

## Analyze and Debug in High Definition

350 MHz – 1 GHz



**HD**  
4096

### Key Specifications

<b>Bandwidth</b>	350 MHz, 500 MHz, 1 GHz
<b>Resolution</b>	12-bit ADC resolution, up to 15-bit with enhanced resolution
<b>Channels</b>	4
<b>Memory</b>	Up to 250 Mpts/Ch
<b>Sample Rate</b>	2.5 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>	12.1" Wide TFT-LCD Touch Screen
<b>Connectivity</b>	USB Host, USB Device, LAN, GPIB

### Tools for Improved Debugging

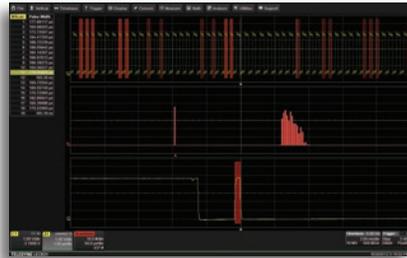
- **HD4096 Technology** - HD4096 high definition technology enables capture and display of signals up to 1 GHz with high sample rate and 16 times more resolution.
- **Mixed Signal** – Debug complex embedded designs with integrated 16 channel mixed signal capability
- **Touch Screen** – easily configure channels, timebase, trigger and all functions with the intuitive, efficient touch screen interface
- **Spectrum Analyzer** – View signal details in the frequency domain with a spectrum analyzer style user interface
- **WaveScan** – quickly search waveforms for runts, glitches or other anomalies
- **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
  - Power Analysis
  - Serial Bus Trigger and Decode
  - PROTObus MAG Serial Debug Toolkit

For more information, please contact:





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.



Comprehensive set of waveform math and measurement tools extends the debugging and analysis capability



## Ordering Information

Model	Bandwidth	Channel	Standard Memory / Optional (per Ch)	Sample Rate
HDO6034 / HDO6034-MS	350 MHz	4 / 4+16	50 Mpts / 250 Mpts	2.5 GS/s
HDO6054 / HDO6054-MS	500 MHz	4 / 4+16	50 Mpts / 250 Mpts	2.5 GS/s
HDO6104 / HDO6104-MS	1 GHz	4 / 4+16	50 Mpts / 250 Mpts	2.5 GS/s

### Available Probes

#### Single-Ended

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

#### 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

- 350 MHz, 500 MHz, 1 GHz
- 12-bit ADC resolution, 15-bit with ERES
- 2.5 GS/s maximum sample rate
- Up to 250 Mpts
- 16 Channel Mixed Signal Capability

### Rich Feature Set

- WaveScan™ search and find
- LabNotebook™ report generator
- Spectrum Analyzer Mode

### Wide Range of Serial Data Tools

- I<sup>2</sup>C, SPI, UART
- CAN, LIN, FlexRay™, SENT
- Ethernet 10/100BaseT, 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
- PROTObus MAG Serial Debug Toolkit
- Manchester, NRZ