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NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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INSTRUCTIONS

MODEL AV-TRR-SSDA T_{RR} TEST JIG

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 disassembled, modified or subjected to conditions exceeding the applicable specifications or ratings. This warranty is the extent of the obligation assumed by Avtech with respect to this product and no other warranty or guarantee is either expressed or implied.

TECHNICAL SUPPORT

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- 1) The test jig has the basic functional equivalent circuit shown in Fig 1. Note that I_R and I_F are given by the following:

$$I_R \approx \frac{0.5V_{IN}}{12} - I_F$$

$$I_F \approx \frac{V_{DC} - V_F}{12}$$

- 2) The D.U.T. is to be placed on the two "contact" posts (see Fig. 2) with the cathode towards the "IN" SMA and the anode towards the OUT SMA. I_F will flow only when the test diode is in position. If necessary, the contact posts may be modified by applying solder (use minimal heat).
- 3) I_F must not exceed 1.0 Amp as this may cause severe overheating.
- 4) The display scope should have a bandwidth of at least 1 GHz. It is recommended that a 20 db attenuator be placed at the input to the scope.
- 5) A 6 db attenuator should be placed on the output of the AVR-E3-C unit (to limit I_R to 1.0 Amp) and to avoid reverse breakdown of the diode under test.
- 6) Typical output waveforms are shown on the attached.

For additional assistance:

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$$I_F \approx \frac{V_{DC} - V_F}{R}$$

$$I_R \approx \frac{0.5 V_{IN} - I_F}{R}$$

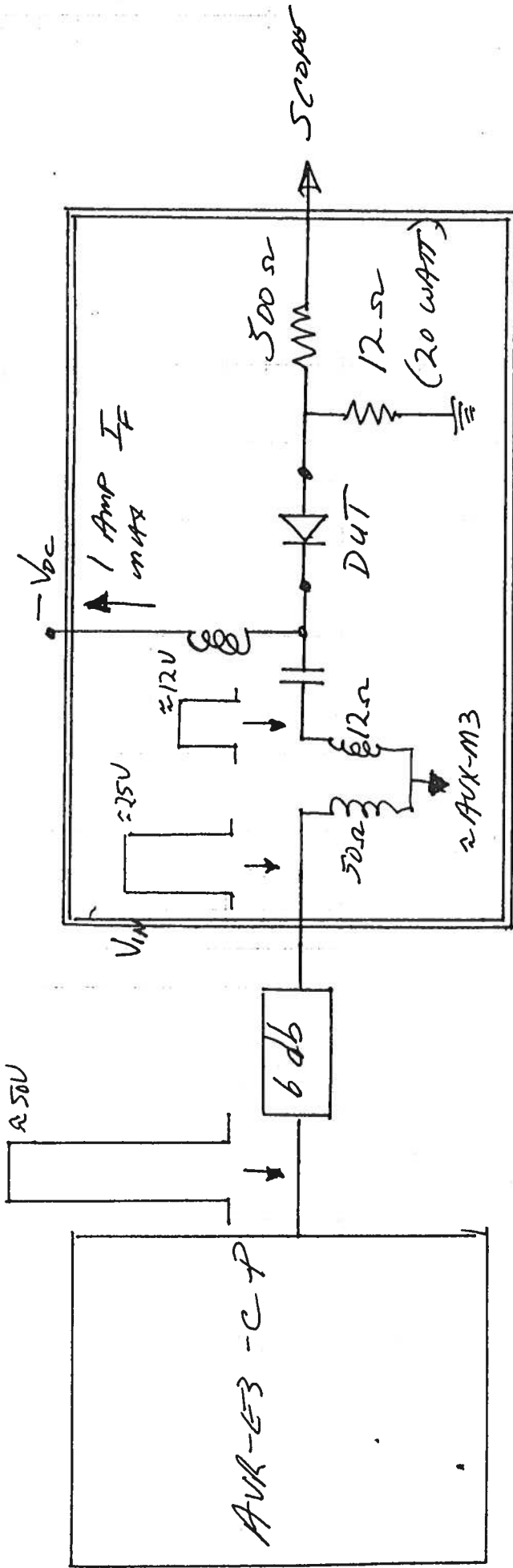


Fig 7

1/4R TEST OF 1/4 MODER AV-TRR-SSD1

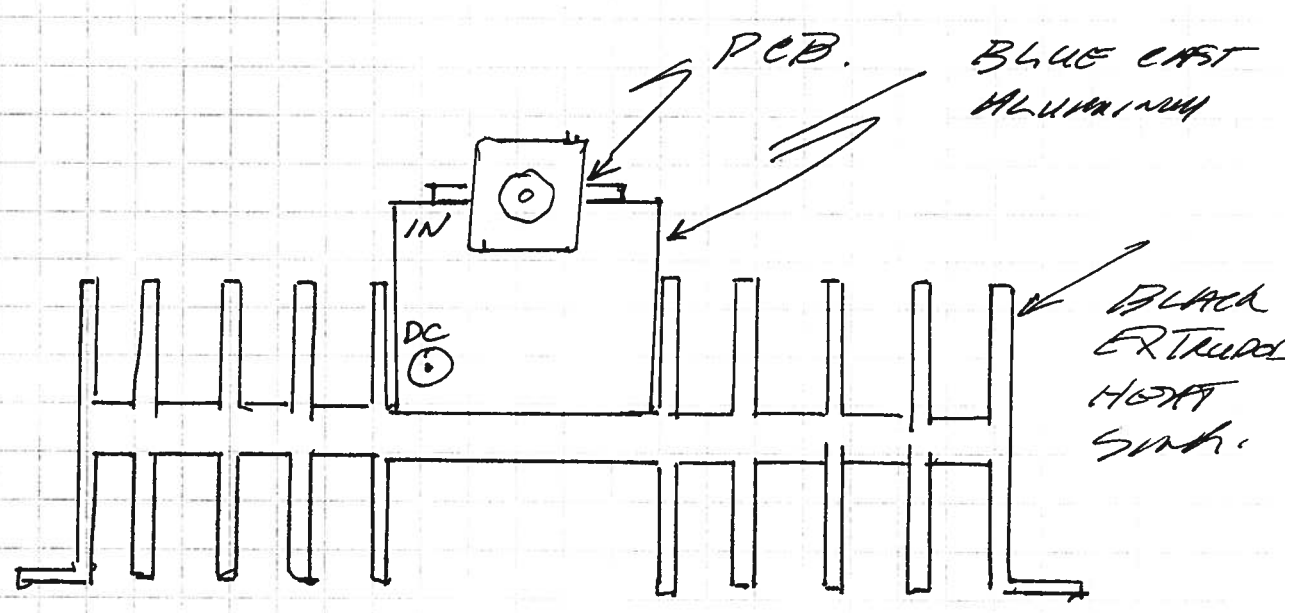
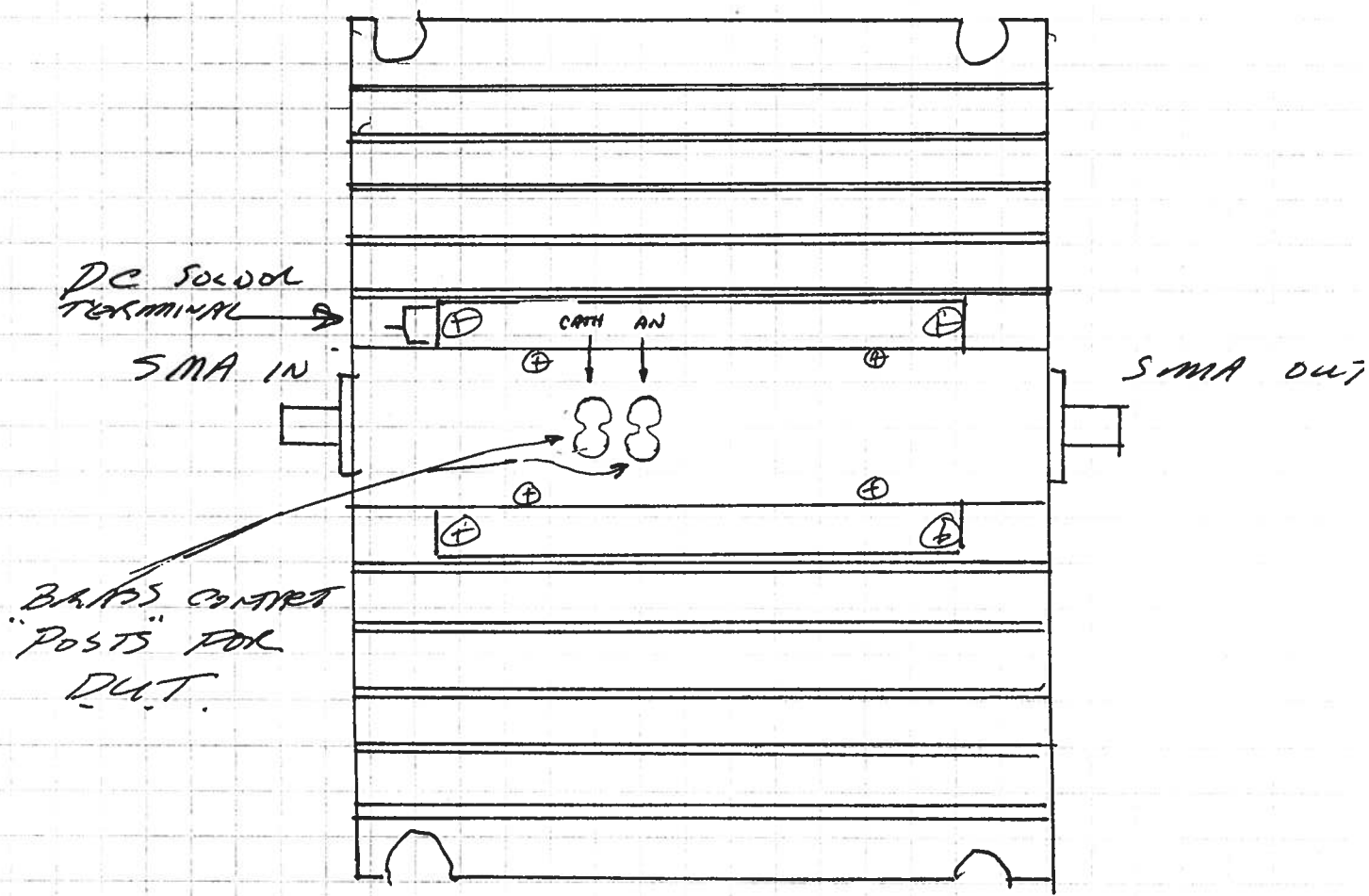
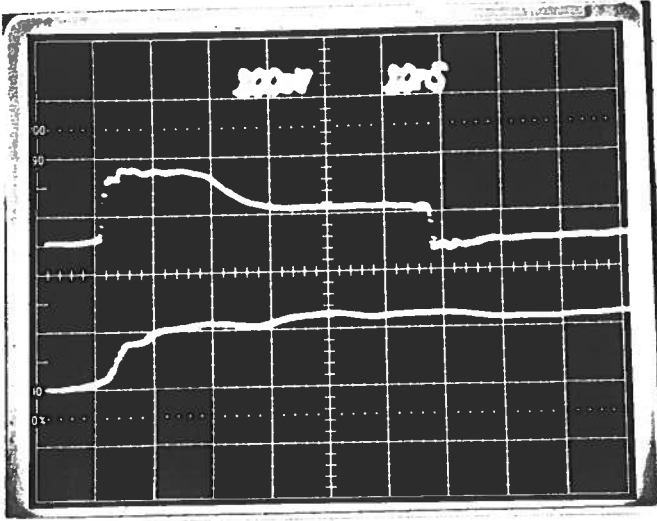


Fig 2. MODEL HV-TRR-SSDA $\approx 1:1$

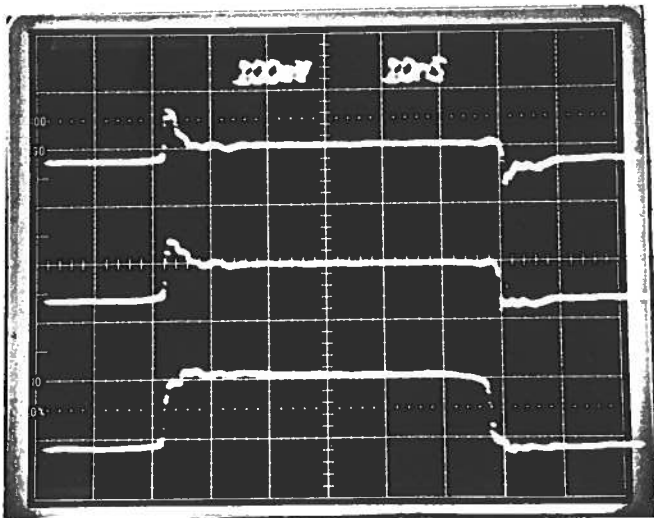


1N5811

$V_{IN} = 25 \text{ V}$
 $I_F = 500 \text{ mA}$
 10NS/DIV
 1V/DIV



S.S.P. SCHOTTKY TEST
 DIODE



$I_F = 250 \text{ mA}$
 $I_F = 500 \text{ mA}$
 $I_F = 10 \text{ AMP}$ } $V_{IN} = 25 \text{ V}$

December 15/97

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