

AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS SINCE 1975

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BOX 5120, LCD MERIVALE OTTAWA, ONTARIO CANADA K2C 3H5

PERFORMANCE CHECKSHEET

Model: AVX-S1-INV-P1C-T1C-ACTA Type: High-Bandwidth Output Module

S.N.: 13069

Date: September 19, 2013

Rise Time and Anode/Cathode Continuity Check

Test method: Short leads are soldered to a 33 Ω chip resistor. A coaxial cable is soldered across the resistor. The signal lead is inserted into the cathode pin socket. The grounded lead is inserted into the anode pin socket. The total effective resistor is 33 Ω || 50 Ω (R_{SCOPE}) = 19.9 Ω .

The pulse source is an AVM-2-C operating at +15V, 2.5 ns.





Bottom: "MI" output. 1V/div ($100 \text{ mV/div} \times 20 \text{ dB}$). This shows that the pulse amplitude after the inverting transformer is $-1.2V \times 11 = -13.2V$, approximately. (There is $\sim 12\%$ loss in the transformer).

Top: Voltage measured across the resistor. It should be \approx (-13.2V × 19.9 Ω / 49.9 Ω) = -5.3V, which agrees with the observed waveform. 2V/div (= 200 mV/div × 20 dB), 2 ns/div.