



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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INSTRUCTIONS

MODEL AVMP-2-N-TERA1 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 assumed by Avtech with respect to this product and no other warranty or guarantee is either expressed or implied.

TECHNICAL SUPPORT

Phone: 613-226-5772 or 1-800-265-6681

Fax: 613-226-2802 or 1-800-561-1970

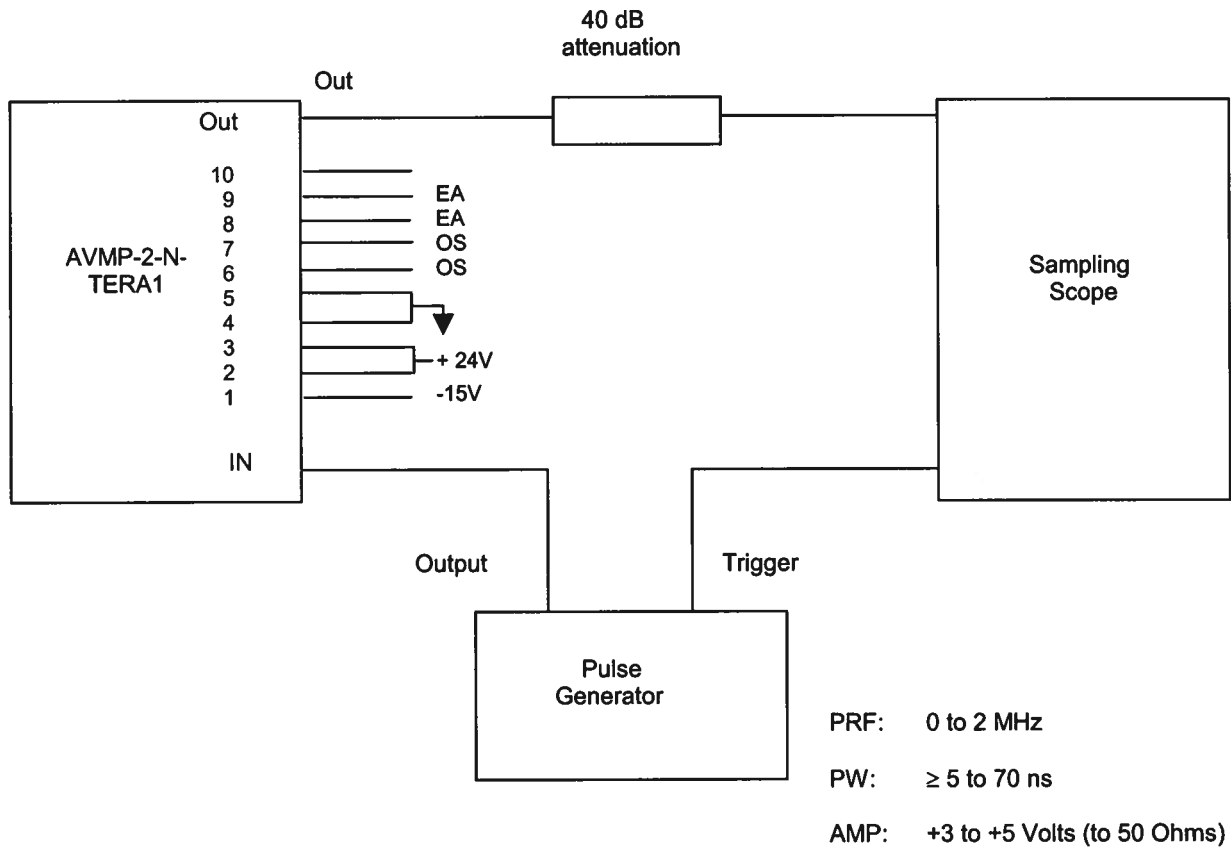
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Manual Reference: T:\instructword\Avmp\AVMP-2-N-TERA1.doc, edition1, created November 29, 2002

FIG. 1: PULSE GENERATOR TEST ARRANGEMENT

GENERAL OPERATING INSTRUCTIONS

- 1) The bandwidth capability of components and instruments used to display the pulse generator output signal (attenuators, cables, connectors, etc.) should exceed ten gigahertz.
- 2) The use of 40db attenuator will insure a peak input signal to the sampling scope of less than one volt.
- 3) In general, the source pulse generator trigger delay control should be set in the 0.1 to 1.0 us range.
- 4) The DC control voltages and the DC prime power supplies are applied to the unit via the amp 1-640441-0 connector (which is supplied along with a 59803-1 installation tool). The connector mates to 24 AWG.
CAUTION: When connecting the connector to the chassis always insure that pin 1 on the connector aligns with and mates with pin 1 on the chassis. The unit may be damaged if this alignment is not achieved. Such damage is not covered by the warranty.
- 5) The DC prime power of +24VDC and -15V are respectively connected to pins 2,3 and to pin 1.
- 6) The output pulse width is equal to the input trigger pulse width (approx). The input impedance at the "IN" SMA control is 50 Ohms.
- 7) The output pulse amplitude is controlled by means of 0 to +10 VDC applied to pin 8 or 9. The pulse width may change by several nanoseconds as the output amplitude is reduced from maximum to minimum. Therefore it is convenient to first set the desired amplitude and then set the desired pulse width.
- 8) To DC offset the output pulse connect a DC power supply set to the required DC offset value pins 6 or 7. The maximum DC offset voltage is 50 volts (200 mA).
- 9) **WARNING:** Model AVMP-2-N-TERA1 may fail if triggered at a PRF greater than 2.0 MHz or at a duty cycle exceeding 10%.
- 10) For additional assistance:

Tel: 613-226-5772
Fax: 613-226-2802
Email: info@avtechpulse.com



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| | | | |
|----------|-------------------------------------|-------------------|---------------------------|
| Fax No: | <u>Q11138</u> | Sender's Fax: | <u>613-226-2802</u> |
| File: | <u>Q:\office\quotes\q11138.doc</u> | Receiver's Fax: | <u>972-231-5963</u> |
| To: | <u>Teradyne</u> | Receiver's Phone: | <u>972-231-5384</u> |
| | <u>Richardson, TX</u> | Date: | <u>July 23, 2002</u> |
| Attn: | <u>Rene Chouteau</u> | Number of pages: | <u>5, including cover</u> |
| Subject: | <u>Price and Delivery Quotation</u> | | |

1) Following our recent telephone conversations of July 23, 2002, I am pleased to quote as follows:

Quote Number: 11138

Model Designation: AVMP-2-N-TERA1

Output Pulse Parameters: Amp: 0 to -10 Volts
PW: 5 to 70 ns
PRF: 0 to 2 MHz
Rise/Fall: ≤ 100 ps
Max Duty Cycle: 10%

Prime Power: +24 VDC, 500 mA, -15 VDC, 100 mA

Amplitude Control: 0 to +10 VDC ($R_{IN} > 1K$)

Pulse Width Control: $PW_{OUT} = PW_{IN}$. TTL input trigger pulse applied to "IN" SMA connector controls pulse width and PRF. Therefore PIN 10 on AMP 1-640441-0 connector is not used.

Chassis Size: 1.1" x 2.0" x 4.0"

Chassis Material: Aluminum (sand-blasted)

Connectors: IN: SMA
OUT: SMA
+24VDC: Ten 0.025" pins on 0.1" centers
-15VDC: to mate to AMP 1-640441-0
OS: connector (supplied). Connector
EA: mates to 24 AWG. Requires installation

tool 59803-1 (one supplied). This connector is polarized and the chassis has mechanical guides, which prevent incorrect insertion into the chassis.

Price - Quantity of One:
Price - Quantity of Two:
Price - Quantity of Five:
Price - Quantity of Ten:

Delivery: 60 days, after receipt of order.

- 2) Since these units are very high performance pulse generators, which are considered to be "Nuclear-Related Dual-Use Goods" under government regulations. As such, an "End Use Statement" must be completed. The necessary form is attached. We will use the information in the completed form to apply for an export license from the Canadian government, which will take 1 to 6 weeks to obtain. We cannot ship an order without the license. Please return the completed form to us by fax when you place your order.
- 3) Thank you for your continuing interest in our products. Please call me again if you require any additional information.

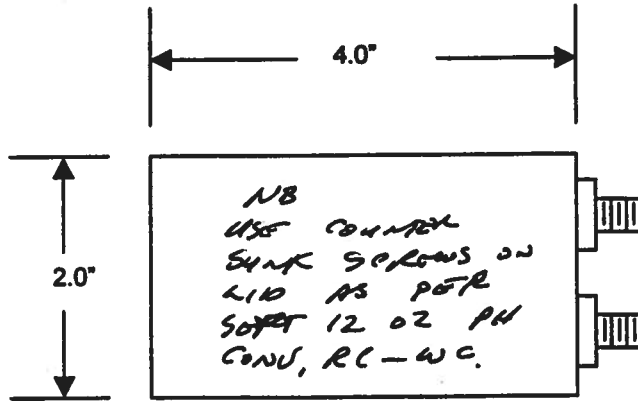
Regards,



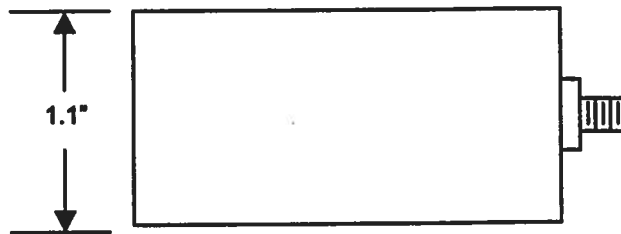
Dr. Walter Chudobiak
Chief Engineer

WC:mb

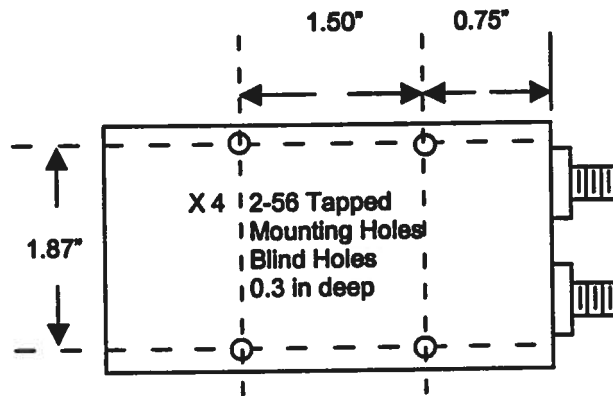
TOP VIEW



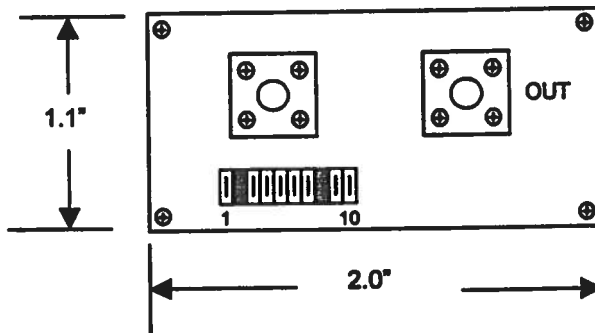
EDGE VIEW



BOTTOM VIEW



END VIEW



AVMP-2-N-TERA1
AVMP-3-N-TERA1

IN: SMA
OUT: SMA
1: -15VDC
2,3: +24 VDC
4,5: GND
6,7: OS
8: EA
9: EA

April 10, 2000
May 1, 2000
March 27, 2001
June 25, 2001

Nov. 29 / 2002