AVTECH

AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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CANADA K2C 3H5

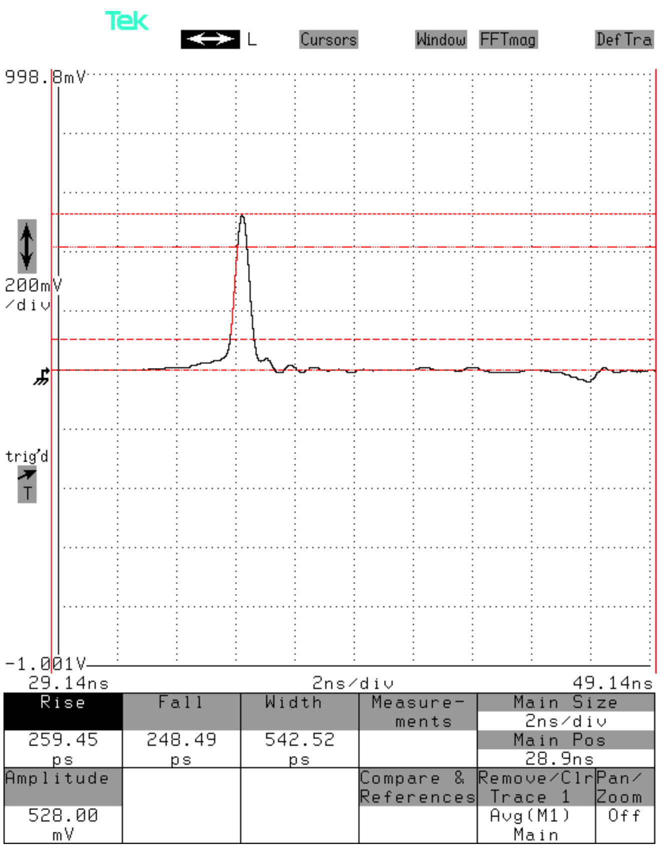
PERFORMANCE CHECKSHEET

Model:	AVO-9A5-B-P2-P-KTA-TRA	Output Amplitude:	up to +53V, to 50Ω
Type:	Ultra-High-Speed Laser Diode Driver	Pulse Width (FWHM):	1 - 10 ns
S.N.:	13327	Rise Time (20%-80%):	≤ 500 ps
Date:	September 1, 2015	Fall Time (80%-20%):	≤ 1 ns
		PRF:	1 Hz – 1 MHz
Basic specifications: →		Jitter, Stability:	OK
		Prime Power:	100-240V AC, 50-60 Hz.

Test Waveforms

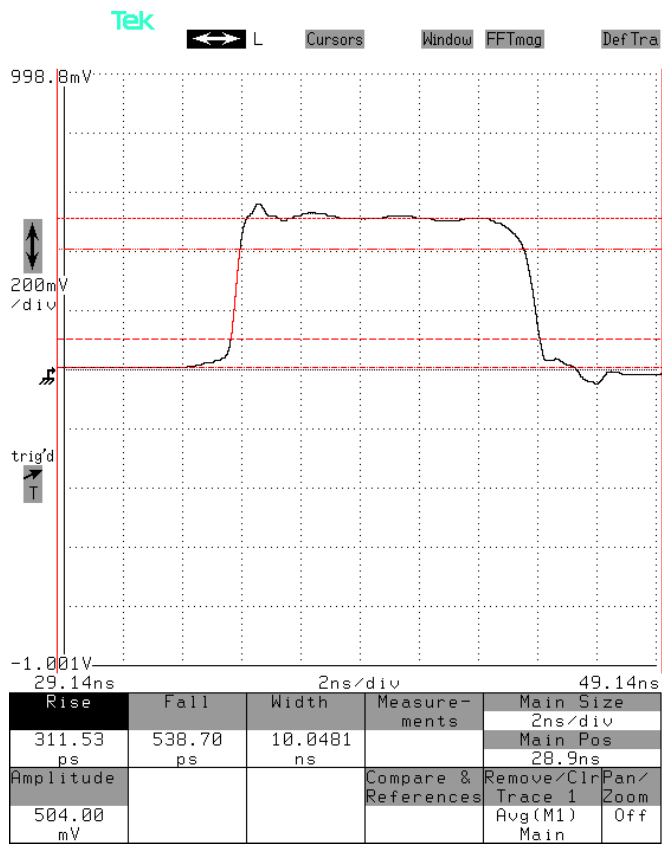
Mainframe output into 50 Ohm load at 1 MHz,
< 1 ns, +53V,

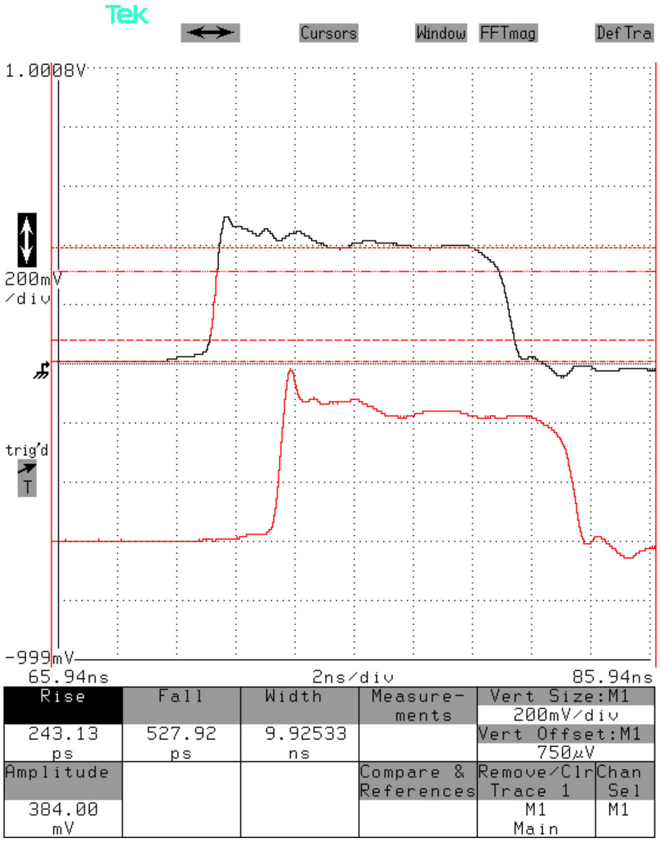
2 ns/div. 20 V/div (200 mV/div × 40 dB):



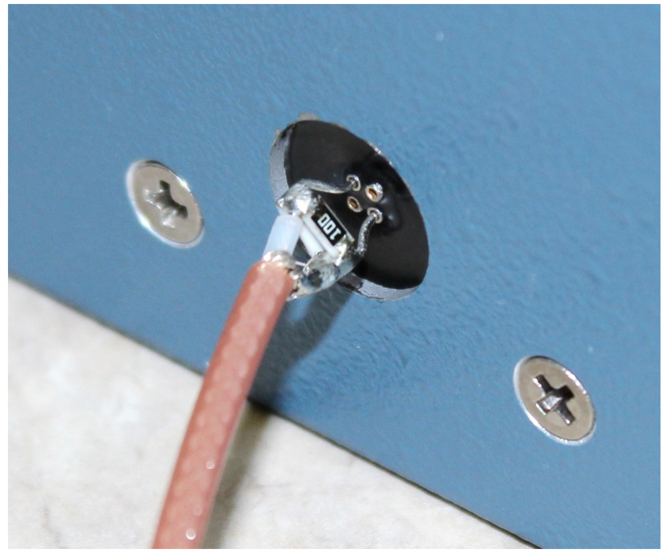
Mainframe output into 50 Ohm load at 1 MHz,
10 ns, +50V,

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





Test method: Short leads are soldered across two 10Ω chip resistors in parallel. 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 Ω || 50 Ω (R_{SCOPE}) = 4.5 Ω.



Top waveform: Voltage across the parallel combination of the 4.5 Ω effective resistance. It should be approximately (+50V / 54.5Ω) × 4.5Ω = +4.1V in amplitude, which agrees approximately with the observed waveform.

Bottom waveform: “MI” output, approximately +50V / 11.

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

Mainframe output into 50 Ohm load at 1 MHz, 10 ns, +50V, with >1 ns rise time mode (-TRA option)

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