

AVTECH ELECTROSYSTEMS LTD.

(613) 828-4823

Box 11426 Stn. "H"
OTTAWA, ONTARIO
CANADA K2H 7V1

INSTRUCTIONS

Model AVA Monocycle Generator

Serial No. 105

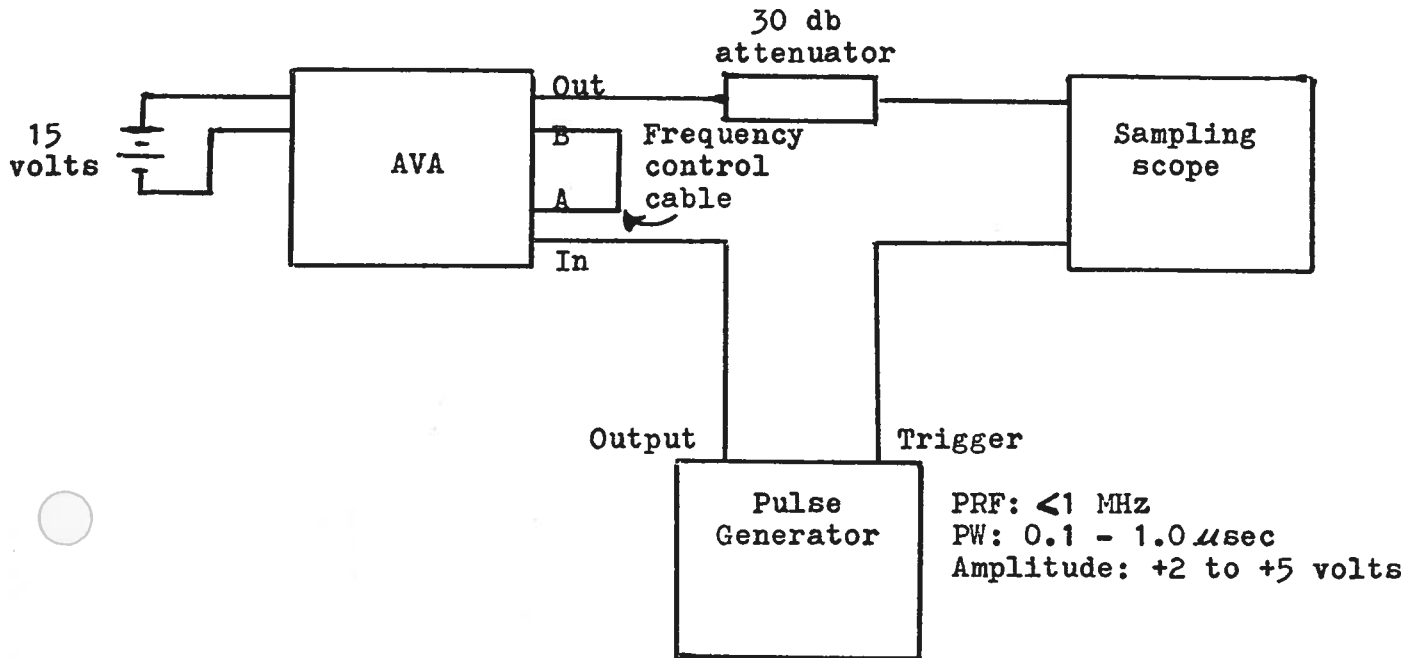
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INSTRUCTIONS

Monocycle Generator Test Arrangement



- Notes:
- 1) The bandwidth capability of components and instruments used to display the monocycle generator output signal (attenuators, cables, connectors, etc.) should exceed several gigahertz.
 - 2) The use of a 30 db attenuator will insure a peak input signal to the sampling scope of less than one volt.

- 3) In general, the pulse generator trigger delay control should be set in the < 100 nsec. range. Other settings should be as shown in the above diagram. The monocycle generator output is delayed with respect to the trigger input signal by about 70 nsec. (typically).
- 4) The frequency control cable (see attached graph) may be fabricated from RG 174 miniature coax with Americon 2001 - 7188 connectors (or the equivalent) or from 85 mil semi-rigid cable with Americon 2001 - 5032 connectors (or the equivalent). The output signal half-period ($T/2$) and cable length (L) are related linearly as shown in the attached graph.
- 5) The monocycle generator can withstand an infinite VSWR on the output port.
- 6) Either the input trigger signal or the +15 volt supply should be disconnected when changing or removing the frequency control cable.
- 7) If the monocycle generator is inadvertently triggered at a PRF > 1 MHz, internal control circuitry will insure that the output PRF does not exceed 1 MHz.

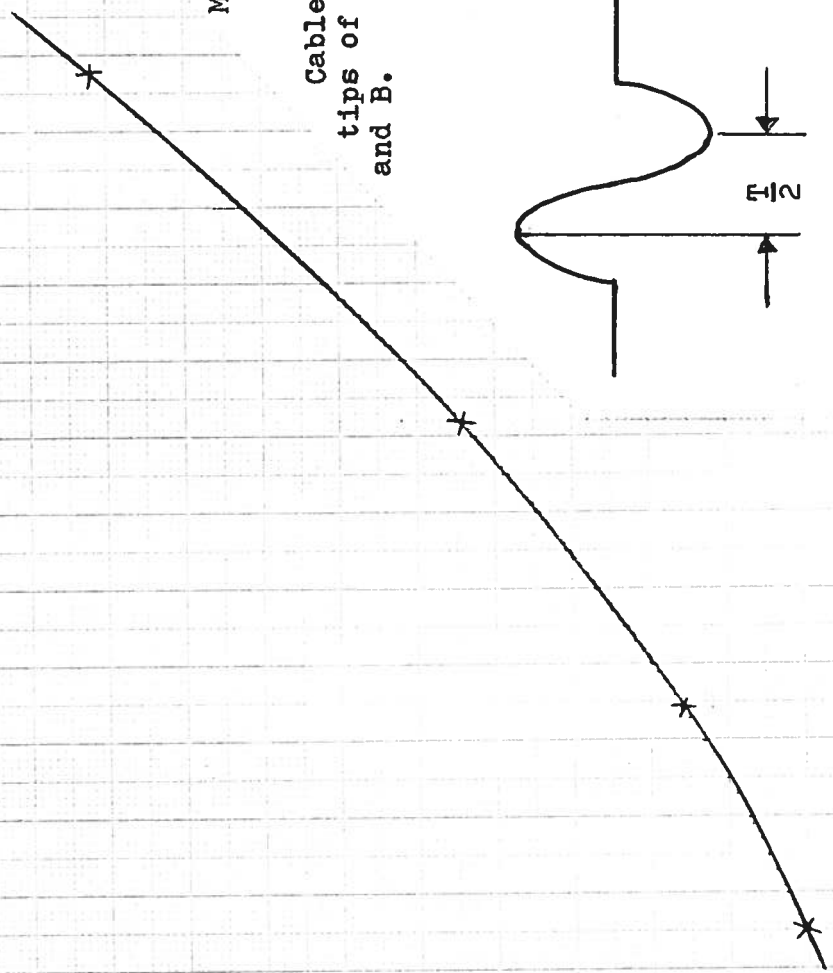
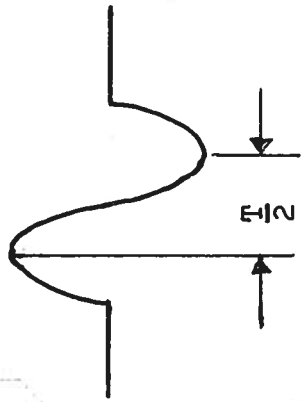
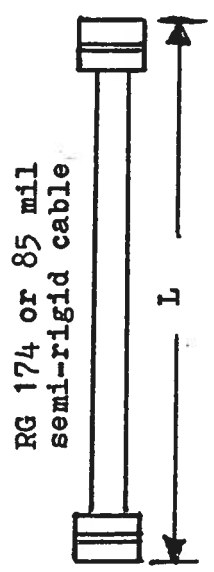
Done

ps

FREQUENCY CONTROL CURVE

AVTECH ELECTROSYSTEMS LTD MODEL AVA
MONOCYCLE GENERATOR, SERIAL No. 105

Cable of length L (measured between extreme tips of connectors) connected between ports A and B.



L (cm) 10 20 30 40 50 70

1/2 H (nsec)

2.5

2.0

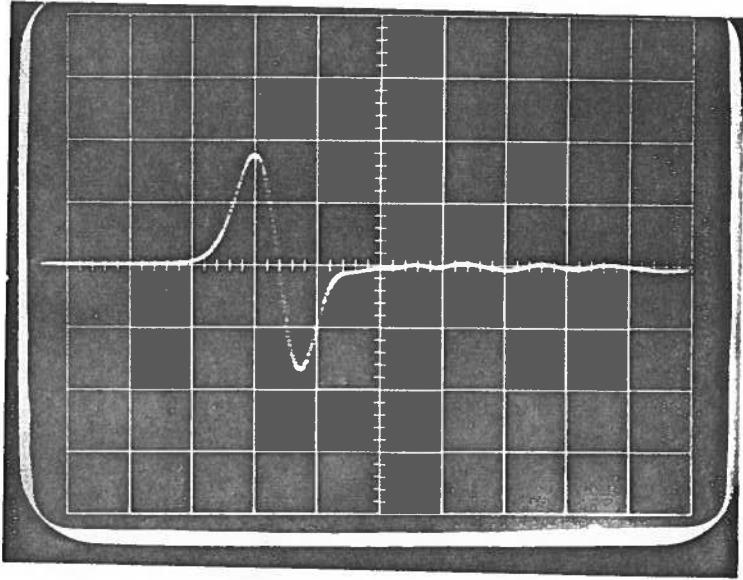
1.5

PERFORMANCE CHECK

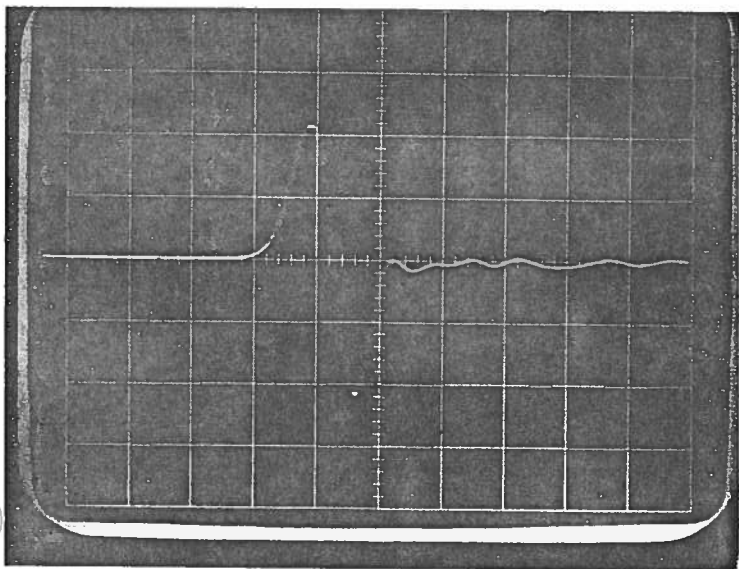
Model: AUA

S.N.: 105

Date: 25/5/76



330 MHz, PRF = 1.0 MHz



330 MHz, PRF = 0.2 MHz

a) Output signal amplitude, V_{pp} > 20 mV

b) Spurious signals WRT peak ≤ -26 dB

c) Waveforms 6.6 mV/div
2.0 nsec/div
330 MHz

d) Prime power 15 mW at 140 MHz (MAX)

e) Tuning range OK
(CHECKED AT 4 FREQ SHOWN ON GRAPH)

f) Symmetry OK

g) Stability OK

