LECROY (TELEDYNE LECROY)

HDO8108

The Teledyne LeCroy HDO8108 is a high-performance 8-channel Digital Storage Oscilloscope featuring HD4096 High Definition Technology, which provides true 12-bit vertical resolution. Delivering 1 GHz of bandwidth and a 2.5 GS/s sampling rate on all eight channels, it is engineered for advanced debugging, power electronics, motor drive analysis, and automotive test applications where high channel count and superior measurement precision are required.

SPECIFICATIONS

General

Interfaces	USB 2.0, USB 3.0, Gigabit LAN, DVI, DisplayPort, Audio, GPIB (optional)
Display	12.1" WXGA (1280 x 800) Color TFT Touchscreen

Physical

Power Supply	100-240 VAC ±10% at 45-66 Hz; 100-120 VAC ±10% at 380-420 Hz
Operating Temperature	5 to 40 °C °C

Vertical System

Analog Bandwidth	1 GHz
Input Channels	8 Analog
Vertical Resolution	12-bit (up to 15-bit with Enhanced Resolution - ERES)
Input Coupling	1 MΩ: AC, DC, GND; 50 Ω: DC, GND
Input Impedance	1 MΩ ±2.0% || ~15 pF, or 50 Ω ±2.0%
Vertical Sensitivity Range	1 MΩ: 1 mV/div to 10 V/div; 50 Ω: 1 mV/div to 1 V/div
Bandwidth Limiters	20 MHz, 200 MHz
Maximum Input Voltage	1 MΩ: 400 V max (DC + Peak AC ≤ 10 kHz); 50 Ω: 5 Vrms
Hardware Architecture	HD4096 High Definition Technology
Probe Interface	LeCroy ProBus
Enhanced Resolution (ERES)	Up to 15 bits

Acquisition System

Maximum Real-Time Sample Rate	2.5 GS/s per channel (all channels)
Standard Memory Depth	50 Mpts/ch
Maximum Memory Depth	Up to 250 Mpts/ch (configuration dependent)
Acquisition Modes	Real-time, Roll, Sequence (Segmented Memory), RIS (Random Interleaved Sampling)
Interpolation	Linear, Sin(x)/x

Triggering System

Standard Trigger Types	Edge, Glitch, Width, Logic (Pattern), TV (Video), Runt, Slew Rate, Holdoff, Dropout, Window
Trigger Sources	Any input channel, Ext, Ext/10, Line

Mixed Signal / Digital System

Number of Digital Channels	16 (with optional mixed signal hardware)

Display System

Display Size	12.1 inches
Display Type	Color TFT Multi-Touch Display
Display Resolution	1280 x 800 (WXGA)

Data Storage and OS

Operating System	Microsoft Windows

Horizontal System

Timebase Accuracy	±2.5 ppm + 1.0 ppm/year from calibration
Roll Mode Range	Up to 10,000 s/div (starts at 50 ms/div and higher)
Channel-to-Channel Deskew Range	±9 x time/div. setting, 100 ms max.

Trigger System

Trigger Coupling	DC, AC, HFRej, LFRej
Trigger Holdoff	2 ns to 20 s or 1 to 1,000,000,000 events

Environmental

Operating Altitude	Up to 10,000 ft (3,048 m) at ≤ 30 °C
Storage Temperature	-20 °C to +60 °C
Operating Humidity	5% to 90% relative humidity (non-condensing) up to +31 °C, upper limit derating to 50% relative humidity at +40 °C
Operating Vibration	0.31 grms, 5 Hz to 500 Hz, 15 minutes in each of three orthogonal axes
Non-Operating Vibration	2.4 grms, 5 Hz to 500 Hz, 15 minutes in each of three orthogonal axes
Functional Shock	30 g peak, half sine, 11 ms pulse, 3 shocks (positive and negative) in each of three orthogonal axes

Display

Display Architecture	Q-Scape multi-tab display (supports up to 4 distinct tabs)

TECHNOLOGY

HD4096 High Definition Technology (12-bit native ADC)

APPLICATIONS

Power Electronics, Motor Drive Analysis, Automotive, Embedded System Debugging