AVTECH ELECTROSYSTEMS LTD.
NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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

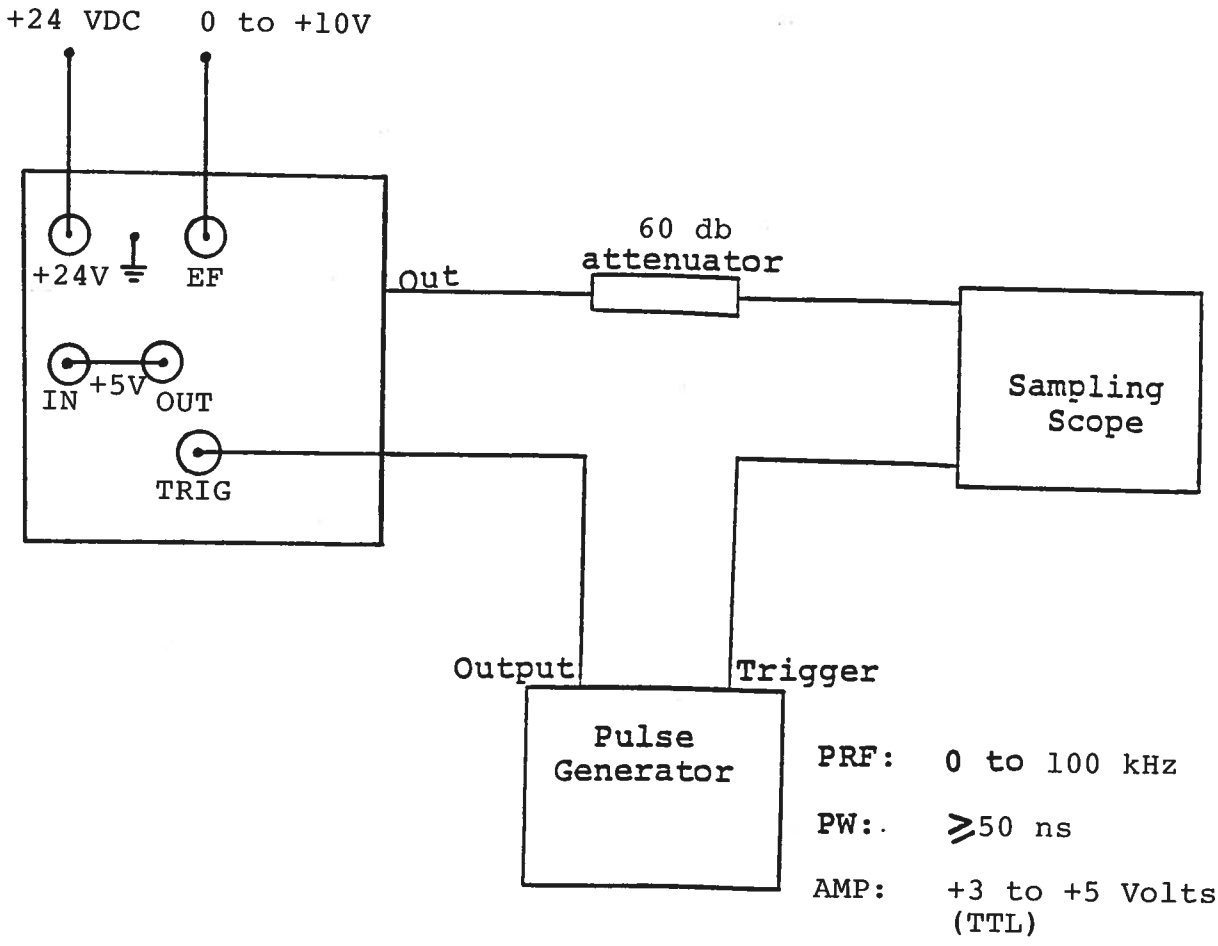
MODEL AVB2-TC-UPB1 MONOCYCLE GENERATOR

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 one GHz.

2) The use of a 60 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 ns 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 50 ns (typically).

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

5) The output frequency is approx. 250 MHz when 0 V is applied to the EF solder terminal and 100 MHz when +10V is applied to the F solder terminal ($R_{IN} \geq 5K$). Note that the frequency may be continuously varied from 100 to 250 MHz by varying the voltage from 10 to 0 volts. Note that the EF potential may be increased to as high as +15 Volts to provide frequencies less than 100 MHz.

6) The unit contains a 7806 voltage regulator which supplies +5.8V to part of the unit. This +5.8V is provided at the 5V OUT terminal. If necessary, the jumper between the IN and OUT terminals may be removed and an externally generated +5.8V (50 mA max) may be applied to the IN terminal.

7) <u>CAUTION</u>: The unit may be damaged if triggered at a rate exceeding 100 kHz.

8) The unit is shipped with a 1N4750 zener diode between +24 IN and ground and a 1N4735 diode between TRIG and ground. The zener diodes are an attempt to protect the input from overvoltage and reverse voltage applications.

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FAX: (613) 226-2802

Fax Ref No: 6253

From: Avtech Electrosystems Ltd

To: University Partnerships, Australia

Our Fax No: 613-226-2802

Date: June 7, 1993

Attn: Stephen Griffin

Receivers Fax No: 011 61 67 711661

Subject: Our telephone conversation of June 3/93

No. pages Faxed: 2

A) I am pleased to quote as follows:

Model designation:	AVB2-TC-UPB1.
Frequency:	100 to 250 MHz. Controlled by externally applied 0 to +10 Volts DC.
Output amplitude:	130 Volts peak to peak (fixed).
PRF:	0 to 100 kHz, equals input trigger PRF.
Input trigger:	TTL, PW $\geq$ 50 ns.
Chassis size:	1.72" x 4.22" x 8.9".
Prime power:	+15 Volts, 600 mA.
Input, output connectors:	SMA.
Price:	$2,748.00 US each, FOB Armidale, Australia. Customs clearance, duties and broker's fees are not included in above price (for the account of consignee).
Delivery:	30-45 days.

B) If the above item (or the items in our quote of May 13/93) is to be shipped to the Australian Embassy in Washington, deduct $50.00 US from the above price.

.../2

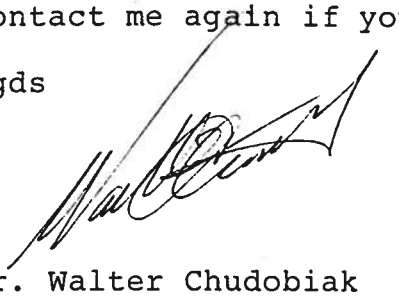
C) Payment may be made via international bank draft or via bank transfer to the account of:

Avtech Electrosystems Ltd.
c/o Toronto Dominion Bank
1950 Merivale Road
Nepean (Ottawa), Ontario
Canada K2G 1E9

Account No. 32896 0041 0041 7302002

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

Rgds



Dr. Walter Chudobiak
Chief Engineer

WC:pr

Aug. 23/93