



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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INSTRUCTIONS

MODEL AVO-2A-LTB 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 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

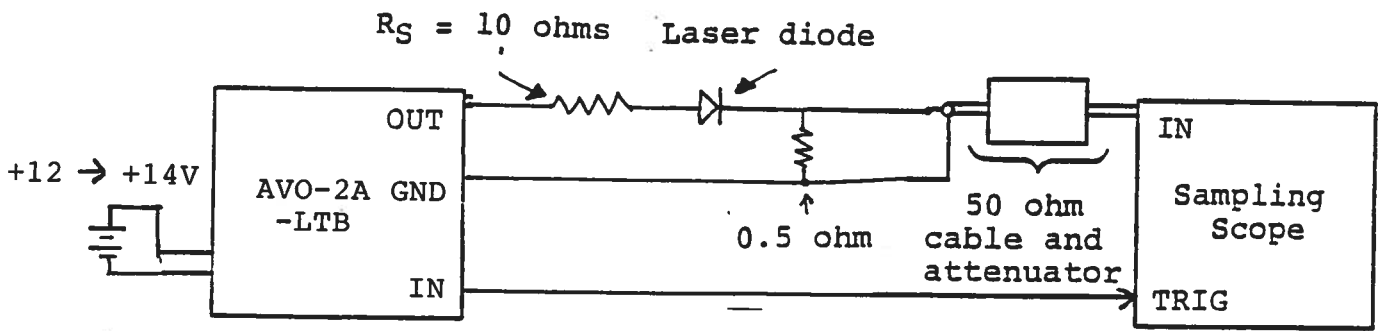
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Fig. 1

PULSE GENERATOR TEST ARRANGEMENT



Notes:

- 1) The bandwidth capability of components and instruments used to display the pulse generator output signal (attenuators, cables, connectors, etc.) should exceed two gigahertz.
- 2) To operate the unit in the internal mode, the "INT-EXT" switch must be in the "INT" position. The DC prime power must be in the range of +12 to +14 Volts.
- 3) The "IN" SMA connector provides TTL level signals (50% duty cycle, $R_{OUT} = 470$ Ohms) to trigger the scope time base. The leading edge of the output precedes the main output by about 350 ns.
- 4) To obtain a stable output display the PRF control on the front panel should be set mid-range. The front panel "INT-EXT" toggle switch should be in the INT position. The scope may then be used to set the desired PRF by rotating the PRF control.
- 5) The output pulse width is controlled by means of the front panel one turn PW control. The control should initially be set maximum clockwise and the pulse width adjusted using an oscilloscope.
- 6) The output pulse amplitude is controlled by means of the front panel one turn AMP control.
- 7) The laser diode is connected in series with a current limiting resistor ($R_S = 10$ ohm) between the GND and OUT terminals. 1/4 watt carbon film or carbon composition resistors may be used but all leads must be as short as possible (< 0.2 inch). Solder leads directly to the GND and OUT terminals.
CAUTION: Use moderate heat when soldering to the OUT terminal.

8) An external clock may be used to control the output PRF of the AVO unit by setting the front panel "INT-EXT" toggle switch in the EXT position and applying a 50 ns (or wider) TTL level pulse to the "IN" SMA connector. For operation in this mode, the scope time base must also be triggered by the external clock.

9) For additional assistance:

Tel: (613) 226-5772

Fax: (613) 226-2802

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Fax Ref No: 3054 From: Avtech Electrosystems Ltd.

To: Lucent Technologies Our Fax No: (613) 226-2802

Date: November 18, 1997

Attn: Claire Gmachl Receivers Fax No: 908-582-7660
Tel: 908-582-6164

Subject: Quotation No. of pages: 2

1) Following our telephone conversation of November 18th, I am pleased to offer the following price and delivery quotation:

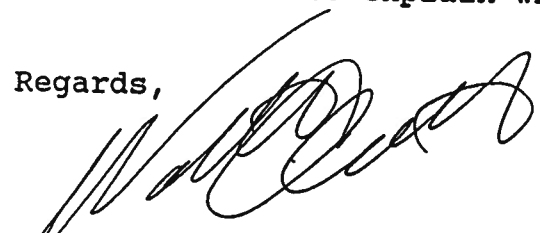
- Quote No: 8388A.
- Model designation: AVO-2A-P-LTB.
- Basic function: Battery powered portable laser diode driver.
- Output amplitude: 0 to 5.0 Amps, via a front panel one turn control. Laser diode in series with 10 Ohms is solder connected to output terminals on end of chassis (1.7" x 2.6" face).
- Pulse width: 2 to 50 ns via a front panel one turn control.
- Rise time: ≤ 2 ns.
- Fall time: ≤ 2 ns.
- Prime power: + 12 to + 14 VDC, 250 mA (batteries not supplied).

PRF: Internal clock mode: 2 kHz to 20 kHz (one turn control).
EXT trig mode: 0 to 20 kHz. Requires TTL pulse (PW > 50 ns) applied to SMA "in" connector.
Chassis size: 1.7" x 2.6" X 4.3", Avtech package style A, see page 113.
Chassis material: Cast aluminum; blue enamel.
Price: \$2,198.00 US each, FOB destination.
Delivery: 60 days ARO.

2) Quote No: 8388B.
Model designation: AVX-M3-L2.
Basic function: Will transform 350 Volts (to 50 Ohms) to 175 Volts (to 12 Ohm), i.e. 14 Amps.
Price: \$309.00 US each, FOB destination.
Delivery: 30 days ARO.

Model AVX-M3-LTA is designed to drive 3 Ohms and when driven by Model AVL-2-C should provide up to 28 Amps and the waveform should be similar (in quality) to that provided by Model AVX-M3-L2. Without testing the actual unit it is difficult to explain why you may have observed otherwise.

Regards,



Dr. Walter Chudobiak
Chief Engineer

WC:my

February 6/98

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