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BOX 5120, LCD MERIVALE  
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PERFORMANCE CHECKSHEET

Model: AVO-9B2-B-P-P1B-T1B-AK1-AK8-VXI-R5  
Type: Ultra-High-Speed Laser Diode Driver  
S.N.: 13659  
Date: December 19, 2017

Output Amplitude: up to +23V, to 50Ω  
Pulse Width (FWHM): 0.6 ns – 1 ns  
Rise Time (20%-80%): ≤ 350 ps  
Fall Time (80%-20%): ≤ 350 ps  
PRF: 1 Hz – 100 kHz  
Jitter, Stability: OK  
Prime Power: 100-240V AC, 50-60 Hz.

Basic specifications: →

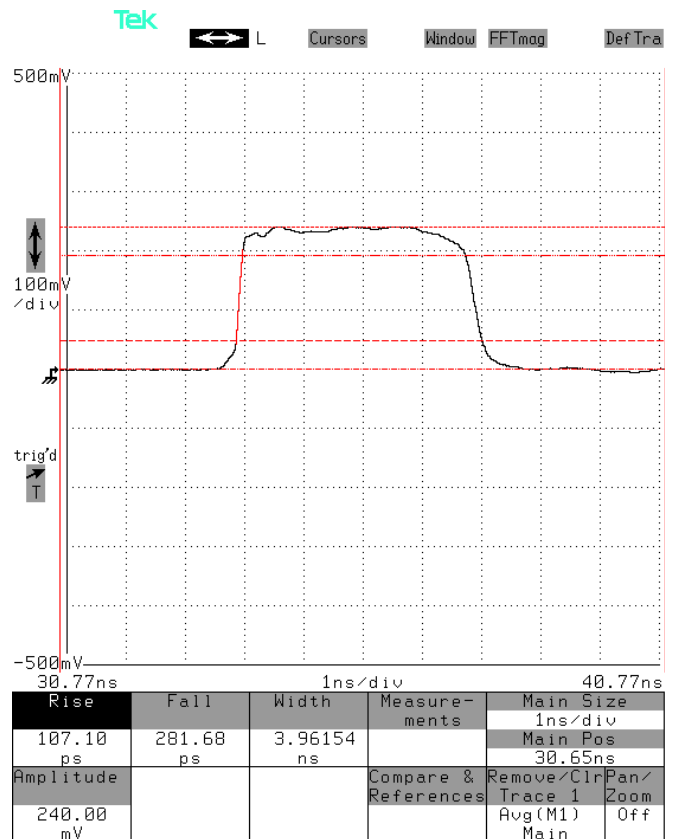
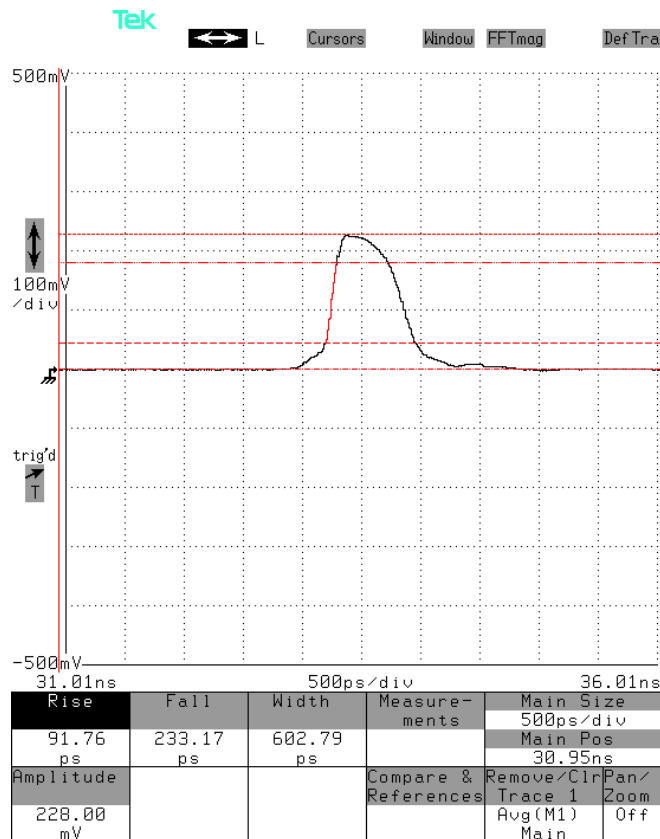
Test Waveforms

Mainframe output into 50 Ohm load at 10 kHz,  
600 ps, +23V,

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

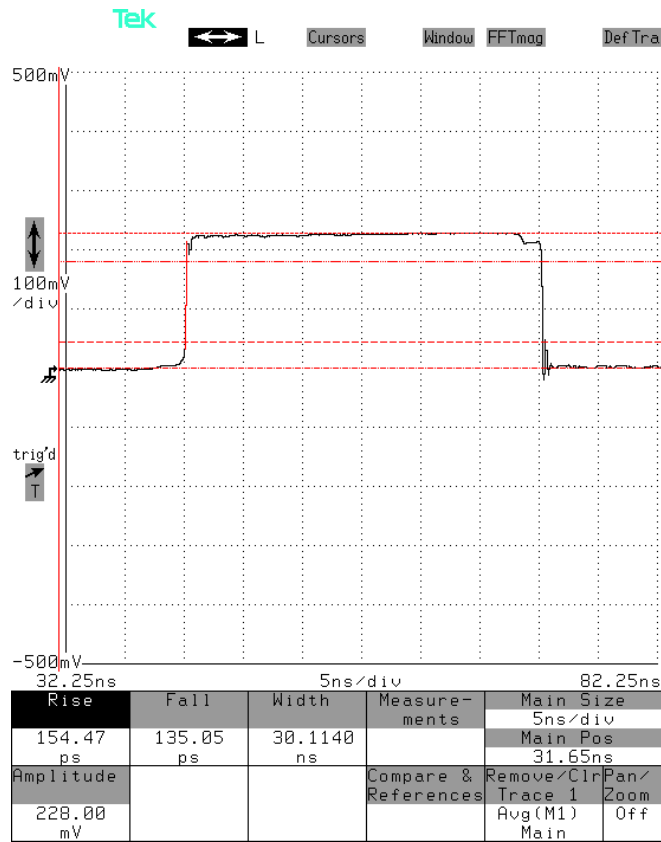
500 ps/div. 10 V/div (100 mV/div × 40 dB):

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



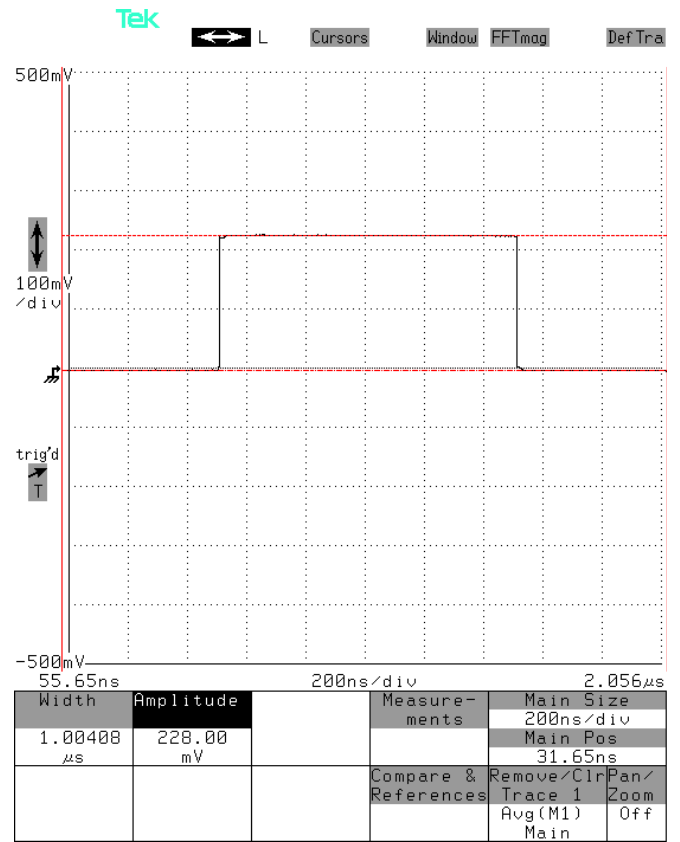
Mainframe output into 50 Ohm load at 100 kHz,  
30 ns, +23V,

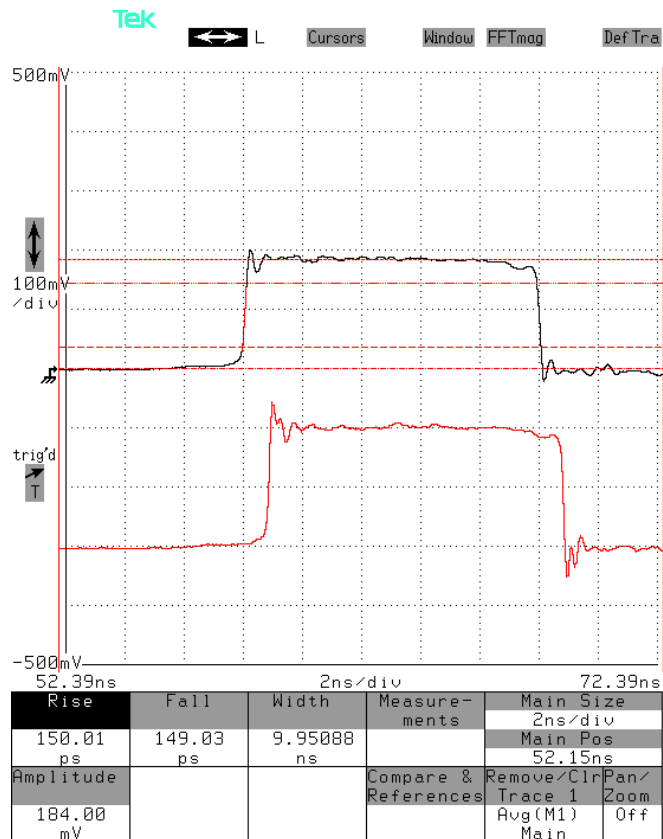
5 ns/div. 10 V/div (100 mV/div × 40 dB):



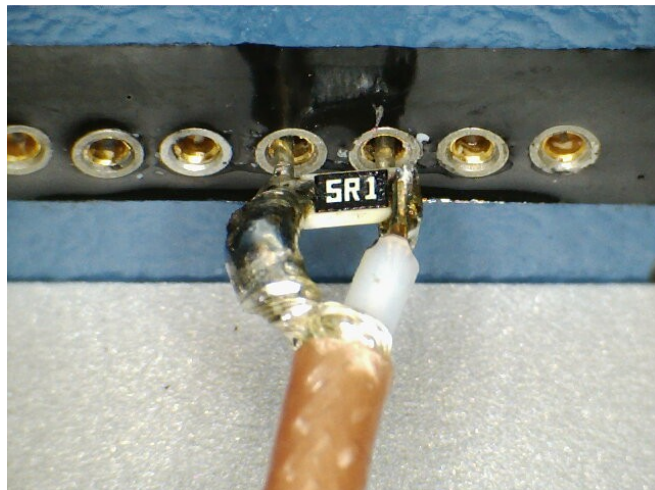
Mainframe output into 50 Ohm load at 10 kHz,  
1 us, +23V,

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





Test method: Short leads are soldered across a chip resistor. 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  $5 \Omega \parallel 50 \Omega$  ( $R_{SCOPE} = 4.5 \Omega$ ).



Top waveform: Voltage across the parallel combination of the  $4.5 \Omega$  effective resistance. It should be approximately  $(+23V / 54.5\Omega) \times 4.5\Omega = +1.9V$  in amplitude, which agrees approximately with the observed waveform.

Bottom waveform: "MI" output, approximately  $+23V / 11$ .

Both: 2 ns/div, 1 V/div (100 mV/div  $\times$  20 dB).