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SINCE 1975

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INSTRUCTIONS

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

SERIAL NUMBER: _____

WARRANTY

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Manual Reference: /files/officefiles/instructword/av-144/av-144b1,edition3.sxw.
Last modified February 29, 2024.
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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%):	$\leq 2 \text{ ns}$
Input impedance:	$\geq 1 \text{ k}\Omega$
Output impedance:	10 Ohms
Overshoot:	$\leq 5\%$
Prime power:	+32V DC ($\pm 1V$)
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.

PERFORMANCE CHECK SHEET