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BOX 5120, LCD MERIVALE  
OTTAWA, CANADA K2C3H5

PERFORMANCE CHECKSHEET

Model: AVO-9B2-B-P-TO66-NP1A-RS45-VXI-AK1-AK8-R5

Type: Ultra-High-Speed Laser Diode Driver

S.N.: 14028

Date: September 25, 2020

Output Amplitude: up to +23V, to 50Ω

Pulse Width (FWHM): 0.6 ns – 1 us

Rise Time (20%-80%): ≤ 200 ps

Fall Time (80%-20%): ≤ 200 / 500 ps

PRF: 1 Hz – 100 kHz

Jitter, Stability: OK

100-240V AC, 50-60 Hz.

Basic specifications: →

Prime Power:

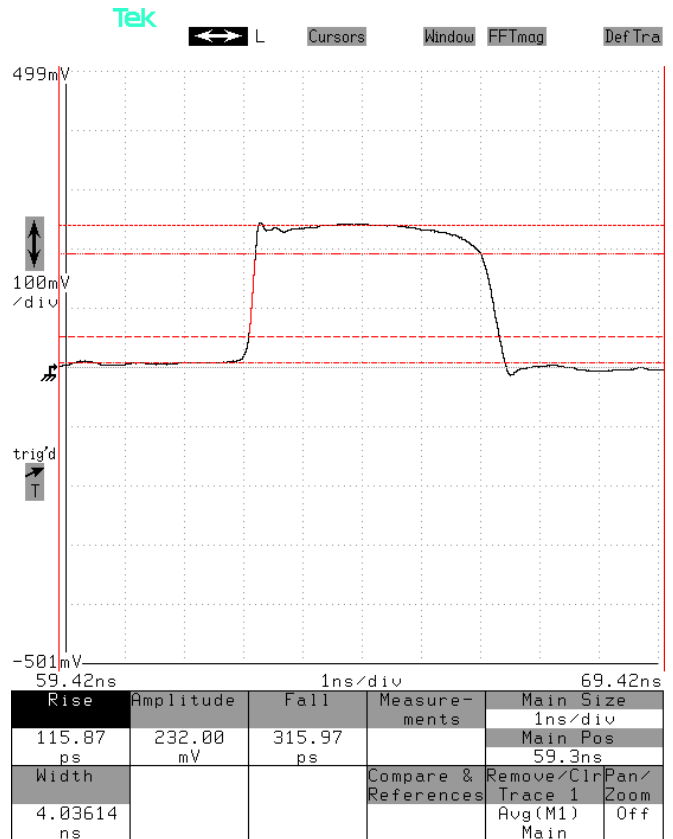
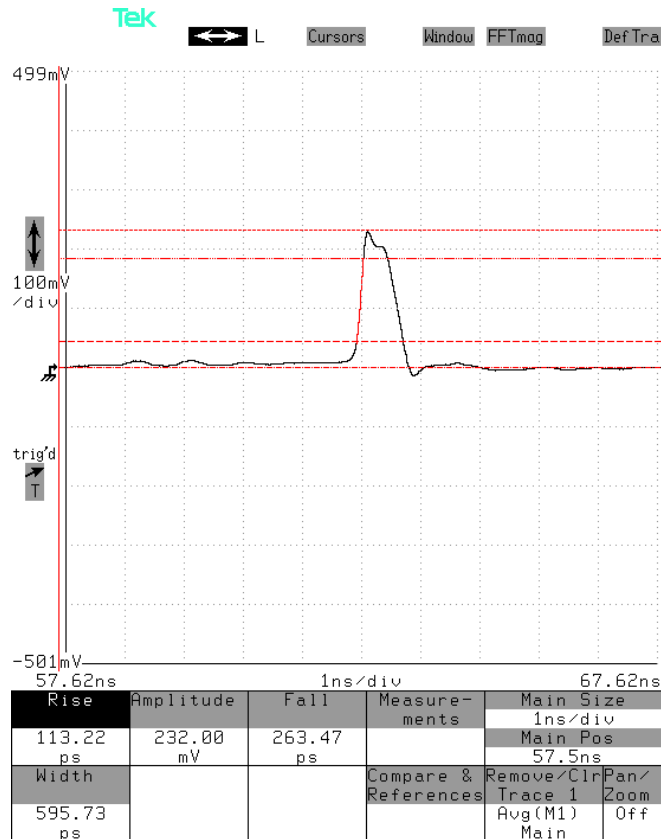
Test Waveforms

Mainframe output into 50 Ohm load at 100 kHz,  
600 ps, > +20V,

Mainframe output into 50 Ohm load at 100 kHz,  
4 ns, +23V,

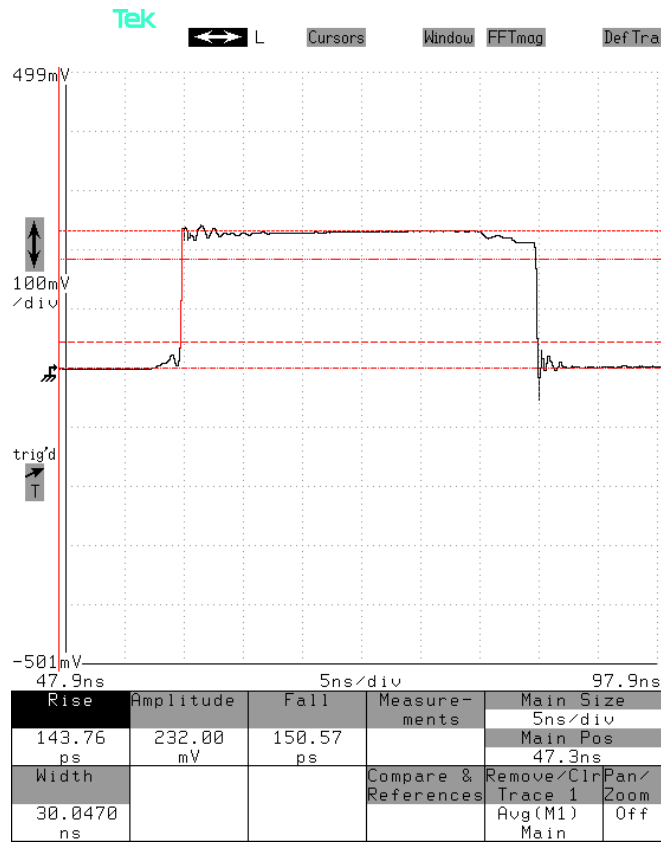
1 ns/div. 10 V/div (100 mV/div × 40 dB):

1 ns/div. 10 V/div (100 mV/div × 40 dB):



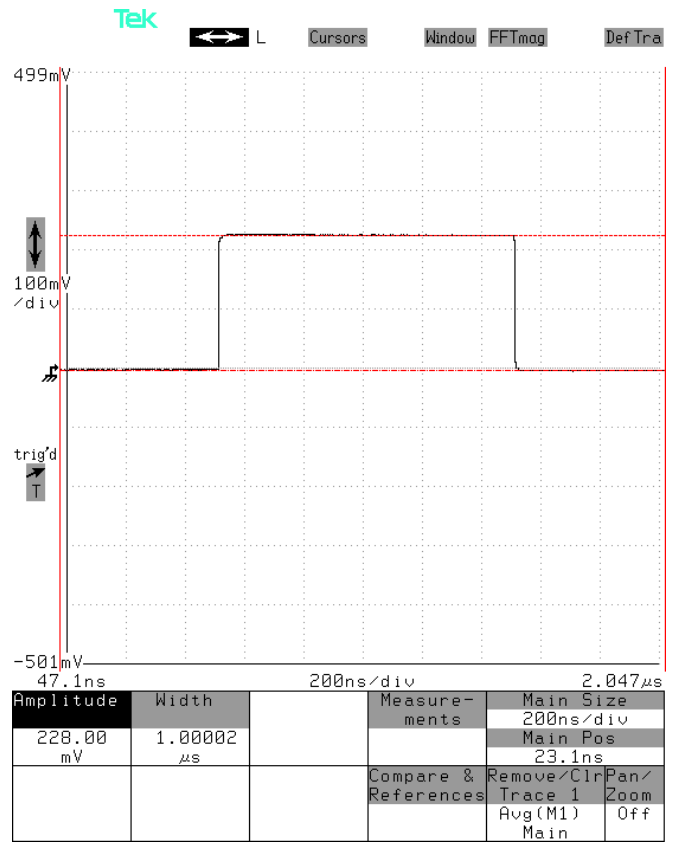
Mainframe output into 50 Ohm load at 100 kHz,  
30 ns, +23V,

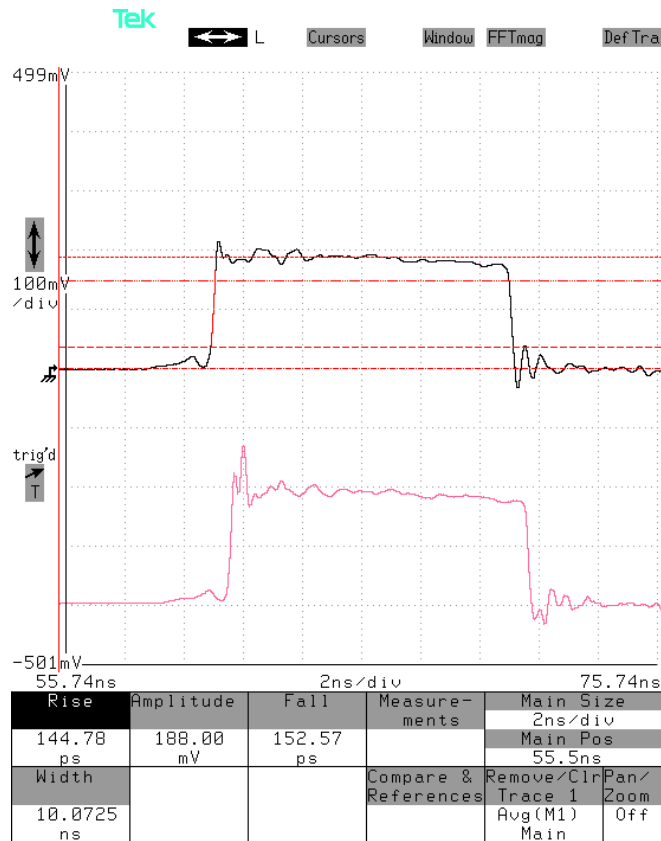
5 ns/div. 10 V/div (100 mV/div × 40 dB):



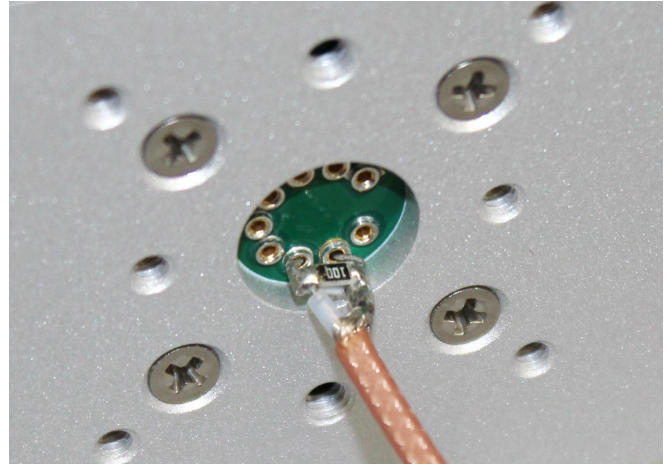
Mainframe output into 50 Ohm load at 10 kHz,  
1 us, +23V,

200 ns/div. 10 V/div (100 mV/div × 40 dB):





Test method: Short leads are soldered to two 10.0Ω chip resistors in parallel. A coaxial cable is soldered across the resistors. The signal lead is inserted into the anode pin socket. The grounded lead is inserted into the cathode pin socket. The total effective resistance is  $10\ \Omega \parallel 10\ \Omega \parallel 50\ \Omega$  ( $R_{SCOPE}$ ) = 4.54 Ω.



Top: Voltage measured across the resistor in response to a > 400 mA pulse applied from an Avtech AVO-9B2-B-P-P1B-T1B-AK1-AK8-VXI-R5 (S/N 13726) pulse generator. It should be approximately  $> 0.4A \times 4.54\Omega = 1.82V$ , which agrees with the observed waveform. 1V/div (= 100 mV/div × 20 dB), 2 ns/div.

Bottom: “MI” output, 1V/div (= 100 mV/div × 20 dB), 2 ns/div.