

# AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS  
ENGINEERING - MANUFACTURING

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## INSTRUCTIONS

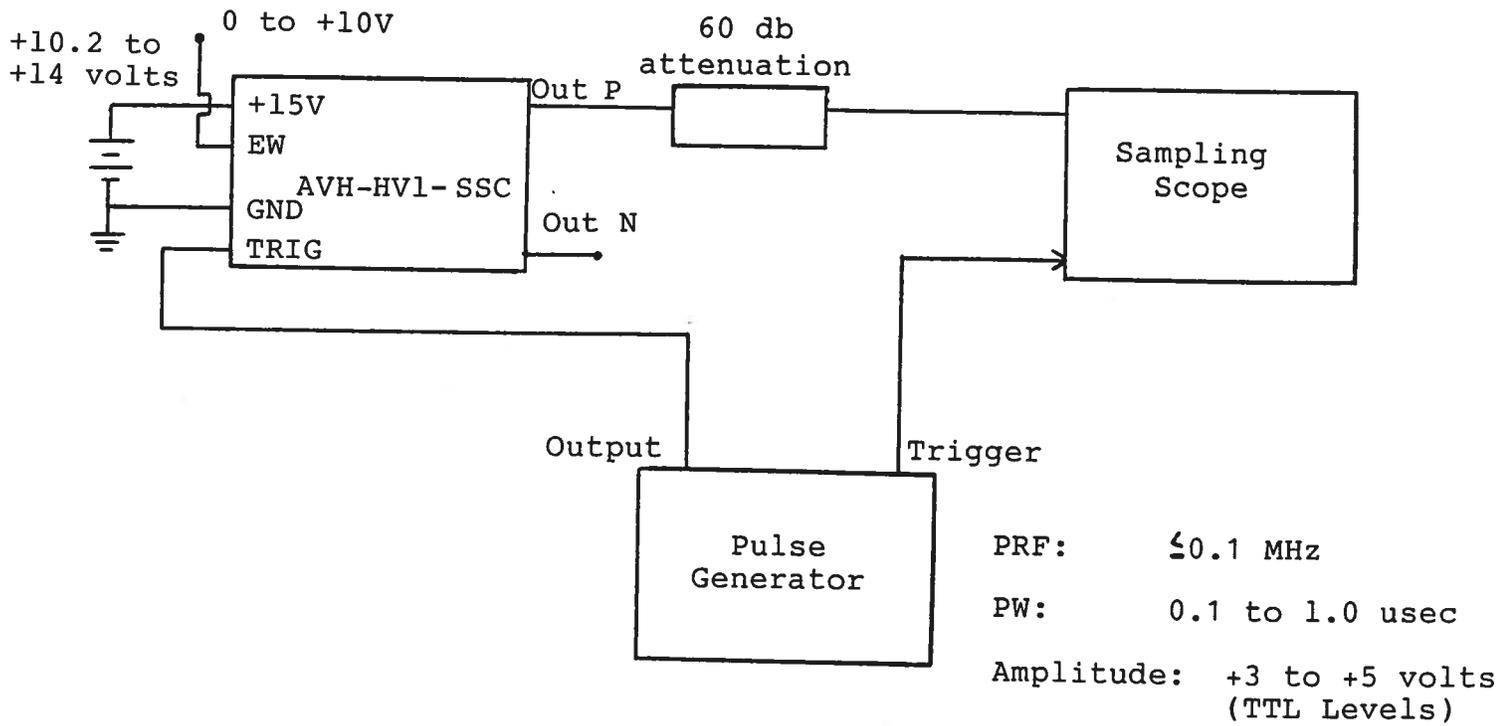
MODEL AVH-HV1-PN-SSC IMPULSE GENERATOR

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.

IMPULSE GENERATOR TEST ARRANGEMENT



Notes:

- 1) The bandwidth capability of components and instruments used to display the impulse generator output signal (attenuators, cables, connectors, etc.) should exceed ten gigahertz.
- 2) The use of 60 db attenuation will insure a peak input signal to the sampling scope of less than one volt.
- 3) In general, the pulse generator trigger delay control should be set in the 100 nsec. range. Other settings should be as shown in the above diagram. The impulse generator output is delayed with respect to the trigger input signal by about 30 nsec (typically).
- 4) The delay of the N channel with respect to the P channel may be varied by about  $\pm 100$  ps by means of a 10 turn trim pot which is accessible via a hole in the side of the chassis.
- 5) The output pulse width may be varied from about 600 ps to 2.0 ns by varying the potential at the EW terminal from 0 to +10 volts ( $R_{IN} > 10K$ ).
- 6) The impulse generator can withstand an infinite VSWR on the output port.

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Fax No:	3952	Our Fax No:	613-226-2802
To:	Sensors and Software	Your Ref No:	
		Our Ref:	
Attn:	David Leggatt	Date:	May 14, 1991
	Tel: 416-624-8909		
From:	Avtech Electrosystems Ltd.	Receivers Fax No:	416-624-9365
Subject:	Impulse Generator Quote	No. pages faxed:	3

With reference to our recent telephone conversations, I am pleased to provide the following price and delivery quotation:

Model designation:	AVH-HV1-PN-SSC.
Function:	Simultaneous +100 and -100 volt impulse outputs (to 50 ohms). Pulse width variable from 2 ns to 0.6 ns via 0 to +10 volt control voltage.
Output amplitude:	+100 and -100 volts (fixed).
Output pulse width:	Variable from 0.6 ns to 2.0 ns.
Rise time:	Approx. 250 ps (fixed).
Fall time:	Varies from 250 ps to 1.7 ns.
PRF:	0 to 100 KHz.
Propagation delay:	≤ 50 ns.
Jitter:	+15 ps.

Trigger required: +5 volts, 50 to 500 ns (TTL).  
Include filtering on input line.

Prime power: +10.2 to +14 volts, 350 mA.

Input connectors: Solder terminals.

Output connectors: SMA (slip on, Omni Spectra  
Part No. 4503-7985-00).

Package size: 4 cm x 7.7 cm x 21.4 cm  
(1.57" x 3" x 8.4").

See enclosed sketch. Please  
advise desired 4-40 mounting  
hole positions.

Package material: Aluminum.

Price: \$1,695.00 US each,  
quantity of 1 to 5.

Delivery: 30 days ARO.

PST, GST: Extra if applicable.

FOB: Destination.

Thank you for your continuing interest in our products. Please do not hesitate to contact me if you require any additional information or modifications to the above specifications.

Rgds



Walter J. Chudobiak  
Chief Engineer

WJC:pr

07.09.91