



AVTECH ELECTROSYSTEMS LTD.  
NANOSECOND WAVEFORM ELECTRONICS

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✕ BOX 5120 STN. F  
OTTAWA, ONTARIO  
CANADA K2C 3H4  
TEL: (613) 226-5772  
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INSTRUCTIONS

MODEL AV-HVX-LA1 PULSE GENERATOR

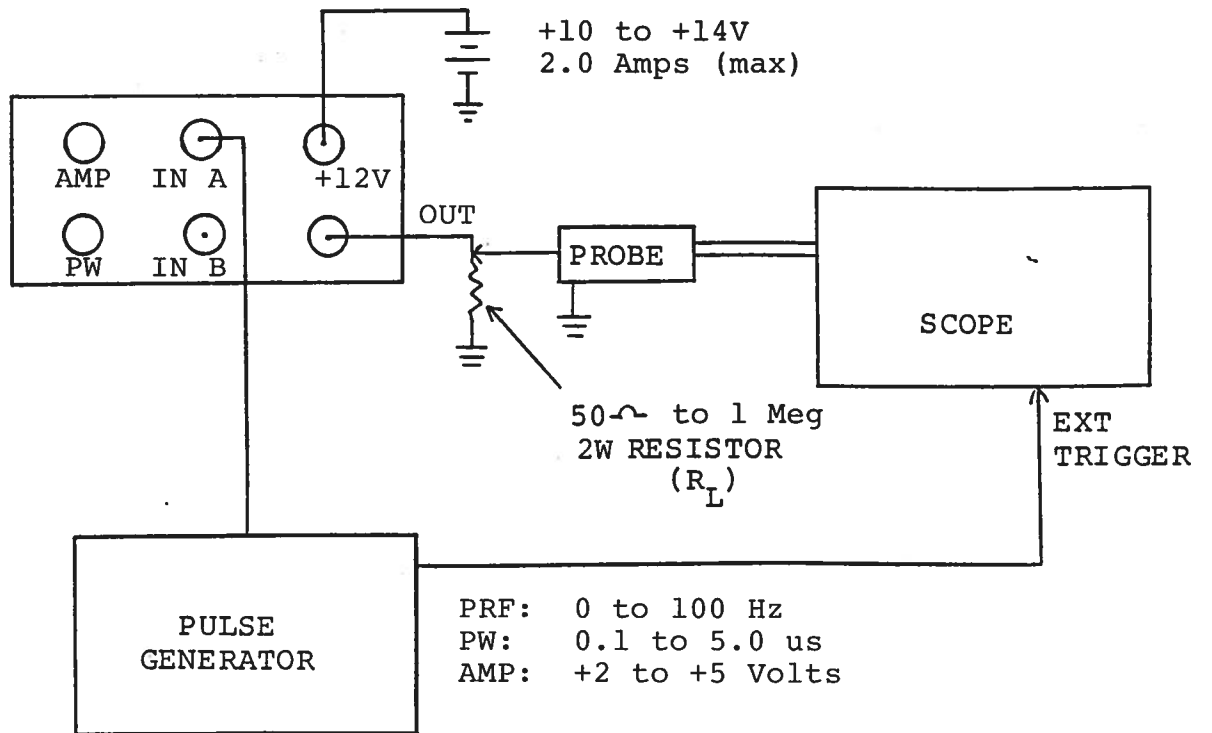
S.N.:

### 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.

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TEST ARRANGEMENT



## GENERAL OPERATING INSTRUCTIONS

- 1) The equipment should be connected in the general fashion shown above. Since the HVX unit provides an output pulse rise time as low as 20 ns a fast oscilloscope (at least 50 MHz) should be used to display the waveform. Also, if a load of other than 50 Ohm is employed, the length of coaxial cable between the HVX unit and the load should not exceed about 5 feet or the output waveform may be degraded by the resulting reflections.
- 2) The magnitude of the output pulse is controlled by the front panel one turn pot (AMP). Maximum clockwise rotation of the pot provides the maximum output (+600 Volts).
- 3) When the TTL input trigger is applied to IN A, the output pulse width is controlled by the front panel one turn pot (PW). (100 ns to 600 ns).
- 4) When the TTL input trigger is applied to IN B, the output pulse width equals the input trigger pulse width.
- 5) Under simultaneous conditions of wide pulse width, high PRF and high load current, the bias voltage applied to the output power stage decreases and as a result the attainable output peak voltage decreases to less than 600 volts, and in severe cases, the output stage of the unit may be damaged. THEREFORE, DO NOT EXCEED THAT RATED MAX PRF OF 100 Hz OR THE MAX PW OF 600 ns. Also, the max supply current should never exceed 2.0 Amperes.
- 6) It is recommended that the module be secured to a heat sink.
- 7) For additional assistance:

Tel: 1-800-265-6681  
Fax: 613-226-2802



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Fax Ref No:	<u>5834</u>	From:	Avtech Electrosystems Ltd.
To:	<u>Los Alamos National Lab,</u> <u>Mail Stop P947, Group J-8,</u> <u>Los Alamos, NM</u>	Our Fax No:	<u>613-226-2802</u>
Attn:	<u>Larry Earley</u> <u>Tel: 505-667-5255</u>	Date:	<u>January 8, 1993</u>
Subject:	<u>Your fax dtd. Jan. 7/93</u>	Receivers Fax No:	<u>505-665-2650</u>
		No. pages Faxed:	<u>2</u>

I am pleased to provide a price and delivery quotation for a special purpose pulse generator meeting the following specifications:

Model designation: AV-HVX-LA1.

Output amplitude: 0 to +600 Volts to  $R_L \geq 50$  Ohms (to be used as a spark gap driver). Amplitude controlled by a one turn locking pot.

Output pulse width: 100 ns to 600 ns. Controlled by a one turn locking pot (when TTL trigger applied at IN A) or controlled by input pulse width when triggered at IN B.

Rise, fall time:  $\leq 30$  ns.

Propagation delay time: IN A mode:  $\leq 135$  ns.  
 IN B mode:  $\leq 110$  ns.

PRF: 0 to 100 Hz. Output PRF equals input PRF.

Output impedance:  $\leq 2$  Ohms.

Prime power: +10 to +14 VDC, 2.5 Amp.

Chassis size: 1.7" x 4.22" x 8.32".

Chassis material: Cast aluminum, blue enamel.

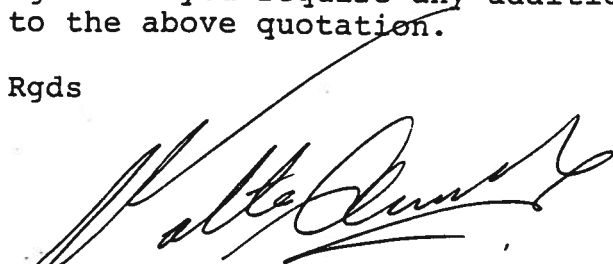
Connectors: IN A: BNC Note that if  
IN B: BNC SMA preferred,  
OUT: BNC add -SMA to  
DC IN: BNC model number

Price: Quantity of 1: \$2,295.00 US each,  
FOB destination.  
Quantity of 12: \$1,795.00 US each,  
FOB destination.

Delivery: Quantity of 1: 10 days.  
Quantity of 12: 45-60 days.

Thank you for your interest in our products. Please call me again if you require any additional information or modifications to the above quotation.

Rgds



Dr. Walter Chudobiak  
Chief Engineer

WC:pr

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