



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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PERFORMANCE CHECKSHEET

Model: AVO-9C-C-P-P2B-HIK2
Type: Ultra-High-Speed Laser Diode Driver
S.N.: 12690
Date: August 23, 2011

Output Amplitude: 0 to +8V, to 50Ω
Pulse Width (FWHM): 0.5 - 10 ns
Rise Time (20%-80%): ≤ 300 ps
Fall Time (80%-20%): ≤ 600 ps
PRF: 10 kHz - 25 MHz
Jitter, Stability: OK
Prime Power: 100-240V AC, 50-60 Hz.

Basic specifications: →

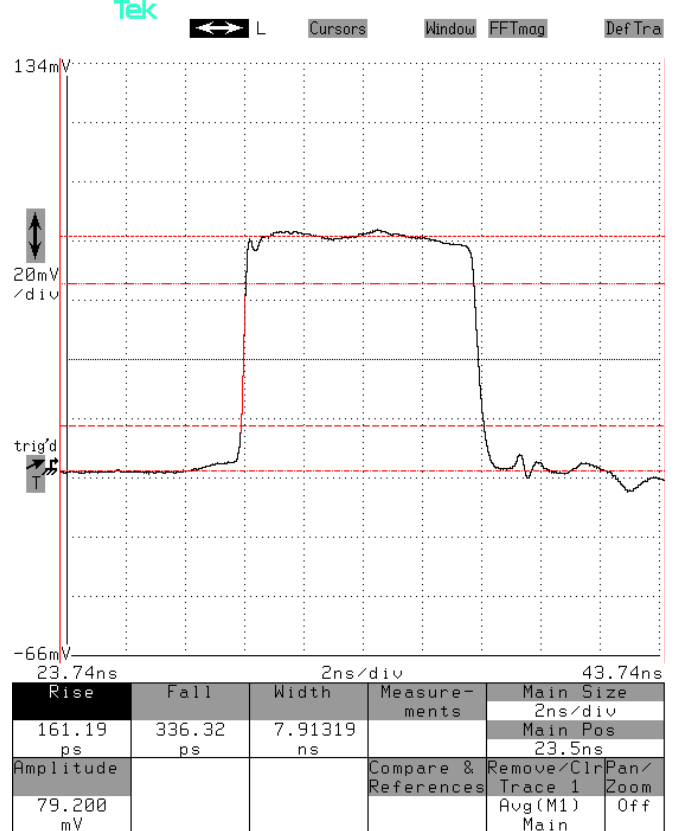
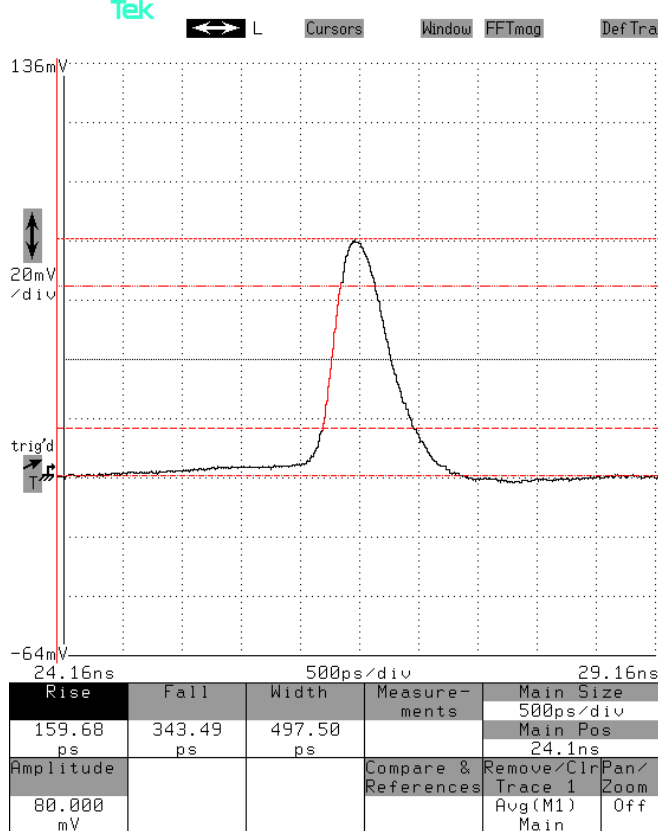
Test Waveforms

Mainframe output, into 50 Ohms, at 3 MHz PRF and 500 ps pulse width:

Mainframe output, into 50 Ohms, at 3 MHz PRF and 8 ns pulse width:

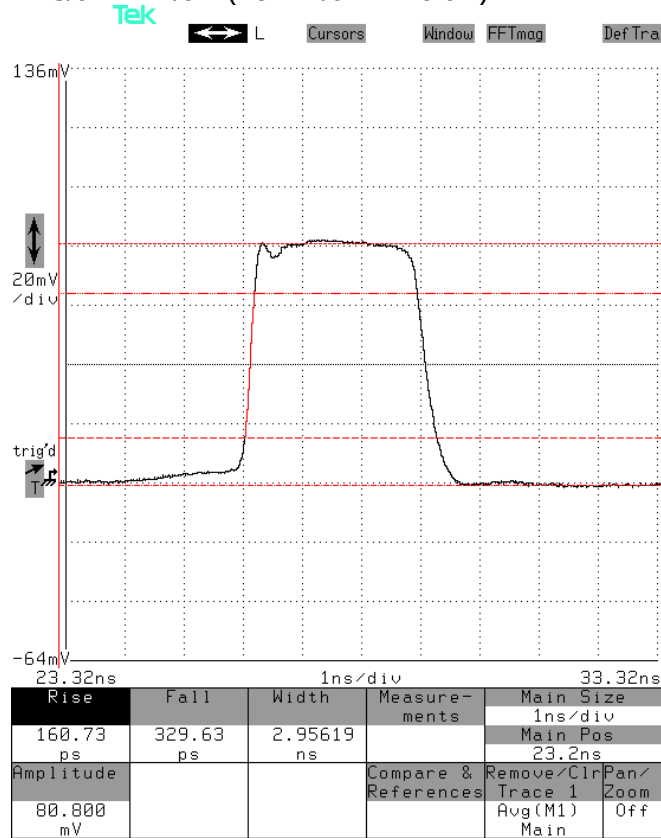
500 ps/div. 2 V/div (20 mV/div × 40 dB):

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



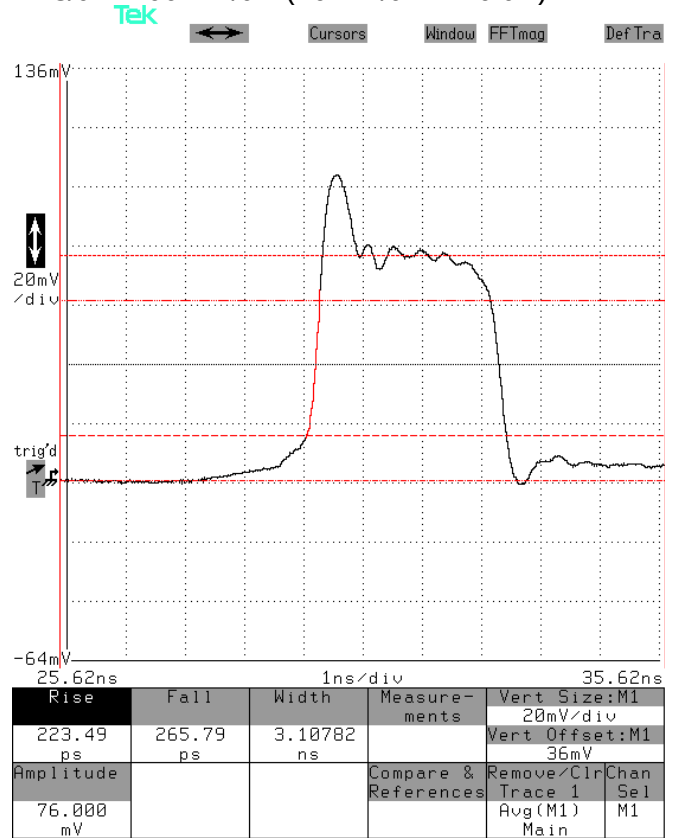
Mainframe output, into 50 Ohms, at 3 MHz PRF and 3 ns pulse width:

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



“MI” output of AVX-S1-P2B into 50 Ohms, at 3 MHz PRF and 3 ns pulse width:

1 ns/div. 200 mV/div (20 mV/div × 20 dB):



A 1N4148 diode in series with 20 Ohms was installed in the output module socket. The device inductance and non-zero turn-on time (forward recovery time) cause the leading-edge spike seen above. The voltage spike decreases significantly if a DC bias is added to the diode, so that it is biased slightly “on” before the pulse.