UTD2000/UTD2000E series low cost/high performance digital storage oscilloscopes offer user-friendly front panel control with access to all functions. The layout of controls and settings are based on traditional analog oscilloscopes, users can operate without spending additional time to familiarize with the new units. With up to 1GS/s real-time sampling rate (UTD2000E series only), powerful triggering and mathematical functions, users can capture and analyze the signals in a quick and easy way.

**Features:**
- Mono LCD display (UTD2000B/UTD2000BE series), 64K full color LCD display (UTD2000C/UTD2000CE series)
- LCD size: 5.7” x 320x240 pixels
- Bandwidth: 25MHz/40MHz/60MHz/80MHz/100MHz/150MHz/200MHz
- Max sampling rate:
  - 1GS/s(real-time) / 50GS/s(equivalent) (for UTD2000E series)
  - 500MS/s(real-time) / 25GS/s(equivalent) (for UTD2000 series)
- Auto measurement of waveform parameters
- Cursor measurement functions
- FFT and 4 math functions
- High waveform capture rate up to 2000wfms/s
- Internal storage/recall of 10 waveforms and 10 settings
- Advanced triggering including edge(rise, fall), pulse width, video, etc.
- USB host and USB device, supplied with Windows software
- Pass/Fail test (for UTD2000E series)
- On-screen help system
- Waveform recording/playback function, max. 1000 frames
- Automatic self-calibration

**Specifications (UTD2000 series)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Bandwidth</th>
<th>Rise Time</th>
<th>Sampling Rate</th>
<th>Vertical Sensitivity</th>
<th>Time Base Range</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>UTD2025B / UTD2025C</td>
<td>25MHz</td>
<td>≤ 14ns</td>
<td>500MS/s (real-time)</td>
<td>2mV~10V/div</td>
<td>20ns~50s/div(1-2-5 sequence)</td>
<td>mono / color</td>
</tr>
<tr>
<td>UTD2042B / UTD2042C</td>
<td>40MHz</td>
<td>≤ 8.7ns</td>
<td>1000MS/s (real-time)</td>
<td>2mV~5V/div</td>
<td>5ns~50s/div(1-2-5 sequence)</td>
<td>mono / color</td>
</tr>
<tr>
<td>UTD2062B / UTD2062C</td>
<td>60MHz</td>
<td>≤ 6.8ns</td>
<td>1500MS/s (real-time)</td>
<td>2mV~5V/div</td>
<td>2ns~50s/div(1-2-5 sequence)</td>
<td>mono / color</td>
</tr>
<tr>
<td>UTD2082B / UTD2082C</td>
<td>80MHz</td>
<td>≤ 4.8ns</td>
<td>2000MS/s (real-time)</td>
<td>2mV~5V/div</td>
<td>2ns~50s/div(1-2-5 sequence)</td>
<td>mono / color</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Bandwidth</th>
<th>Rise Time</th>
<th>Sampling Rate</th>
<th>Vertical Sensitivity</th>
<th>Time Base Range</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>UTD2102B / UTD2102C</td>
<td>100MHz</td>
<td>≤ 3.5ns</td>
<td>500MS/s (real-time)</td>
<td>2mV~5V/div</td>
<td>5ns~50s/div(1-2-5 sequence)</td>
<td>mono / color</td>
</tr>
<tr>
<td>UTD2152B / UTD2152C</td>
<td>150MHz</td>
<td>≤ 2.3ns</td>
<td>1000MS/s (real-time)</td>
<td>2mV~5V/div</td>
<td>2ns~50s/div(1-2-5 sequence)</td>
<td>mono / color</td>
</tr>
<tr>
<td>UTD2202B / UTD2202C</td>
<td>200MHz</td>
<td>≤ 1.8ns</td>
<td>1500MS/s (real-time)</td>
<td>2mV~5V/div</td>
<td>2ns~50s/div(1-2-5 sequence)</td>
<td>mono / color</td>
</tr>
</tbody>
</table>
Specifications (UTD2000E series)

<table>
<thead>
<tr>
<th>Specification</th>
<th>UTD2042BE / UTD2042CE</th>
<th>UTD2062BE / UTD2062CE</th>
<th>UTD2082BE / UTD2082CE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bandwidth</strong></td>
<td>40MHz</td>
<td>60MHz</td>
<td>80MHz</td>
</tr>
<tr>
<td><strong>Rise Time</strong></td>
<td>≤3.7ns</td>
<td>≤3.6ns</td>
<td>≤4.5ns</td>
</tr>
<tr>
<td><strong>Sampling Rate</strong></td>
<td>1GS/s (real-time)</td>
<td>1GS/s (real-time)</td>
<td>1GS/s (real-time)</td>
</tr>
<tr>
<td><strong>Vertical Sensitivity</strong></td>
<td>2mV/50mV/div</td>
<td>2mV/50mV/div</td>
<td>2mV/50mV/div</td>
</tr>
<tr>
<td><strong>Time Base Range</strong></td>
<td>5ns~50s/div(1-2-5 sequence)</td>
<td>5ns~50s/div(1-2-5 sequence)</td>
<td>5ns~50s/div(1-2-5 sequence)</td>
</tr>
<tr>
<td><strong>Display</strong></td>
<td>mono / color</td>
<td>mono / color</td>
<td>mono / color</td>
</tr>
</tbody>
</table>


**ACQUISITION MODE**
- Normal, peak detect, average (average numbers selectable: 2, 4, 8, 16, 32, 64, 128, 256)

**SAMPLING MODE**
- Real-time / equivalent

**INPUT**
- Input Coupling: DC, AC, GND
- Input Impedance:
  - 1MΩ +/−2%, in parallel with 24Ω +/−3Ω
- Probe Attenuation:
  - 1X, 10X, 100X, 1000X
- Max. Input Voltage:
  - 400V (DC+AC peak, 1MΩ input impedance)
- Time Delay Between Channels: 150ps (typical)

**HORIZONTAL SYSTEM**
- Waveform Interpolation: 5ns/2x
- Memory Depth: 2X 512x
- Time Base Accuracy: +/- 50ps (UTD2000 series: +/-100ppm)

**VERTICAL SYSTEM**
- Vertical Resolution:
  - 50MHz: 8bit, two channels sampled simultaneously
- Vertical Sensitivity:
  - 2mV/div ~ 50mV/div at input BNC (UTD2025E/UTD2025C: 2mV/div ~ 100mV/div)
  - Setting: 1024 points
- Position Range: ±10 div
- Bandwidth Limit Filter: 20MHz
- Low Frequency Response: ±10Hz at BNC (AC coupling, 3dB)
- DC Gain Accuracy:
  - 2mV/div, 5mV/div: +/−4% (normal or average acquisition mode)
  - 10mV/div, 50mV/div: +/−3% (normal or average acquisition mode)
- DC Measurement Accuracy (average acquisition mode):
  - When vertical position is zero and average number ≥16:
    - 2mV/div, 5mV/div: +/−4% (x reading + 0.1div + 1mV)
    - 10mV/div, 50mV/div: +/−3% (x reading + 0.1div + 1mV)
- Voltage Difference (AVG): Under identical setup and environmental conditions, the voltage difference (AVG) between two points of the waveform after average number ≥16 waveforms are acquired:
  - (+3% x reading + 0.05div)

**TRIGGER SYSTEM**
- Trigger Mode:
  - Auto, normal, single, edge, pulse width, video
- Trigger Sensitivity: +/−10div
- Trigger Level Range:
  - Internal: +/−5div from the center of the screen
  - EXT: +/−1.6V (UTD2000 series: +/-3V)
  - EXT/S: +/−8V (UTD2000E series: +/-15V)
- Trigger Level Accuracy (typical):
  - Applied on signals of ≥20ns rise or fall time:
    - Internal: +/−0.3div x V/div (within +/−4div from the center of the screen)
    - EXT: +/−6% default value + 40mV
  - Trigger Capability:
    - Normal mode / scanning mode, pre-trigger / delayed trigger, pre-trigger depth adjustable
- Hold Off Range: 100ns ~ 1.5s
- Set level to 50% (typical): Input signal frequency ≥50Hz
- Edge Trigger:
  - Edge type: Rise, Fall
- Pulse Width Trigger:
  - Pulse mode: less than, greater than or equal to (positive pulse), less than, greater than or equal to (negative pulse)
  - Pulse width: 20ns~10s
- Video Trigger:
  - Trigger sensitivity (typical):
    - Internal: 2div peak to peak
    - EXT: 400mV
    - EXT/S: 2V
- Alternate Trigger:
  - CH1 trigger: edge, pulse, video
  - CH2 trigger: edge, pulse, video

**MEASUREMENT SYSTEM**
- Cursor:
  - Manual mode: +/− x, +/− y, +/− 1/8
- Auto Measurement:
  - Vpp, Vamp, Vmax, Vmin, Vtop, Vbase, Vrms, Vavg, overshoot, preshoot, frequency, period, rise time, fall time, positive width, negative width, positive duty cycle, negative duty cycle, delay 1 → 2 => delay 1
- Math Functions:
  - +, −, x, /, invert
- Waveform Storage:
  - 10 waveforms and 10 front panel settings save/recall
- FFT:
  - Window: Hanning, Hamming, Blackman, Rectangular
- Sampling points: 1024 points
- X-Y Operation:
  - Phase difference: +/−3°

**DISPLAY**
- Type: 5.7" LCD
- Resolution: 320 x 240 pixels
- Contrast: Adjustable
- Display Language:
  - Simplified Chinese, traditional Chinese, English
- INTERFACE:
  - Standard: USB device, USB host, RS-232C (UTD2000E series and UTD2025B/C are without RS-232C interface), Pass/Fail module (UTD2000E series)
  - Optional: LAN
- POWER SOURCE:
  - Mains Voltage: 100~240Vac, 45~440Hz
  - Power Consumption: <50W
- MECHANICAL SPECS:
  - Dimension: 320 x 150 x 130mm
  - Weight: approx. 2.5Kgs

**STANDARD ACCESSORIES**
- 1X/10X passive probe x 2, USB cable x 1, power cord x 1, Windows software, operation manual