INSTRUCTIONS
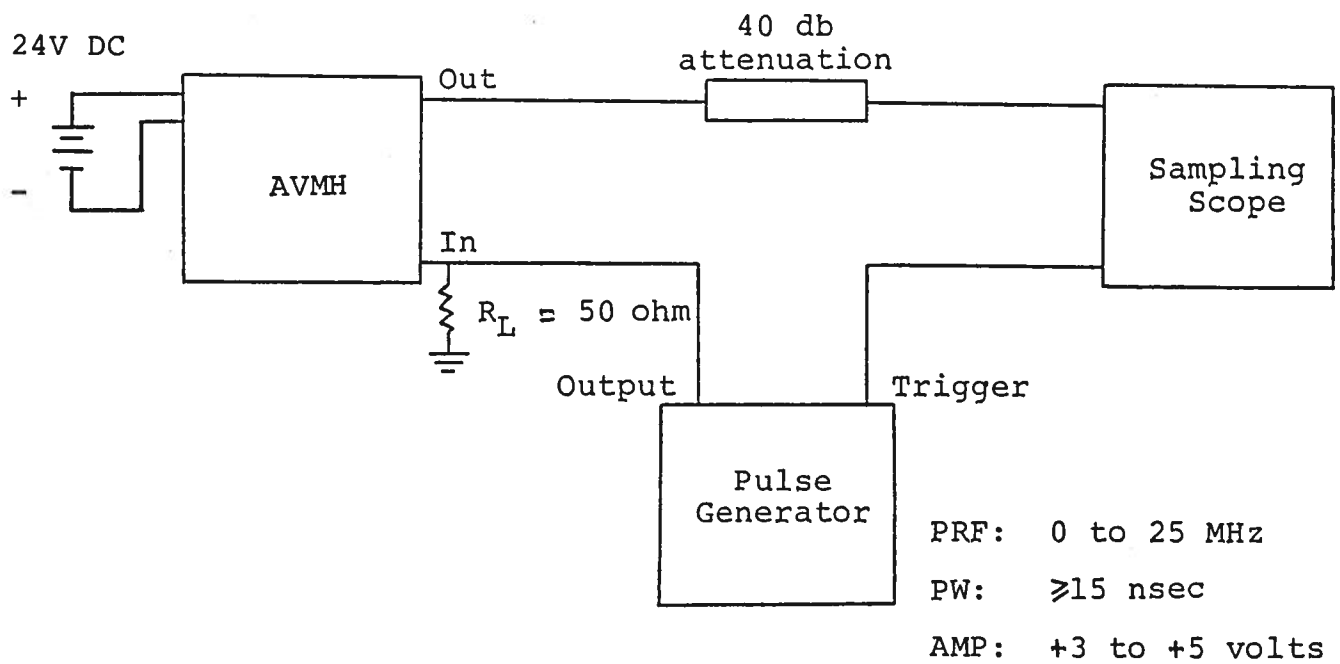
MODEL AVMH-1 PULSE GENERATOR

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   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.

MODEL AVM-PS PULSE GENERATOR TEST ARRANGEMENT

24V DC

40 db
attenuation

Out

AVMH

Sampling
Scope

In

$R_L = 50$ ohm

Output

Trigger

Pulse
Generator

PRF: 0 to 25 MHz

PW: ≥15 nsec

AMP: +3 to +5 volts

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.

4) When testing using a general purpose 50 ohm laboratory pulse generator as the input trigger signal source, the input signal should be applied via a 50 ohm feed-through load or alternatively, the input to the AVM unit should be shunted with a 50 ohm resistor. This will prevent reflection (and degradation of the input pulse waveform) caused by the high impedance at the IN port. However, when triggering from a TTL source, no 50 ohm feed-through load or resistor is necessary but lead length should be as short as possible. High-speed TTL Schottky logic is recommended for the driving circuitry.

5) The input trigger pulse width should be greater than 15 nsec and less than one half of the pulse repetition frequency period. The unit triggers on the leading edge of the input trigger signal.

6) The output pulse width is controlled by means of the one turn PW control. The PW control determines the position of the falling edge. Clockwise rotation of this control causes the pulse edge to move to the right. It is necessary to sequently adjust the PW and AMP controls to obtain the desired output pulse width and amplitude.

7) The output pulse amplitude is controlled by means of the front panel one turn AMP control. 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 as described above.

8) 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.

9) WARNING: Model AVMH may fail if triggered at a PRF greater than 25.0 MHz.

10)   The Model AVMH pulse generator can withstand an infinite
      VSWR on the output port.

11)   To DC offset the output pulse connect a DC power supply
      set to the required DC offset value to the terminals
      marked O.S.   The maximum attainable DC offset voltage is
      50 volts.

12)   To invert the output of the AVMH unit, connect the
      AVX-2-T unit to the OUT port. An inverted pulse is then
      obtained at the OUT port of the AVX-2-T unit. To offset
      the inverted pulse, apply the required DC level to the
      DC terminal of the AVX-2-T unit.

13)   The   monitor output   provides an   attenuated (x10)
      coincident replica (to 50 ohms) of the main output (-M
      option).

–OS
–M