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☒ BOX 5120, LCD MERIVALE
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PERFORMANCE CHECKSHEET

Model: AVO-9A4-B-P1B-T1B-P
Type: Ultra-High-Speed Laser Diode Driver
S.N.: 13091
Date: November 12, 2013

Output Amplitude: up to +43V, to 50Ω
Pulse Width (FWHM): 1 – 10 ns
Rise Time (20%-80%): ≤ 500 ps
Fall Time (80%-20%): ≤ 750 ps
PRF: 1 Hz – 150 kHz
Jitter, Stability: OK
Prime Power: 100-240V AC, 50-60 Hz.

Basic specifications: →

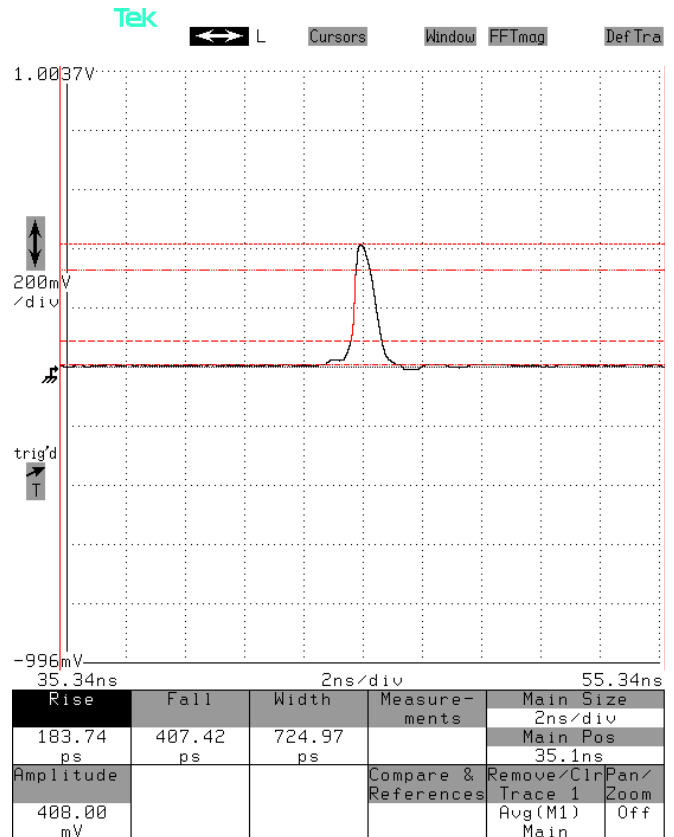
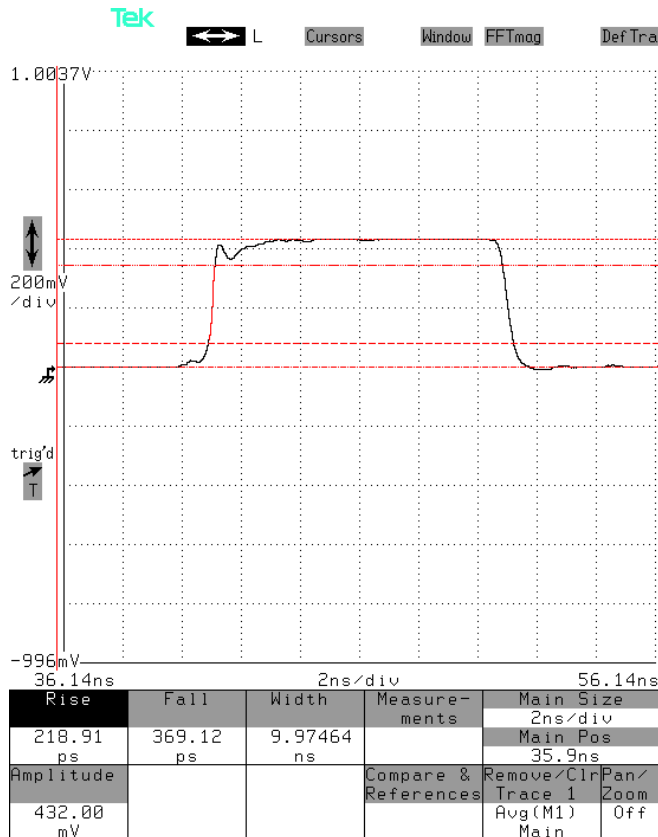
Test Waveforms

Mainframe output into 50 Ohm load at 150 kHz,
10 ns, +43V,

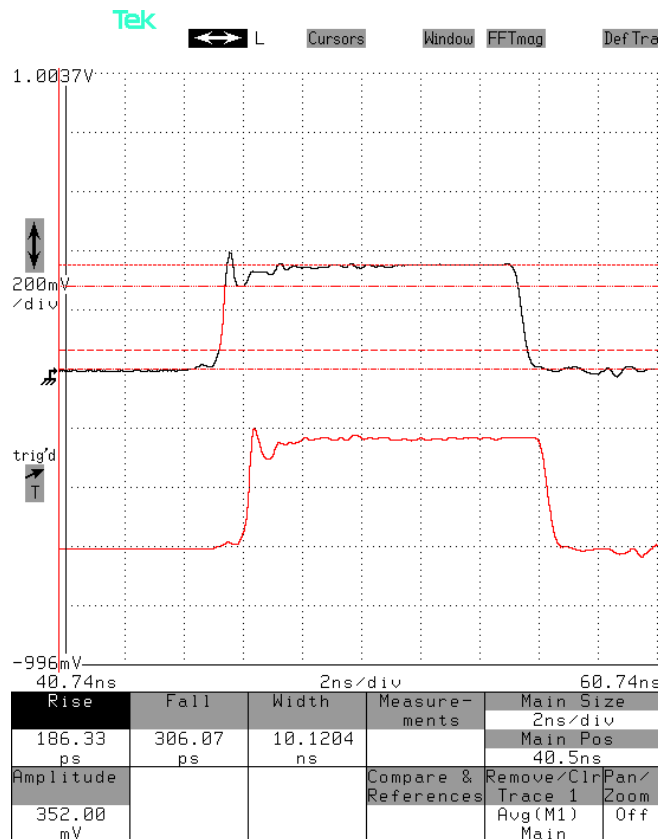
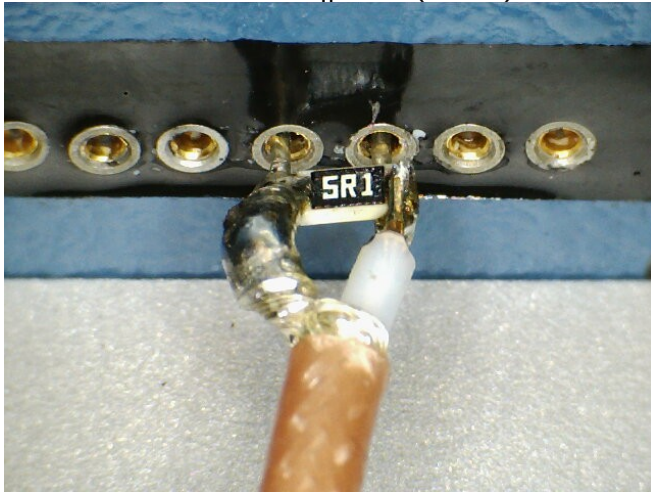
Mainframe output into 50 Ohm load at 150 kHz,
< 1 ns, +43V,

2 ns/div. 20 V/div (200 mV/div × 40 dB):

2 ns/div. 20 V/div (200 mV/div × 40 dB):

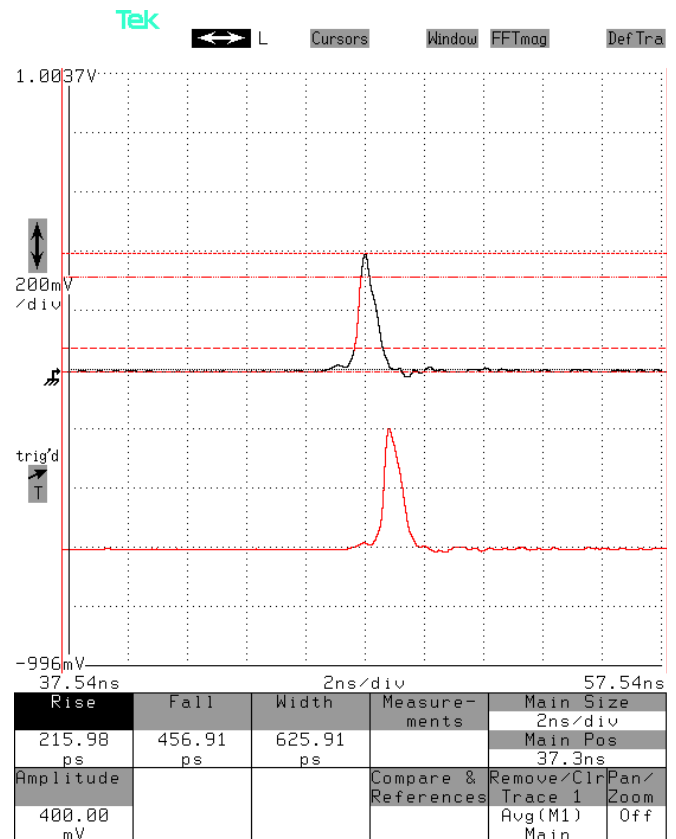


Output module test method: Short leads are soldered to a 5.1Ω chip resistor. A coaxial cable is soldered across the resistor. The signal lead is inserted into the anode pin socket. The grounded lead is inserted into the cathode pin socket. The total resistance is $5.1 \Omega \parallel 50 \Omega (R_{SCOPE}) = 4.6 \Omega$.



Top: Voltage measured across the resistor in response to a +43V, 10 ns pulse. It should be approximately $(+43V / 54.6\Omega) \times 4.6\Omega = +3.6V$, which agrees with the observed waveform. 2V/div (= 200 mV/div \times 20 dB), 2 ns/div.

Bottom: "MI" output, approximately $+43V / 11$. 2V/div (= 200 mV/div \times 20 dB), 2 ns/div.



Top: Same as waveform on the left, except with a pulse width of < 1 ns.

Bottom: Corresponding "MI" output.