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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

Output Amplitude:
Pulse Width (FWHM): $0.6 \mathrm{~ns}-1$ us
Rise Time (20\%-80\%): $\leq 200$ ps
Fall Time (80\%-20\%): $\leq 200 / 500$ ps
PRF: $\quad 1 \mathrm{~Hz}-100 \mathrm{kHz}$
Jitter, Stability: OK
Prime Power: $\quad 100-240 V \mathrm{AC}, 50-60 \mathrm{~Hz}$.

## Test Waveforms

Mainframe output into 50 Ohm load at 100 kHz, $600 \mathrm{ps},>+20 \mathrm{~V}$,
$1 \mathrm{~ns} /$ div. $10 \mathrm{~V} / \mathrm{div}(100 \mathrm{mV} / \mathrm{div} \times 40 \mathrm{~dB})$ :


Mainframe output into 50 Ohm load at 100 kHz, 4 ns, +23V,
$1 \mathrm{~ns} /$ div. $10 \mathrm{~V} /$ div ( $100 \mathrm{mV} / \mathrm{div} \times 40 \mathrm{~dB}$ ):


Mainframe output into 50 Ohm load at 100 kHz, $30 \mathrm{~ns},+23 \mathrm{~V}$,
$5 \mathrm{~ns} /$ div. $10 \mathrm{~V} / \mathrm{div}(100 \mathrm{mV} / \mathrm{div} \times 40 \mathrm{~dB}$ ):


Mainframe output into 50 Ohm load at 10 kHz , 1 us, +23V,
$200 \mathrm{~ns} /$ div. $10 \mathrm{~V} / \mathrm{div}(100 \mathrm{mV} / \mathrm{div} \times 40 \mathrm{~dB}$ ):


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 ( $\mathrm{S} / \mathrm{N}$ 13726) pulse generator. It should be approximately $>0.4 \mathrm{~A} \times 4.54 \Omega=1.82 \mathrm{~V}$, which agrees with the observed waveform. 1V/div (= $100 \mathrm{mV} / \mathrm{div} \times 20 \mathrm{~dB}$ ), $2 \mathrm{~ns} / \mathrm{div}$.

Bottom: "MI" output, 1V/div (= $100 \mathrm{mV} /$ div $\times 20$ dB), 2 ns/div.

Test method: Short leads are soldered to two $10.0 \Omega$ 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 $10 \Omega \| 10 \Omega| | 50 \Omega$ $\left(R_{\text {sCope }}\right)=4.54 \Omega$.


