



# AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS  
SINCE 1975

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## INSTRUCTIONS

MODEL AVX-S1-LHA BIAS INSERTION UNIT

S.N.: 9782.

### 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 assumed by Avtech with respect to this product and no other warranty or guarantee is either expressed or implied.

### TECHNICAL SUPPORT

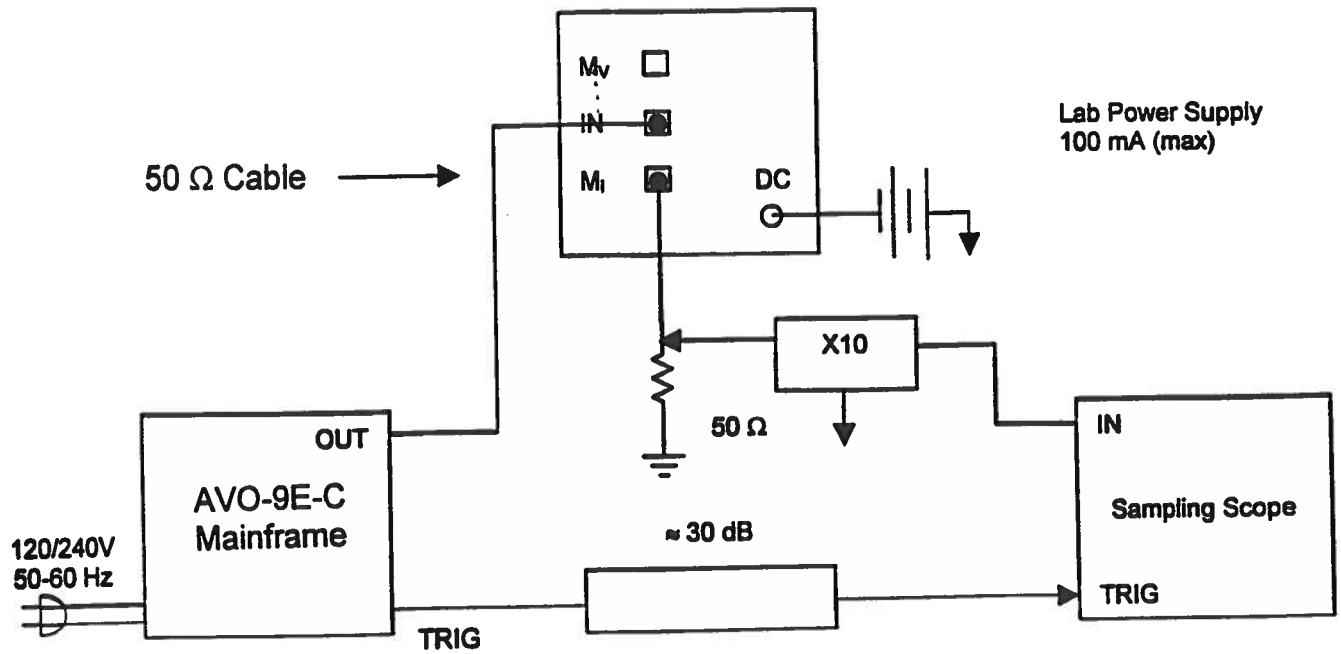
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**FIG. 1: BIAS INSERTION UNIT TEST ARRANGEMENT (With Positive Pulse Generator)**



## GENERAL OPERATING INSTRUCTIONS

- 1) Gently insert the leads of the TO-3 package into the openings of the pin socket. Push the leads fully into the socket.
- 2) The DC terminal of the bias insertion unit must either be shorted to ground (if a DC offset is not required) or not function if the DC terminal is open circuited. Note that the DC current must not exceed -100 mA (applying a DC potential of 0 to -5Volts is normally adequate).
- 3) The MI port must be terminated into 50 Ohms. Note that a 30 dB attenuator may be placed between the AVX-S1 MI output and the scope input.
- 4) The pulsed diode current  $I_D$  (Amps) and the MI output voltage (Volts) are related as follows:

$$I_D = \frac{11 (V_{MI} - V_{DIODE})}{10}$$

The  $V_{DIODE}$  is the "ON" voltage and may be obtained from the diode data sheet.  $V_{MI}$  is the voltage at the  $M_I$  SMA output.

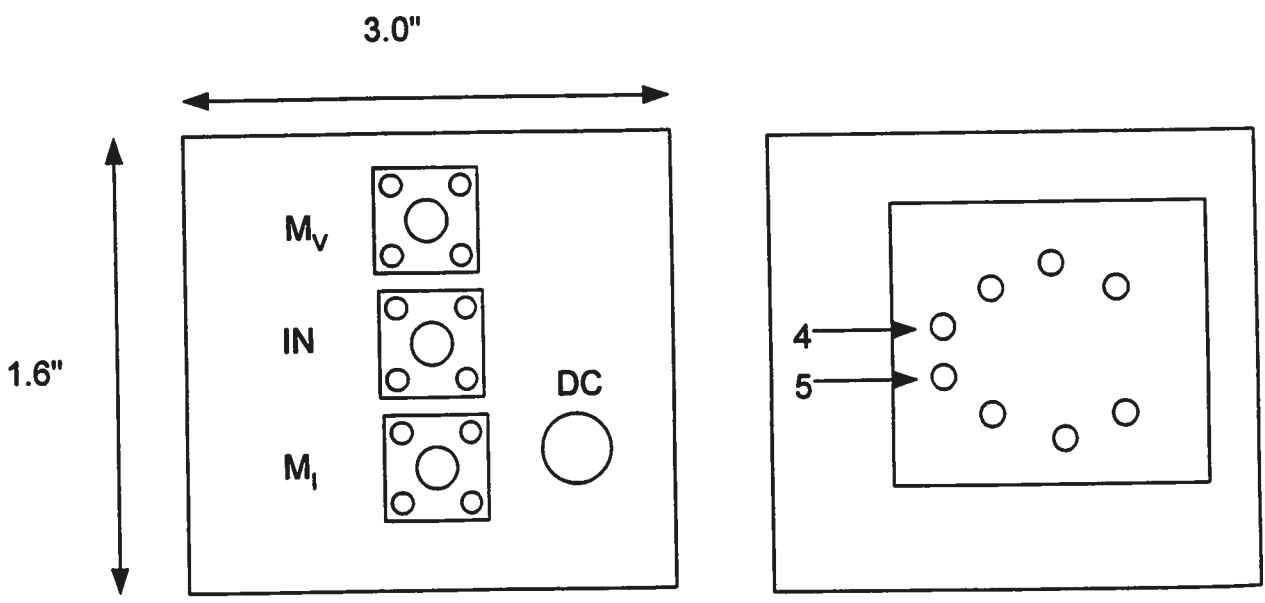
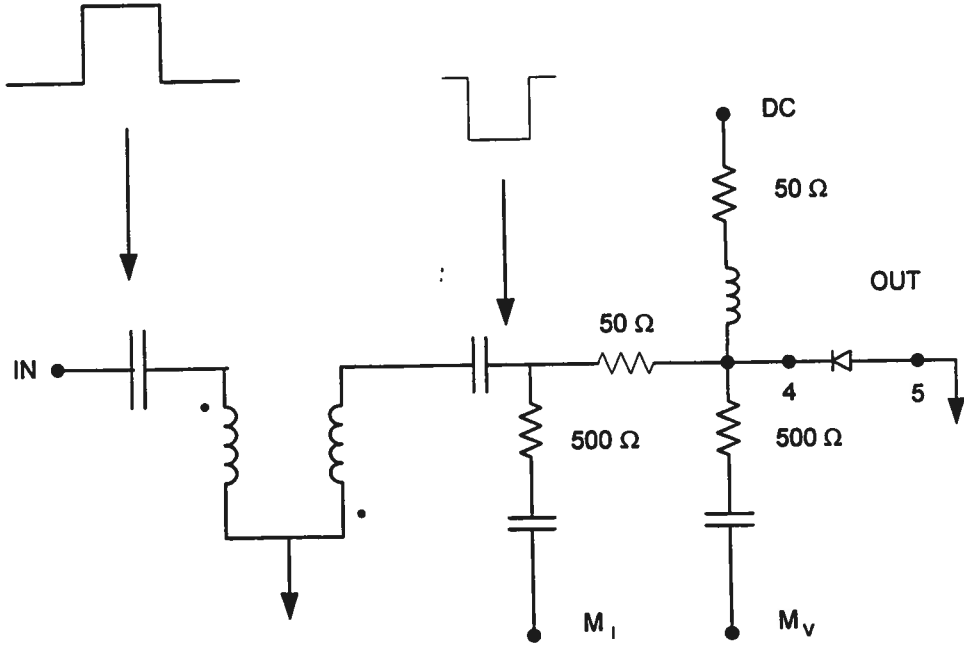
- 5) The  $M_V$  port may be used to monitor the pulsed diode "ON" voltage ( $V_{DIODE}$  - pulse):

$$V_{DIODE} - \text{pulse} = 11 V_{MV}$$

$V_{MV}$  is the voltage at the  $M_V$  SMA output (to 50 Ohms).

- 6) For additional assistance:  
Tel: 613-226-5772  
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AVX-S1-ISUB FUNCTIONAL EQUIVALENT CIRCUIT



PACKAGE



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|  |  |
|--|--|
| Quote No: <u>10279</u>                       | Sender's Fax: <u>613-226-2802</u>          |
| File: <u>R:\QUOTES\Q10279.doc</u>            | Receiver's Fax: <u>805-562-8993</u>        |
| To: <u>Lockheed Martin</u>                   | Receiver's Phone: <u>805-571-2320</u>      |
| <u>CA</u>                                    | Date: <u>February 26, 2001</u>             |
| Attn: <u>Colin James</u>                     | Number of pages: <u>1, including cover</u> |
| Subject: <u>Price and delivery quotation</u> |  |

Following our recent telephone conversation we are pleased to provide a quotation for a laser diode bias insertion unit, which will accept the SDL-2410-H2 diode with the case connected to ground. The bias insertion unit requires a positive input pulse from the AVO-9E-C mainframe.

|                       |  |
|-----------------------|--|
| Quote Number:         | 10279  |
| Model designation:    | AVX-S1-LHA   |
| Basic specifications: | As per the original AVX-S1 unit supplied with the AVO-9E-C unit. |
| Price:                | \$898.00 US, FOB destination.                                    |
| Delivery:             | 60 days, after receipt of order.                                 |

Thank you for your continuing interest in our products. Please call or email me if you require any further information.

Regards,

Dr. Walter Chudobiak  
Chief Engineer

WC:mf