



**AVTECH ELECTROSYSTEMS LTD.**  
NANOSECOND WAVEFORM ELECTRONICS

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**INSTRUCTIONS**

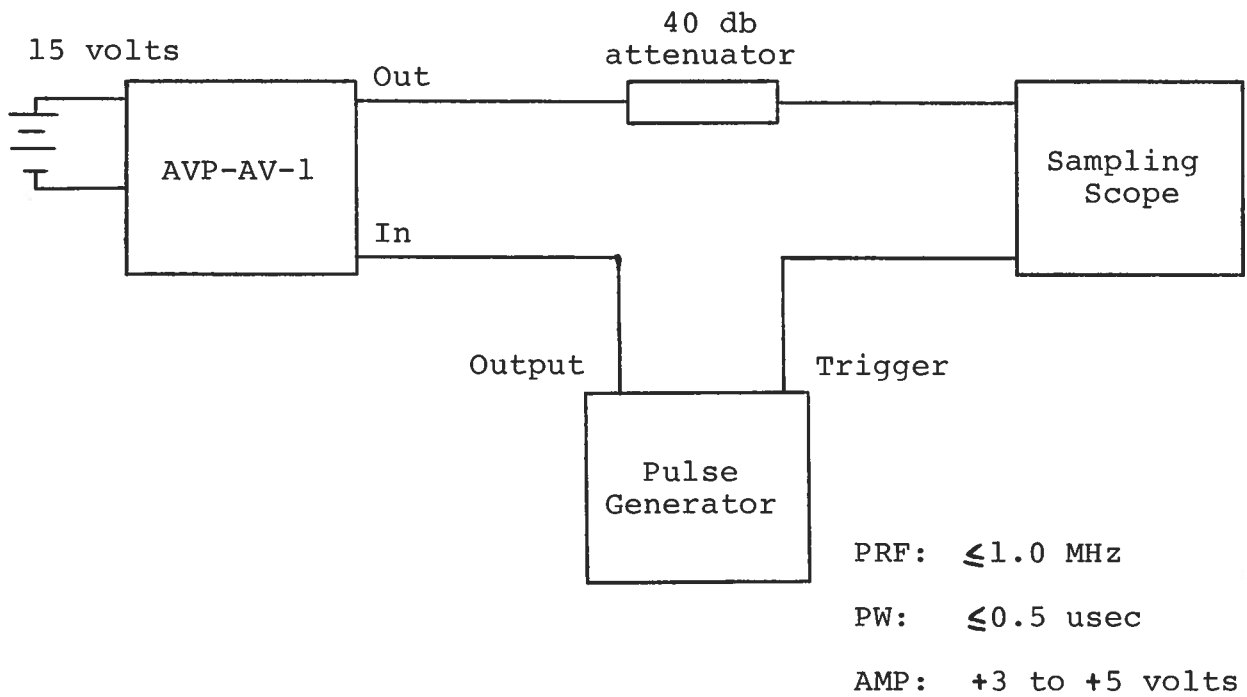
**MODEL AVP-AV-1 PULSE GENERATOR**

**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.

MODEL AVP-AV-1 PULSE GENERATOR TEST ARRANGEMENT



Notes:

- 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 40 db 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 usec range. Other settings should be as shown in the above diagram.
- 4) The Model AVP-AV pulse generator can withstand an infinite VSWR on the output port.
- 5) **WARNING:** Model AVP-AV may fail if triggered at a PRF greater than 1.0 MHz.
- 6) The output pulse width is controlled by means of the one turn potentiometer (PW). The pot should initially be set maximum clockwise and the pulse width adjusted using an oscilloscope.
- 7) For units with the EW option, the output pulse width is controlled by a 0 to +10V control voltage applied to the front panel PW solder terminal ( $R_{IN} \geq 1K$ ).
- 8) The output pulse amplitude is controlled by means of the one turn potentiometer (AMP). 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. Rotation of the PW pot causes the position of the falling edge of the pulse to change.
- 9) For units with the EA option, the output amplitude is controlled by a 0 to +10V control voltage applied to the front panel AMP solder terminal ( $R_{IN} \geq 1K$ ).
- 10) Some properties of the output pulse may change as a function of the amplitude pot setting. For some demanding applications, it may be desirable to use a combination of external attenuators and the amplitude pot to achieve the desired output amplitude.
- 11) To DC offset the output pulse connect a DC power supply set to required DC offset value to the terminals marked D.S. The maximum attainable DC offset voltage is 50 volts. (option).
- 12) The monitor output port (M) provides a coincident attenuated (x10) replica of the main output to a 50 ohm load. (option).

- 13) For units with the dual output polarity option (-PN) a positive output pulse is obtained at the OUT SMA connector. To obtain a negative output pulse, connect the AVX-2 module to the OUT SMA connector. A negative output pulse is then obtained at the output of the AVX-2 module.

10.18.91

Edition A

-EW

-EA

-OS

-M

-PN