

AVTECH ELECTROSYSTEMS LTD.

(613) 828-4823

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

INSTRUCTIONS

Model AVA-M Monocycle Generator

Serial No. ///

AVTECH ELECTROSYSTEMS LTD.

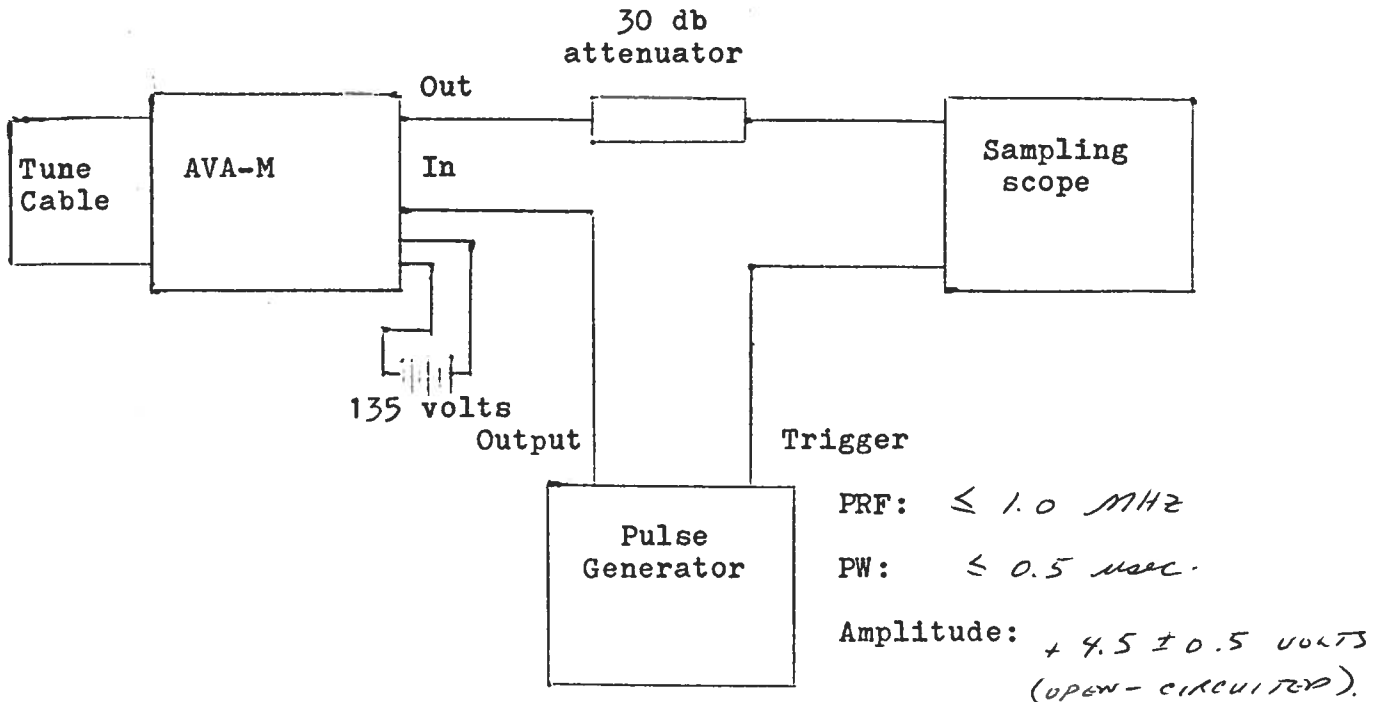
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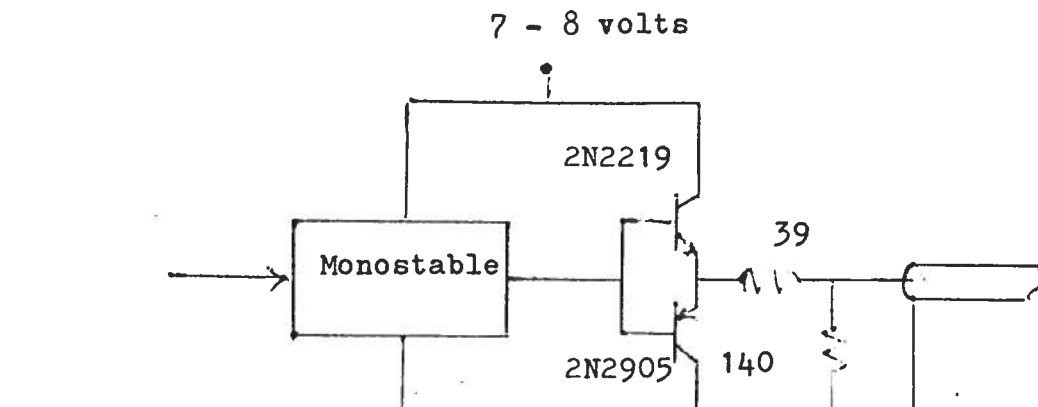
Monocycle Generator Test Arrangement

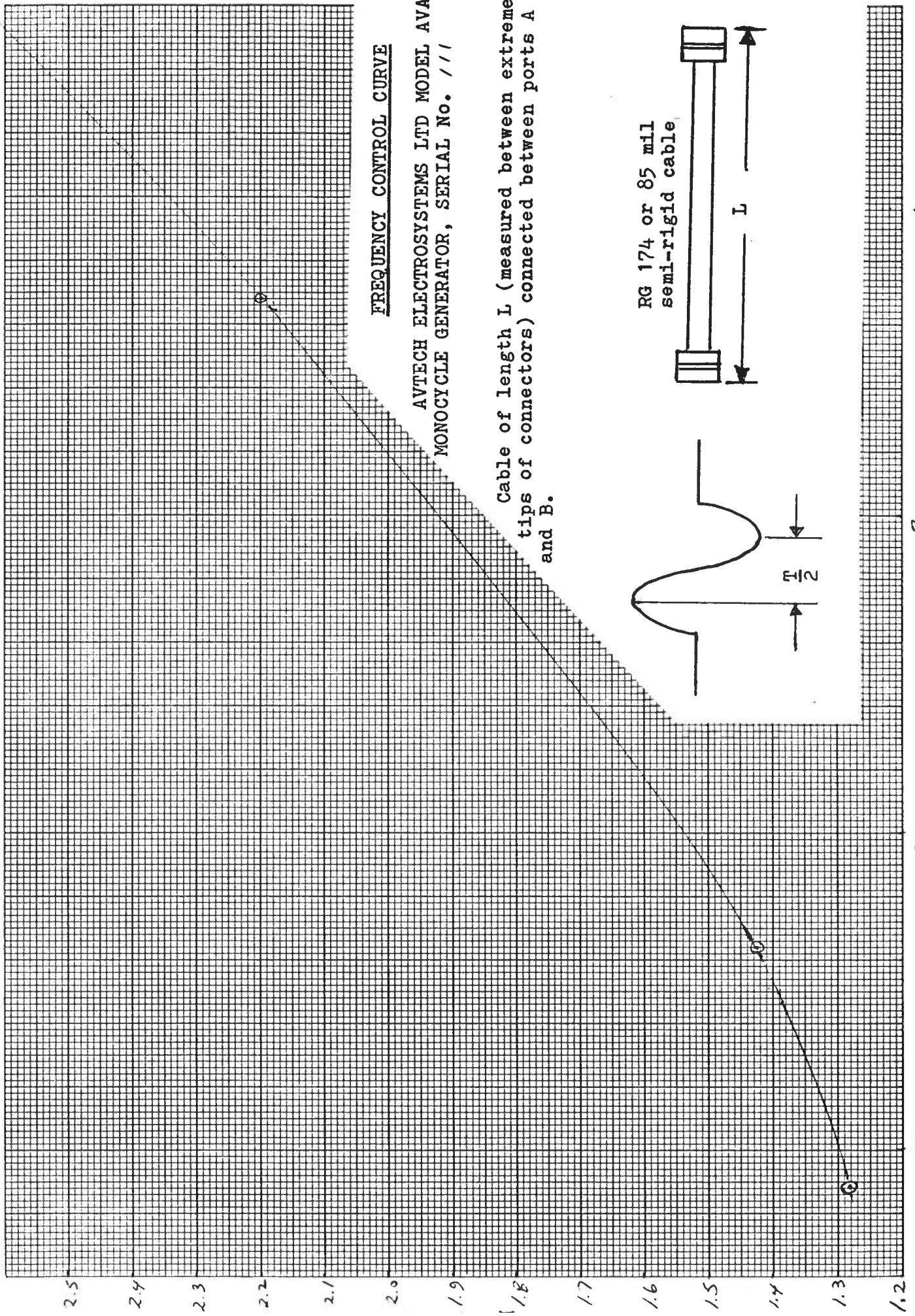
Model AVA-M S.N. / / /



- 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.

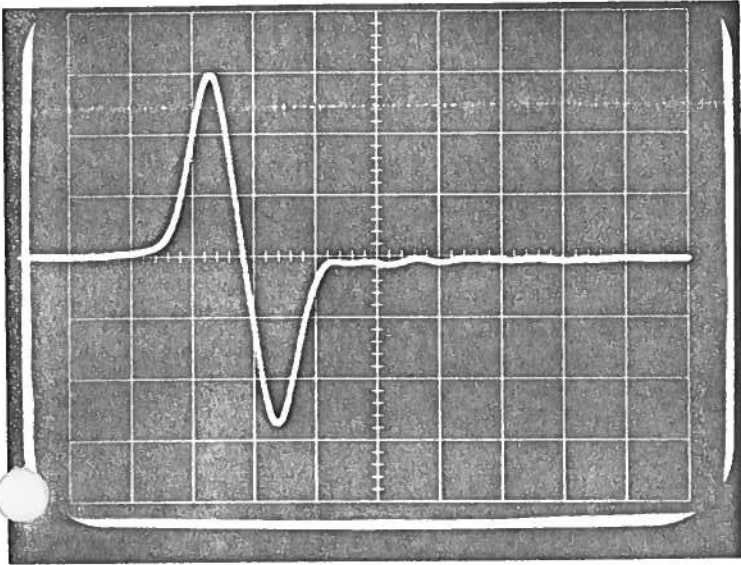
- 3) In general, the pulse generator trigger delay control should be set in the 100 nsec. range. Other settings should be as shown in the above diagram. The monocycle generator output is delayed with respect to the trigger input signal by about 50 nsec. (typically).
- 4) The frequency control cable (see 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 monotonically as shown in the attached graph.
- 5) The monocycle generator can withstand an infinite VSWR on the output port.
- 6) For operation over the full temperature range it is recommended that the 135 volt supply be derived from a zener diode in order to track internal zener diode voltage fluctuations.
- 7) The following type of driver circuit is recommended for triggering the monocycle generator if an instrumentation type pulse generator is not used:



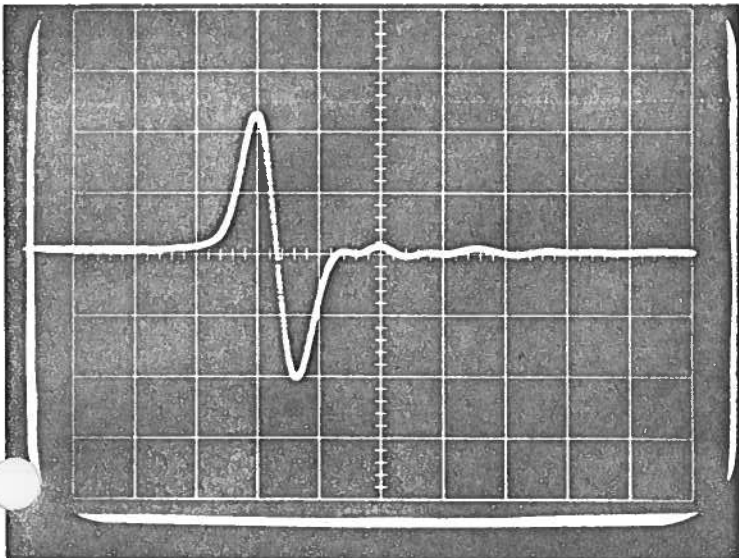


PERFORMANCE CHECK

Model: *AUA-M*
S.N.: *111*
Date: *MAY 27 1977*



227 MHz.



385 MHz.

a) Output signal amplitude, V_{pp} *> 20 VOLTS.*

b) Spurious signals WRT peak *≤ 26 db.*

c) Waveforms *5 VOLTS / DIV.*
2 NSEC / DIV.

d) Prime power *135 ± 3 VOLTS.*

e) Tuning range *OK. Checked at 4 points on graph.*

f) Symmetry *OK*

g) Stability *OK*

A large, stylized handwritten signature in black ink, located at the bottom right of the page.

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.