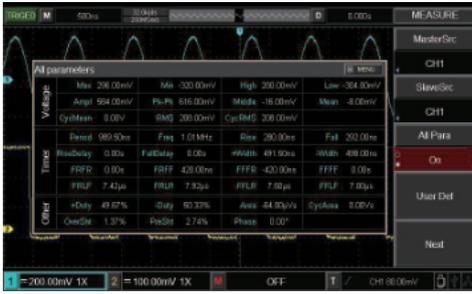
New auto-set function, easy to handle complex test scenarios



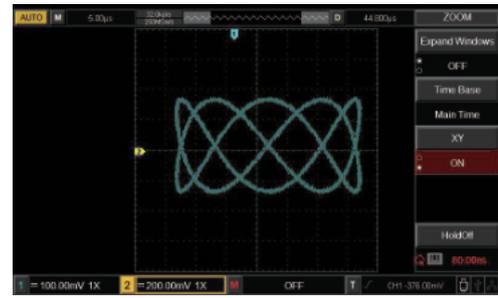
Multiple frequency output standard square wave optional



Abundant math functions: math operation, FFT, digital filtering



Automatic measurement of waveform parameters



Lissajous figure phase measurement

Key Specifications	UTD2052CL+	UTD2102CL+	UTD2072CL	UTD2152CL
Channels	2			
Bandwidth	50MHz	100MHz	70MHz	150MHz
Sampling rate	500MSa/S			
Memory depth	64kpts			
Waveform capture rate	5,000 wfms/s			
Rise time	<7ns	<3.5ns	<5ns	<2.4ns
Vertical scale (V/div)	1mV/div-20V/div			
Time base scale (s/div)	2ns/div-50s/div		2ns/div-50s/div	
Timing accuracy	≤ ± (50+2 × service life) ppm			
Time base modes	Y-T, X-Y, Roll			
Storage methods	Setup, wave, bitmap			
Trigger types	Edge, pulse, alternate, slope, video			
Mathematical operations	A+B, A-B, A × B, A/B, FFT			
Auto measurements	Max, Min, High, Low, Ampl, Pk-Pk, Middle, Mean, Cyc Mean, RMS, Cyc RMS, Period, Freq, Rise, Fall, Rise Delay, Fall Delay, +Width, -Width, +Duty, -Duty, FRR, FRF, FFR, FFF, LRF, LRR, LFR, LFF, Area, Cyc Area, OverShot, PreShot, Phase, 34 parameters in total			
Number of measurements	Display 5 measurements at the same time			
Frequency counter	6 bits			
Standard interfaces	USB Host, USB Device, Pass/Fail			
Power	100-240V AC, 45-440Hz			
Display	7 inch TFT LCD, 800 × 480			
Product color	White and Gray			
Product net weight	2.5kg			
Product size (W × H × D)	336mm × 164mm × 108mm			

Ordering Information	
UTD2000CL Series	UTD2152CL: 150MHz, 500MS/s, 64kpts, 2 Channel
	UTD2072CL: 70MHz, 500MS/s, 64kpts, 2 Channel
	UTD2102CL+: 100MHz, 500MS/s, 64Kpts, 2 Channel
	UTD2052CL+: 50MHz, 500MS/s, 64Kpts, 2 Channel
Standard Accessories	Power cord
	UT-D14: USB interface cable
	UT-P05: Passive probe x2 (1x, 10x switchable, 200MHz) (UTD2152CL)
	UT-P04: Passive probe x2 (1x, 10x switchable, 100MHz) (UTD2072CL, UTD2102CL+)
	UT-P03: Passive probe x2 (1x, 10x switchable, 60MHz) (UTD2052CL+)

# Waveform Generators Selection Guide

Series	Model	Channels	Sampling Rate	MAX Frequency (MHz)													
				600	500	350	200	160	120	80	60	40	30	25	20		
 UTG9000T	UTG9604T	4	2.5GSa/s	●													
	UTG9504T	4	2.5GSa/s		●												
	UTG9354T	4	2.5GSa/s			●											
 UTG4000A	UTG4202A	2	500MSa/s				●										
	UTG4162A	2	500MSa/s					●									
	UTG4122A	2	500MSa/s						●								
	UTG4082A	2	500MSa/s							●							
 UTG2000A/B	UTG2122B	2	1.28GSa/s						●								
	UTG2082B	2	1.28GSa/s							●							
	UTG2062B	2	1.28GSa/s								●						
	UTG2025A	2	125MSa/s												●		
 UTG1000X	UTG1042X	2	200MSa/s										●				
	UTG1022X	2	200MSa/s														●
	UTG1022X-PA	2	200MSa/s														●
 UTG900E	UTG962E	2	200MSa/s									●					
	UTG963E	2	200MSa/s													●	

# Waveform Generators Accessories

Model	Information	Certification	Series
UT-M14 	Power amplifier module for UTG series	ROW	UTG9000T; UTG4000A; UTG2000A/B; UTG1000X; UTG900E
UT-L02 	BNC to alligator clip test line: 1M	ROW	UTG9000T; UTG4000A; UTG2000A/B; UTG1000X; UTG900E
UT-L45 	BNC-BNC line: 1M, Suitable for all signal generators	ROW	UTG9000T; UTG4000A; UTG2000A/B; UTG1000X; UTG900E

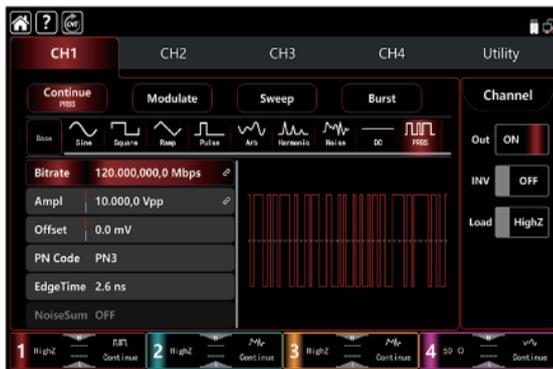
NEW

# UTG9000T Series



The UTG9000T Series pulse/function/arbitrary waveform generators, employing Direct Digital Synthesizer (DDS) technology, produce precise and stable waveform outputs with a bandwidth of up to 600MHz. They feature a maximum sampling rate of 2.5GSa/s and a resolution as fine as 1 $\mu$ Hz. These instruments deliver accurate, stable, pure, and low-distorted signals. With straightforward operation, technical superiority, and the ability to provide high-frequency square waves with rapid rising and falling edges, these multi-functional instruments cater to a variety of requirements.

- 4 channels output
- Output: up to 600MHz sine wave, full-band resolution: 1 $\mu$ Hz
- 200MHz pulse waveform with adjustable rise and fall time
- Max Sampling rate: 2.5GSa/s, vertical resolution: 16bits
- Arbitrary wave memory depth of 64Mpts, supports point-to-point output .
- Supports one-click SNR output.
- Frequency sweep modes: linear, logarithmic, list, stepping
- 15 Modulation types: AM, PM, FM, DSBAM, ASK, PSK, BPSK, QPSK, FSK, 3FSK, 4FSK, QAM, OSK, PWM, SUM
- 10.1 inch capacitive touchscreen with 1280 x 800 resolution
- Digital protocol output: SPI, I2C, UART
- Standard interfaces: USB Host, USB Device, LAN



Support for multiple signal outputs, including PRBS patterns for measuring performance of communication components



Arbitrary wave memory depth of 64Mpts, supports point-to-point output.

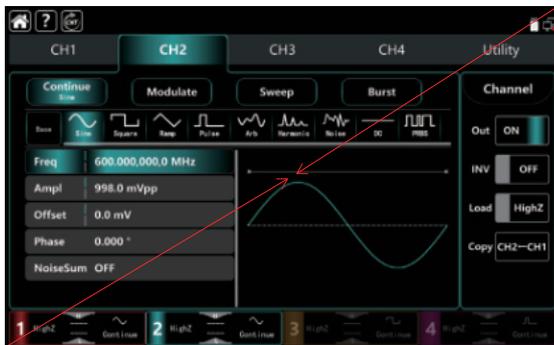


Digital protocol output: SPI, I2C, UART

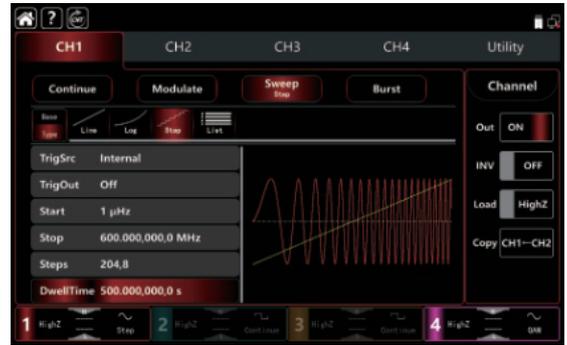


Addition of waveforms and Channels Merge

## Waveform Generators



10.1 inch capacitive touchscreen. 4 Channel output  
Sampling rate: 2.5GSa/s  
Vertical resolution: 16bits



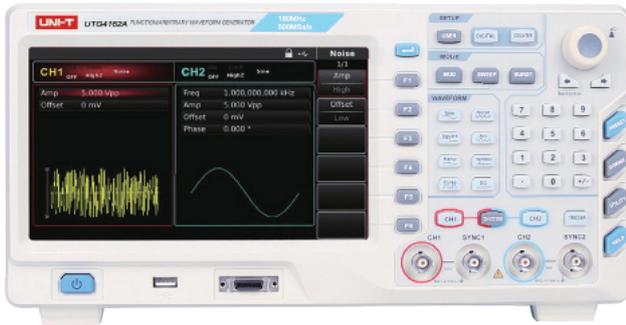
Rich sweep features: Line, Log, Step, List

Key Specifications	UTG9354T	UTG9504T	UTG9604T	UTG9354T	UTG9504T	UTG9604T
Channel	CH1 & CH2 (Main)			CH3 & CH4 (Slave)		
Max. frequency	350MHz	500MHz	600MHz	160MHz	200MHz	200MHz
Sampling rate	2.5GSa/s			625MSa/s		
Vertical resolution	14bits	14bits	16bits	16bits	16bits	16bits
Arbitrary wave length	8pts-64Mpts			8kpts		
Working mode	Continue, modulation, frequency sweep, burst, frequency counter, digital protocol					
Continue	Sine, square, ramp, pulse, harmonic, noise, PRBS, DC, arbitrary waveform					
Modulation types	AM, PM, FM, DSBAM, ASK, PSK, BPSK, QPSK, FSK, 3FSK, 4FSK, QAM, OSK, PWM, SUM					
Frequency sweep types	Linear, logarithmic, list, stepping					
Burst types	N cycle, gating, infinite					
Digit types	SPI, I2C, UART					
Hardware frequency counter	100mHz-800MHz, DC/AC coupling					
Frequency Characteristics						
Sine wave	1µHz-350MHz	1µHz-500MHz	1µHz-600MHz	1µHz-160MHz	1µHz-200MHz	1µHz-200MHz
Square wave	1µHz-120MHz	1µHz-160MHz	1µHz-200MHz	1µHz-50MHz	1µHz-60MHz	1µHz-60MHz
Pulse wave	1µHz-120MHz	1µHz-160MHz	1µHz-200MHz	1µHz-50MHz	1µHz-60MHz	1µHz-60MHz
Ramp wave	1µHz-20MHz	1µHz-30MHz	1µHz-30MHz	1µHz-8MHz	1µHz-10MHz	1µHz-10MHz
Noise	1mHz-350MHz	1mHz-500MHz	1mHz-600MHz	1mHz-160MHz	1mHz-200MHz	1mHz-200MHz
Arbitrary wave (DDS)	1µHz-80MHz	1µHz-100MHz	1µHz-100MHz	1µHz-50MHz	1µHz-60MHz	1µHz-60MHz
PRBS	1µbps-80Mbps	1µbps-120Mbps	1µbps-120Mbps	1µbps-40Mbps	1µbps-60Mbps	1µbps-60Mbps
Harmonic wave	1µHz-175MHz	1µHz-250MHz	1µHz-300MHz	1µHz-80MHz	1µHz-100MHz	1µHz-100MHz
Frequency resolution	1µHz					
Rise/fall time	1MHz, 1 Vpp, 50Ω load					
	<2ns	<2ns	<1.5ns	<6ns	<5ns	<5ns
Output amplitude (High Z)	≤40MHz		20Vpp	≤20MHz		20Vpp
	≤120MHz		10Vpp	≤80MHz		10Vpp
	≤160MHz		5Vpp	≤120MHz		5Vpp
	≤300MHz		4Vpp	≤200MHz		3Vpp
	≤400MHz		2.5Vpp			
	≤500MHz		1.5Vpp			
Amplitude accuracy	(1kHz sine wave with 0V offset, >10mVpp)					
	±1% of set amplitude+1mVpp					
DC offset ranges	DC output range: peak value AC + DC -5Vpp-5Vpp(50Ω); -10Vpp-10Vpp(High Z)					
DC offset accuracy	±1% of offset set value ± 0.5% of amplitude set value ±2mV					
Interface						
Standard configuration	USB Host, USB Device, LAN					
Output resistance	50Ω					

General Characteristics	
Power	100–240V AC, 50Hz/60Hz; 100–120V AC, 400 Hz
Display	10.1 inch TFT capacitive touchscreen with 1280x800 resolution
Product size(W × H × D)	370mm x 115mm x 185mm
Product net weight	4.04kg

Ordering Information	
UTG9000T Series	UTG9354T: 350MHz, 2.5GSa/s, 64Mpts, 4 Channel
	UTG9504T: 500MHz, 2.5GSa/s, 64Mpts, 4 Channel
	UTG9604T: 600MHz, 2.5GSa/s, 64Mpts, 4 Channel
Standard Accessories	Power cord
	UT-D14: USB interface cable
	BNC cables (1m): 4pcs

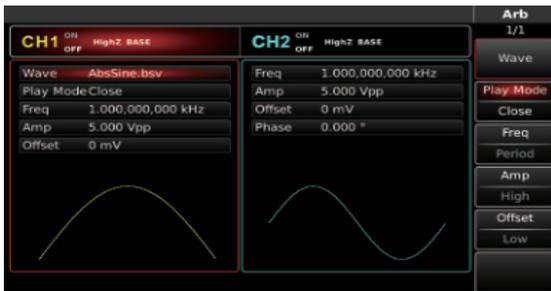
# UTG4000A Series



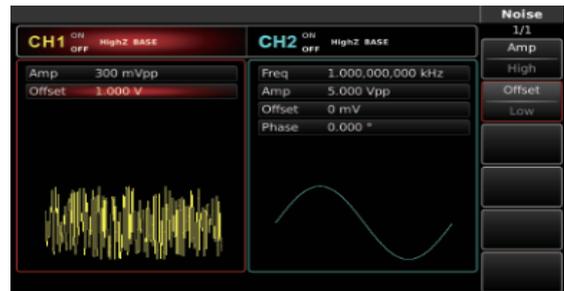
The UTG4000A Series waveform generators boast a multi-function design, making them well-suited for diverse application scenarios. With features such as Function Generation, Arbitrary Waveform Generation, Pulse Generation, Harmonic Generation, Analog/Digital Modulation source, and a frequency counter, the UTG4000A series is capable of handling a wide range of signal emulation applications. Frequency ranges from near DC to up to 200MHz, depending on the model and function.

Utilizing Direct Digital Synthesizer (DDS) technology, the UTG4000A series ensures the delivery of stable, precise, and low-distortion signals. The sleek, upright design is complemented by a high-resolution 8-inch display screen. Additionally, the user-friendly interface design and panel layout contribute to improved efficiency.

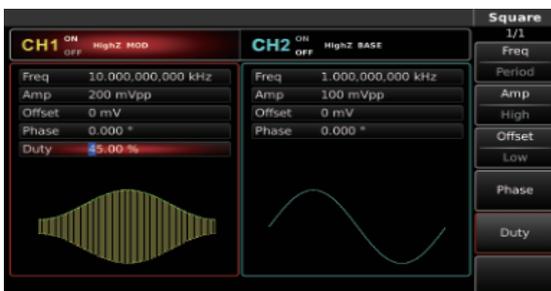
- 80MHz/120MHz/160MHz/200MHz sine waveform output, 1μHz full-band resolution
- 30MHz/40MHz/50MHz pulse waveform, adjustable rise/fall time
- 500MSa/s sampling rate, 16 bits vertical resolution
- Standard dual channels, supporting stand-alone or channel-coupling output mode
- 32Mpts arbitrary waveform depth, 7GB non-volatile arbitrary waveforms
- Versatile modulation types: AM, FM, PM, ASK, FSK, PSK, BPSK, QPSK, OSK, PWM, SUM, QAM
- Frequency counter 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



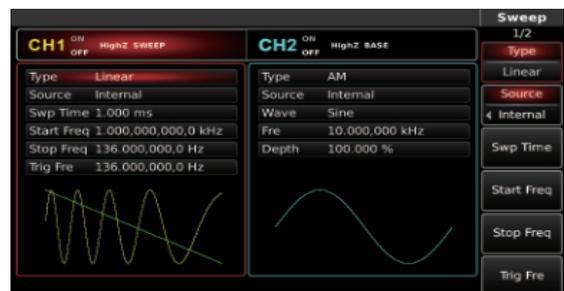
Built-in arbitrary waveform available at any time



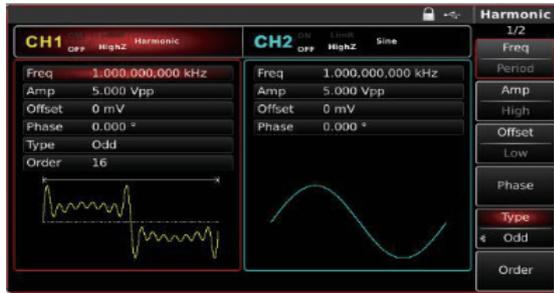
Noise modes



Rich modulation functions



Linear and logarithmic sweep waveform



Customize harmonic generation function



Frequency counter from 100mHz to 200MHz

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			

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

# UTG2000A/B Series

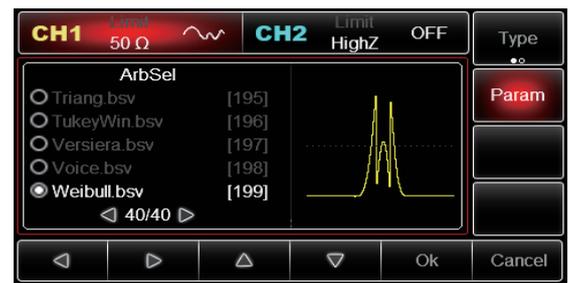


The waveform generators in the UTG2000B Series provide precise, stable, and distortion-free signals with high purity. These instruments produce high-frequency square waves featuring fast rise and fall edges. With an intuitive operation interface and a well-designed graphical display, users can improve their efficiency while working with these versatile tools.

- 25MHz/60MHz/80MHz/120MHz sine waveform output, 1μHz full-band resolution
- Max 320MSa/s sampling rate, 16 bits vertical resolution
- Unique expression output function
- Standard dual channels, supporting stand-alone or channel-coupling output mode
- 16Mpts arbitrary waveform depth
- Versatile modulation types: AM, FM, PM, PWM, ASK, FSK, PSK, BPSK, QPSK, OSK, DSB-AM, SUM, QAM
- 4.3 inch TFT LCD, WVGA (480 × 272)
- Standard Ports: USB Host, USB Device, LAN



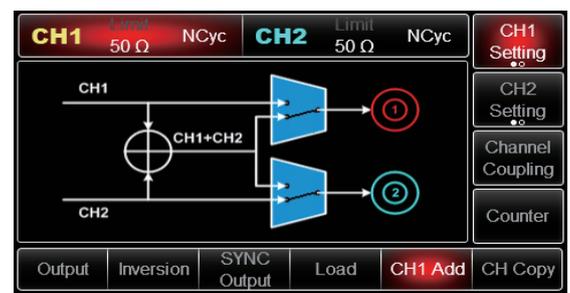
120MHz sine waveform output, double channels multiple waveforms selection



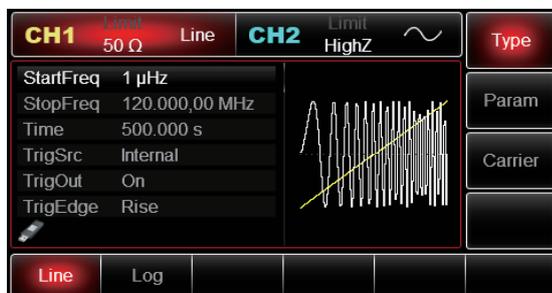
Built-in up to 200 arbitrary waveforms



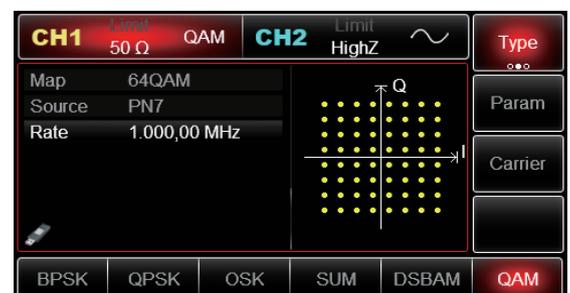
Built-in 16 types harmonic generators



Supporting stand-alone or channel-coupling output mode. Channel merging and stacking



Sweep function and burst mode

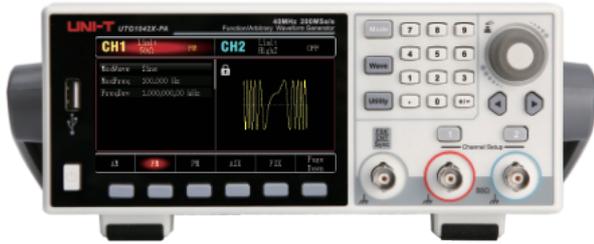


Multiple analog and digital modulation functions

Key Specifications	UTG2025A	UTG2062B	UTG2082B	UTG2122B
Max. frequency	25MHz	60MHz	80MHz	120MHz
Channels	2			
Sampling rate	125MSa/s	320MSa/s (1.28GSa/s @ 4 × Interpolation)		
Waveforms	Sine, square, ramp, pulse, noise, DC, arbitrary; UTG2000B only: harmonic, exp			
Working modes	Continuous, modulation, sweep, burst			
Modulation types	AM, FM, PM, ASK, FSK, PSK, PWM	AM, FM, PM, ASK, FSK, PSK, PWM, BPSK, QPSK, OSK, DSB-AM, SUM, QAM		
<b>Arbitrary Waveform</b>				
Memory depth	8pts–8kpts	8pts–16Mpts		
Vertical resolution	14bits	16bits (symbol included)		
<b>Frequency Characteristics</b>				
Sine	1μHz–25MHz	1μHz–60MHz	1μHz–80MHz	1μHz–120MHz
Square	1μHz–5MHz	1μHz–25MHz	1μHz–25MHz	1μHz–30MHz
Pulse	1μHz–5MHz	1μHz–20MHz	1μHz–25MHz	1μHz–30MHz
Ramp	1μHz–400kHz	1μHz–3MHz	1μHz–4MHz	1μHz–5MHz
Harmonic		1μHz–30MHz	1μHz–40MHz	1μHz–60MHz
Arbitrary	1μHz–5MHz	1μHz–15MHz	1μHz–20MHz	1μHz–25MHz
Noise	25MHz (-3dB)	60MHz (-3dB)	80MHz (-3dB)	120MHz (-3dB)
Resolution	1μHz			
Accuracy	± 0.5ppm 25 °C			
	First year aging rate: 1ppm			
	Temperature coefficient: ± 0.5ppm/°C			
Temperature Coefficient	< 2ppm/°C			
Interfaces	USB Host, USB Device, 10MHz clock source input/output, External analog modulation input			
Power	100V–240V AC, 50Hz/60Hz			
Display	4.3 inch TFT LCD, WVGA (480 x 272)			
Product net weight	3.2kg			
Product size	265mm x 110mm x 320mm			

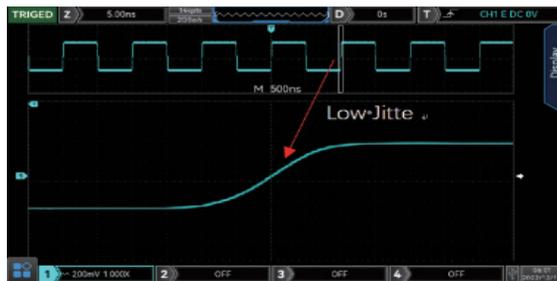
Ordering Information	
UTG2000A/B Series	UTG2025A: 25MHz, 125MSa/s, 8Kpts, 2 Channel
	UTG2062B: 60MHz, 320MSa/s, 16Mpts, 2 Channel
	UTG2082B: 80MHz, 320MSa/s, 16Mpts, 2 Channel
	UTG2122B: 120MHz, 320MSa/s, 16Mpts, 2 Channel
Standard Accessories	Power cord
	UT-D14: USB interface cable
	BNC cables: 1pc, BNC to alligator clip line(1m): 1pc

# UTG1000X Series

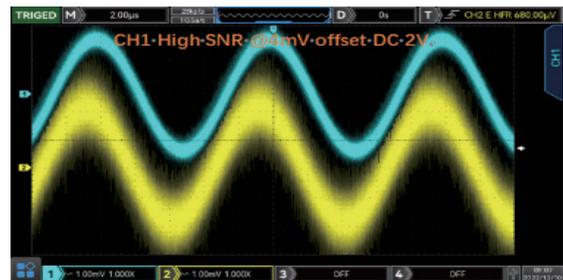


The UTG1000X utilizes direct digital synthesis technology, ensuring the generation of precise and stable waveforms with a resolution as fine as 1μHz. This economical, high-performance, and multi-functional/arbitrary waveform generator produces accurate, stable, clean, and low-distortion output signals. It is designed for convenient operation, offering superior technical indicators and a user-friendly graphic display, making it a versatile tool that meets the needs of learning and testing while enhancing work efficiency.

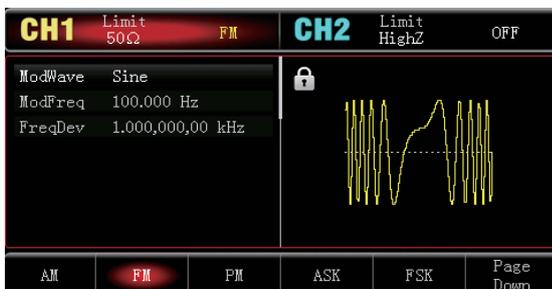
- Excellent digital sampling technology, resulting in lower output waveform jitter.
- Dual-channel equivalent performance, with a maximum output frequency of 40 MHz and a maximum output amplitude of 20 Vpp. 200MSa/s sampling rate
- 16-bit vertical resolution.
- Square wave with a maximum frequency of 20MHz and low jitter.
- Rich modulation functions including AM, FM, PM, FSK, ASK, PSK, and PWM.
- Support for sweep frequency and pulse train output.
- Built-in power amplifier module (maximum output power: 4W, -PA model only).
- Generation of arbitrary waveforms through PC software.
- 7-bit hardware frequency counter function
- Built-in 200 arbitrary waveforms.
- Standard USB Host and USB Device interfaces.
- 4.3-inch TFT LCD display.



Excellent digital sampling technology makes the output waveform jitter lower.



Set small signal to superimpose large DC, UTG1000X has lower output noise and higher signal-to-noise ratio



Supports AM, FM, PM, FSK, ASK, PSK and PWM multiple analog and digital modulation methods.



Supports three pulse modes: N cycle, infinite and gated. Internal and External modulation signal sources.



Support linear and logarithmic two frequency sweep methods.



High-precision frequency meter, which can measure the frequency range of 100mHz–200MHz.

Key Specifications	UTG1022X	UTG1022X-PA	UTG1042X
Max. frequency	20MHz	20MHz	40MHz
Channels	2		
Vertical resolution	16bits		
Sampling rate	200MSa/s		
Arbitrary wavelength	2kpts		
Working mode	Continue, modulation, frequency sweep		
Continue	Sine, Square, Ramp, Pulse, Noise, DC, Arb		
Modulation types	AM, PM, FM, ASK, PSK, FSK, PWM		
Frequency sweep types	Linear, logarithmic		
Hardware frequency counter	100mHz–200MHz		
Frequency Characteristics			
Sine wave	1μHz–20MHz	1μHz–20MHz	1μHz–40MHz
Square wave	1μHz–10MHz	1μHz–10MHz	1μHz–20MHz
Pulse wave	1μHz–10MHz	1μHz–10MHz	1μHz–20MHz
Ramp wave	1μHz–400kHz	1μHz–400kHz	1μHz–1MHz
Noise	40MHz bandwidth(- 3dB)(typical)	40MHz bandwidth (- 3dB)(typical)	40MHz bandwidth(- 3dB)(typical)
Frequency resolution	1μHz		
Rise/fall time	1 Vpp, 50Ω load		
	<16ns	<16ns	<16ns
Output Characteristics			
Output amplitude(50Ω)	≤20MHz		1mVpp–10Vpp
	≤40MHz		1mVpp–5Vpp
Amplitude accuracy	(1kHz sine wave with 0V offset, >10mVpp) ±(3% of set amplitude+1mVpp)		
DC offset range	±5V (50Ω); ±10V (High Z)		
DC offset accuracy	±(3%+2mV)		
Interface			
Standard configuration	USB Host, USB Device, PowerOut (BNC)		
Output resistance	50Ω		
Power	100–240V AC, 50Hz/60Hz; 100–120Vrms (±10%), 400 Hz		
Display	4.3 inch TFT LCD WVGA (480×272)		
Product size (W×H×D)	215mm x 103mm x 316mm		
Product net weight	2.2kg		
Ordering Information			
UTG1000X Series	UTG1022X: 20MHz, 200MSa/s, 2kpts, 2 Channel		
	UTG1022X-PA: 20MHz, 200MSa/s, 2kpts, 2 Channel, 4W Power Module		
	UTG1042X: 40MHz, 200MSa/s, 2kpts, 2 Channel		
Standard Accessories	Power cord		
	UT-D14: USB interface cable		
	BNC cables (1m): 2pcs		

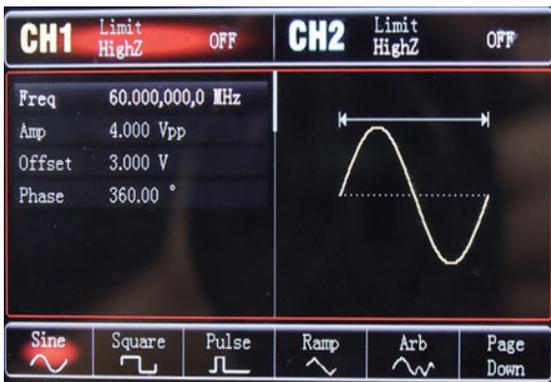
# UTG900E Series



The UTG900E Series is an entry-level handheld arbitrary waveform generator that combines high performance with multi-functionality. Featuring a compact design, a 4.3-inch TFT LCD, and a user-friendly interface, this model is well-suited for a range of test scenarios, making your testing tasks more straightforward.

Utilizing direct digital synthesis (DDS) technology, it ensures accurate and stable waveform generation. With a remarkable full-band resolution of up to 1 $\mu$ Hz, this generator offers precision in waveform creation.

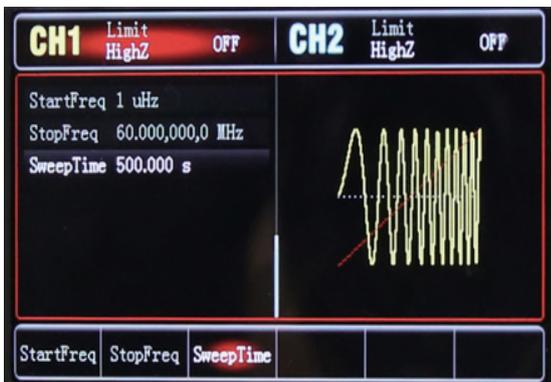
- 30MHz/60MHz sine waveform output
- 1 $\mu$ Hz full-band resolution
- 200MSa/s sampling rate, 14 bits vertical resolution, double channels
- Portable handheld mini signal generator
- High-accuracy, broad-band 6-bit frequency counter, range: 100mHz–100MHz
- Linear and logarithmic sweep functions
- 24 types of non-volatile waveform stores
- 4.3 inch high resolution color TFT display



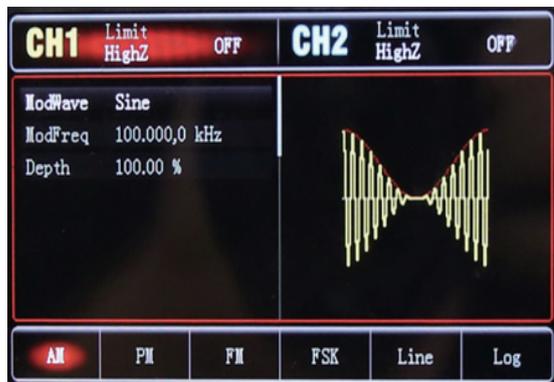
Multiple waveform signals: sine, square, ramp, pulse, noise, DC, arbitrary waveform



Built-in 24 arbitrary waveforms. 4kpts digital arbitrary waveform storage



Sweep function; Scan type: linear and logarithmic, test scan from low to high, and scan output from high to low

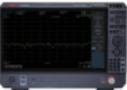


Modulation functions  
Easy-to-use modulation types: AM, FM, PM, FSK

Key Specifications		UTG932E	UTG962E
Max. frequency		30MHz	60MHz
Channels		2	
Sampling rate		200MSa/s	
Vertical resolution		14 bits	
Waveforms		Sine, square, pulse, ramp, noise, DC, arbitrary	
Sweep modes		Logarithmic, linear	
Frequency Characteristics			
Sine		1μHz–30MHz	1μHz–60MHz
Square		1μHz–15MHz	1μHz–20MHz
Ramp		1μHz–400kHz	1μHz–400kHz
Pulse		1μHz–15MHz	1μHz–20MHz
Arbitrary		1μHz–10MHz	1μHz–10MHz
Resolution		1μHz	
Accuracy		Within 90 days ± 50ppm	
		Within 1 year ± 100ppm	
		18°C–28°C	
Output Characteristics			
Impedance		50 Ω	
Amplitude range		1mVpp–10Vpp (50 Ω); 2mVpp–20Vpp (high Z)	
DC offset range (AC+DC)		± 5V (50 Ω); ± 10V (high Z)	
Amplitude resolution		1mV	
Power		100–240VAC, 50Hz/60Hz	
Display		4.3 inch TFT LCD (480 × 272)	
Product net weight		0.33kg	
Product size (W × H × D)		172mm x 90mm x 68mm	

Ordering Information	
UTG900E Series	UTG932E: 30MHz, 200MSa/s, 2 Channel
	UTG962E: 60MHz, 200MSa/s, 2 Channel
Standard Accessories	Power cord
	UT-D14: USB interface cable
	BNC cables: 1pc, BNC to alligator clip line (1M): 1pc
	Power adapter

# Spectrum Analyzers Selection Guide

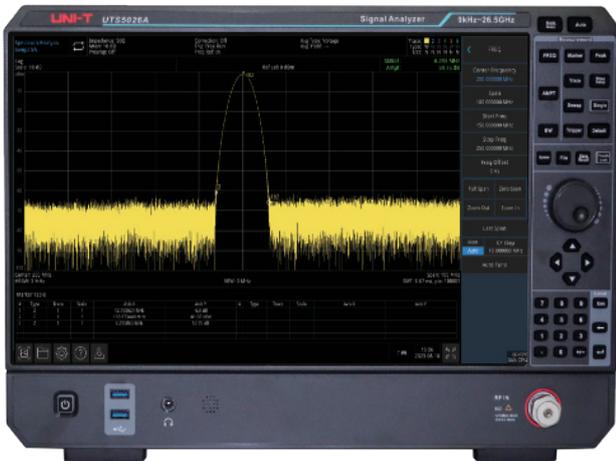
Series	Model	Frequency Range	Frequency Resolution	RBW	Phase Noise	DANL	Tracking Source
 UTS3000B	UTS3084T	9kHz–8.4GHz	1Hz	1Hz–3MHz	<-98 dBc/Hz (Typical value)@10kHz	< -161dBm	Yes
	UTS3084B	9kHz–8.4GHz	1Hz	1Hz–3MHz	<-98 dBc/Hz (Typical value)@10kHz	< -161dBm	No
	UTS3036B	9kHz–3.6GHz	1Hz	1Hz–3MHz	<-98 dBc/Hz (Typical value)@10kHz	< -161dBm	Optional
	UTS3021B	9kHz–2.1GHz	1Hz	1Hz–3MHz	<-98 dBc/Hz (Typical value)@10kHz	< -161dBm	Optional
 UTS1000B	UTS1032B	9kHz–3.2GHz	1Hz	1Hz–1MHz	<-98 dBc/Hz (Typical value)@10kHz	< -161dBm	No
	UTS1015B	9kHz–1.5GHz	1Hz	1Hz–1MHz	<-98 dBc/Hz (Typical value)@10kHz	< -161dBm	No
	UTS1015T	9kHz–1.5GHz	1Hz	1Hz–1MHz	<-98 dBc/Hz (Typical value)@10kHz	< -161dBm	Yes
	UTS1032T	9kHz–3.2GHz	1Hz	1Hz–1MHz	<-98 dBc/Hz (Typical value)@10kHz	< -161dBm	Yes
 UTS5000A	UTS5013A	9kHz–13.6GHz	1Hz	1Hz–3MHz (10 % steps), 4, 5, 6, & 8 MHz	<-107 dBc/Hz (Typical value)@10kHz	< -163dBm	No
	UTS5026A	9kHz–26.5GHz	1Hz	1Hz–3MHz (10 % steps), 4, 5, 6, & 8 MHz	<-107 dBc/Hz (Typical value)@10kHz	< -163dBm	No

# Spectrum Analyzers Accessories

Model	Information	Certification	Series
UT-CK01 	Spectrum Utility Kit: includes NSMAJ-NJ-0.7M DC-6G Cable x1, NJ-NJ-0.7M DC-6G Cable x1, SMA-N-KJ-T DC-6GHz Adapter x2, N-BNC-JK DC-4GHz Adapter x2, 2400MHz–2500MHz Antenna x2, 824–960MHz/1710–1990MHz x2	ROW	UTS3000B; UTS1000B
UT-CK02 	Spectrum Utility Kit: includes NSMAJ-NJ-0.7M DC-40G Cable x1, NJNJ-0.7M DC-40G Cable x1, SMA-N-KJ-T DC-40GHz Adapter x2, NBNC-JK DC-40GHz Adapter x2	ROW	UTS5000A
UTS-EMI01 	Frequency range: 30MHz–3GHz; includes 3 Pcs magnetic field near-field probes and 1 Pcs electric field near field probe; 1 Pcs N-SMA cable, 1 Pcs N-BNC	ROW	UTS5000A; UTS3000B; UTS1000B
BAG-B3 	Soft carrying bag for UTS1000B and UTS3000B Series Spectrum Analyzers	ROW	UTS3000B; UTS1000B

# UTS5000A Series

NEW

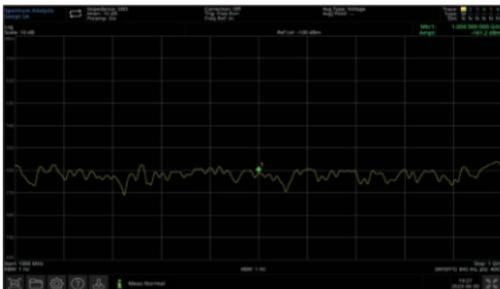


The UTS5000A series is a signal analyzer with a frequency range of 9kHz to 26.5GHz, which covers most of the wireless communication (C band) and satellite communication (Ku and K band) standards and applications.

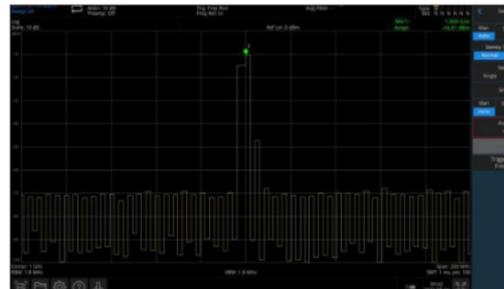
Whether you need to verify the performance and compliance of your RF devices, or to build an automatic control system for your test environment, the UTS5000A series can meet your needs with its high accuracy, reliability, and versatility.

The UTS5000A series can be used as the main equipment required to test the output power, frequency, bandwidth, modulation quality, spectrum, distortion, dynamic range, and demodulation performance of various RF devices, such as transmitters, receivers, antennas, filters, amplifiers, etc. It can also be integrated with other instruments and software to form a complete RF conformance and calibration system for corporate R&D, factory production, education, and scientific research.

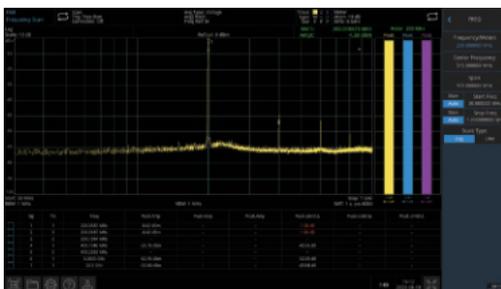
- Frequency range: 9kHz to 26.5GHz
- DANL: -163 dBm/Hz (typical value)
- Phase noise: <math><-107\text{ dBc/Hz}</math> (at 10 kHz offset, typical)
- Scan points: up to 100,001 points
- Minimum Resolution Bandwidth (RBW): 1 Hz
- Advanced one-key measurement (UTS5000A-AMK)
- EMI Pre-Compliance Analysis Function (UTS5000A-EMI)
- Optional Analog Demodulation Analysis (UTS5000A-AMA)
- Available Digital Demodulation Analysis (UTS5000A-VSA)
- Easily add Real-time Spectrum Analysis (UTS5000A-RTSA)
- Upgrade for I/Q Analysis (UTS5000A-IQ)
- 15.6 inches multi-touch 1920x1080 HD TFT LCD display



Excellent sensitivity to test weaker signals



Excellent selectivity. Scan 100,001 points



EMI pre-compliance (UTS5000A-EMI)



Removable dust mesh

Key Specifications	UTS5013A	UTS5026A
Frequency range	9kHz–13.6GHz	9kHz–26.5GHz
Frequency resolution	1Hz	
Scan width range	0Hz, 10Hz–13.6GHz	0Hz, 10Hz–26.5GHz
Scan accuracy	Scan mode: $\pm [0.25\% \times \text{span} + \text{horizontal resolution}]$	
	FFT mode: $\pm (0.10\% \times \text{span} + \text{horizontal resolution})$	
Sweep time	Span = 0Hz, 1 $\mu$ s to 6000s; Span $\geq$ 10Hz, 1ms to 4000s	
Marker mode	Normal, Delta $\Delta$ , Fixed	
Marker function	Marker Noise, Band Power, Band Density, N dB, Counter	
RBW (-3 dB)	1 Hz–3MHz (10% step), 4, 5, 6, 8MHz	
Video bandwidth (VBW)	1 Hz–3MHz (10% step), 4, 5, 6, 8MHz	
Selectivity (-60 dB/-3 dB)	<4.1:1 (Nominal), -60dB: -3dB	
Reference level	-170dBm to +30dBm, 0.01dB Steps	
Preamplifier	+20dBm nominal	
Input attenuator range	0 to 50dB, 2dB Steps	
Trace detectors	Normal, peak, sample, negative peak, log power average, RMS average, and voltage average	
Trace type	Clear/Write, Average, Max Hold, Min Hold	
Scale units	dBm, dBmV, dB $\mu$ V, V, W	
Sweep (trace) point range	11 to 100,001	
Advanced Measurement	Power Suite Measurement, Nonlinear Measurement, Spectrum Monitoring	
Modulation Analysis	Demodulation, AM Measurement, FM Measurement	
Vector signal analysis	ASK (2 ASK); FSK: 2 FSK, 4 FSK, 8 FSK, 16 FSK; MSK (GMSK); PSK: BPSK, QPSK, OQPSK, 8PSK; DPSK: DBPSK, DQPSK, D8PSK, $\pi/4$ -DQPSK, $\pi/8$ -D8PSK; QAM: 16, 32, 64, 128, 256	
I/Q Analyzer analysis bandwidth	Standard: 9kHz to 25MHz; Option B40: 9kHz to 40MHz	
Real-time analysis bandwidth	25MHz; 40MHz	
Interface	RF input, 10MHz reference IN/OUT, External trigger input, HDMI, USB-Host, USB-Device, LAN	
Power	100–240V AC, 50Hz/60Hz, 100–120V AC 400Hz	
Display	15.6 inch TFT LCD (1920x1080) touch	
Product size(W x H x D)	445mm x 311mm x 195mm	
Product net weight	11kg	

Ordering Information	
UTS5000A Series	UTS5013A: 13.6GHz, 1Hz–8MHz, -163dBm/Hz
	UTS5026A: 26.5GHz, 1Hz–8MHz, -163dBm/Hz
Standard Accessories	Power cord
	USB cable x 1
Optional Accessories	UT-CK02: accessories kit
	UTS-EMI01: EMI Near-Field Probe kit
Options	UTS5000A-AMK: Advanced measurement kit option
	UTS5000A-EMI: EMI measurement option
	UTS5000A-AMA: Analog demodulation measurement option
	UTS5000A-VSA: Digital demodulation analysis option
	UTS5000A-IQ: I/Q Analysis
	UTS5000A-RTA: Real-time Spectrum Analysis

# UTS3000B Series



The UTS3000B Series spectrum analyzer offers three models covering frequency bands from 9kHz to 2.1GHz, to 3.6GHz and to 8.4GHz, respectively. This spectrum analyzer series boasts wide frequency band coverage and superior performance, utilizing advanced all-digital IF technology with a resolution bandwidth ranging from 1Hz to 3MHz.

Equipped with a 10.1-inch large touch screen, the UTS3000B series enhances user experience. With 40,001 scanning points and a variety of analysis functions, it provides robust support for your analytical tasks. The compact design, multiple ports, general protocol support, and optional tracking source contribute to its versatility, facilitating automation and remote control. The UTS3000B series is ideal for applications across various fields, including communications, instrumentation, electronics, research & development and education.

- Measurement ranges: 9kHz–2.1GHz/3.6GHz/8.4GHz
- Display average noise level (DANL): -161dBm/Hz (typical)
- Phase noise: <-98 dBc (Offset 10 kHz, typical value)
- Full amplitude accuracy: <0.7dB
- Up to 40,001 scanning points
- Minimum resolution bandwidth (RBW): 1Hz
- Advanced function one key measurement (UTS3000B-AMK)
- EMI Pre-compliance analysis function (UTS3000B-EMI)
- Available analog demodulation analysis (UTS3000B-AMA)
- Optional digital demodulation analysis (UTS3000B-VSA)
- Tracking generator output for B-models only (UTS3000B-TG)
- 10.1 inch 1280 × 800 HD capacitive touch screen
- Standard USB/LAN interface, supports SCPI protocol



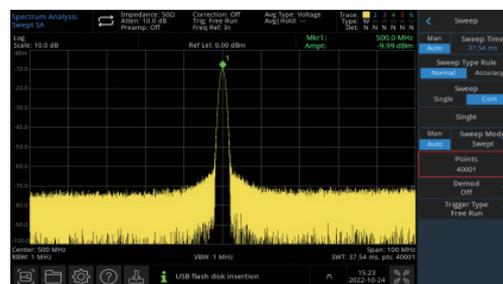
Multi touch HD screen for quick operation



Excellent sensitivity to test weaker signals



Removable dust mesh



Scan 40,001 points



Excellent selectivity



EMI pre-compliance (UTS3000B-EMI)

Key Specifications	UTS3021B	UTS3036B	UTS3084B	UTS3084T
Frequency range	9kHz–2.1GHz	9kHz–3.6GHz	9kHz–8.4GHz	9kHz–8.4GHz
Frequency resolution	1Hz			
Sweep width range	0Hz, 100Hz–2.1GHz	0Hz, 100Hz–3.6GHz	0Hz, 100Hz–8.4GHz	0Hz, 100Hz–8.4GHz
Sweep accuracy	Swept $\pm [0.25\% \cdot \text{Span} + \text{Span} / (\text{Points} - 1)]$ ; FFT $\pm [0.10\% \cdot \text{Span} + \text{Span} / (\text{Points} - 1)]$			
Sweep time	1ms to 4000s (span $\neq 0$ ) 1 $\mu$ s to 4000s (span=0)			
Sweep mode	Swept, FFT			
Marker mode	Normal, Delta $\Delta$ , Fixed			
Marker function	Marker Noise, Band Power, Band Density, NdB, Counter			
RBW (-3 dB)	1Hz–3MHz, 1-3-10 steps			
Video bandwidth (VBW)	1Hz–3MHz, 1-3-10 steps			
Selectivity (-60 dB/-3 dB)	<4.8:1 (nominal) (-60dB:-3dB)			
Bandwidth accuracy (-3dB)	< 5% (nominal)			
Reference level	-100 dBm→+30dBm, Steps 1dB			
Preamp	20dB, Nominal, 9kHz to 2.1GHz (3.6GHz, 8.4GHz)			
Input attenuator range	0–51dB, 1dB Steps			
Maximum input DC voltage	50V DC max			
Maximum continuous wave RF power	$\leq +33$ dBm 3 minute, Input attenuation >20dB			
Display log scale	1dB to 200dB			
Display linear scale	0–Reference level			
Scale units	dBm, dBmV, dBuV, V, W			
Sweep (trace) point range	40,001			
Number of traces	6			
Detection mode	Sample, Peak, Negative, Normal, Average			
Trace Type	Clear/Write, Average, MaxHold, Min Hold			
Frequency response	Preamplifier off	9kHz to 3.6GHz: $\pm 0.6$ dB; $\pm 0.3$ dB, Typical; 3.6GHz to 8.4GHz: $\pm 0.8$ dB; $\pm 0.6$ dB, Typical		
	Preamplifier on	100kHz to 3.6GHz: $\pm 1.0$ dB; $\pm 0.8$ dB, Typical; 3.6GHz to 8.4GHz: $\pm 1.2$ dB; $\pm 1.0$ dB, Typical		
RBW switching uncertainty	Relative to 10kHz RBW logarithmic resolution $\pm 0.2$ dB, linear resolution $\pm 0.01$ , Nominal			
Input attenuation switching uncertainty	$\pm 0.5$ dB (20–30°C, fc=50MHz, Preamp Off, Relative to 20dB, attenuation, Input attenuation 1–51dB)			
Absolute amplitude accuracy	Preamplifier off	$\pm 0.4$ dB, Input signal level -20dBm (20°C–30°C, fc=50MHz, RBW=1kHz, VBW=1kHz, peak detector, attenuation input 20dB)		
	Preamplifier on	$\pm 0.5$ dB, Input signal level -40dBm (20°C–30°C, fc=50MHz, RBW=1kHz, VBW=1kHz, peak detector, attenuation input 20dB)		
Total absolute amplitude accuracy	$\pm (0.4\text{dB} + \text{frequency response})$ (20°C–30°C, fc>100kHz, Input signal level -50dBm–0dBm RBW=1kHz, VBW=1kHz, Peak detection, Input attenuation 20dB, Preamplifier off, 95% Confidence)			

Key Specifications		UTS3021B	UTS3036B	UTS3084B	UTS3084T
Input voltage standing wave ratio (VSWR)		<1.8dB (nominal)			
Tracking source	Frequency range	10MHz–2.1GHz (Opt.)	10MHz–3.6GHz (Opt.)	No	100kHz–6GHz
	Output level range	-40dBm–0dBm			
	Resolution	0.5dB			
	Flatness output	±3dB			
Interface		Trace source output, 10MHz reference input, 10MHz reference output, Ext Trigger, HDMI, USB host, USB device, LAN			
Power		100–240V AC, 50Hz/60Hz; 100–120V AC, 400Hz			
Display		10.1 inch TFT LCD (1280x800) touch			
Product size (W × H × D)		378mm × 218mm × 120mm			
Product net weight		4.55kg			

Ordering Information	
UTS3000B Series	UTS3021B: 2.1GHz, 1Hz–3MHz, -161dBm/Hz
	UTS3036B: 3.6GHz, 1Hz–3MHz, -161dBm/Hz
	UTS3084B: 8.4GHz, 1Hz–3MHz, -161dBm/Hz
	UTS3084T: 8.4GHz, 1Hz–3MHz, -161dBm/Hz, with built-in Tracking generator
Standard Accessories	Power cord
	USB cable
Optional Accessories	UT-CK01: Accessories kit
	UTS-EMI01: Near-field probes kit
Options	UTS3000B-AMK: Advanced measurement kit
	UTS3000B-EMI: EMI measurement option
	UTS3000B-AMA: Analog demodulation measurement option
	UTS3000B-VSA: Digital demodulation analysis option
	UTS3000B-TG: Tracking generator option (Factory Installed, must be ordered with unit)

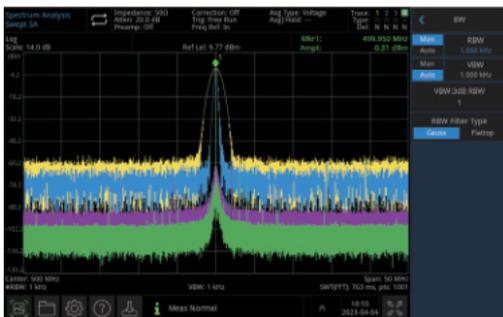
# UTS1000B Series



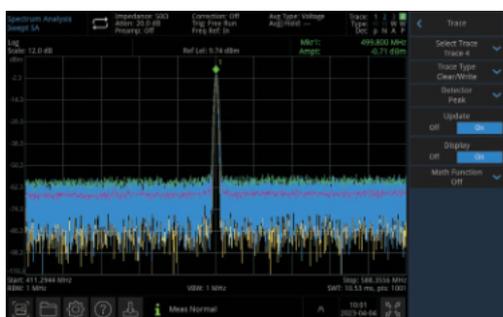
The UTS1000B Series spectrum analyzer consists of four models: UTS1015B/T and UTS1032B/T, covering frequency bands from 9kHz to 1.5GHz and 9kHz to 3.2GHz, respectively. This series offers broad frequency band coverage and exceptional performance, with resolution bandwidth ranging from 1Hz to 1MHz. Featuring 10,001 scanning points, it supports various functions to enhance your analysis tasks.

Equipped with a 10.1-inch large touch screen, the UTS1000B series provides an improved user experience. Its compact bench design, multiple ports, and general protocol support enable automation and remote control. Widely applicable in fields such as communications, semiconductors, computers, electronics, instrumentation, R&D, and education. The UTS1000B series caters to a diverse range of applications.

- Frequency range: 9kHz–3.2GHz
- Resolution bandwidth: 1Hz–1MHz
- Tracking source: 100kHz–3.2GHz
- DANL:  $-161\text{dBm}$
- Phase noise:  $<-98\text{dBc/Hz}$  (1GHz, typical)
- Number of scanning points displayed: 10,001
- Optional Analysis functions: EMI analysis, advanced measurement, analog demodulation analysis, digital demodulation analysis
- Display: 10.1 inch TFT LCD (1280x800) touch screen
- Interface: HDMI, USB host, USB device, LAN, 3.5mm audio



4 traces

DANL  $<-161\text{dBm}$ 

Rich detector functions



Excellent selectivity

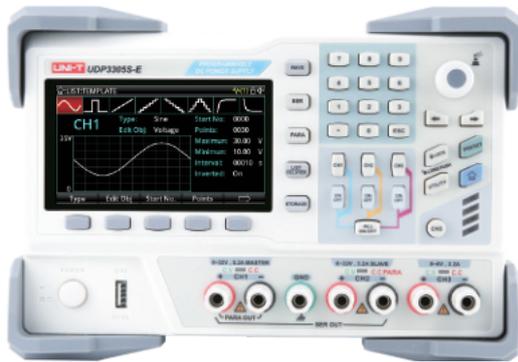
Key Specifications		UTS1015B	UTS1015T	UTS1032B	UTS1032T
Frequency range		9kHz–1.5GHz	9kHz–1.5GHz	9kHz–3.2GHz	9kHz–3.2GHz
Frequency resolution		1Hz			
Sweep width range		0Hz, 100Hz–1.5GHz	0Hz, 100Hz–1.5GHz	0Hz, 100Hz–3.2GHz	0Hz, 100Hz–3.2GHz
Sweep time		1ms to 4000s(span≠0); 1μs to 4000s (span=0)			
Sweep mode		Swept (1 kHz–1 MHz), FFT (1Hz–30kHz)			
Marker mode		Normal, DeltaΔ, Fixed			
Marker function		Marker Noise, Band Power, Band Density, NdB, Counter			
RBW (-3 dB)		1Hz–1MHz, 1–3–10 steps			
Video bandwidth (VBW)		1Hz–1MHz, 1–3–10 steps			
Selectivity (-60 dB/-3 dB)		<4.8:1 (nominal) (-60dB: -3dB)			
Bandwidth accuracy (-3dB)		< 5% (nominal)			
Reference level		-100dBm–+30dBm, Steps 1dB			
Preamp		20dB, nominal value, 9kHz–1.5GHz (3.2GHz)			
Input attenuator range		0–51dB, 1dB steps			
Maximum input DC voltage		50V DC max			
Maximum continuous wave RF power		≤ ±33dBm, 3 minute, Input attenuation >20dB			
Display log scale		1dB–200dB			
Display linear scale		0–Reference level			
Scale units		dBm, dBmV, dBμV, V, W			
Sweep (trace) point range		10,001			
Number of traces		4			
Detection mode		Sample, Peak, Negative, Normal, Average			
Trace Type		Clear/Write, Average, Max Hold, Min Hold			
Frequency response	Preamplifier off	± 0.6dB; ± 0.3dB, Typical (20°C–30°C, 30%–70% relative humidity, Input attenuation 20dB, be relative to 50MHz)			
	Preamplifier on	± 1.0dB; ± 0.8dB, Typical (20°C–30°C, 30%–70% relative humidity, Input attenuation 20dB, relative to 50MHz)			
RBW switching uncertainty		Relative to 10kHz RBW logarithmic resolution ± 0.2dB, linear resolution ± 0.01, Nominal			
Input attenuation switching uncertainty		± 0.5dB (20°C–30°C, fc=50MHz, Preamp Off, Relative to 20dB attenuation, Input attenuation 1–51dB)			
Total absolute amplitude accuracy		± (0.4dB+Frequency response) (20–30°C, Fc>100kHz, Input signal level -50dBm–0dBm, RBW=1kHz, VBW=1 kHz, Peak detectors, Input attenuation 20dB, Preamp Off, 95% confidence)			
Input voltage standing wave ratio (VSWR)		≤1.8 (Nominal)	≤1.8 (Nominal)	≤1.8 (Nominal)	≤1.8 (Nominal)
Tracking source	Frequency range	—	100kHz–1.5GHz	—	10MHz–3.2GHz
	Output level range	—	-40dBm–0dBm	—	-40dBm–0dBm
	Resolution	—	0.5dB	—	0.5dB
	Flatness output	—	± 3dB	—	± 3dB
Interface		Trace source output, 10MHz reference input, 10MHz reference output, Ext Trigger, HDMI, USB host, USB device, LAN, 3.5mm			
Power		100–240V AC, 50Hz/60Hz; 100–120V AC, 400Hz			
Display		10.1 inch TFT LCD (1280x800) touch			
Product size(W × H × D)		378mm x 218mm x 120mm			
Product net weight		4.55kg			

Ordering Information	
UTS1000B Series	UTS1015B: 1.5GHz, 1Hz-1MHz, -161dBm
	UTS1015T: 1.5GHz, TG, 1Hz-1MHz, -161dBm
	UTS1032B: 3.2GHz, 1Hz-1MHz, -161dBm
	UTS1032T: 3.2GHz, TG, 1Hz-1MHz, -161dBm
Standard Accessories	Power cord
	USB cable ×1
Optional Accessories	UT-CK01: Accessories kit
	UTS-EMI01: Near-field probes kit
Options	UTS1000B-AMK: Advanced measurement kit option
	UTS1000B-EMI: EMI measurement option
	UTS1000B-AMA: Analog demodulation measurement option
	UTS1000B-VSA: Digital demodulation analysis option

# DC Power Supplies Selection Guide

Series	Model	Channel	Output Voltage	Output Current	Max Power	Resolution	Name
 UDP3000/S	UDP3305S	4	0-32V (CH1, CH2) 0-6V (CH3), 5V (CH4)	0-5A (CH1, CH2) 0-3A (CH3), 2A (CH4)	348W	1mV/1mA	Programmable Linear DC Power Supply
	UDP3305S-E	4	0-32V (CH1, CH2) 0-6V (CH3), 5V (CH4)	0-5A (CH1, CH2) 0-3A (CH3), 2A (CH4)	348W	10mV/1mA	
	UDP3305C	3	0-30V (CH1, CH2) 1.8V/2.5V/3.3V/5V (CH3)	0-5A (CH1, CH2) 3A (CH3)	315W	10mV/1mA	
	UDP3303C	3	0-30V (CH1, CH2) 1.8V/2.5V/3.3V/5V (CH3)	0-3A (CH1, CH2) 3A (CH3)	195W	10mV/1mA	
	UDP3303A	3	0-30V (CH1, CH2) 1.8V/2.5V/3.3V/5V (CH3)	0-3A (CH1, CH2) 3A (CH3)	195W	10mV/1mA	
 UDP1000	UDP1306C	1	0-32V	0-6A	192W	10mV/1mA	

# UDP3000/S Series



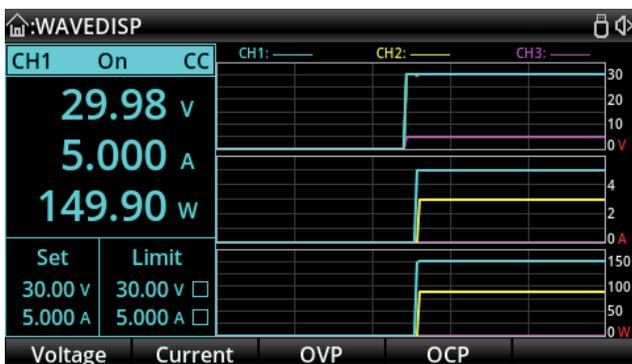
- Maximum power up to 348W
- Four channel independent output — CH1/CH2: 0–30V/5A, CH3: 0–6V/3A, CH4: 5V/2A
- Multiple protection: OCP/OVP/OTP
- Excellent load regulation and line regulation
- Ultra low output ripple and noise
- Support one key serial and parallel output function
- The 4.3 inch TFT display can display three channels and multiple parameters at the same time
- List/delayer function to control output as required
- External trigger function to realize industrial automation control
- Provides USB host, USB device, LAN, RS232, digital IO and other interfaces
- Real-time and dynamic display of output voltage/current/power waveforms
- Intelligent speed control of fan can effectively reduce fan noise during operation
- Supports 10 groups of file storage and transfer out, and support for USB FLASH read and write



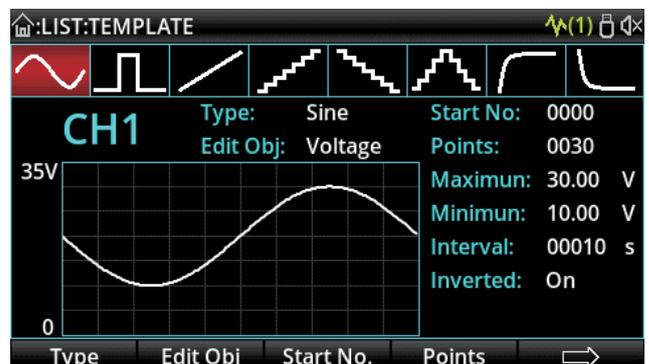
4.3 inch LCD provides a human-computer interaction interface with rich functions and simple operation.



One key series parallel connection provides you with a wider working range of power supply.



With waveform display function, it can intuitively display the change trend of voltage, current and power.



Unique list and delayer functions provide convenience for automatic testing

Key Specifications		UDP3303A	UDP3303C	UDP3305C	UDP3305S-E	UDP3305S
Output voltage		0–30V (CH1/CH2); 1.8V/2.5V/3.3V/5V (CH3)			0–32V (CH1/CH2); 0–6V (CH3); 5V (CH4)	
Output current		0–3A (CH1/CH2); 3A(CH3)		0–5A (CH1/CH2); 3A (CH3)	0–5A (CH1/CH2); 0–3A (CH3); 2A (CH4)	
Output power		195W		315W	348W	
Load regulation	CV	≤0.01%+3mV (≤3A); ≤0.02%+5mV (>3A)			≤0.01%+2mV	
	CC	≤0.2%+3mA			≤0.01%+250μA	
Line regulation	CV	≤0.01%+3mV			≤0.01%+2mV	
	CC	≤0.2%+3mA			≤0.01%+250μA	
Resolution	Voltage	10mV			10mV	1mV
	Current	1mA			1mA	1mA
Programming accuracy	Voltage	≤0.1%+30mV			± (0.3%+20mV)	± (0.03%+10mV)
	Current	<0.5%+2mA			± (0.2%+5mA)	± (0.2%+5mA)
Readback accuracy	Voltage	≤0.1%+30mV			± (0.1%+20mV)	± (0.03%+10mV)
	Current	≤0.5%+2mA			± (0.15%+5mA)	± (0.15%+5mA)
Ripple and noise	Voltage	≤1mVrms			< 350μVrms/2mVpp (5Hz–1MHz)	
	Current	≤3mA rms			≤2mA rms	
Temperature coefficient		≤300ppm			Voltage: 0.01%+5mV; Current: 0.01%+2mA	
Parallel load regulation		≤0.01%+3mV(≤3A); ≤0.02%+5mV(>3A)			≤0.01%+2mV	≤0.01%+2mV
Parallel line regulation		≤0.01%+3mV			≤0.01%+2mV	≤0.01%+2mV
Series load regulation		≤300mV			≤300mV	≤300mV
Series line regulation		≤0.01%+5mV			≤0.01%+3mV	≤0.01%+3mV
Standard interfaces		USB Host (5V/2A, charging port only), Digital I/O	USB Host (5V/2A, charging port only), USB Device, RS-232, Digital I/O		USB Host (5V/2A, charging port only), USB Host, USB Device, LAN, RS-232, Digital I/O	
Power		AC 100V–240V, 50Hz/60Hz				
Display		EBTN LCD			4.3 inch LCD	
Product net weight		8.5kg			10.2kg	
Product size (W×H×D)		240mm x 151mm x 327mm			355mm x 240mm x 168mm	

UDP3000/S Series	UDP3305S: Programmable Linear DC Power Supply (4-Channel, 30V, 5A)
	UDP3305S-E: Programmable Linear DC Power Supply (4-Channel, 30V, 5A)
	UDP3305C: Programmable Linear DC Power Supply (3-Channel, 30V, 5A)
	UDP3303C: Programmable Linear DC Power Supply (3-Channel, 30V, 3A)
	UDP3303A: Non-Programmable Linear DC Power Supply (3-Channel, 30V, 3A)
Standard Accessories	Power cord
	USB interface cable (programmable models only)
	Alligator clip test line
Optional Accessories	Alligator clip test line (UDP3000S)

# UDP1000 Series



The UDP1306C is a programmable linear single-channel DC power supply designed as a cornerstone power product for test benches of all types. The UDP1306C caters to users with compact requirements and a demand for high reliability. It excels in minimizing ripple noise, offering a swift transient response, and demonstrates outstanding power supply and load regulation. The device is equipped with robust output capabilities and a comprehensive set of protection functions.

- High precision 4-digit display
- Over voltage/current/temperature protection
- Display Output voltage/current settings
- Shutdown memory/keyboard lock
- Intelligent cooling fan
- USB charging interface
- USB device communication, RS232 program-controlled communication interface
- Remote control (output ON/OFF)
- 5 sets of setup storage: M1-M5



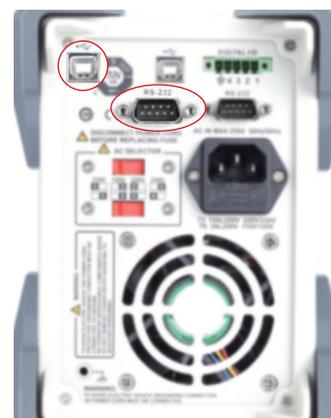
Single output 32V/6A and USB charging interface 5V/2A



5 sets of setup storage: M1-M5



Over voltage/current/temperature protection



With RS-232 and USB communication interface function

Key Specifications		UDP1306C
Output voltage		0-32V
Output current		0-6A
Output power		192W
Display mode		3-window, 4-digit voltage and current high precision display
Resolution	Voltage	10mV
	Current	1mA
Load regulation	Voltage	<0.01%+5mV
	Current	<0.1%+10mA
Power regulation	Voltage	<0.01%+3mV
	Current	<0.1%+3mA
Programming accuracy (25° C±5° C)	Voltage	<0.5%+20mV
	Current	<0.5%+10mA
Ripple and noise (20Hz-20MHz)	Voltage	≤2mVrms
	Current	≤3mA <sub>rms</sub>
Temperature coefficient		Current/Voltage: ≤300ppm/°C
Voltage rising/falling time delay		≤100ms (10% rated load)
Standard interfaces		USB Host (5V/2A), USB Device,RS-232
Power		AC 100V-240V,50Hz/60Hz
Display		EBTN LCD
Product net weight		7.5kg
Product size (W × H × D)		136mm x 194mm x 327mm

Ordering Information	
UDP1300C Series	UDP1306C: Programmable Linear DC Power Supply (1 Channel, 32V, 6A)
Standard Accessories	Power cord
	USB interface cable
	Alligator clip test line
Optional Accessories	RS-232 Communication line

# Benchtop Multimeters Selection Guide

Series	Model	Display Accuracy	DCV Annual Accuracy	Fastest Test Rate
 UT8800E	UT8806E	6½	0.0035%	10k rdgs/s
	UT8805E	5½	0.01%	5k rdgs/s
	UT8804E	4½	0.025%	3 rdgs/s
	UT8803E	3½	0.3%	3 rdgs/s
	UT8802E	4½	0.1%	3 rdgs/s

# Bench Multimeters Accessories

Model	Picture	Information	Certification	Multimeter Series
UT-L41		Alligator clip short test lead: 110-130mm	ROW	UT8806E; UT8805E; UT8804E; UT8803E; UT8802E

# UT8806E

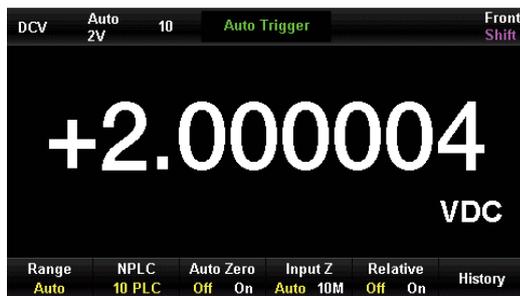


The UT8806E is the ultimate device to satisfy today's multi-functional, high-precision, and automatic measurement needs. Whether you're testing electrical circuits, industrial equipment, or scientific instruments, the UT8806E will deliver reliable and consistent results every time.

The UT8806E boasts a 6½ digit reading capability with a display count of 1,999,999, giving you a clear and detailed view of your measurements. It also has a rapid measurement speed of up to 10,000 readings per second, saving you time and increasing your productivity. Plus, it features true RMS AC voltage and current measurement, ensuring accurate and stable readings of complex waveforms. And with a 4.3 inch TFT-LCD with a display resolution of 480 × 272, you can easily read and navigate the UT8806E's user-friendly interface.

- 6½ digit reading capability
- Display count: 1,999,999
- Rapid measurement speed of up to 10,000 readings per second
- True RMS AC voltage and current measurement
- 4.3 inch TFT-LCD with a display resolution of 480 × 272
- Versatile configuration interface: USB Host, USB Device, LAN, RS-232C, GPIB
- Dual display support with a built-in help system for easy information retrieval

- Compatibility with standard SCPI remote control commands, PC software, and the latest mainstream multimeter command set
- 32GB NAND Flash for mass storage of instrument settings, files, and data
- Import/export functionality for measurement data and settings through VXI-11, USBTMC, and U disk, facilitating convenient modification, viewing, and backup by users
- Inclusion of built-in thermocouple cold junction compensation for enhanced temperature measurement accuracy.



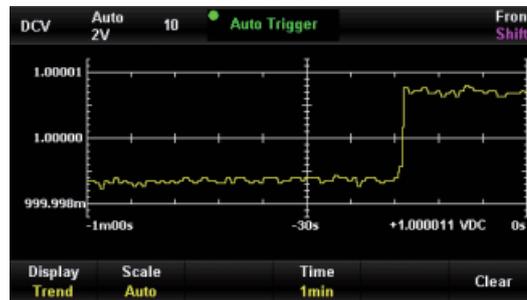
1,999,999 count, 4.3 inch TFT LCD display



Various mathematical operations



Display main and auxiliary parameters on the same screen.



UT8806 supports multiple display modes. Users can observe measurement data through numbers, bar graphs, trend graphs and histograms.

Key Specifications	UT8806E	
	Range	Accuracy (90 days)
DC voltage (V)	20mV/2V/20V/200V/1000V	± (0.002%+0.0004%)
AC voltage (V)	200mV/2V/20V/200V/750V	± (0.05%+0.04%)
DC current (A)	2μA/20μA/200μA/2mA/20mA/200mA/2A/10A	± (0.030%+0.001%)
AC current (A)	200μA/2mA/20mA/200mA/2A/10A	± (0.10%+0.04%)
Resistance (Ω)	20 Ω/200Ω/2kΩ/20kΩ/200kΩ/2MΩ/10MΩ/100MΩ/1GΩ	± (0.008%+0.001%)
Capacitance (F)	2nF/20nF/200nF/2μF/20μF/200μF/2mF/20mF/100mF	± (0.9%+0.1%)
Frequency (Hz)	3Hz–1MHz	± 0.006%
Temperature (°C)	-270°C–1760°C	± 0.16°C
Display count	1,999,999	
DCV Accuracy	0.0035%	
Sampling rate	10k rdgs/s	
Auto range	✓	
True RMS	✓	
Data storage	10k data record; 32GB Nand Flash total storage	
Frequency response (Hz)	300kHz	
Diode/triode test	✓	
Continuity buzzer	✓	
Data hold	✓	
Mathematical operations	Pass/Fail, Relative, minimum/maximum/average, standard deviation, dBm, dB, histogram, trend chart and bar chart	
Input resistance	≥10GΩ	
Standard interface	USB Host, USB Device, LAN, RS-232C, GPIB (optional)	
Power	AC 90V–110V, 45–440Hz; AC 110V–132V, 45–440Hz; AC 200V–240V, 45–66Hz; AC 216V–264V, 45–66Hz	
Display	4.3 inches TFT LCD	
Product net weight	4.4kg	
Product size (W × H × D)	256mm × 113.2mm × 378.2mm	

Ordering Information	
UT8000E Series	UT8806E: Benchtop Digital Multimeter (1,999,999; Auto)
Standard Accessories	International standard power cord
	USB interface cable
	Test leads
	RS-232C interface cable
	Simple test lead with alligator

# UT8805E

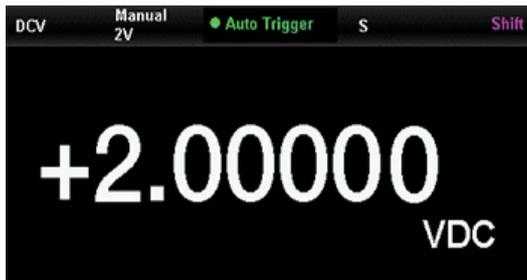


The UT8805E is a true RMS desktop digital multimeter with automatic ranging, featuring an impressive 199999-count display and a rapid reading rate of up to 5,000 readings per second. With a 300kHz frequency response and a 4.3-inch TFT LCD, this instrument is equipped for high-performance measurements.

The UT8805E offers various measurement capabilities, including Pass/Fail, maximum value, minimum value, average value, and relative value measurements. The device also boasts a 10,000 reading history data record and a total capacity of 1GB Nand Flash. With its superior electrical measuring capabilities, the UT8805E is well-suited for applications in electronics, manufacturing, research and development and education.

- 5½ digit display
- 199,999 counts resolution
- Measuring speed: 2.5/10/5k reading per second
- AC true RMS measurement.
- 2-line and 4-line resistance measurement
- Temperature measurement with built-in thermocouple cold junction compensation
- Various mathematical operations

- Continuity and diode test
- PC control software of upper computer
- USB drive store data and configuration
- Supports interface of USB, RS-232C and LAN, USB-TMC, IEEE 488.2 standard, VXI11 and SCPI language
- History data record and storage
- 1GB NAND FLASH storage, mass storage system and test data



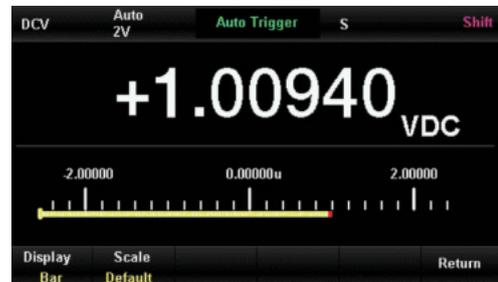
199999 count, 4.3 inch TFT LCD display



Various mathematical operations: maximum, minimum, average value, standard deviation, pass/fail, dBm, dB, relative measurement, histogram, trend chart, bar chart



Supports the display of main and auxiliary parameters on the same screen.



3 kinds of display formats are supported by UT8805E. User can check the measured data by number, bar chart, trend chart, and histogram.

Key Specifications	UT8805E	
	Range	Accuracy (90 days)
DC voltage (V)	20mV/2V/20V/200V/1000V	± (0.008%+0.003%)
AC voltage (V)	200mV/2V/20V/200V/750V	± (0.19%+0.05%)
DC current (A)	200μA/2mA/20mA/200mA/2A/10A	± (0.050%+0.005%)
AC current (A)	2mA/20mA/200mA/2A/10A	± (0.30%+0.1%)
Resistance (Ω)	200Ω/2kΩ/20kΩ/200kΩ/2MΩ/10MΩ/100MΩ	± (0.012%+0.003%)
Capacitance (F)	2nF/20nF/200nF/2μF/20μF/200μF/2mF	± (1%+0.5%)
Frequency (Hz)	20Hz–1MHz	± (0.01%+0.003%)
Temperature (°C)	-270°C–1760°C (thermocouple and thermal resistance sensor supported)	± 0.5°C
Display count	199,999	
DCV Accuracy	0.015%	
Sampling rate	5k rdgs/s	
Auto range	✓	
True RMS	✓	
Data storage	10k data record; 1GB Nand Flash total storage	
Frequency response (Hz)	100kHz	
Diode/triode test	✓	
Continuity buzzer	✓	
Data hold	✓	
Mathematical operations	Pass/Fail, relative value, minimum/maximum/average, standard deviation, dBm, dB, Hold, histogram, trend chart and bar chart	
Input Resistance	10MΩ or >10GΩ (200mV, 2V, 20V). 10MΩ ±2% for 200V, 1000V)	
Standard interface	USB Host, USB Device, LAN, RS-232	
Power	AC 100V–120V, 45Hz–440Hz; AC 200V–240V, 45Hz–66Hz	
Display	4.3 inch TFT LCD	
Product net weight	4.4kg	
Product size (W × H × D)	239mm × 100mm × 344mm	

Ordering Information	
UT8000E Series	UT8805E: Benchtop Digital Multimeter (199,999; Auto)
Standard Accessories	Power cord
	USB interface cable
	Test leads
	RS-232C interface cable
	Simple test lead with alligator clip

# UT8804E



The UT8804E is a true RMS desktop digital multimeter with automatic ranging and an impressive 59,999-count display. It comes equipped with a 4.3-inch TFT LCD and features a 100kHz frequency response. The inclusion of VFC low-pass filtering minimizes the impact of high-frequency signal interference on measurement results.

The UT8804E packs a lot of functionality into an affordable solution for standard parameters, along with maximum, minimum, average, and relative value measurement capabilities. With the capacity to store up to 20000 sets of outputs, the UT8804E stands out as a superior tool for electrical technicians and students.

- Reading resolution: 4% digits
- Maximum count: 59,999
- Measuring rate: 2 reading/s
- DC voltage range: 60mV–1000V
- DC current range: 600 $\mu$ A–10A
- AC voltage range: 60mV–1000V (True-RMS)
- AC current range: 600 $\mu$ A–10A (True-RMS)
- Resistance range: 600 $\Omega$ –60M $\Omega$
- Capacitance range: 6nF–60mF

- Conductivity range: 60ns
- Frequency measurement range: 60Hz–60MHz
- Duty cycle measurement range: 10%–90%
- Mathematical operation: maximum, minimum, average, peak, comparative measurement, trend chart
- Interface: USB device
- Frequency response: 100KHz
- Data record: 20,000 groups
- LPF low-pass filter function



Analog simulation bar makes the display of measurement results more intuitive.



Batch test function. This will help you check components quickly and pass or fail them based on your criteria



UT8804E digital multimeter has a recording function. Historical data records can be presented in statistics and trend charts.



Additional secondary parameters can be added to make the measurement more informative, while displaying the main parameters.

Key Specifications	UT8804E	
	Range	Accuracy (90 days)
DC voltage (V)	1000V	± (0.025%+5)
AC voltage (V)	1000V (45Hz–100kHz)	± (0.3%+30)
DC current (A)	10A	± (0.08%+10)
AC current (A)	10A (45Hz–10kHz)	± (0.6%+20)
Capacitance (F)	60mF	± (0.05%+2)
Conductance (nS)	60nS	± (2%+10)
Frequency (Hz)	60MHz	± (0.01%+5)
Duty cycle (%)	10%–90% (10Hz–2kHz)	± (1.2%+30)
Temperature (°C/F)	–40°C–1000°C	± (1%+30)
	–40°F–1832°F	± (1.5%+50)
Display count	59,999	
DCV Accuracy	0.3%	
Sampling speed	2–3rdgs/s	
Range	Auto, manual	
True RMS	✓	
Date display	✓	
Frequency response (Hz)	100kHz	
Diode/transistor test	✓	
Data storage	20,000	
On-off beep	✓	
Data hold	✓	
Standard interface	USB Device	
Power	100V–240V, 50Hz–60Hz	
Display	4.3 inch TFT LCD	
Product net weight	3.7kg	
Product size (W × H × D)	239mm x 109m x 344m	

Ordering Information	
UT8000E Series	UT8804E: Digital Multimeter (59,999; Auto)
Standard Accessories	Power cord
	USB interface cable
	Test leads
	Simple test lead with alligator clip
	K-type temperature probe

# UT8803E



The UT8803E is a compact desktop digital multimeter powered by AC. It features a 5,999-count, 3in LCD display. The large character display, equipped with backlight, enhances readability. The UT8803E is an automatic ranging instrument offering full-function testing, complete range overload protection, and a distinctive design. This instrument is an easy way for you to improve your electrical test bench. It is capable of measuring AC/DC voltage, AC/DC current, resistance, frequency, capacitance, inductance, triode HFE, diode (LED), thyristor (SCR), and circuit on-off. With its multi-functionality, high precision, and automation, the UT8803E meets the diverse measurement needs of users.

Don't miss out on the Uni-T UT8803E, the ultimate solution for professionals seeking precision, versatility, and automation in their measurements. Elevate your electrical testing capabilities and ensure the success of your projects.



- Reading resolution: 3% digits
- Maximum count: 5,999
- Measuring rate: 2-3 reading/s
- DC voltage range: 600mV-1000V
- DC current range: 600μA-10A
- AC voltage range: 600mV-750V (True-RMS)
- AC current range: 600μA-10A (True-RMS)
- Resistance range: 600Ω-60MΩ
- Capacitance range: 6nF-60mF
- Inductance range: 600μH-100H
- Frequency measurement range: 600Hz-20MHz
- Duty cycle measurement range: 5%-95%
- Mathematical operation: maximum, minimum, relative value, analog bar
- Interface: USB device
- Frequency response: 100KHz
- Measures diodes, triodes, and thyristors



Reading resolution 3% digits. Maximum count 5,999



D/Q parameters of capacitance and inductance can be measured



Measure all the standard parameters with the turn of dial



Extreme value operation and reference value operation function, with analog bar

Key Specifications	UT8803E	
	Range	Accuracy
DC voltage (V)	1000V	± (0.3%+2)
AC voltage (V)	750V	± (0.6%+5)
DC current (A)	10A	± (0.8%+3)
AC current (A)	10A	± (1%+5)
Capacitance (F)	6mF	± (1.5%+5)
Resistance (Ω)	60MΩ	± (0.8%+5)
Inductance (H)	100H	± (2%+5)
Temperature (°C)	-40°C–1000°C	± (1%+5)
Frequency (Hz)	600Hz–20MHz	± (0.1%+10)
Duty cycle (%)	5%–95%	Only for reference
Display count	5,999	
DCV Accuracy	0.3%	
Sampling speed	2–3 rdgs/s	
Frequency response (Hz)	100kHz	
Range	Manual, Auto	
Input impedance for DCV	10MΩ	
True RMS	✓	
Diode/triode	✓	
SCR test	✓	
Continuity buzzer/data hold	✓	
LCD backlight	✓	
Interface	USB Device	
Power	100–240V, 50/60Hz	
Display	EBTN LCD	
Product net weight	3.09kg	
Product size (W × H × D)	265mm x 110mm x 320mm	

Ordering Information	
UT8000E Series	UT8803E: Digital Multimeter (Display: 5,999; 0.3%; Range: Manual)
Standard Accessories	Power cord
	USB interface cable
	Test leads
	Simple test lead with alligator clip
	Temperature probe

# UT8802E



The UT8802E is a benchtop digital multimeter with manual ranging capabilities. It boasts a large backlit screen, full-scale overload protection, and a distinctive design. This versatile instrument is capable of measuring AC and DC voltage, AC and DC current, resistance, frequency, capacitance, transistor parameters (hFE), diode (LED), SCR, continuity, and more.



- Reading resolution: 4½ digits
- Maximum reading: 19,999 counts
- Measuring rate: 3 reading/s
- DC voltage range: 200mV-1000V
- DC current range: 200μA-20A
- AC voltage range: 2V-750V
- AC current range: 2mA-20A
- Resistance range: 200Ω-200MΩ
- Capacitance range: 20nF-100mF
- Frequency measurement range: 200Hz-10MHz
- Duty cycle measurement range: 5%-99%
- Mathematical operation: maximum, minimum, relative value
- Interface: USB device
- Frequency response: 1KHz
- Diode, triode, and thyristor Measurement



Can display 4 ½ bit (19999), which can provide you with high-precision and accurate result display



Diode measurement function



With the help of UT-S03A, the measurement of triode and thyristor can be realized



Recall min/max easily to use as reference values

Key Specifications	UT8802E	
	Range	Accuracy
DC voltage (V)	200mV/2V/20V/200V/1000V	± (0.1%+3)
AC voltage (V)	2V/20V/200V/750V	± (0.5%+20)
DC current (A)	200μA/2mA/20mA/200mA/20A	± (0.5%+20)
AC current (A)	2mA/20mA/200mA/20A	± (0.8%+40)
Capacitance (F)	20nF/200nF/2μF/20μF/200μF/2mF/20mF/100mF	± (1.5%+10)
Resistance (Ω)	200Ω/2kΩ/20kΩ/200kΩ/200kΩ/2MΩ/200MΩ	± (0.5%+10)
Frequency (Hz)	200Hz–10MHz	± (1%+5)
Duty cycle (%)	5%–99%	± (1.5%+2)
Display count	19,999	
DCV Accuracy	0.1%	
Sampling speed	2–3 rdgs/s	
Frequency response (Hz)	1kHz	
Range	Manual	
Input impedance for DCV	10MΩ	
Diode/triode	✓	
SCR test	✓	
Continuity buzzer/data hold	✓	
LCD backlight	✓	
Interface	USB Device	
Power	100V–240V, 50/60Hz	
Display	EBTN LCD	
Product net weight	3.09kg	
Product size (W × H × D)	265mm x 110mm x 320mm	

Ordering Information	
UT8000E Series	UT8802E: Digital Multimeter (Display: 19,999, 0.1%, Range: Manual)
Standard Accessories	Power cord
	USB interface cable
	Test leads
	Simple test lead with alligator clip

# Oscilloscope Options

- **UPO3000CS-LA16**  
16-channel upgrade option (software)
- **MSO/UPO3000CS-BND**  
Function and application bundle option for MSO/UPO3000E series. Includes MSO/UPO-EMBD bundle and MSO/UPO-AUTO bundle
- **MSO/UPO3000CS-COM**  
PC serial bus trigger and analysis—UART for MSO/UPO3000E series
- **MSO/UPO3000CS-CAN**  
Auto serial bus trigger and analysis—CAN for MSO/UPO3000E series
- **MSO/UPO3000CS-LIN**  
Auto serial bus trigger and analysis—LIN for MSO/UPO3000E series
- **MSO/UPO3000CS-SPI**  
Embedded serial bus trigger and analysis—SPI for MSO/UPO3000 series
- **MSO/UPO2000-BND**  
Function and application bundle option for MSO/UPO2000 series, including MSO/UPO-EMBD bundle and MSO/UPO-AUTO bundle
- **MSO/UPO2000-AUTO**  
Function and application bundle option, for MSO/UPO2000 series. Includes MSO/UPO-CAN, MSO/UPO-CAN FD, MSO/UPO-LIN, MSO/UPO-FlexRay
- **MSO/UPO2000-SPI**  
Embedded serial bus trigger and analysis-SPI for MSO/UPO2000 series
- **MSO/UPO2000-CAN FD**  
Auto serial bus trigger and analysis-CAN FD for MSO/UPO2000 series
- **MSO3000CS-S-BODE**  
Bode plot loop test analysis (software)
- **MSO/UPO3000CS-AUTO**  
Function and application bundle option, for MSO/UPO3000E series. Includes MSO/UPO-CAN, MSO/UPO-CAN FD, MSO/UPO-LIN, MSO/UPO-FlexRay
- **MSO/UPO3000CS-I2C**  
Embedded serial bus trigger and analysis-I2C for MSO/UPO3000E series
- **MSO/UPO3000CS-CAN-FD**  
Auto serial bus trigger and analysis-CAN-FD for MSO/UPO3000E series
- **MSO/UPO3000CS-EMBD**  
Function and application bundle option, for MSO/UPO3000 series. Includes MSO/UPO-COM, MSO/UPO-I2C, and MSO/UPO-SPI
- **MSO/UPO3000CS-FlexRay**  
FlexRay serial bus trigger and analysis for MSO/UPO3000E series
- **MSO/UPO2000-EMBD**  
Function and application bundle option, for MSO/UPO2000 series. Includes MSO/UPO-COM, MSO/UPO-I2C, MSO/UPO-SPI
- **MSO/UPO2000-I2C**  
Embedded serial bus trigger and analysis-I2C for MSO/UPO2000 series
- **MSO/UPO2000-CAN**  
Embedded serial bus trigger and analysis-SPI for MSO/UPO2000 series
- **MSO/UPO2000-LIN**  
Auto serial bus trigger and analysis-LIN for MSO/UPO2000series

## Oscilloscope Options (cont)

- **MSO/UPO2000-FlexRay**

FlexRay serial bus trigger and analysis for MSO/UPO2000 series

- **MSO-BODE**

Bode plot option for MSO2000-S Series

- **MSO/UPO1000X-1MT2M**

Bandwidth upgrade option for MSO/UPO1104 to 200 MHz bandwidth

- **UPO2000-LA16**

16-channel upgrade option (software), for UPO models only

- **UPO1000CS-AUTO**

Auto serial bus trigger and analysis (CAN, LIN) for UPO1000CS series

## Spectrum Analyzers Options

- **UTS5000-AMK**

Advanced measurement kit

- **UTS5000-AMA**

Analog demodulation measurement option

- **UTS3000B-AMK**

Advanced measurement kit

- **UTS3000B-VSA**

Digital demodulation analysis option

- **UTS3000B-AMA**

Analog demodulation measurement option

- **UTS1000B-AMA**

Analog demodulation measurement option

- **UTS1000B-EMI**

EMI software

- **UTS5000-EMI**

EMI measurement option

- **UTS5000-VSA**

Digital demodulation analysis option

- **UTS3000B-EMI**

EMI software

- **UTS3000B-TG**

Tracking generator option (factory installed only)

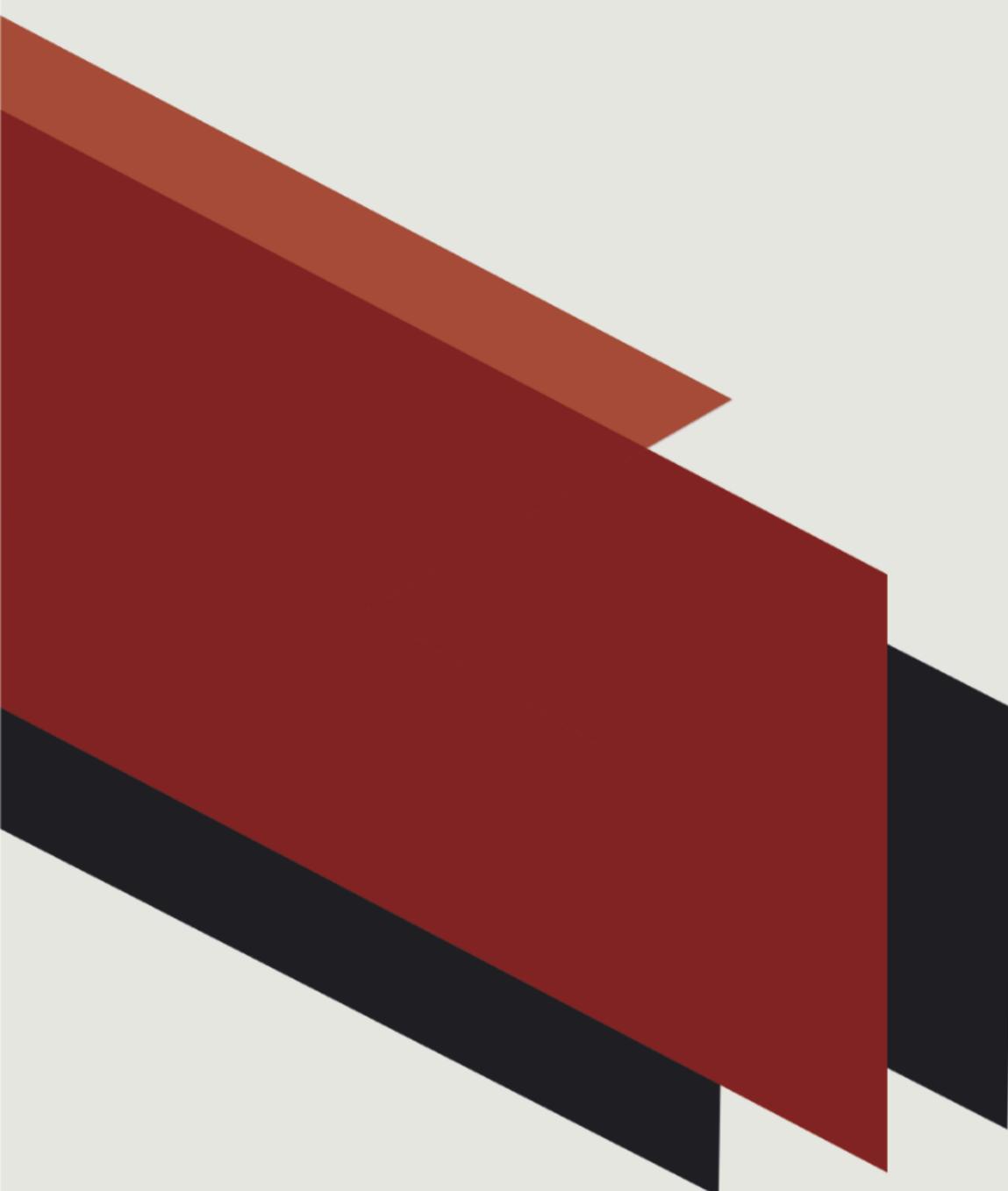
- **UTS1000B-AMK**

Advanced measurement kit

- **UTS1000B-VSA**

Digital demodulation analysis option





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