

AVTECH ELECTROSYSTEMS LTD.

**NANOSECOND WAVEFORM ELECTRONICS
ENGINEERING . MANUFACTURING**

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INSTRUCTIONS

Model AVMR-2-MA1 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.

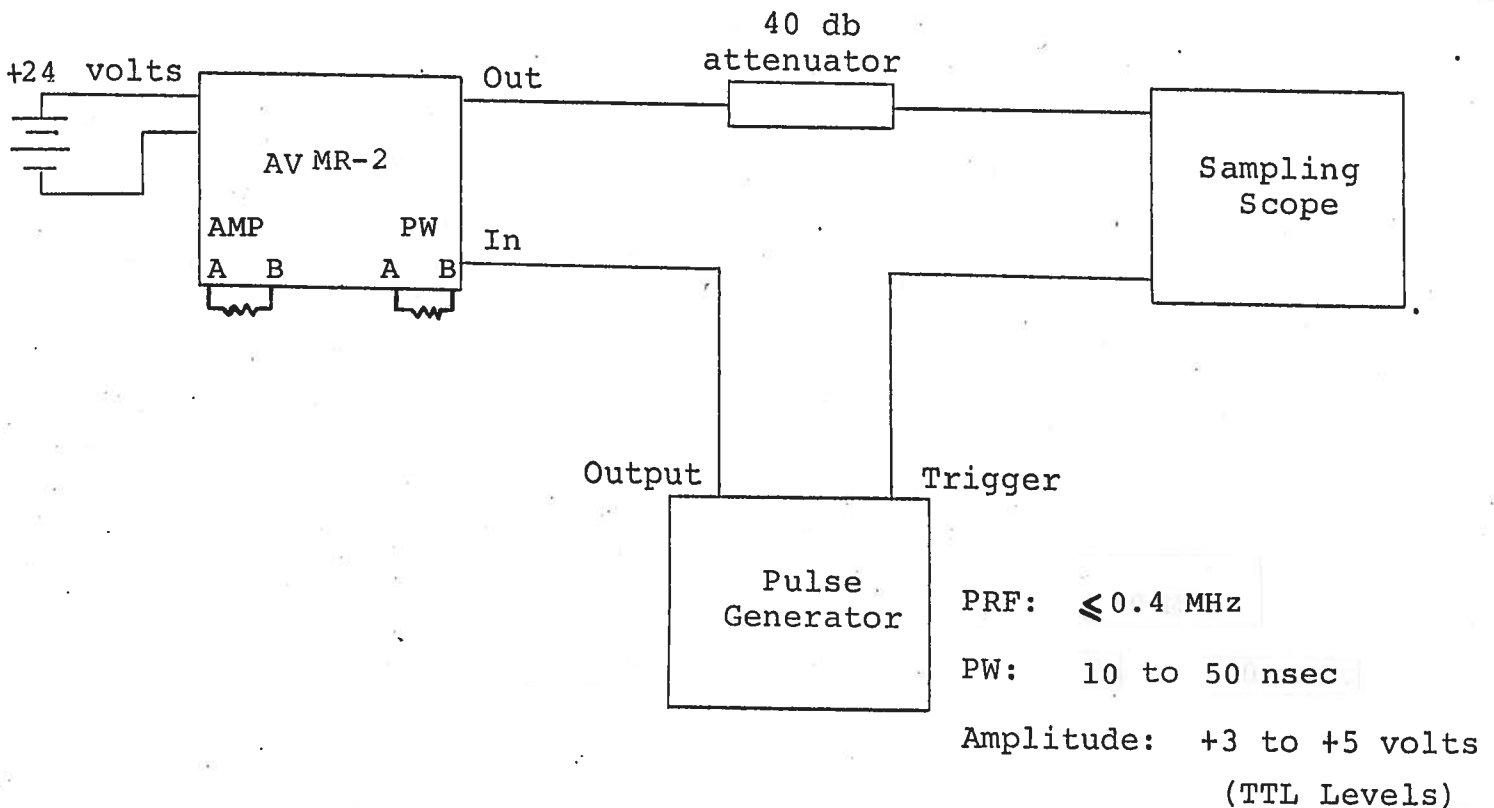
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MODEL AVMR-2 PULSE GENERATOR TEST ARRANGEMENT



Notes:

- 1) The bandwidth capability of components and instruments used to display the pulse generator output signal (attenuators, cables, connectors, etc.) should exceed one GHz.
- 2) The use of a 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) **WARNING:** Model AVMR-2 may fail if triggered at a PRF greater than 0.4 MHz or if the duty cycle exceeds 0.01% or if the PW exceeds 50 nsec.
- 5) The output amplitude is controlled by the external resistor connected between the AMP A and B solder terminals as follows ($R_L \approx 7$ ohms):

R_{AMP}	V_{OUT}
0	16.6
100	15.8
230	14.0
370	12.5
470	12.0

Decreasing R_L will increase V_{OUT} . For example, with R_L of 25 ohms, V_{OUT} equals 15 volts when R_{AMP} equals 470 ohms. Turn off prime power before soldering to terminals A and B.

- 6) The output pulse width is equal to the input pulse width when the input pulse width is 10 nsec (10% rise point) and the PW solder terminals A and B are shorted together. With an input PW of 30 nsec, the output PW is about 28 nsec. The output PW may be increased by as much as 3 nsec by placing a resistor (0 to ∞ ohms) between PW terminals A and B. **CAUTION:** Turn off prime power when soldering to terminals A and B.
- 7) When triggering the AVMR-2 from a high speed lab pulse generator it may be necessary to shunt the input to the AVMR-2 by a 50 Ω resistor to eliminate reflection which may interfere with the operation of the lab pulse generator (and AVMR-2).
- 8) The AVMR unit will safely operate into loads ranging from 4 ohms to 100 ohms.