

## Debug in High Definition

### 200 MHz – 1 GHz



**HD**  
4096

### Key Specifications

<b>Bandwidth</b>	200 MHz, 350 MHz, 500 MHz, 1 GHz
<b>Resolution</b>	12-bit ADC resolution, up to 15-bit with enhanced resolution
<b>Channels</b>	2 or 4
<b>Memory</b>	up to 25 Mpts/Ch (50 Mpts interleaved)
<b>Sample Rate</b>	2.5 GS/s
<b>Display</b>	12.1" Wide TFT-LCD Touch Screen
<b>Connectivity</b>	USB Host, USB Device, LAN, GPIB

### Tools for Improved Debugging

- **HD4096 Technology** - HD4096 high definition technology enables capture and display of signals up to 1 GHz with high sample rate and 16 times more resolution.
- **WaveScan** — quickly search waveforms for runts, glitches or other anomalies
- **Touch Screen** — easily configure channels, timebase, trigger and all functions with the intuitive, efficient touch screen interface
- **LabNotebook** — save all results and data with a single button press and create custom reports with LabNotebook
- **Software Options** - available software option packages for advanced analysis
  - Spectrum Analysis
  - Power Analysis
  - Serial Bus Trigger and Decode

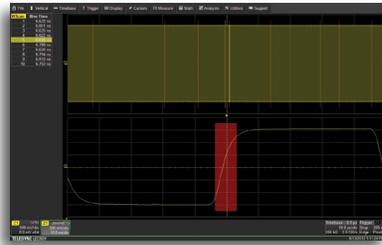
For more information, please contact:



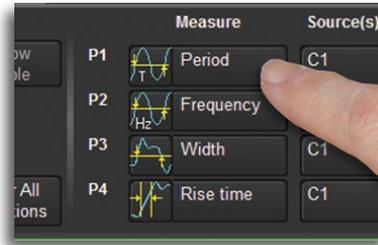
# HDO4000 Oscilloscopes Fact Sheet



Use History Mode to scroll back in time to isolate anomalies and quickly find the source of the problem.



Quickly locate analog or digital waveforms for runts, glitches or other anomalies with WaveScan.



Easily control channels, trigger, math and measurements with the large multi-touch display and intuitive interface.



## Ordering Information

Model	Bandwidth	Channel	Memory (per Ch / interleaved)	Sample Rate (per Ch / interleaved)
HDO4022	200 MHz	2	12.5 Mpts / 25 Mpts	2.5 GS/s / 2.5 GS/s
HDO4024	200 MHz	4	12.5 Mpts / 25 Mpts	2.5 GS/s / 2.5 GS/s
HDO4032	350 MHz	2	12.5 Mpts / 25 Mpts	2.5 GS/s / 2.5 GS/s
HDO4034	350 MHz	4	12.5 Mpts / 25 Mpts	2.5 GS/s / 2.5 GS/s
HDO4054	500 MHz	4	12.5 Mpts / 25 Mpts	2.5 GS/s / 2.5 GS/s
HDO4104	1 GHz	4	12.5 Mpts / 25 Mpts	2.5 GS/s / 2.5 GS/s

### Available Probes

#### Single-Ended

**ZS1500** 1.5 GHz, 0.9 pF, 1 MΩ High Impedance Active Probe  
**ZS1000** 1 GHz, 0.9 pF, 1 MΩ High Impedance Active Probe

#### Differential

**ADP300** 1,400 V, 20 MHz High-Voltage Differential Probe  
**ADP305** 1,400 V, 100 MHz High-Voltage Differential Probe  
**AP031** 700 V, 15 MHz High-Voltage Differential Probe  
**ZD200** 200 MHz Active Differential Probe  
**ZD500** 500 MHz Active Differential Probe  
**ZD1000** 1 GHz Active Differential Probe  
**ZD1500** 1.5 GHz Active Differential Probe

#### Differential Amplifiers

**DA1855A** 1 Ch, 100 MHz Differential Amplifier  
**DXC100A** 100:1 or 10:1 Selectable, 250 MHz Passive Differential Probe Pair

#### High-Voltage

**PPE1.2KV** 10:1/100:1 200/300 MHz 50 MΩ High-Voltage Probe 600V/1.2kV Max. Volt. DC  
**PPE2KV** 100:1 400 MHz 50 MΩ 2 kV High-Voltage Probe  
**PPE4KV** 100:1 400 MHz 50 MΩ 4kV High-Voltage Probe  
**PPE5KV** 1000:1 400 MHz 50 MΩ 5 kV High-Voltage Probe  
**PPE6KV** 1000:1 400 MHz 50 MΩ 6 kV High-Voltage Probe  
**PPE20KV** 1000:1 100 MHz 50 MΩ High-Voltage Probe 20kV Max. Volt. DC + 40kV Peak AC

#### Current

**AP015** 30 A; 50 MHz Current Probe – AC/DC; 30 A<sub>rms</sub>; 50 A<sub>peak</sub> Pulse  
**CP030** 30 A; 50 MHz Current Probe – AC/DC; 30 A<sub>rms</sub>; 50 A<sub>peak</sub> Pulse  
**CP031** 30 A; 100 MHz Current Probe – AC/DC; 30 A<sub>rms</sub>; 50 A<sub>peak</sub> Pulse  
**CP150** 150 A; 10 MHz Current Probe – AC/DC; 150 A<sub>rms</sub>; 50 A<sub>peak</sub> Pulse  
**CP500** 500 A; 2 MHz Current Probe – AC/DC; 500 A<sub>rms</sub>; 700 A<sub>peak</sub> Pulse

## Excellent Performance

- 200 MHz, 350 MHz, 500 MHz, 1 GHz
- 2.5 GS/s maximum sample rate
- Up to 25 Mpts / 50 Mpts (interleaved)
- 12-bit ADC resolution, 15-bit with ERES

## Rich Feature Set

- WaveScan™ search and find
- History Mode waveform playback
- LabNotebook™ report generator

## Wide Range of Serial Data Tools

- I<sup>2</sup>C, SPI, UART
- CAN, LIN, FlexRay™, SENT
- USB 1.0/1.1/2.0, USB 2.0 HSIC
- Audio (I<sup>2</sup>S, LJ, RJ, TDM)
- MIL-STD-1553, ARINC 429
- MIPI D-PHY, DigRF 3G, DigRF v4