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Data Sheet
August 3, 2026

LECROY

LeCroy 9109 Arbitrary Function Generator

The LeCroy 9109 isadual-channel high-speed Arbitrary Function Generator in the 9100 Series. It provides 8-bit analog outputs at up to 200 Mpoints/s per channel plus standard 8-bit digital outputs on each channel. Standard waveform memory is 512 kbytes (expandable to 1 Mbyte /MM1 or 2 Mbytes /MM2). Analog signals to 100 MHz can be created; minimum point spacing is 5 ns. GPIB and RS-232 are standard. Mixed-signal stimulus (analog + digital ports); radar/sonar/ultrasound/video test waveforms; disk-drive and communications ATE; scientific research requiring linked/looped high-speed custom waveforms.

MODEL Lecroy 9109	CALIBRATION Available on request
CONDITION Used	STATUS In stock
RFQ / SKU 9109	LISTING https://aumictechlabs.com/products/9109-2/

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The LeCroy 9109 is a dual-channel arbitrary function generator delivering precise waveform generation from DC to 25 MHz. Built around a 50 MSa/sec sampling engine with 128 Kbyte waveform memory (64K points per segment), the 9109 generates standard waveforms - sine, square, triangle, pulse, ramp, and DC - alongside user-defined arbitrary waveforms with 5 nsec point-to-point time resolution. Analog output ranges from 20 mV to 10 V (10 Vp-p into high-Z, 5 Vp-p into 50 Ω) at 8-bit resolution.Dual 8-bit TTL or ECL digital outputs deliver latched data synchronized to waveform generation, supporting up to 200 Mbytes/sec in single-channel mode and 100 Mbytes/sec in dual-channel mode. Channel summing - internal or external - enables composite waveform control and up to 9-bit effective resolution. Five operating modes, sequence

file storage for hundreds of generation commands, and flexible triggering (manual, external BNC, GPIB/RS-232 bus, or front-panel control) make the 9109 suitable for R&D, quality control, and automated test environments.Technical Specifications Channels: 2 Sampling Rate: 50 MSa/sec Record Length: Up to 64,000 points per segment; 128 Kbyte waveform memory with segment linking for longer waveforms Analog Output Voltage: 20 mV to 10 V (10 Vp-p into high-Z; 5 Vp-p into 50 Ω) Analog Output Resolution: 8-bit Frequency Range: DC to 25 MHz Standard Waveforms: Sine, Square, Triangle, Pulse, Ramp, DC Arbitrary Waveform Time Resolution: 5 nsec per point minimum Digital Outputs: Dual 8-bit TTL or ECL (via 20-pin connectors) Digital Data Rate (Single Channel): Up to 200 Mbytes/sec Digital Data Rate (Dual Channel): Up to 100 Mbytes/secKey Features User-defined waveform generation with fine point-to-point control Internal and external channel summing with independent amplitude control Built-in output smoothing filters TTL outputs with complementary clock, 75 Ω series resistors, dual TTL load drive capability ECL outputs with differential data and clock lines, 470 Ω internal pulldowns Sync outputs for synchronized operation Sequence file storage for complex multi-waveform automation Five operating modesTriggering & Control Trigger sources: Manual (front panel), External (BNC, 50 Ω), Bus (GPIB/RS-232), Control Panel External trigger slope: Selectable (positive or negative threshold)Typical Applications Research and development, product qualification, manufacturing test automation, signal integrity analysis, and component characterization requiring arbitrary or standard waveform generation with synchronized digital outputs.

Features & description

From manufacturer datasheet

Features

• Dual channel, 200 Mpoints/s, 8-bit analog • Dual 8-bit digital outputs (ECL or TTL selectable per channel) • Waveform memory: 512 kB standard; /MM1 1 MB; /MM2 2 MB • Minimum sample period: 5 ns; analog to 100 MHz • Output: 10 V p-p into 50 Ω (−5 V to +5 V); 20 V p-p into high-Z • Standard functions: sine, square, ramp, triangle; pulse mode; DC mode • Waveform linking/looping; EASYWAVE PC software optional • Interfaces: GPIB (IEEE-488) and RS-232 standard

9109 Characteristics / Specifications

PARAMETER	VALUE
Model	9109
Manufacturer	LeCroy
Instrument Type	Arbitrary Function Generator (9100 Series)
Alias	LeCroy 9109; 9109 AFG Channels and Conversion
Analog Channels	2
Digital Outputs	2 × 8-bit (with analog)
Sample Rate	200 Mpoints/s (dual or single channel architecture per mode)
Vertical Resolution	8 bits
Min Point Spacing	5 ns Amplitude (into 50 Ω unless noted)
Offset	±5 V into 50 Ω; ±10 V high-Z; < 6 mV steps
Output Impedance	50 Ω ±0.5 Ω
DC Accuracy	greater of 1% of level or 1% of full-scale amplitude or 20 mV Signal Quality (typical datasheet rows)
Rise Time	< 6 ns, 10%–90% (5.5 ns typ) with filters off
Settling	< 20 ns to 3% of amplitude (filters off class) Memory
Standard	512 kbytes high-speed waveform memory
GPIB	IEEE-488-1978 (SH1, AH1, T6, TE0, L3, LE0, SR1, RL1, PP0, DC1, DT1, C0)
DMA rates	typically ≥200 kbytes/s Operational Notes 9101 is single-channel 8-bit; 9112 is 12-bit / 50 Mpoints/s dual. Prefer LeCroy 9100 Series datasheet for full filter, trigger, and linking tables.
Waveform memory	512 kB standard; /MM1 1 MB; /MM2 2 MB
Minimum sample period	5 ns; analog to 100 MHz
Output	10 V p-p into 50 Ω (−5 V to +5 V); 20 V p-p into high-Z
Standard functions	sine, square, ramp, triangle; pulse mode; DC mode
Interfaces	GPIB (IEEE-488) and RS-232 standard

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications

Specifications

PARAMETER	VALUE
Model	9109
Manufacturer	LeCroy
Instrument Type	Arbitrary Function Generator (9100 Series)
Alias	LeCroy 9109; 9109 AFG

Channels and Conversion

Specifications

PARAMETER	VALUE
Analog Channels	2
Digital Outputs	2 × 8-bit (with analog)
Sample Rate	200 Mpoints/s (dual or single channel architecture per mode)
Vertical Resolution	8 bits
Min Point Spacing	5 ns

Amplitude (into 50 Ω unless noted)
Min Full-Scale: 5 mV p-p (10 mV p-p high-Z)
Max Full-Scale: 10 V p-p (−5 V to +5 V); 20 V p-p high-Z

Specifications

PARAMETER	VALUE
Offset	±5 V into 50 Ω; ±10 V high-Z; < 6 mV steps
Output Impedance	50 Ω ±0.5 Ω
DC Accuracy	greater of 1% of level or 1% of full-scale amplitude or 20 mV

Specifications

PARAMETER	VALUE
Signal Quality (typical datasheet rows)	THD (sine ≤1 MHz): < −50 dBc
Rise Time	< 6 ns, 10%–90% (5.5 ns typ) with filters off
Settling	< 20 ns to 3% of amplitude (filters off class)

Memory
Standard: 512 kbytes high-speed waveform memory
Option /MM1: 1 Mbyte; /MM2: 2 Mbytes
9109 uses one byte per waveform point

Digital Outputs
Two 8-bit words or one 16-bit word configuration class; ECL or TTL per internal jumper

Interfaces
GPIB: IEEE-488-1978 (SH1, AH1, T6, TE0, L3, LE0, SR1, RL1, PP0, DC1, DT1, C0)
RS-232: DCE; XON/XOFF; 7/8 data bits
DMA rates: typically ≥200 kbytes/s

Operational Notes
9101 is single-channel 8-bit; 9112 is 12-bit / 50 Mpoints/s dual. Prefer LeCroy 9100 Series datasheet for full filter, trigger, and linking tables.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: **sales@aumictech.com** · +1 (484) 841-9341

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