



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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BOX 5120 STN. F
OTTAWA, ONTARIO
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INSTRUCTIONS

MODEL AV-134-PS-R4-LIB1 PULSE GENERATOR

S.N. :

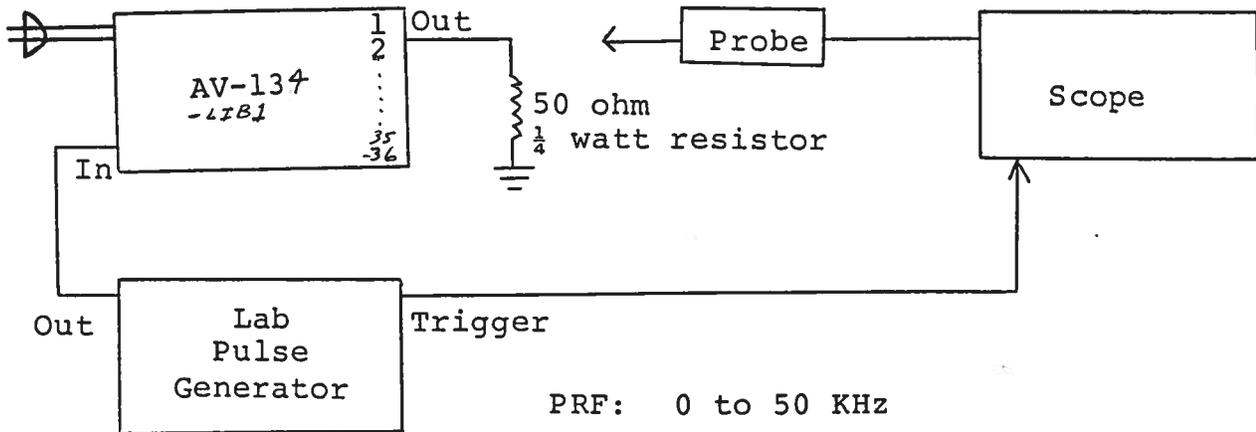
WARRANTY

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 or liability assumed by Avtech with respect to this product and no other warranty or guarantee is either expressed or implied.

MODEL AV-134 PULSE AMPLIFIER

TEST ARRANGEMENT

120/240V
50-60 Hz



PRF: 0 to 50 KHz

PW: 3 to 6 ns :

TR: ≤ 1 ns

AMP: +1 volt

Z_{OUT}: ≤ 50 ohms

GENERAL OPERATING NOTES

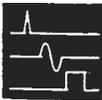
- 1) All 36 channels must be terminated in a 50 ohm load when prime power is applied to the instrument.
- 2) The output rise time should be checked using a scope having a bandwidth of at least 10 GHz.
- 3) The general specifications for the unit are given on a following page. The propagation delay was checked using a sampling scope and determined to be 5.3 ± 0.2 ns.
- 4) The propagation delay for each channel may be adjusted (± 0.1 ns) using the ten turn trim pots which are accessible in the interior of the instrument. Instructions for removing the top cover are given below. The numbers on the trim pots correspond to the numbers on the output connectors.
- 5) The AV-134-PS unit can be converted from 110 to 220V 50-60 Hz operation by adjusting the voltage selector card in the rear panel fused voltage selector-cable connector assembly.
- 6) For additional assistance:

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TOP COVER REMOVAL AND RACK MOUNTING

- 1) The interior of the instrument may be accessed by removing the four Phillips screws on the top panel. With the four screws removed, the top cover may be slid back (and off).
- 2) The -R5 rack mount kit may be installed after first removing the one Phillips screw on the side panel adjacent to the front handle.



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Fax Ref No: 5960

From: Avtech Electrosystems Ltd.

To: Lyons Instruments Ltd.

Our Fax No: 613-226-2802

Date: Feb. 17, 1993

Attn: Simon Wordingham

Receivers
Fax No: _____

Subject: Your FAX dtd. Feb. 17/93

No. pages
Faxed: 2

We quote as follows:

Model designation:

AV-134-PS-R4-LIB1.

Input:

+1 Volt pulse, rise time > 150 ps,
fall time > 300 ps, PW 3 to 6 ns.
50 Ohms input impedance.

Output:

36 identical outputs of +1 Volt
to 50 Ohms with a fixed rise time
less than 150 ps (not a function
of input rise time). Fall time
equals input fall time.

Jitter:

Input to output ≤ 100 ps.
Output to output ≤ 20 ps.

Relative propagation delay:

36 channels matched to within ± 1 ns.

Absolute propagation delay:

7 ns.

PW:

Specifically designed for 3 to 6 ns.

Package style:

4" x 17" x 15" (AVTECH new heavy
duty chassis as per Model AV-1010-C).
Supplied with 19" rack mount wings.

Connectors: SMA (all connectors on rear panel).

Prime power: 120/240V, 50-60 Hz.

At this point in time we hesitate to promise 6 ns since this unit is considerably more complex than the original 133 unit and with complexity comes delay. Can they live with 7 ns?

Rgds



Dr. Walter Chudobiak
Chief Engineer

WC:pr

FAX MEMO S/No. _____

RECEIVED FEB 17 1993

LYONS INSTRUMENTS

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Facsimile: (0992) 444513

ATTENTION OF: Dr WALT CITUROBIAX

Our Fax No. 0992 444513
International: +44-992-444513

TO: AVTECH ELECTROSYSTEMS

Your Ref: _____

FROM: SIMON WORNWELLHAM

Our Ref: _____

SUBJECT: AV-134. PROPAGATION DELAY

Date: 17/2/93

No. PAGES FAX'D: 1
(incl. this cover sheet)

Receivers Fax No: 0101 613 226 2802

PROP DELAY OF 25ns IS PROVING A PROBLEM WITH THIS JOB.

A.W.E. REQUIRE PERFORMANCE OF AV-134 BUT WITH PROP DELAY OF UNIT ORIGINALLY SUPPLIED - AV 133. CAN YOU BE HELP?

REGARDS
Simon
