AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
ENGINEERING – MANUFACTURING

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INSTRUCTIONS

MODEL AVX-S-FOICA BIAS TEE

S.N.:

WARRANTY

Avtech Electrosystems Ltd. warrants products of its manufacture to be free from defects in material and workmanship under conditions of normal use. If, within one year after delivery to the original owner, and after prepaid return by the original owner, this Avtech product is found to be defective, Avtech shall at its option repair or replace said defective item. This warranty does not apply to units which have been dissembled, modified or subjected to conditions exceeding the applicable specifications or ratings. This warranty is the extent of the obligation or liability assumed by Avtech with respect to this product and no other warranty or guarantee is either expressed or implied.

Fig. 1 BIAS INSERTION UNIT TEST ARRANGEMENT

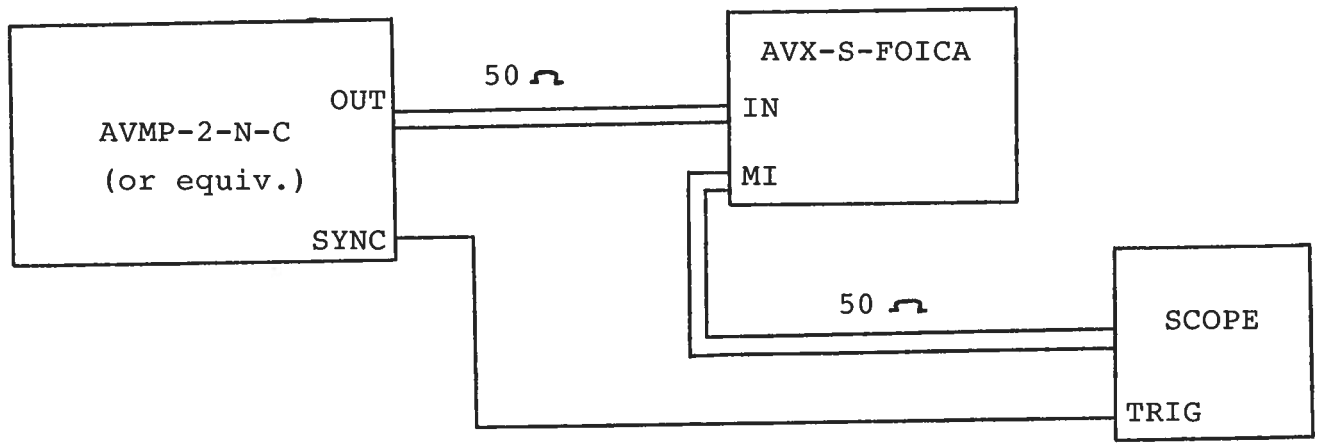
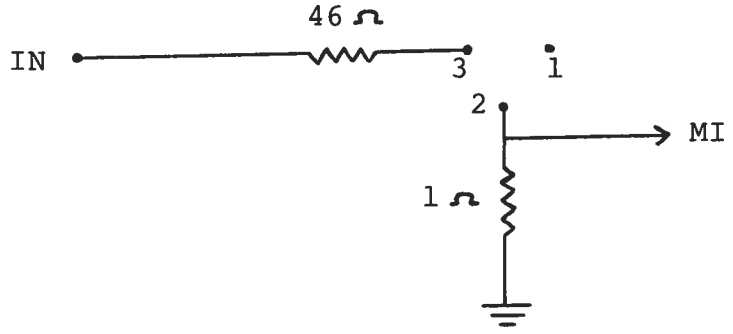


Fig. 2 FUNCTIONAL EQUIVALENT CIRCUIT



PIN 3: Cathode

PIN 2: Anode

PIN 1: Anode

Notes:

1) The laser diode was tested using the arrangement shown in Fig. 1. Note that the case of the diode is not at ground when inserted in the socket.

2) MI output waveforms for input waveforms with 100 psec and 3 nsec transition times are shown in Figs. 3 and 4. Note that the diode junction capacitance (probably 1 to 2 pfd) results in the large spikes at the transition times, particularly for the 100 psec case.

3) The optical output was monitored using an NEC 1102 photo diode (see Fig. 5). An optical rise and fall time of about 5 nsec was observed. The corresponding MI output is shown in Fig. 6. Since the NEC 1102 is specified as having a rise time of less than 1 nsec, it was concluded that the laser diode rise time was of the order of 5 nsec.

04.30.90