PERFORMANCE CHECKSHEET

Model: AVO-9A3-B-W4-AC18-P1B-T1B
Type: Ultra-High-Speed Laser Diode Driver
S.N.: 13496
Date: October 20, 2016

Basic specifications: →

Output Amplitude: up to +43V, to 50Ω
Pulse Width (FWHM): 0.4 – 4 ns
Rise Time (20%-80%): ≤ 200 ps
Fall Time (80%-20%): ≤ 450 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 10 kHz, 1 ns, +40V,
500 ps/div. 10 V/div (100 mV/div × 40 dB):

Mainframe output into 50 Ohm load at 100 kHz, >4 ns, +43V,
1 ns/div. 10 V/div (100 mV/div × 40 dB):
Top waveform: Voltage across the parallel combination of the 4.5 Ω effective resistance. It should be approximately \((+40V \div 54.5 \Omega) \times 4.5\Omega = +3.3V\) in amplitude, which agrees with the observed waveform.

Bottom waveform: “MI” output, approximately +40V / 11.

Both: 1 ns/div, 2 V/div (200 mV/div × 20 dB).

Test method: Short leads are soldered to a 5.1Ω chip resistor. A coaxial cable is soldered across the resistor. The signal lead is inserted into the anode pin socket. The grounded lead is inserted into the cathode pin socket. The total effective resistor is \(5.1 \Omega \parallel 50 \Omega (R_{SCOPE}) = 4.6 \Omega\).