TELEDYNE LECROY
Everywhereyoulook™

LabMaster 10-100Zi
100 GHz Real-time Oscilloscope

Key Features

- **100 GHz analog bandwidth**
- **240 GS/s sample rate**
- **Long Memory – up to 1.5 Gpts/Ch**
- **Multiple Operating Modes**
  - 1 Ch @ 100 GHz
  - 1 Ch @ 65 GHz, 2 Ch @ 36 GHz
  - 4 Ch @ 36 GHz
- **Utilizes LabMaster 10 Zi ChannelSync Architecture**
  - Build system with up to twenty 100 GHz channels or up to eighty 36 GHz channels
- **Seamless MATLAB Analysis**
  - Run custom scripts in real-time
- **Superior Analysis Capabilities**
  - Eye, Jitter and Noise Analysis with SDAIII-CompleteLinQ
  - Optical Modulation Analysis with Optical-LinQ

With 100 GHz bandwidth and 240 GS/s sample rate, the LabMaster 10-100Zi real-time oscilloscope boasts the world's highest bandwidth and fastest sampling rate. This world-leading performance is key to analyzing and understanding the fastest phenomena found in R&D labs where engineers and scientists are working on next-generation communication systems, high-bandwidth electrical components, and fundamental scientific research.

The Fastest Oscilloscope for the Fastest Signals

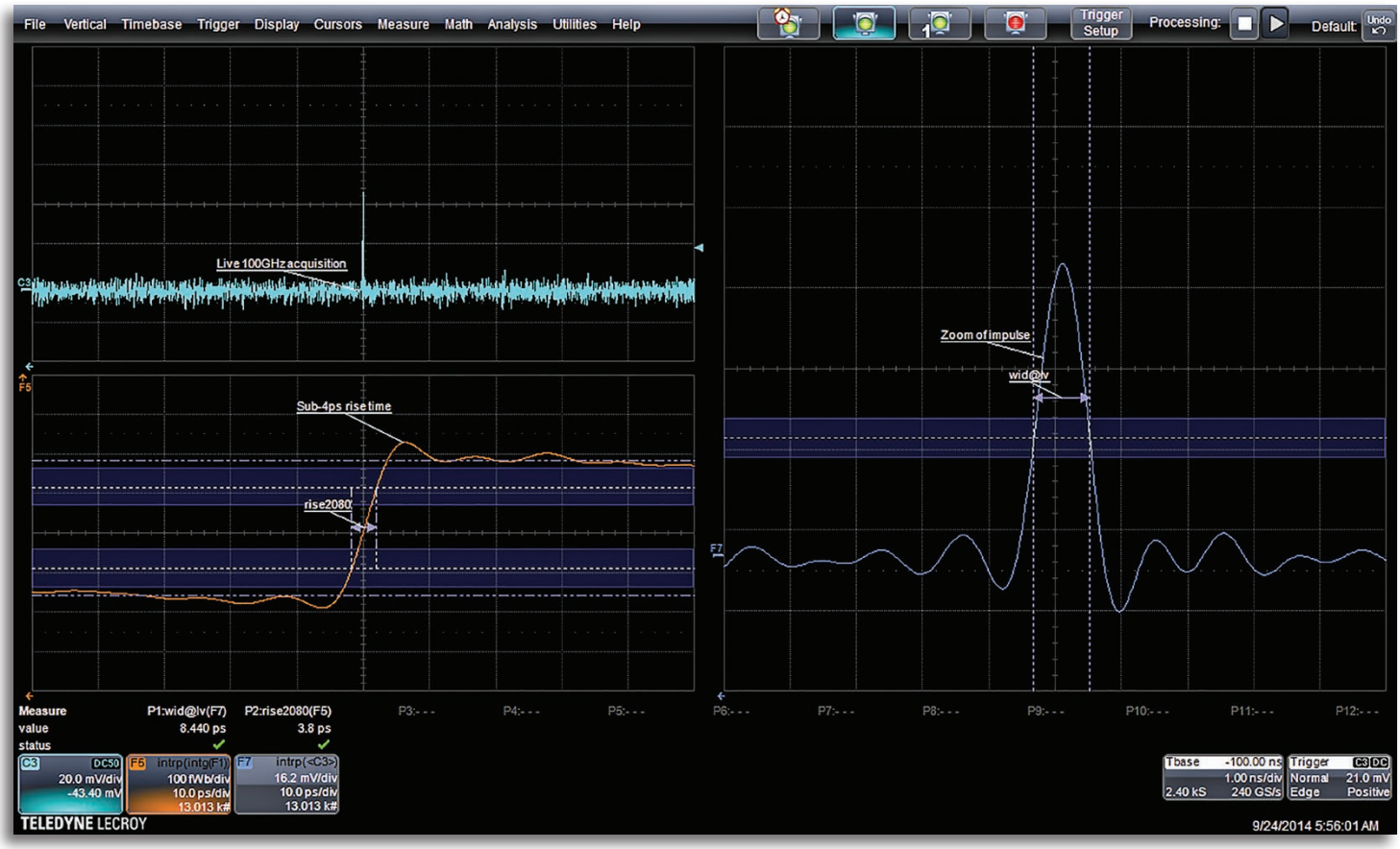
Whether working on communications technology capable of terabit/s bitrates, analyzing the quickest and most energetic laser pulses, or building channels using very high speed NRZ or PAM4 signals, the 100 GHz LabMaster 10-100Zi oscilloscope can acquire and analyze the waveforms.

The LabMaster 10-100Zi is built on the flexible and modular LabMaster 10 Zi oscilloscope platform. Multiple LabMaster 10 Zi acquisition modules can be combined with one master control module to build a system of up to twenty channels; each channel capable of 100 GHz.

Sophisticated Software for Sophisticated Analysis

The LabMaster 10-100Zi offers software packages that integrate seamlessly into the oscilloscope. Since the fastest signals often require custom analysis, LabMaster 10-100Zi comes standard with the XDEV package that allows users to run custom MATLAB scripts in-stream. For a complete analysis of coherent optical signals such as DP-QPSK and DP-16QAM, use the Optical-LinQ optical modulation analysis package. In addition, SDAIII-CompleteLinQ performs and compares eye, jitter and noise analysis on up to four lanes, simultaneously.

INDUSTRY LEADERSHIP IN OSCILLOSCOPE TECHNOLOGY

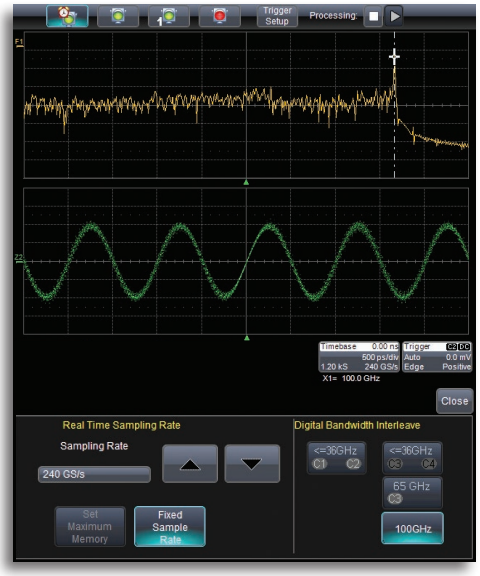


Analysis of 100 fs laser pulses with 8.4 ps width and 3.8 ps 20-80 risetime, showing the acquired, averaged and integrated pulse.

Teledyne LeCroy continues to demonstrate leadership in the high-end oscilloscope market; aggressively pushing bandwidth and sample rate boundaries. Patented innovations including digital bandwidth interleaving (DBI) and ChannelSync multi-module synchronization provide previously unreachable performance, along with the capability to build oscilloscopes with up to eighty channels. Together, these innovations allow users to analyze signals from multi-channel detectors, such as I & Q signals from demodulated dual-polarization coherent optical signals.

Capturing and Characterizing the Fastest Phenomena

Scientific research of phenomena that occur at the shortest timescales require the fastest digitization speeds. At 240 GS/s, samples are acquired at time intervals of 4.17 ps, 50% faster than the next-fastest digitizer, yielding excellent signal reconstruction. For multi-channel users, the LabMaster 10 Zi's patented ChannelSync architecture provides matching between channels that is unrivaled: <130s channel-to-channel jitter. Such precision is not possible with conventional methods of synchronizing two independent oscilloscopes with a 10 MHz clock is key for applications requiring closely matched channels, such as optical modulation analysis.

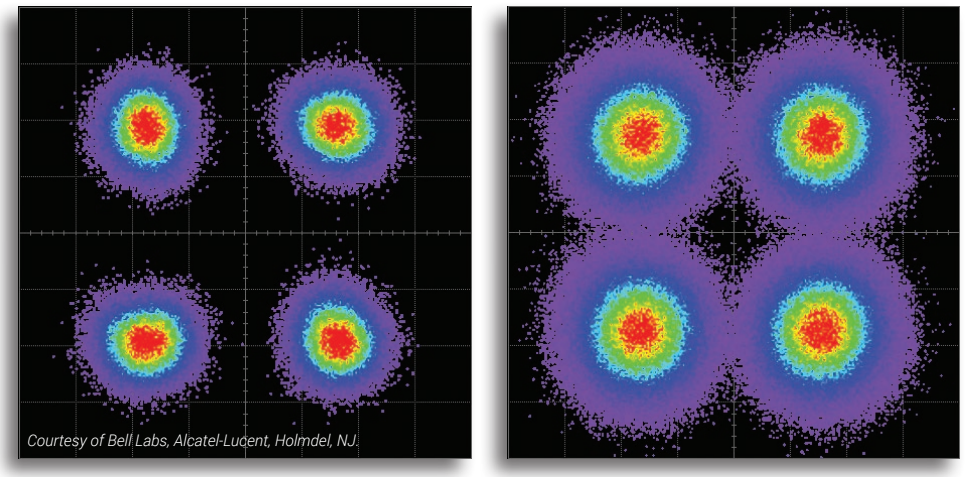


100 GHz sinusoid and corresponding FFT; the 100 GHz spectral line is clearly seen in the spectrum.

FASTEST DIGITIZER FOR THE FASTEST SIGNALS

High Speed Optical and Electrical Signal Analysis

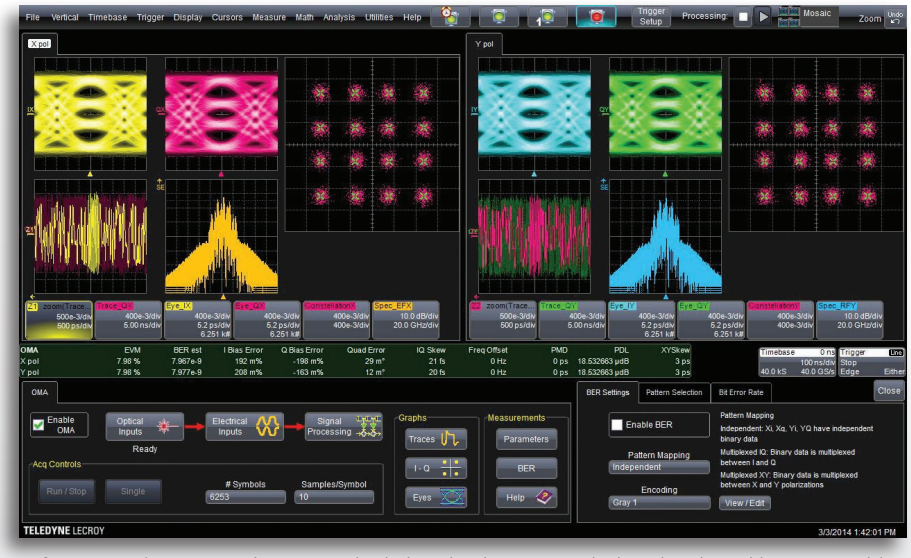
Telecommunications companies invest heavily in R&D to develop coherent optical technologies using quadrature phase shift keying (QPSK) and quadrature amplitude modulation (QAM) schemes. In order to characterize the efficiency of formats such as DP-QPSK and DP-16QAM, high speed digitizers are required. Demodulated I & Q signals acquired using the LabMaster 10-100Zi may be analyzed with Optical-LinQ software, or using custom scripts, running either in-stream on the oscilloscope, via remote control, or offline.



I & Q components from 80 and 160 GBaud QPSK signals are captured by a two-channel LabMaster 10-100Zi oscilloscope.

Superior Built-in Optical Modulation Analysis

The Optical-LinQ software developed in partnership with Coherent Solutions Ltd, is designed to perform a complete optical modulation analysis on the oscilloscope. Optical-LinQ can analyze I & Q signals from the users' receiver, or from one of Coherent Solutions' IQScope-RT Series Coherent Optical Receivers. Optical-LinQ includes a library of DSP algorithms for recovery and reconstruction of I & Q signals, which can then be analyzed with a wide range of visualizations and measurements. A LabMaster 10 Zi oscilloscope, IQScope-RT receiver and Optical-LinQ software form a complete OMA solution.



After capturing your coherent optical signals, the OMA solution developed in partnership with Coherent Solutions rapidly creates constellation diagrams, eye diagrams, and parametric measurements such as EVM% and BER.

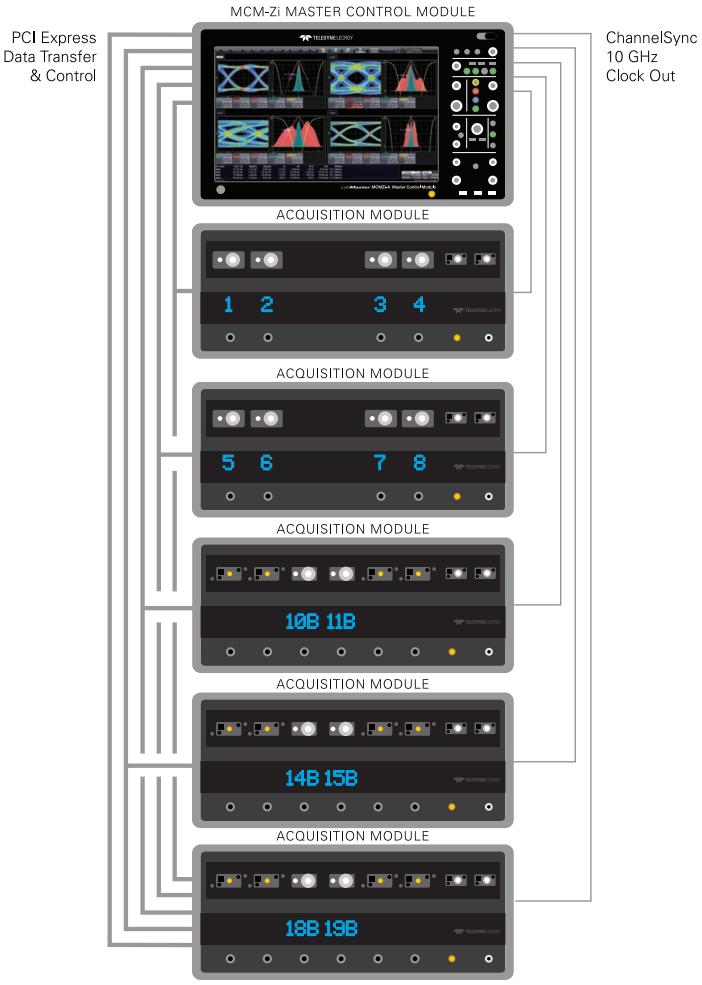
Seamlessly Implement Custom MATLAB Code

Assign custom MATLAB scripts to the oscilloscope's built-in math functions or assign them to custom functions within Optical-LinQ, and analyze data as it is acquired. Tune custom DSP code as it runs in real-time, and view the analysis using tools such as eye diagrams, constellation plots and parametric measurements. Implementing MATLAB analysis offline is also fast and easy. Transfer the data off the oscilloscope using standard remote control capabilities or use the high-speed LSIB interface for fast streaming.

MODULARITY FOR MULTI-CHANNEL

LabMaster 10 Zi Modular Architecture

The LabMaster 10-100Zi is built on the modular architecture of the LabMaster 10 Zi oscilloscope platform. The base system includes a LabMaster MCM-Zi Master Control Module and a LabMaster 10-100Zi acquisition module. Start with one Master Control Module and one Acquisition Module, and upgrade the system by adding additional acquisition modules in order to build a system with multiple 100 GHz channels, or with a combination of 100 GHz, 65 GHz and 36 GHz channels. The architecture allows up to 20 acquisition modules and a single MCM-Zi to be connected together to form a single oscilloscope with up to 80 channels.



LabMaster MCM-Zi

The LabMaster MCM-Zi Master Control Module provides a built-in display, control panel, CPU, and the ChannelSync 10 GHz distributed clock that is the heartbeat of the system and which provides precise synchronization between all oscilloscope channels. High speed multi-lane PCIe connections are made to the Acquisition Modules for control and data transfer. Coupled with Teledyne LeCroy's proprietary X-Stream II streaming architecture, the CPU muscles its way through the immense amounts of acquisition data made possible by LabMaster 10 Zi. Precision between all acquisition modules is maintained identically to the basic system.

SPECIFICATIONS

Vertical System

Analog Bandwidth @ 50 Ω (-3 dB) (1 mm Input)	100 GHz (≥10 mV/div) 65 GHz (≥10 mV/div)
Analog Bandwidth @ 50 Ω (-3 dB) (2.92 mm Inputs)	36 GHz (≥5 mV/div)
Rise Time (10–90%, 50 Ω)	4.5 ps (flatness mode)
Rise Time (20–80%, 50 Ω)	3.5 ps (flatness mode)
Input Channels	Up to 80, depending on configuration selected. 20 Ch @ 100 GHz.
Bandwidth Limiters	**For ≤ 36 GHz Mode:** 1 GHz, 3 GHz, 4 GHz, 6 GHz, 8 GHz, 13 GHz, 16 GHz, 20 GHz 25 GHz, 30 GHz 33 GHz **For > 36 GHz Mode:** 50 GHz, 60 GHz
Input Impedance	**2.92 mm Inputs:** 50 Ω ±2% **1 mm Inputs:** 50 Ω ±2%
Input Coupling	**2.92 mm Inputs:** 50 Ω: DC, GND **1 mm Inputs:** 50 Ω: DC
Maximum Input Voltage	**2.92 mm Inputs:** ±2 Vmax @ <76 mV/div, 5.5V_{rms}@ ≥76 mV/div **1 mm Inputs:** ±1 Vmax @ ≤80 mV/div
Vertical Resolution	8 bits; up to 11 bits with enhanced resolution (ERES)
Sensitivity	**50 Ω (2.92 mm):** 5 mV–500 mV/div, fully variable (5-9.9 mV/div via zoom) **50 Ω (1 mm):** 10 mV–80 mV/div, fully variable.
DC Vertical Gain Accuracy (Gain Component of DC Accuracy)	±1% F.S. (typical), offset at 0V; ±1.5% F.S. (test limit), offset at 0V
Vertical Noise Floor (50 mV/div)	5.8 mV_{rms} (typical)
Offset Range	**50 Ω (1 mm):** ±500 mV @ 10–80 mV/div **50 Ω (2.92mm):** ±500 mV @ 5-75 mV/div ±4 V @ 76 mV/div -500 mV/div
DC Vertical Offset Accuracy	±(1.5% of offset setting + 1.5% F.S. + 1 mV) (test limit)

SPECIFICATIONS

Horizontal System

Timebases	Internal timebase with 10 GHz clock frequency common to all input channels. Single, distributed 10 GHz clock for all channels ensures precise synchronization with timing accuracy between all channels identical to that provided within a single, conventional oscilloscope package.
Time/Division Range	**For >36 GHz Mode:** 10 ps/div - 640 µs/div (maximum capture time is based on 160 GS/s and installed memory). **For ≤36 GHz Mode:** 10 ps/div–256 s/div (maximum capture time is based on minimum sample rate of 200kS/s and installed memory).
Clock Accuracy	<0.1 ppm + (aging of 0.1 ppm/yr from last calibration)
Sample Clock Jitter	**Up to 3.2ms Acquired Time Range:** $50fs_{rms}$ (Internal Timebase Reference) $50fs_{rms}$ (External Timebase Reference) **Up to 6.4ms Acquired Time Range:** $130fs_{rms}$ (Internal Timebase Reference) $130fs_{rms}$ (External Timebase Reference)
Delta Time Measurement Accuracy	$\sqrt{2} * \sqrt{\left(\frac{Noise}{SlewRate}\right)^2 + (Sample\ Clock\ Jitter_{rms})^2} + (clock\ accuracy * reading)$
Jitter Measurement Floor	$\sqrt{\left(\frac{Noise}{SlewRate}\right)^2 + (Sample\ Clock\ Jitter_{rms})^2}$
Jitter Between Channels (Measured at maximum bandwidth)	<130 fs_{rms}
Trigger and Interpolator Jitter	< 0.1 ps_{rms} (typical, software assisted), 2 ps_{rms} (typical, hardware)
Channel-Channel Deskew Range	±9 x time/div. setting or 25 ns max. (whichever is larger), each channel
External Timebase Reference (Input)	10 MHz; 50 Ω impedance, applied at the rear input of MCM-Zi Master Control Module
External Timebase Reference (Output)	10 MHz; 50 Ω impedance, output at the rear of MCM-Zi Master Control Module

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Acquisition System

Single-Shot Sample Rate/Ch	240 GS/s on each channel in 100 GHz Mode. 160 GS/s on each channel in 65 GHz Mode. 80 GS/s on each channel in ≤36 GHz Mode.
Maximum Trigger Rate	1,000,000 waveforms/second (in Sequence Mode, up to 4 channels)
Intersegment Time	1 µs
Maximum Acquisition Memory	1536Mpts/Ch (1 Ch operation, 100 GHz mode)
Standard Memory	60 Mpts in 100 GHz mode 40 Mpts in 65 GHz mode 20 Mpts in 36 GHz mode (1000 Segments in Sequence Mode)

Memory Options

Option Name	Mem/Ch 100 GHz	Mem/Ch 65 GHz	Mem/Ch 36 GHz	Number Segments
S-32	96 Mpts	64 Mpts	32 Mpts	3,500
M-64	192 Mpts	128 Mpts	64 Mpts	7,500
L-128	384 Mpts	256 Mpts	128 Mpts	15,000
VL-256	768 Mpts	512 Mpts	256 Mpts	15,000
XL-512	1536 Mpts	1024 Mpts	512 Mpts	15,000

Acquisition Processing

Averaging	Summed averaging to 1 million sweeps; continuous averaging to 1 million sweeps
Enhanced Resolution (ERES)	From 8.5 to 11 bits vertical resolution
Envelope (Extrema)	Envelope, floor, or roof for up to 1 million sweeps
Interpolation	Linear or Sin x/x

Triggering System

Modes	Normal, Auto, Single, and Stop
Sources	Any Ch 1-4 (Edge, Window, SMART, Cascade triggers), AUX, internal Fast Edge; or any input channel (Edge trigger only) on additional 10-xxZi Acquisition Modules (Channels 5 and higher). Slope and level unique to each source except line trigger.
Coupling Mode	DC, AC, HFRej, LFRej
Pre-trigger Delay	0–100% of memory size (adjustable in 1% increments of 100 ns)
Post-trigger Delay	0–10,000 divisions in real time mode, limited at slower time/div settings
Hold-off by Time or Events	From 2 ns up to 20 s or from 1 to 99,999,999 events
Internal Trigger Range	±4.1 div from center
Trigger Sensitivity with Edge Trigger (1.85/2.92mm Inputs)	For Ch 1-80 of a LabMaster 10 Zi system: 3 div @ <12 GHz 1.5 div @ <8 GHz 1.0 div @<5 GHz (for DC coupling, ≥ 10 mV/div, 50 Ω)
External Trigger Sensitivity, (Edge Trigger)	For Ch 1-4 only of any LabMaster 10xx-Zi Acquisition Module: 2 div @ < 1 GHz, 1.5 div @ < 500 MHz, 1.0 div @ < 200 MHz, (for DC coupling)
Max. Trigger Frequency, SMART Trigger	For Ch 1-4 of a LabMaster 10xx-Zi Acquisition Module: 2.0 GHz @ ≥ 10 mV/div (minimum triggerable width 200 ps)
External Trigger Input Range	For any LabMaster 10xx-Zi Acquisition Module: Aux (±0.4 V) (Only Ch1-4 Acquisition Module has "active" AUX Input)

Basic Triggers

Edge	Triggers when signal meets slope (positive, negative, or either) and level condition.
Window	Triggers when signal exits a window defined by adjustable thresholds

SPECIFICATIONS

SMART Triggers™

State or Edge Qualified	Triggers on any input source only if a defined state or edge occurred on another input source. Holdoff between sources is selectable by time or events
Qualified First	In Sequence acquisition mode, triggers repeatably on event B only if a defined pattern, state, or edge (event A) is satisfied in the first segment of the acquisition. Holdoff between sources is selectable by time or events
Dropout	Triggers if signal drops out for longer than selected time between 1 ns and 20 s
Pattern	Logic combination (AND, NAND, OR, NOR) of 5 inputs (4 channels and external trigger input). Each source can be high, low, or don't care. The High and Low level can be selected independently. Triggers at start or end of the pattern

SMART Triggers with Exclusion Technology

Glitch	Triggers on positive or negative glitches with widths selectable as low as 200ps to 20 s, or on intermittent faults
Width (Signal or Pattern)	Triggers on positive, negative, or both widths with widths selectable as low as 200ps to 20 s, or on intermittent faults
Interval (Signal or Pattern)	Triggers on intervals selectable between 1 ns and 20 s
Timeout (State/Edge Qualified)	Triggers on any source if a given state (or transition edge) has occurred on another source. Delay between sources is 1 ns to 20 s, or 1 to 99,999,999 events
Runt	Trigger on positive or negative runts defined by two voltage limits and two time limits. Select between 1 ns and 20 ns
Slew Rate	Trigger on edge rates. Select limits for dV, dt, and slope. Select edge limits between 1 ns and 20 ns
Exclusion Triggering	Trigger on intermittent faults by specifying the expected behavior and triggering when that condition is not met

Cascade (Sequence) Triggering

Capability	Arm on "A" event, then Trigger on "B" event. Or Arm on "A" event, then Qualify on "B" event, and Trigger on "C" event. Or Arm on "A" event, then Qualify on "B" then "C" event, and Trigger on "D" event
Types	Cascade A then B: Edge, Window, Pattern (Logic) Width, Glitch, Interval, Dropout, or Measurement. Measurement can be on Stage B only. Cascade A then B then C (Measurement): Edge, Window, Pattern (Logic), Width, Glitch, Interval, Dropout, or Measurement. Measurement can be on Stage C only. Cascade A then B then C: Edge, Window, Pattern (Logic) Cascade A then B then C then D: Edge, Window, Pattern (Logic), or Measurement. Measurement can be on Stage D only.
Holdoff	Holdoff between A and B, B and C, C and D is selectable by time (1ns to 20s) or number of events. Measurement trigger selection as the last stage in a Cascade precludes a holdoff setting between the prior stage and the last stage

High-speed Serial Protocol Triggering (Optional)

Data Rates	Option LM10Zi-6GBIT-80B-8B10B-TD: 600 Mb/s to 6.5 Gb/s, Channel 4 input only Option LM10Zi-14GBIT-80B-8B10B-TD: 600 Mb/s to 14.1 Gb/s, Channel 4 input only (Note: Channel 3 input will capture signal for triggering when oscilloscope is in ≥25 GHz mode)
Pattern Length	80-bits, NRZ or eight 8b/10b symbols
Clock and Data Outputs	No Clock and Data Recovery outputs provided

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Color Waveform Display

Type	On LabMaster MCM-Zi Master Control Module: Color 15.3" flat panel TFT-Active Matrix LCD with high resolution touch screen
Resolution	WXGA; 1280 x 768 pixels
Number of Traces	Display a maximum of 40 traces. Simultaneously display channel, zoom, memory and math traces
Grid Styles	Auto, Single, Dual, Quad, Octal, X-Y, Single + X-Y, Dual + X-Y, Twelve, Sixteen, Twenty
Waveform Representation	Sample dots joined, or sample dots only

Integrated Second Display

Type	Supports touch screen integration of user-supplied second display with split-grid capability. (Note: touch screen driver for second display may not be a Fujitsu driver)
Resolution	Determined by display chosen by user

High-Speed Digitizer Output (Option)

Type	Option LSIB-2. Installs in LabMaster MCM-Zi Master Control Module and uses one available PCIe slot normally used by a LabMaster 10-xxZi Acquisition Module.
Transfer Rates	Up to 325 MB/s (typical) - Maximum of 4 channels (consult Teledyne LeCroy for >4 channels)
Output Protocol	PCI Express, Gen 1 (4 lanes utilized for data transfer)
Control Protocol	TCP/IP
Command Set	Via Windows Automation, or via Teledyne LeCroy Remote Command Set

Processor/CPU

Type	In LabMaster MCM-Zi Master Control Module: Intel® Xeon™ X5660 2.8 GHz (or better). There are two processors in each CPU, and each processor has 6 cores for a total of 12 cores and an effective processor speed of 33.6 GHz.
Processor Memory	24 GB standard. Up to 192 GB optionally available
Operating System	Microsoft Windows® 7 Professional Edition (64-bit)
Real Time Clock	Date and time displayed with waveform in hardcopy files. SNTP support to synchronize to precision internal clocks

Setup Storage

Front Panel and Instrument Status	Store to the internal hard drive, over a network, or to a USB-connected peripheral device

Interface

Remote Control	Via Windows Automation, or via Teledyne LeCroy Remote Command Set
Network Communication Standard	VXI-11 or VICP, LXI Class C (v1.2) Compliant
GPIB Port (optional)	Supports IEEE – 488.2. Installs in LabMaster MCM-Zi Master Control Module and uses one available PCIe slot normally used by a LabMaster 10-xxZi Acquisition Module.
LSIB Port (optional)	Supports PCIe Gen1 x4 protocol with Teledyne LeCroy supplied API. Installs in LabMaster MCM-Zi Master Control Module and uses one available PCIe slot normally used by a LabMaster 10-xxZi Acquisition Module.
Ethernet Port	Supports 10/100/1000BaseT Ethernet interface (RJ45 port)
USB Ports	LabMaster MCM-Zi Master Control Module: minimum 2 total USB 2.0 ports on rear of unit to support Windows compatible devices LabMaster MCM-Zi Master Control Module: minimum 3 total USB 2.0 ports on front of unit to support Windows compatible devices
External Monitor Port	Dual Link DVI compatible to support internal display on MCM-Zi Master Control Module (1280 x 768 pixel resolution) and customer-supplied monitor with up to WQXGA (2560 x 1600 pixel) resolution using extended desktop mode.

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Power Requirements

Voltage	LabMaster 10-xxZi Acquisition Module: 100–240 VAC ±10% at 45-66 Hz; 100-120 VAC ±10% at 380-420 Hz; Automatic AC Voltage Selection, Installation Category II LabMaster MCM-Zi Master Control Module: 100–240 VAC ±10% at 45-66 Hz; Automatic AC Voltage Selection, Installation Category II
Max. Power Consumption	LabMaster 10-xxZi Acquisition Module - 1275 W / 1275 VA. LabMaster MCM-Zi Master Control Module - 450 W / 450 VA. Each Module and the CPU has a separate power cord.

Environmental

Temperature (Operating)	+5 °C to +40 °
Temperature (Non-Operating)	–20 °C to +60 °C
Humidity (Operating)	5% to 80% relative humidity (non-condensing) up to +31 °C Upper limit derates to 50% relative humidity (non-condensing) at +40 °C
Humidity (Non-Operating)	5% to 95% relative humidity (non-condensing) as tested per MIL-PRF-28800F
Altitude (Operating)	Up to 10,000 ft. (3048 m) at or below +25 °C
Altitude (Non-Operating)	Up to 40,000 ft. (12,192 m)
Random Vibration (Operating)	0.5 g_{rms} 5 Hz to 500 Hz, 15 minutes in each of three orthogonal axes
Random Vibration (Non-Operating)	2.4 g_{rms} 5 Hz to 500 Hz, 15 minutes in each of three orthogonal axes
Functional Shock	20 g_{peak}, half sine, 11 ms pulse, 3 shocks (positive and negative) in each of three orthogonal axes, 18 shocks total

Physical Dimensions

Dimensions (HWD)	LabMaster MCM-Zi Master Control Module - 10.9"H x 18.2"W x 15.6"D (277 x 462 x 396 mm), LabMaster 10-xxZi Acquisition Module - 8.0"H x 18.2"W x 26"D (202 x 462 x 660 mm)
Weight	LabMaster 10-xxZi Acquisition Module -58 lbs. (24 kg) LabMaster MCM-Zi Master Control Module - 47 lbs. (21.4 kg)
Shipping Weight	LabMaster 10-xxZi Acquisition Module - 76 lbs. (34.5 kg) LabMaster MCM-Zi Master Control Module - 56 lbs. (25.5 kg)

Certifications

	CE Compliant, UL and cUL listed; conforms to EN 61326, EN 61010-1, EN61010-2-030, UL 61010-1 3rd edition, and CSA C22.2 No. 61010-1-12

Warranty and Service

	3-year warranty; calibration recommended annually. Optional service programs include extended warranty, upgrades, and calibration services.

ORDERING INFORMATION

Product Description	Product Code
LabMaster 10 Zi Series Master Control Modules	
LabMaster Master Control Module with 15.3" WXGA Color Display.	LabMaster MCM-Zi
LabMaster 10 Zi Series Acquisition Modules	
100 GHz, 240 GS/s, 1 Ch, 40 Mpts/Ch LabMaster 10 Zi Acquisition Module with 50 Ω input (36 GHz, 80 GS/s, 4 Ch, 20 Mpts/Ch) (65 GHz, 160 GS/s, 1 Ch, 20 Mpts/Ch)	LabMaster 10-100Zi

Included with LabMaster MCM-Zi Standard Configuration

Power Cable for the Destination Country, Optical 3-button Wheel Mouse USB 2.0, Printed Getting Started Manual, Anti-virus Software (Trial Version), Microsoft Windows 7 License, Commercial NIST Traceable Calibration with Certificate, 3-year Warranty

Included with LabMaster 10-100Zi Standard Configuration

2.92mm Crown Connector: Qty. 4, 1mm - 1.85mm F-F Barrel Adapter, 1mm - 1mm F-F Barrel Adapter, 4 ft-lb Torque Wrench, Universal Wrench, PCIe x 8 cable, 2m long, PCIe x 4 cable, 2m long, Power Cable for the Destination Country, ChannelSync 10 GHz clock cable, 2m long, Commercial NIST Traceable Calibration with Certificate, 3-year Warranty

Product Description	Product Code
Memory Options	
20 Mpts/Ch Standard Memory for LabMaster 10 Zi Acquisition Module	LM10Zi-STD
32 Mpts/ch Memory Option for LabMaster 10 Zi Acquisition Module	LM10Zi-S-32
128 Mpts/Ch Memory Option for LabMaster 10 Zi Acquisition Modules	LM10Zi-L-128
256 Mpts/Ch Memory Option for LabMaster 10 Zi Acquisition Modules	LM10Zi-L-256
512 Mpts/Ch Memory Option for LabMaster 10 Zi Acquisition Modules	LM10Zi-XL-512

Customer Service

Teledyne LeCroy oscilloscopes and probes are designed, built, and tested to ensure high reliability. In the unlikely event you experience difficulties, our digital oscilloscopes are fully warranted for three years and our probes are warranted for one year.

This warranty includes:

- No charge for return shipping
- Long-term 7-year support
- Upgrade to latest software at no charge

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1-800-5-LeCroy
teledynelecroy.com

Local sales offices are located throughout the world.
Visit our website to find the most convenient location.

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