



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

□ P.O. BOX 265
OGDENSBURG, NY
U.S.A. 13669-0265
TEL: (315) 472-5270
FAX: (613) 226-2802

TEL: 1-800-265-6681
FAX: 1-800-561-1970

e-mail: info@avtechpulse.com
<http://www.avtechpulse.com>

□ P.O. BOX 5120 STN. F
OTTAWA, ONTARIO
CANADA K2C 3H4
TEL: (613) 226-5772
FAX: (613) 226-2802

INSTRUCTIONS

MODEL AVX-S1-MI-MV-MD-POLB BIAS TEE

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 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

Phone: 613-226-5772 or 1-800-265-6681

Fax: 613-226-2802 or 1-800-561-1970

E-mail: info@avtechpulse.com

World Wide Web: <http://www.avtechpulse.com>

Notes:

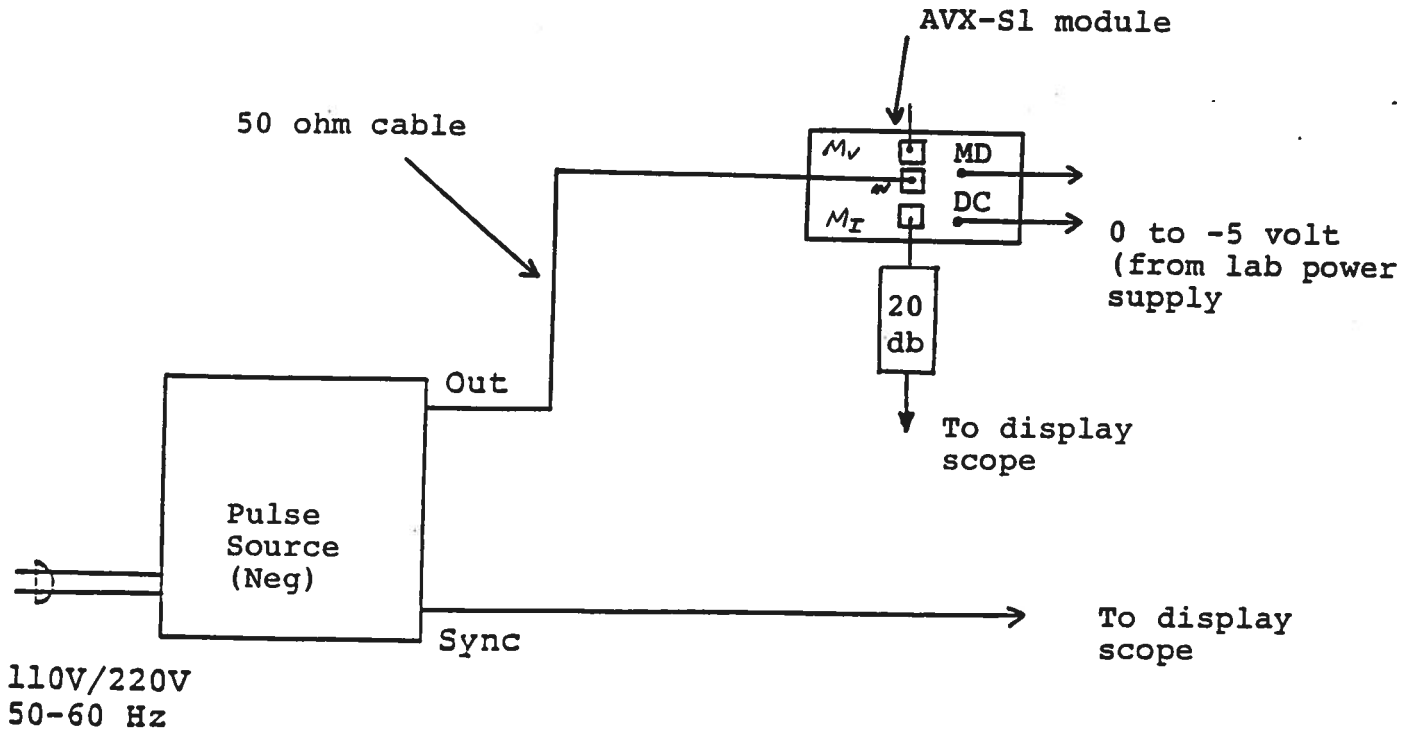
- 1) A general description of the AVX-S1 module is given in the enclosed data sheet.
- 2) The AVX-S1 module should be connected to your pulse source via a 50 Ohm cable (supplied).
- 3) The laser diode plugs directly into the socket on the side of the AVX-S1 module.
- 4) A forward DC bias may be applied to the laser diode by connecting a DC potential of 0 to -5 Volts to the DC solder terminal.
- 5) The diode pulse current may be monitored by connecting the MI and MV output ports to the sampling scope via 20 dB attenuators. The output amplitude (V_{MI} and V_{MV} , Volts) and diode current (I_D , Amp) are related as follows:

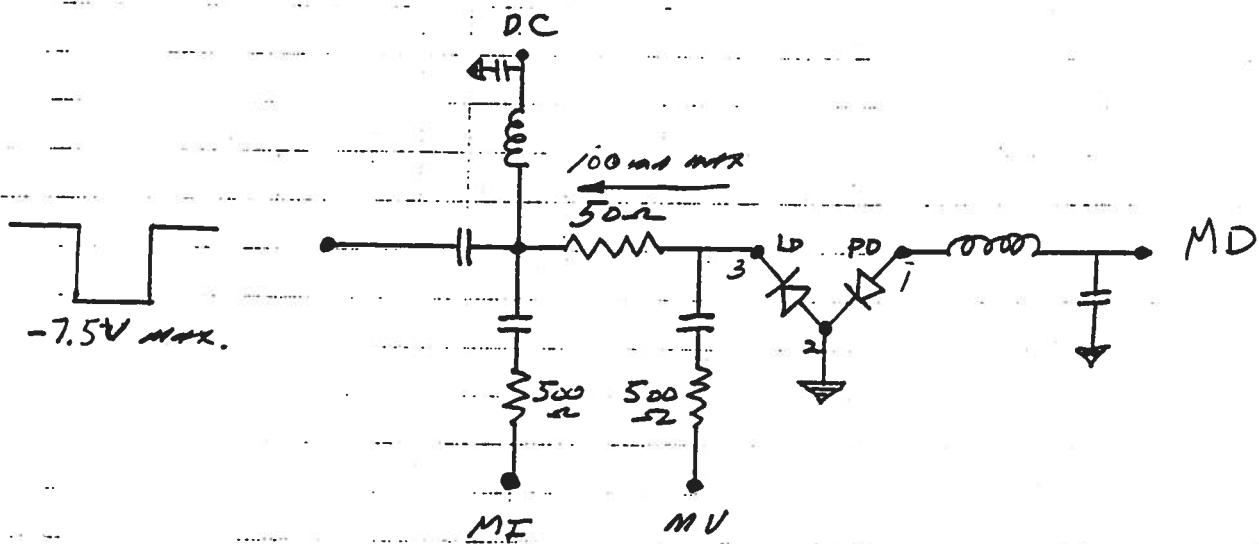
$$I_D = 0.2 (V_{MI} - V_{MV})$$

The laser diode voltage is given by the following:

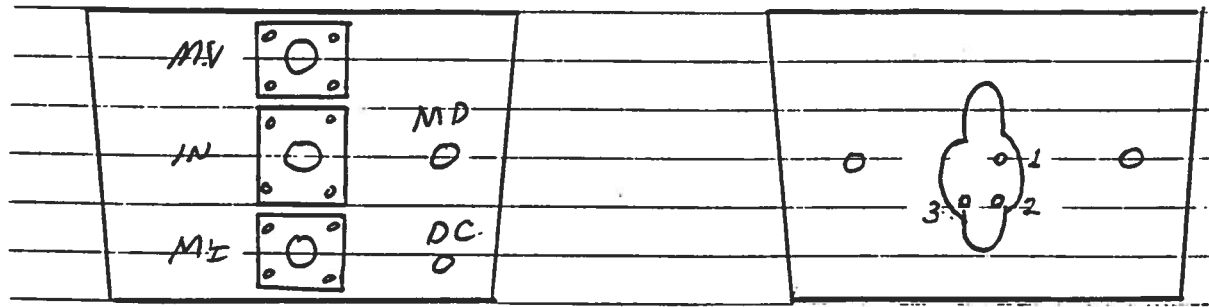
$$V_D = 10 V_{MV}$$

TEST ARRANGEMENT





AVX-51-MI-MV-MD - POLB FUNCTIONAL
EQUIVALENT CIRCUIT.



PACKAGE



AVTECH ELECTROSYSTEMS. LTD.

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| | | | |
|--------------|-----------------------------|-------------------|-----------------------------------|
| Fax Ref. No: | <u>3552</u> | From: | <u>Avtech Electrosystems Ltd.</u> |
| To: | <u>Polaroid Corporation</u> | Our Fax No: | <u>(613) 226-2802</u> |
| | <u>Cambridge, MA</u> | Date: | <u>April 21, 1998</u> |
| Attn: | <u>Kenric Nelson</u> | Receivers Fax No: | <u>781-386-8224</u> |
| Phone: | <u>781-386-6892</u> | No. of pages: | <u>3</u> |
| Subject: | <u>Quotation No 8676</u> | C.C. | <u></u> |

Following your fax of April 16th, I am pleased to requote as follows:

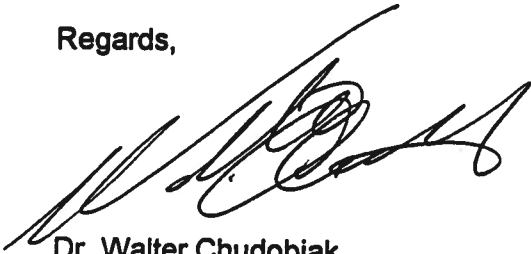
| | |
|---------------------|---|
| Quote No: | 8676. |
| Model designation: | AVX-S1-MI-MV-MD-POLB. |
| Peak diode current: | 200 mA |
| Pulse width: | 1 ns to 2.0 us |
| Rise time: | ≤ 300 ns |
| Pulse PRF range: | DC to 100 mHz |
| Other: | See standard AVX-S1, page 81, Catalog No. 9 |
| Price: | \$898.00 US each, FOB destination. |
| Delivery: | 60 days ARO. |

The functional equivalent circuit for this unit is shown on the attached. With this configuration, the diode case is grounded, the photodiode is not forward biased by the input pulse and the input pulse must be negative. The laser diode cathode pin connection is at the 9 o'clock position and the entire AVX-S1 chassis must be rotated if a 12 o'clock position is required.

Note that with your HP pulse generator you will be able to provide a maximum peak current of about 100 mA.

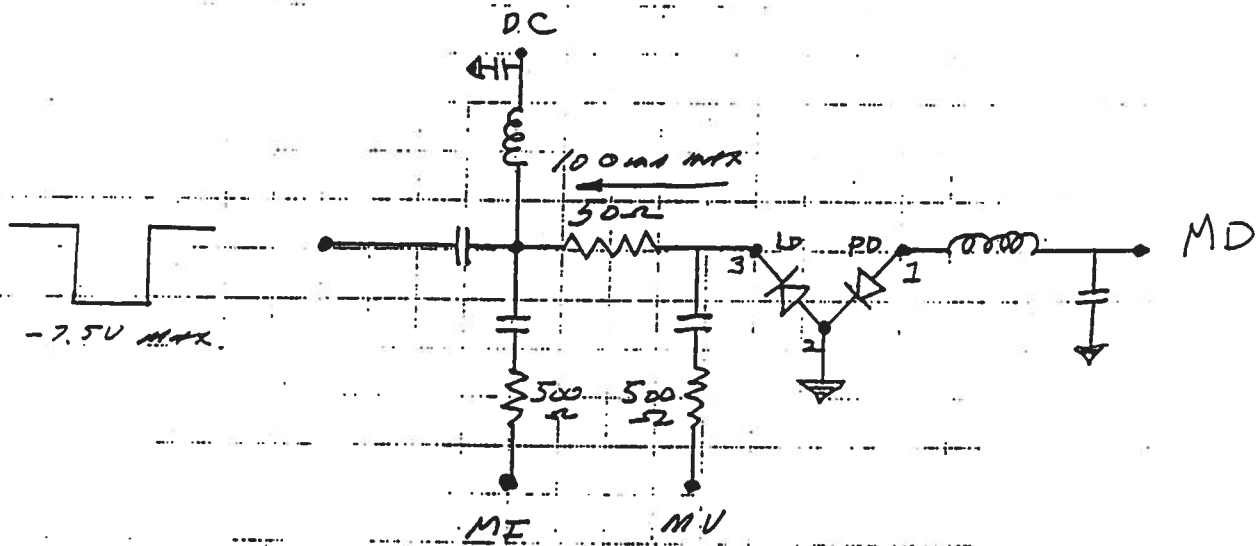
Thank you for your continuing interest in our products. Please call me (1-800-265-6681) if you require any additional information.

Regards,

A handwritten signature in black ink, appearing to read 'W. Chudobiak', written in a cursive style.

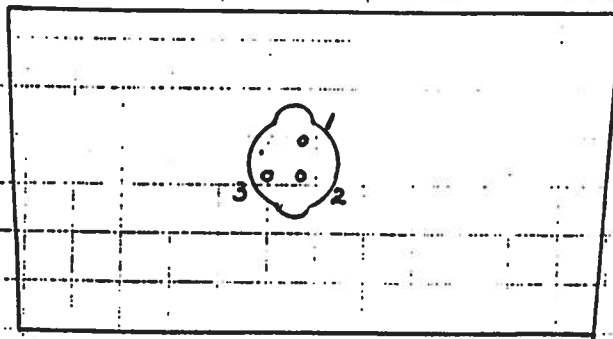
Dr. Walter Chudobiak
Chief Engineer

WC:mhd



AVX-51-MI-MV-MD-POLB FUNCTIONAL

EQUIVALENT CIRCUIT



Aug 11/98

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