AVTECH ELECTROSYSTEMS LTD.
NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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TEL: (613) 226-5772
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for LTX

INSTRUCTIONS

MODEL AVP-2S-ECL-OS 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.

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EC Declaration of Conformity

We

Avtech Electrosystems Ltd.
P.O. Box 5120, Stn. F
Ottawa, Ontario
Canada K2C 3H4

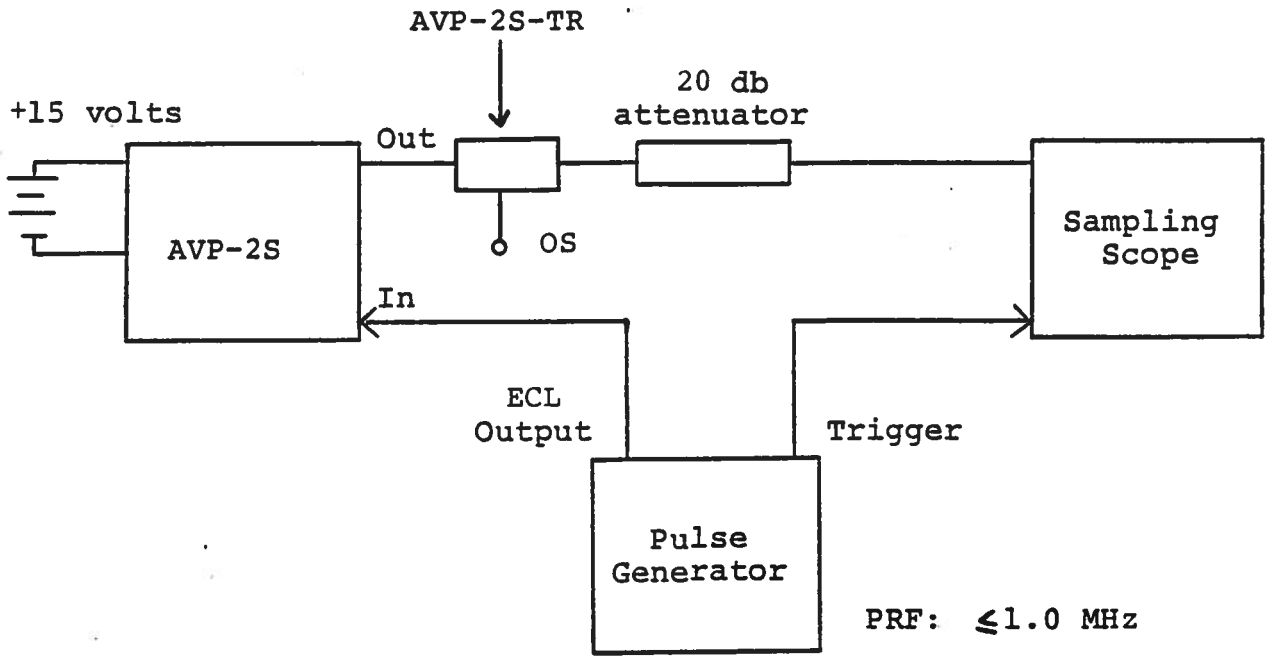
declare that the AVP-2S-ECL-OS pulse generator module (LTX P/N 874-9962-00) meets the intent of Directive 89/336/EEC for Electromagnetic Compatibility. Compliance pertains to the following specifications as listed in the official Journal of the European Communities:

EN 50081-2 Emission

EN 50082-2 Immunity

CE

MODEL AVP-2S PULSE GENERATOR TEST ARRANGEMENT



PRF: ≤1.0 MHz

PW: 50 ns to 500 ns

AMP: ECL Levels,
-1.8 V and -0.9 V

Power line: +15 Volts/0.25 Amps DC, shielded twisted pair, <3 meters length

Control lines: 1 - Coaxial line, (trigger), SMA connector, <3 meters length
1 - Shielded twisted pair, (offset), <3 meters length

Output: Coaxial, SMA, <3 meters length

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 AVP-2S pulse generator consists of the main AVP-2S module followed by the AVP-2S-TR module. The two modules should not be separated.

3) The use of 20 dB attenuator will insure a peak input signal to the sampling scope of less than one Volt.

4) In general, the source pulse generator trigger delay control should be set in the 0.1 to 1.0 us range. Other settings should be as shown in the above diagram.

5) The Model AVP-2S pulse generator can withstand an infinite VSWR on the output port.

6) WARNING: Model AVP-2S may fail if triggered at a PRF greater than 1.0 MHz.

7) 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.

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) 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.

10) To DC offset the output pulse connect a DC power supply set to required DC offset value to the terminals marked O.S. The maximum attainable DC offset voltage is 50 Volts (250 mA max.)

11) If additional assistance is required:

Tel: (613) 226-5772
Fax: (613) 226-2802

May 21/96

Edition B

Disk: AVP-2S

Name: 2SECLOSB.INS