

LECROY (TELEDYNE LECROY)

LT322

The Teledyne LeCroy Waverunner LT322 is a legacy 2-channel digital oscilloscope featuring a 500 MHz analog bandwidth, a 200 MS/s real-time sampling rate, and an 8.4-inch color TFT display. Designed for general-purpose electronic design and debugging, it offers extensive measurement capabilities and standard connectivity options including GPIB and RS-232.

SPECIFICATIONS

General

Interfaces	GPIB, RS-232, Centronics Parallel, VGA Video Out
Display	8.4" color TFT-LCD, 640 × 480 VGA

Physical

Power Supply	90 to 250 V AC, 45 to 440 Hz, Max 150 W
Operating Temperature	5 °C to 40 °C °C
Dimensions (W×H×D)	350 mm × 210 mm × 300 mm mm
Weight	8 kg

Vertical System

Analog Bandwidth (-3 dB)	500 MHz
Number of Input Channels	2
Input Impedance	1 MΩ 12 pF and 50 Ω
Input Coupling	AC, DC, GND
Vertical Sensitivity Range	2 mV/div to 10 V/div (1 MΩ), 2 mV/div to 1 V/div (50 Ω)
Vertical Resolution (ADC)	8-bit
DC Gain Accuracy	±1.5%
Maximum Input Voltage	400 V max (1 MΩ), 5 V rms (50 Ω)
Channel-to-Channel Isolation	> 250:1 at 100 MHz
Vertical Offset Range (1 MΩ)	±400 mV (2 mV - 4.9 mV/div), ±1 V (5 mV - 99 mV/div), ±10 V (100 mV - 1 V/div), ±100 V (1.02 V - 10 V/div)
Vertical Offset Range (50 Ω)	±400 mV (2 mV - 4.9 mV/div), ±1 V (5 mV - 99 mV/div), ±10 V (100 mV - 1 V/div)
Calculated Rise Time	700 ps

Horizontal System

Maximum Real-Time Sampling Rate	200 MS/s per channel
Equivalent-Time Sampling Rate (ETS)	10 GS/s
Maximum Record Length	100 kpts/channel
Time Base Range	1 ns/div to 1000 s/div
Time Base Accuracy	±10 ppm
Interpolation	Linear, Sin(x)/x

Trigger System

Trigger Sources	Ch 1, Ch 2, External, Line
Trigger Modes	Auto, Normal, Single, Stop
Trigger Coupling	AC, DC, HFRej, LFRej
Edge Triggering	Positive or negative slope on any source
Smart Trigger Types	Edge Qualified, State Qualified, Dropout, Glitch, Interval, Width, Pattern
Trigger Holdoff Range (Events)	2 to 99,999,999 events
Maximum External Trigger Input Voltage	250 V max (1 M Ω), 5 V RMS (50 Ω)
Trigger Holdoff Range (Time)	10 ns to 20 s
Trigger Level Range (Internal)	±5 divisions
External Trigger Input Impedance	1 M Ω in parallel with 12 pF or 50 Ω

Acquisition System

Acquisition Modes	Sample, Envelope, Average, Sequence (Segmented Memory)
Segmented Memory / Fast Frame Mode	Up to 2,000 segments
Glitch Capture (Minimum Pulse Width)	2 ns

Waveform Measurements and Analysis

Basic Math Functions	Add, Subtract, Multiply, Divide, Invert, Negate, Identity
Fast Fourier Transform (FFT) Window Types	Rectangular, Von Hann, Hamming, Flat Top, Blackman-Harris

Display and User Interface

Display Type	Color TFT LCD
Display Size	8.4 inch (diagonal)
Display Resolution	640 x 480 VGA
Waveform Display Formats	Single, Dual, Quad, Octal, XY, YT

Connectivity and Ports

GPIO (IEEE-488) Interface	Standard
RS-232 Port	DB-9 male, up to 115.2 kbps
Centronics Parallel Port	Standard (DB-25 female)
External Video Output Port	VGA DB-15 female
Auxiliary Output (Trigger Out)	BNC connector (trigger status or pass/fail output)
Probe Calibration Output	1 kHz, 1 V square wave test signal

Processor and Storage

Internal Storage	3.5" floppy drive (DOS format)
Removable Storage Options	Type I/II PCMCIA slot

Power Specifications

Power Supply Voltage Range	90 to 250 V AC (automatic selection)
Power Supply Frequency Range	45 to 440 Hz
Power Consumption (Maximum)	150 W

Environmental Specifications

Operating Temperature Range	5 °C to 40 °C
Storage Temperature Range	-20 °C to +60 °C
Operating Humidity Range	80% RH non-condensing up to 30 °C

Physical Characteristics

Height	210 mm
Width	350 mm
Depth	300 mm

Inputs & Outputs

Probe Interface	ProBus
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System Architecture

Processor (CPU)	96 MHz PowerPC
Standard System RAM	16 MB

Compliance

Safety Standards Compliance	UL 3111-1, CSA-C22.2 No. 1010.1, EN 61010-1
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TECHNOLOGY

DSO (Digital Storage Oscilloscope)

APPLICATIONS

Electronic design, debugging, troubleshooting, and automated test environments

