



OSCILLOSCOPE UNI-T-UTD2052CL

The **UNI-T UTD2052CL** is a digital storage oscilloscope (DSO) designed for a wide range of electronic testing and measurement applications. Below are some key features and specifications of the UTD2052CL:

Key Features:

1. **Bandwidth:** 50 MHz
2. **Channels:** 2 channels
3. **Sample Rate:** 1 GSa/s (Giga Samples per second)
4. **Memory Depth:** 40 kpts (kilo-points) per channel
5. **Display:** 5.7-inch TFT LCD with a resolution of 320 x 240 pixels
6. **Waveform Capture Rate:** Up to 80,000 waveforms per second
7. **Input Impedance:** $1\text{ M}\Omega \pm 2\%$, $15\text{ pF} \pm 3\text{ pF}$
8. **Vertical Sensitivity:** 2 mV/div to 5 V/div
9. **Time Base Range:** 5 ns/div to 50 s/div
10. **Trigger Modes:** Edge, Video, Pulse, Slope, and Alternate
11. **Math Functions:** +, -, *, /, FFT
12. **FFT (Fast Fourier Transform):** Available for frequency domain analysis
13. **Connectivity:** USB host and device ports for data storage and PC connectivity
14. **Probes:** Typically comes with 10x passive probes

Additional Features:

- **Auto Setup:** Automatically adjusts the settings for the best waveform display.
- **Cursor Measurements:** Allows for precise measurement of waveform parameters.
- **Save/Recall:** Ability to save and recall settings and waveforms.
- **Built-in Help:** Provides on-screen help for easier operation.



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Applications:

- **General Electronics:** Troubleshooting and testing electronic circuits.
- **Education:** Useful for teaching and learning electronics.
- **Research and Development:** Prototyping and testing new designs.
- **Service and Repair:** Diagnosing and repairing electronic equipment.

Pros:

- **User-Friendly Interface:** Easy to navigate and operate.
- **Compact Design:** Portable and easy to transport.
- **Affordable:** Offers good value for its features and performance.

Cons:

- **Limited Bandwidth:** 50 MHz may not be sufficient for very high-frequency applications.
- **Memory Depth:** 40 kpts might be limiting for very complex waveforms.

Conclusion:

The UNI-T UTD2052CL is a versatile and affordable oscilloscope suitable for a variety of applications, particularly in educational settings and general electronics troubleshooting. Its user-friendly interface and robust feature set make it a good choice for both beginners and experienced users. However, for more advanced high-frequency applications, a higher bandwidth oscilloscope might be necessary.

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