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AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS SINCE 1975

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BOX 5120, LCD MERIVALE OTTAWA, ONTARIO CANADA K2C 3H5

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PERFORMANCE CHECKSHEET

Model: AVO-9A-B-P-P2D-AC03

Type: Ultra-High-Speed Laser Diode Driver

S.N.: 13646

Date: November 27, 2017

Basic specifications: →

Output Amplitude: up to +13V, to 50Ω

Pulse Width (FWHM): 0.4 - 4 nsRise Time (20%-80%): \leq 200 ps Fall Time (80%-20%): \leq 200 ps

PRF: 1 Hz - 100 kHz

Jitter, Stability: OK

Prime Power: 100-240V AC, 50-60 Hz.

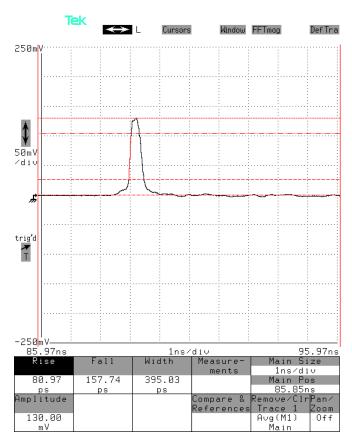
Test Waveforms

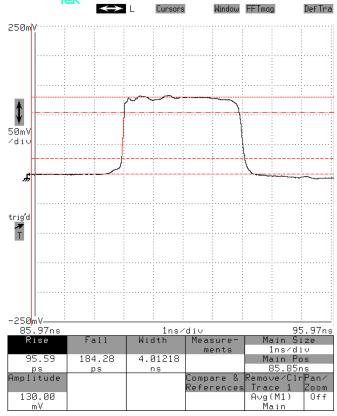
Mainframe output into 50 Ohm load at 100 kHz, 400 ps, +13V,

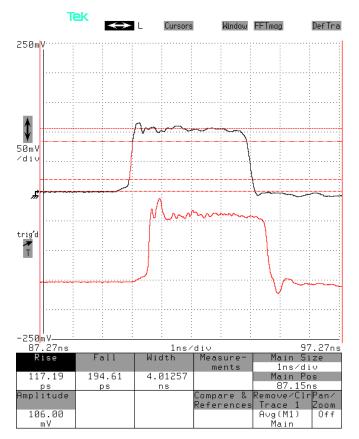
1 ns/div, 5V/div (50 mV/div × 40 dB):

Mainframe output into 50 Ohm load at 100 kHz, 4 ns, +13V,

1 ns/div, 5V/div (50 mV/div \times 40 dB):







Test method: Short leads are soldered across two 10Ω chip resistors in parallel. A coaxial cable is soldered across the resistor. The signal lead is inserted into the anode pin socket. The ground lead is inserted into one of the other pin sockets (which are grounded). The total effective resistor is $5\Omega \parallel 50\Omega$ (R_{SCOPE}) = 4.5Ω .



Top waveform: Voltage across the parallel combination of the 4.5 Ω effective resistance. It should be approximately (+13V / 54.5 Ω) × 4.5 Ω = +1.07V in amplitude, which agrees approximately with the observed waveform.

Bottom waveform: "MI" output, approximately +13V / 11.

Both: 1 ns/div, 0.5V/div (50 mV/div × 20 dB).