PERFORMANCE CHECKSHEET

Model: AVO-9A3-B-P-P2B-AK1-AC22
Type: Ultra-High-Speed Laser Diode Driver
S.N.: 13108
Date: January 30, 2014

Basic specifications:
- Output Amplitude: up to +43V, to 50Ω
- Pulse Width (FWHM): 0.4 – 2 ns
- Rise Time (20%-80%): ≤ 200 ps
- Fall Time (80%-20%): ≤ 300 ps
- PRF: 1 Hz – 1 MHz
- Jitter, Stability: OK
- Prime Power: 100-240V AC, 50-60 Hz.

Test Waveforms

Mainframe output into 50 Ohm load at 1 MHz, 0.4 ns, +40V,
500 ps/div. 10 V/div (100 mV/div × 40 dB):

Mainframe output into 50 Ohm load at 10 kHz, 2 ns, +43V,
500 ps/div. 10 V/div (100 mV/div × 40 dB):
With mainframe set at +43V, 10 kHz, 2 ns pulse width:

500 ps/div, 5 V/div (50 mV/div × 40 dB):

Voltage across a 20 Ohm resistance installed between the anode and cathode pin sockets of the output module (simulating a diode DUT with a dV/dI of 20 Ohms at lasing).

The observed output current is:

\[ \frac{16.2V}{20 \text{ Ohms}} = 810 \text{ mA} \]

Test method: Two 68 Ohm 1206-package resistors were soldered in parallel, with extremely short leads soldered on that plugged into the sockets. A coaxial cable was also soldered across the two resistors, leading to the 50 Ohm input of the oscilloscope. The total load impedance is:

\[ 68 || 68 || 50 = 20 \text{ Ohms}. \]