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INSTRUCTIONS

**MODEL AV-144B1
TTL INPUT, +20V OUTPUT
PULSE AMPLIFIER
WITH 2 ns RISE AND FALL TIMES**

SERIAL NUMBER: _____

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.

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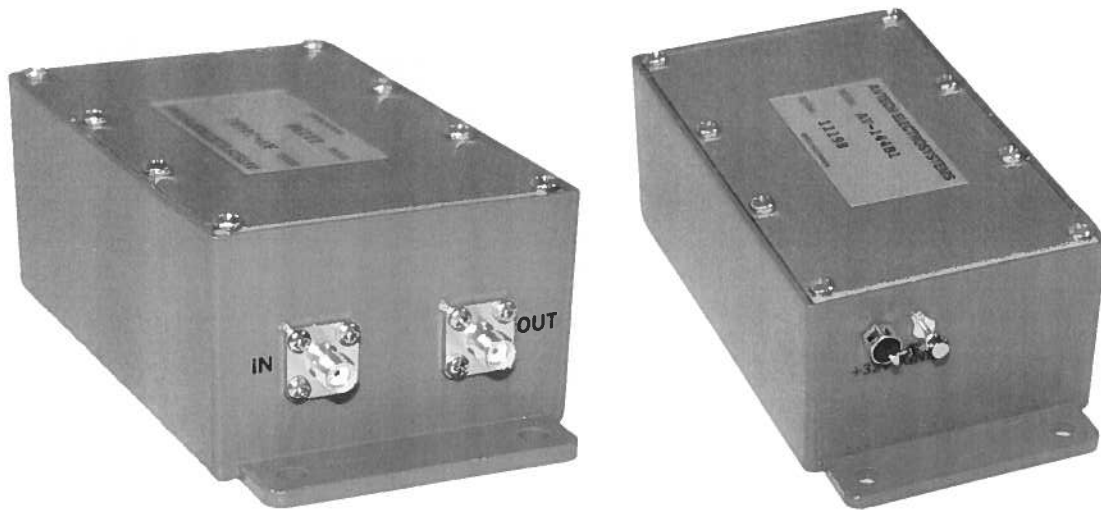
INTRODUCTION

The Model AV-144B1 is a DC-powered amplifier module, designed to amplify TTL input pulses. The output pulses are +20V in amplitude, approximately, and can drive 50 Ohm loads.

SPECIFICATIONS

Model:	AV-144B1
Output amplitude ($R_L = 50 \Omega$):	+20V
Input amplitude:	TTL (+3 to +5 Volts)
Rise, fall time (20%-80%):	≤ 2 ns
Input impedance:	≥ 1 k Ω
Output impedance:	10 Ohms
Overshoot:	$\leq 5\%$
Prime power:	+32V DC (± 1 V)
Connectors:	SMA
Dimensions:	43 mm x 66 mm x 107 mm (1.7" x 2.6" x 4.2")

CONTROLS



The IN and OUT connectors are shown in the photo above, on the left. The +32V and GND terminals are shown in the photo on the right.

POWER SUPPLIES

The AV-144B1 must be supplied with a DC power supply of +32V, plus or minus 1V. The internal DC voltages are internally regulated.

The power supply input is protected from excessive voltages and incorrect polarities by externally-mounted (and replaceable) 1N4753A Zener diode. This diode may be damaged by reversed polarities, or voltages exceeding 36V.

At duty cycle higher than 25% or frequencies higher than 10 MHz, the unit should be bolted to a heat sink to ensure that it does not overheat.

June 2/05