

## Debug in High Definition

1 GHz – 4 GHz



**HD**  
1024

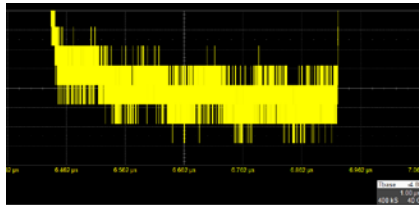
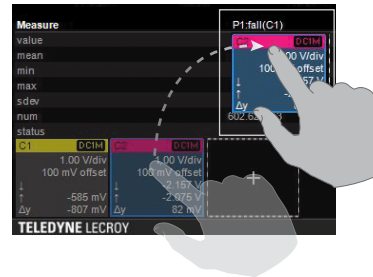
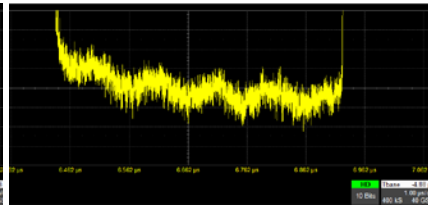
### Key Specifications

<b>Bandwidth</b>	1 GHz, 2 GHz, 3 GHz, 4 GHz
<b>Resolution</b>	10-bit resolution; up to 13.8 bits with Optimized Filtering
<b>Channels</b>	4
<b>Memory</b>	64 Mpts / 128 Mpts (Per Ch/Interleaved)
<b>Sample Rate</b>	Up to 40 GS/s
<b>Digital Channels</b>	16
<b>Digital Sample Rate</b>	1.25 GS/s
<b>Minimum Pulse Width</b>	2 ns
<b>Display</b>	15.4" WXGA Widescreen Capacitive Touch Screen
<b>Connectivity</b>	USB 3.1 Host, USB 3.1 Device, LAN, GPIB

### 10-bit Resolution, 4 GHz, 40 GS/s

- **HD1024 High Definition Technology**
  - Clean, crisp waveforms
  - More signal details
  - Unmatched measurement precision
- **MAUI with OneTouch**
  - Designed for Touch
  - Built for Simplicity
  - Made to Solve
- **15.4" Capacitive Touch Screen** – Enhances efficiency and intuitiveness of MAUI with OneTouch
- **Mixed Signal** – Debug complex embedded designs with integrated 16 channel mixed signal capability
- **LabNotebook** – Save all results and data with a single button press and create custom reports
- **Software Options** – Packages for advanced analysis
  - Serial Bus Trigger, Decode, Measure/Graph and Eye
  - Spectrum Analyzer Option
  - Power Analysis
  - XDEV Advanced Customization
  - QualiPHY Serial Data Compliance
  - Jitter and Timing Analysis

For more information, please contact:

**8 bit**

**10 bit**


MAUI with OneTouch optimizes convenience and efficiency. All common operations can be performed with a single touch.

**HD  
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Comparison of 50-to-1 zooms of a sine wave riding on a 5V square wave.

Waveforms displayed by the HDO9000 are cleaner and crisper. More signal details can be seen and measured; these measurements are made with unmatched precision resulting in better test results and shorter debug time.

## Ordering Information

Model	Bandwidth	Channel	Standard Memory	Sample Rate
HDO9104 / HDO9104-MS	1 GHz	4 / 4+16	128 Mpts	40 GS/s
HDO9204 / HDO9204-MS	2 GHz	4 / 4+16	128 Mpts	40 GS/s
HDO9304 / HDO9304-MS	3 GHz	4 / 4+16	128 Mpts	40 GS/s
HDO9404 / HDO9404-MS	4 GHz	4 / 4+16	128 Mpts	40 GS/s

### Available Probes

#### Single-Ended

<b>ZS1000</b>	1 GHz, 0.9 pF, 1 MΩ High Impedance Active Probe
<b>ZS1500</b>	1.5 GHz, 0.9 pF, 1 MΩ High Impedance Active Probe
<b>ZS2500</b>	2.5 GHz, 0.9 pF, 1 MΩ High Impedance Active Probe
<b>ZS4000</b>	4 GHz, 0.6 pF, 1 MΩ High Impedance Active Probe

#### Differential

<b>ZD200</b>	200 MHz, 3.5 pF, 1 MΩ Active Differential Probe, ±20 V
<b>ZD500</b>	500 MHz, 1.0 pF Active Differential Probe, ±8 V
<b>ZD1000</b>	1 GHz Active Differential Probe
<b>ZD1500</b>	1.5 GHz Active Differential Probe
<b>AP033</b>	500 MHz, Active Differential Probe (±1, +10, ÷100)
<b>D410-PS</b>	WaveLink 4 GHz, 2.5 Vp-p Differential Probe System
<b>D420-PS</b>	WaveLink 4 GHz, 5 Vp-p Differential Probe System
<b>D400A-AT</b>	WaveLink 4 GHz Diff. Amplifier Module with Adjustable Tip

#### High Voltage Differential

<b>HVD3102</b>	1kV, 25 MHz High Voltage Differential Probe
<b>HVD3106</b>	1kV, 120 MHz High Voltage Differential Probe
<b>HVD3206</b>	2kV, 120 MHz High Voltage Differential Probe
<b>HVD3206-6M</b>	2kV, 80 MHz High Voltage Differential Probe with 6m cable
<b>HVD3605</b>	6kV, 100 MHz High Voltage Differential Probe

#### Differential Amplifiers

<b>DA1855A</b>	1 Ch, 100 MHz Differential Amplifier
<b>DA1855A-PR2</b>	2 Ch, 100 MHz Differential Amplifier with Precision Voltage Source

#### High-Voltage

<b>HVP120</b>	100:1 400 MHz 50 MΩ 1 kV High-voltage Probe
<b>PPE4KV</b>	100:1 400 MHz 50 MΩ 4kV High-Voltage Probe
<b>PPE5KV</b>	1000:1 400 MHz 50 MΩ 5 kV High-Voltage Probe
<b>PPE6KV</b>	1000:1 400 MHz 50 MΩ 6 kV High-Voltage Probe

#### Current

<b>CP030</b>	30 A; 50 MHz Current Probe – AC/DC; 30 Arms; 50 Apeak Pulse
<b>CP030A</b>	30A, 50 MHz High Sensitivity Current Probe - AC/DC, 30 A rms, 50 A Peak Pulse, 1.5 meter cable
<b>CP031</b>	30 A; 100 MHz Current Probe – AC/DC; 30 Arms; 50 Apeak Pulse
<b>CP031A</b>	30A, 100 MHz High Sensitivity Current Probe - AC/DC, 30 A rms, 50 A Peak Pulse, 1.5 meter cable
<b>CP150</b>	150 A; 10 MHz Current Probe – AC/DC; 150 Arms; 50 Apeak Pulse
<b>CP500</b>	500 A; 2 MHz Current Probe – AC/DC; 500 Arms; 700 Apeak Pulse
<b>DCS015</b>	Deskew Calibration Source for CP031, CP031A, CP030, and CP030A
<b>CA10</b>	Programmable Current Sensor to ProBus Adapter for use with third party current sensors
<b>TPA10</b>	TekProbe to ProBus Probe Adapter

#### Passive

<b>PP022</b>	500 MHz Passive Probe, 2.5mm, 10:1, 10 MΩ
<b>PP024</b>	500 MHz Passive Probe, 5mm, 10:1, 10 MΩ
<b>PP066</b>	7.5 GHz Low Capacitance Passive Probe (±10, 1 kΩ; ±20, 500 Ω)

## HD1024 High Definition Technology

- 10-bit resolution at 4 GHz with 40 GS/s
- Dynamic ADC reconfiguration
- Up to 13.8 bits with Optimized Filtering

## Superior User Experience

- 15.4" high resolution capacitive touch screen
- MAUI with OneTouch:
  - Drag and drop to copy and setup channels, math functions, and parameters
  - Quickly enable new channel, math or measure with "Add New" button
  - Turn off a trace with a flick of a finger

## Powerful, Deep Toolbox

- WaveScan™ search and find
- LabNotebook™ report generator
- Spectrum Analyzer Mode
- Jitter and Timing Analysis
- Exceptional Serial Data Tools