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BOX 5120, LCD MERIVALE  
OTTAWA, CANADA K2C3H5

PERFORMANCE CHECKSHEET

Model: AVO-9B2-B-P-P1B-T1B-VXI-AK1-AK8-R5  
Type: Ultra-High-Speed Laser Diode Driver  
S.N.: 14027  
Date: September 30, 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  
Prime Power: 100-240V AC, 50-60 Hz.

Basic specifications: →

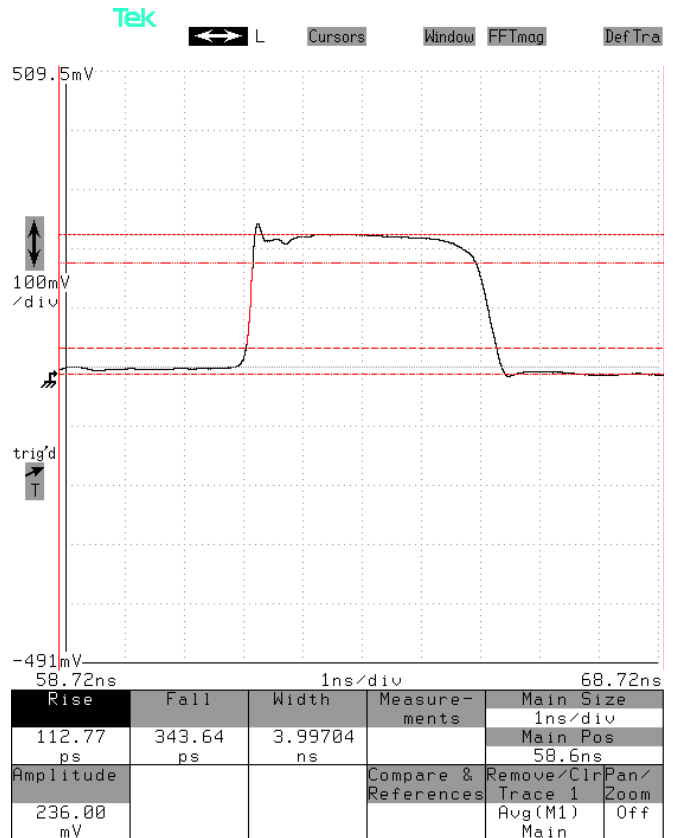
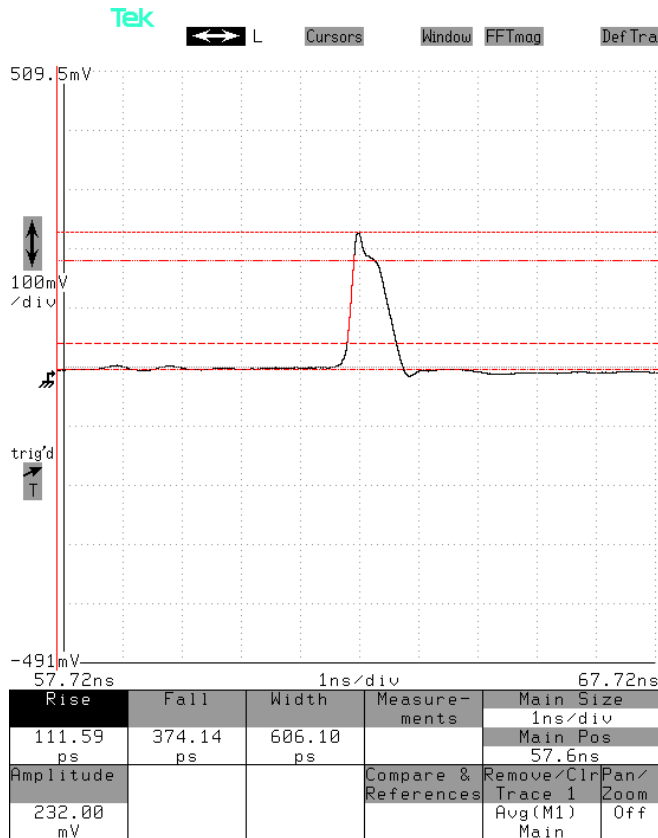
Test Waveforms

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

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

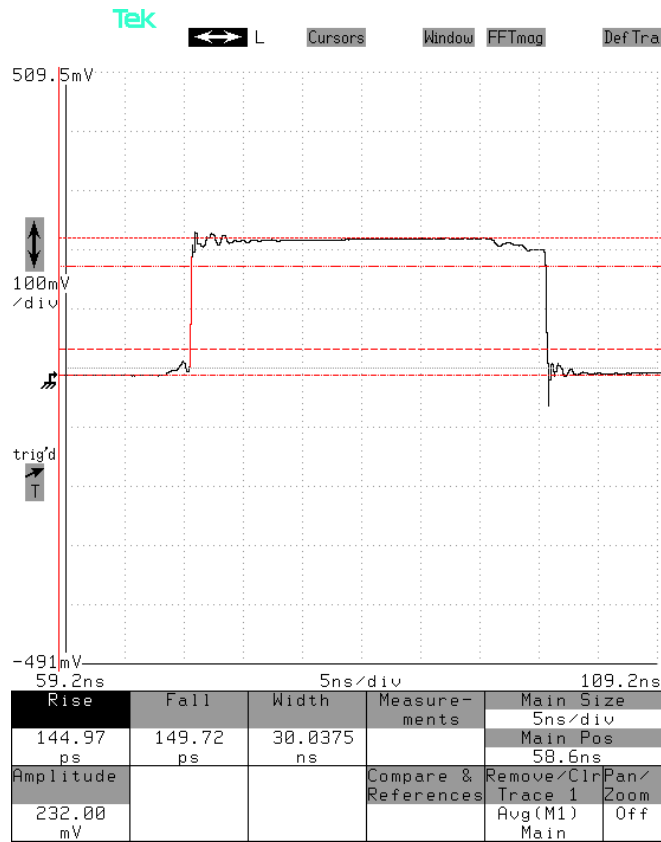
Mainframe output into 50 Ohm load at 100 kHz,  
4 ns, +23V,

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



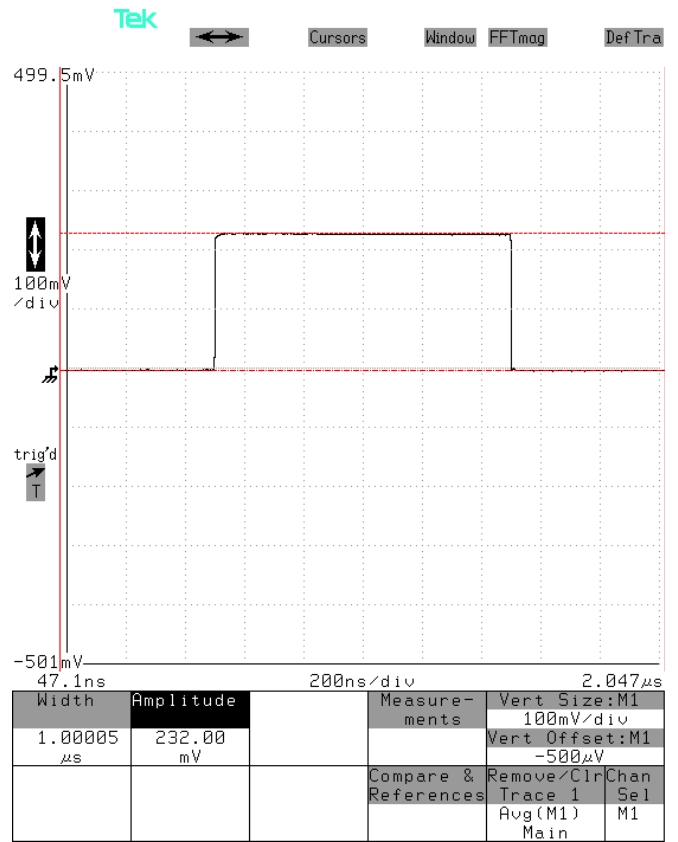
Mainframe output into 50 Ohm load at 100 kHz,  
30 ns, +23V,

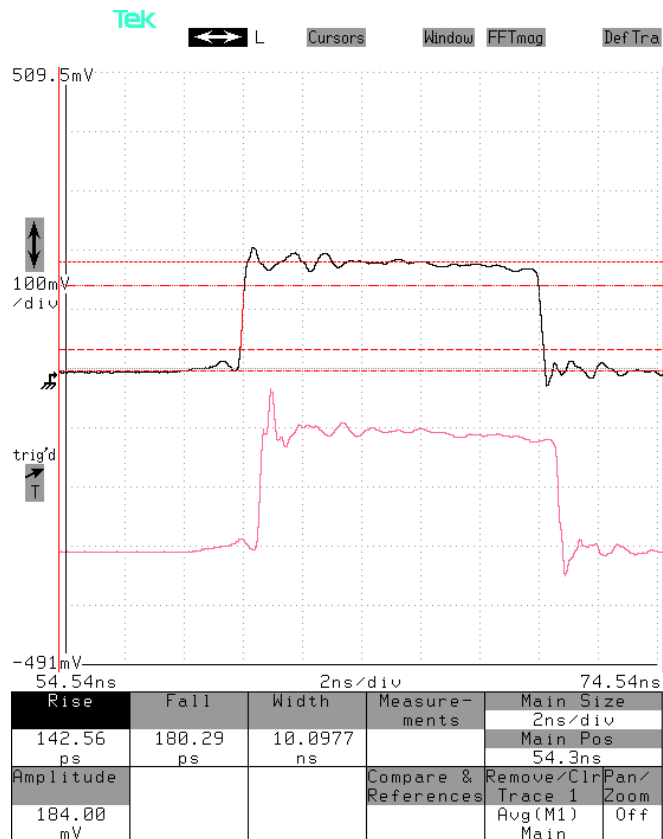
5 ns/div. 10 V/div (100 mV/div × 40 dB):



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).