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NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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INSTRUCTIONS

MODEL AV-141D AMPLIFIER

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 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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Manual Reference: Q:\office\instructword\AV-141\141D-EDC-fig.doc, created November 17, 1999

GENERAL OPERATING INSTRUCTIONS

The Model AV-141D amplifier is designed to amplify bipolar nanosecond rise time baseband pulses in the pulse width range of about 5.0 ns and higher and CW signals in the frequency range of DC to 150 MHz. The basic specifications for the unit are as follows:

Gain:	$\geq$ 20 dB
Peak output voltage:	$\pm$ 3 Volt
Rise time:	$<$ 3 ns
Impedance level:	50 Ohms nominal
Bandwidth:	DC to 150 MHz
Max. noise figure:	3.2 nV/$\sqrt{}$Hz
Prime power:	+ 15 Volts, 50 mA max - 15 Volts, 50 mA max
Connectors:	SMA
Size:	1.4 x 1.1 x 2.3 inches

1) The DC offset on the output may be set to zero by making minor adjustments to the OS trim pot on the "OUT" end of the chassis.

2) CAUTION: The unit may be damaged if the DC voltage power supply voltage exceeds ±18.0 Volts or if the power supply voltages are reversed. The 1N4746A zener diodes are installed across the ±15 VDC input terminals to protect the unit against these factors. Note that the input power supply voltages may be as low as ±7 Volts.

3) CAUTION: The input to this amplifier does not include any overload protection and so it may be damaged if subjected to high amplitude spurious outputs such as those provided by some PMT. The warranty does not apply to such failures.

FIG. 1: AMPLIFIER TEST ARRANGEMENT