AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
ENGINEERING – MANUFACTURING

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INSTRUCTIONS

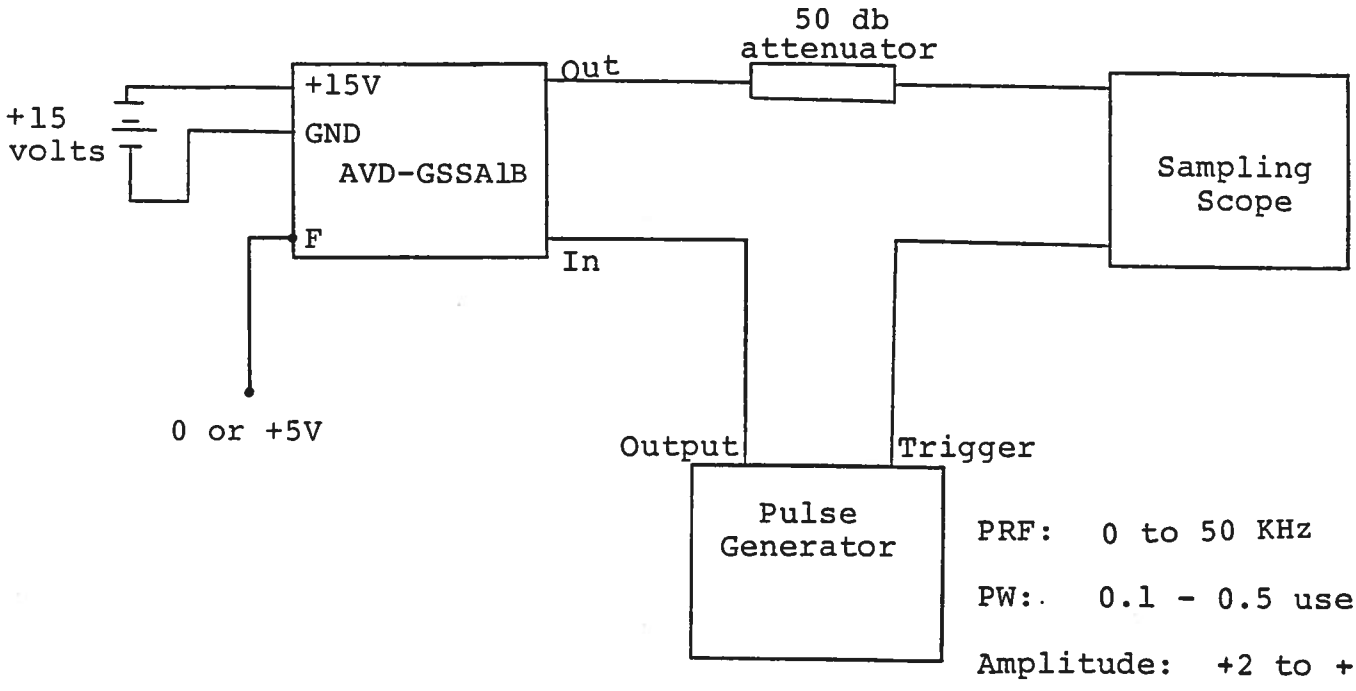
MODEL AVD-GSSA1B MONOCYCLE GENERATOR

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 dissembled, 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.

MONOCYCLE GENERATOR TEST ARRANGEMENT



Notes:

1) The bandwidth capability of components and instruments used to display the monocycle generator output signal (attenuators, cables, connectors, etc.) should exceed 10 GHz.

2) The use of a 50 db attenuator will insure a peak input signal to the sampling scope of less than one volt.

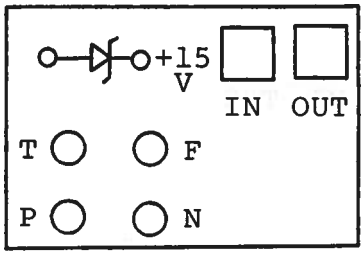
3) In general, the pulse generator delay control should be set in the 100 nsec range. Other settings should be as shown in the above diagram. The monocycle generator output is delayed with respect to the trigger input signal by about 30 nsec (typically).

4) The monocycle generator can withstand an infinite VSWR on the output port.

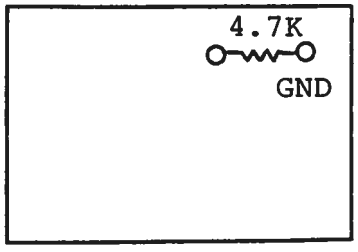
5) The output frequency is 1000 MHz when 0 V is applied to the F solder terminal and 500 MHz when +5V is applied to the F solder terminal ($R_{IN} \geq 2.2K$). Note that the frequency may be continuously varied from 500 to 1000 MHz by varying the voltage from +5 to 0 volts.

6) The P and N pots are for minor adjustments to the widths of the positive and negative voltage swings. Clockwise rotation of the pots increases the widths. The T pot is for minor adjustment to the separation of the positive and negative swings (when in 500 MHz mode only). Clockwise rotation of the pot increases the separation. At time of shipping the pots were adjusted for 500 and 1000 MHz operation.

7) A 4.7K resistor is attached on the rear panel between a solder terminal and ground. This resistor may be used to adjust the separation of the positive and negative swings (when in the 1000 MHz mode). Decreasing the resistance will increase the separation. CAUTION: This resistance should not be less than 2.2K. Also insure that the solder terminal is never shorted to ground.



FRONT VIEW



REAR VIEW

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Fax No:	3603	Our Fax No:	613-226-2802
To:	Geophysical Survey systems	Your Ref No:	
	Tel: 603-~~889-4041~~ 893 1109	Our Ref:	
Attn:	Alan Schutz	Date:	February 11, 1991.
From:	Avtech Electrosystems Ltd.	Receivers Fax No:	603-889-3984
Subject:	500 - 1000 MHz. Monocycle Generator	No. pages faxed:	2

As per our phone conversation of Feb. 8th, I am pleased to provide a price and delivery quotation for a special purpose monocycle generator meeting the following specifications.

Model designation:	AVD-GSSA1B
Output frequency:	500 MHz to 1000 MHz (continuously variable). Output frequency controlled by potential (0 to +5 volts) applied to solder terminal ($R_{IN} \approx$ 2.2 K).
Output amplitude: (to 50 ohms)	$\geq$ 50 volts peak to peak.
PRF:	0 to 50 KHz. Equals input trigger PRF.
Trigger:	TTL, PW $\geq$ 50 ns.
Propagation delay:	$\approx$ 30 ns.
Output spurious level:	$\leq$ 26 db.
Prime power:	+15 volts, 300 mA.
Package size:	1.6" x 3.0" x 6.0" Cast aluminum, blue enamel.

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Weight:	1.75 lbs.
Connectors:	
Input, output:	SMA.
Power and control:	Solder terminals.
Other:	See Model AVD, pages 68 and 69, Cat. No. 7.
Price:	$1,992.00 US FOB: destination. For quantities of 2 to 10, deduct 1% from each additional unit.
Delivery:	2 weeks (quantity of 1).

Thank you for your continuing interest in our products. Please call me again if you require any additional information.

Rgds

Walter J. Chudobiak
Chief Engineer

WJC:sm

03.13.91