



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
U.S.A. & CANADA

e-mail: info@avtechpulse.com

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

INSTRUCTIONS

MODEL AV-155C-DUP5-AB PULSE GENERATOR

S.N. :

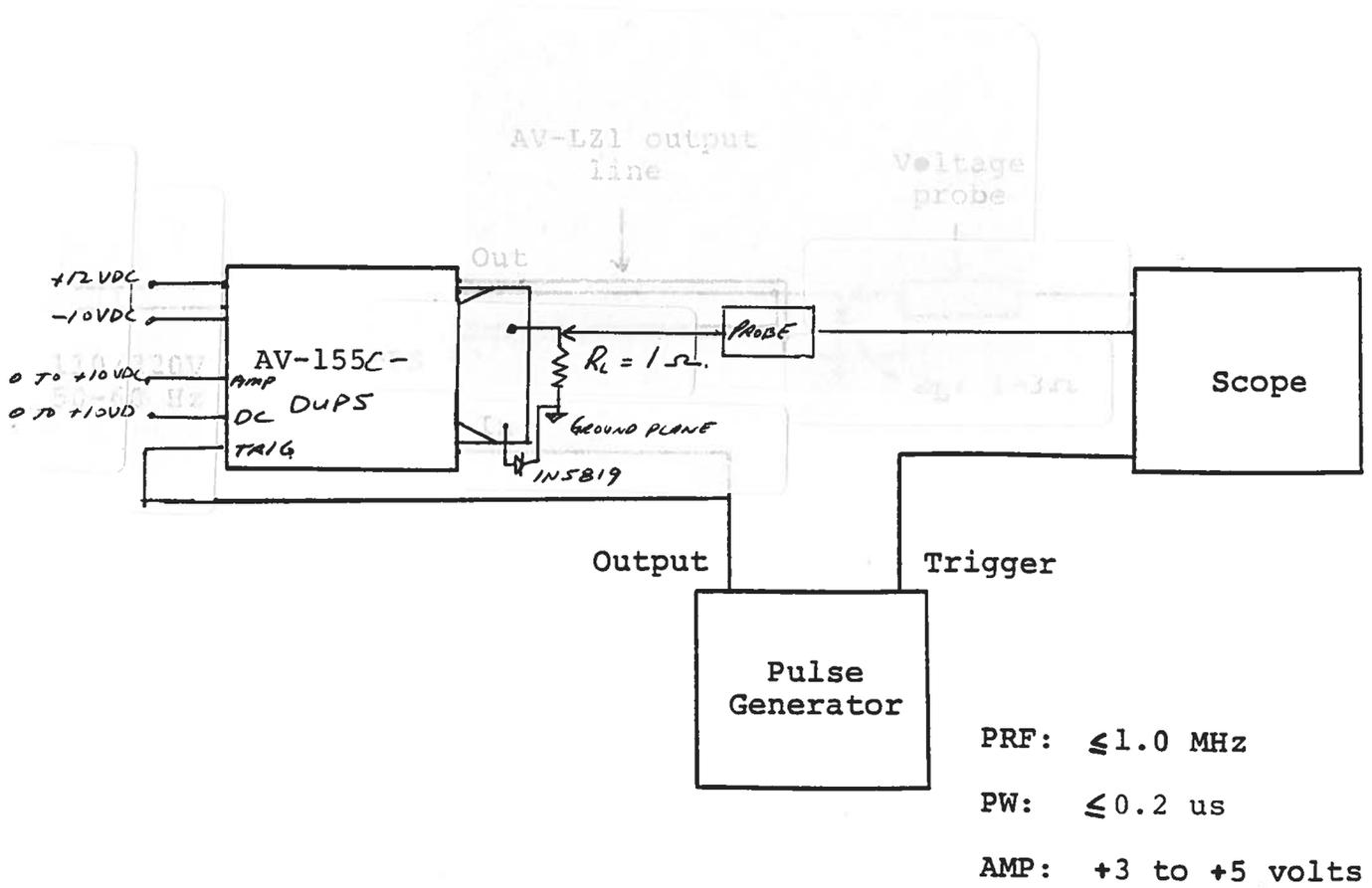
WARRANTY

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

Fig. 1

MODEL AV-155-PS-DUP 5 PULSE GENERATOR TEST ARRANGEMENT

(RESISTIVE LOAD, NO DIODE)



Notes:

- 1) The bandwidth capability of components and instruments used to display the pulse generator output signal (probes, cables, connectors etc.) should exceed 100 MHz. It is recommended that 2N5819 diode be placed across the load as shown in the drawing.
- 2) The TTL trigger signal controls the output PRF, PW and duty cycle when the unit is operated in MODE B. The input trigger signal also controls the output amplitude and offset when operating in MODE A.
- 3) WARNING. Model AV-155 may fail if triggered at a PRF greater than 1.0 MHz or if a non-TTL trigger signal is applied.
- 4) The output pulse width is equal to the input trigger pulse width and may be varied from 200 ns to DC.
- 5) When the AB switch is in the A position the unit operates as a voltage to current convertor:
$$V_{IN} = \frac{I_{OUT}}{0.375}$$
- 6) To voltage control the output pulse amplitude, set the rear panel switch in the B position, and apply 0 to +10 V between the AMP terminal and ground ($R_{IN} \geq 10K$). In this mode, the unit requires a TTL level trigger signal.
- 7) The output offset may be voltage controlled (from 0 to -500 mA) applying 0 to +10 V between the DC terminal and ground ($R_{IN} \geq 10K$).
- 8) A low-inductance resistor should be used as the load. Note that an inductance of 50 nh will yield an inductance spike of about one Volt. With a low-inductance one Ohm load, the overshoot may be as high as 10%. The overshoot will significantly decrease as the load resistance is increased to 2 or 3 Ohms.
- 9) The module must be bolted to a heatsink capable of dissipating about 20 watts. It is also recommended that a heat sink be attached to the copper tab protruding from the top surface of the module. This tab may, however be removed if necessary, by placing the tab on the jaws of a vice and applying a hacksaw to the copper tab.
- 10) A ten turn trim pot is provided (on the input end of the chassis). This pot may be used to control base line shift as the output pulse amplitude is increased.

11) For additional assistance:

Tel: 1-800-265-6681

Fax: (613) 226-2802

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 U.S.A. & CANADA

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

 SD
 notified

March 25, 1994.

Tel: 302-451-9096

Fax: 302-451-3145

 Kelly Golden, MS GBC603
 Dupont Co.
 P.O. Box 6110
 Newark, DE 19714

Dear Kelly:

Following our recent series of telephone conversations, I am pleased to provide a price and delivery quotation for a constant current pulse generator/driver module meeting the following specifications:

| | |
|-------------------------|---|
| Model designation: | AV-155C-DUP5. |
| Output pulse amplitude: | 0 to -1500 mA. Controlled by +10 VDC applied to a rear panel solder terminal. |
| Output DC offset: | 0 to -500 mA. Controlled by 0 to +10 VDC applied to a rear panel solder terminal. |
| Peak output current: | 2.0 Amperes (0.5 Amp offset plus 1.5 Amp pulse). |
| Load voltage range: | 0 to 2.5 Volts. |
| Output regulation: | Output current changes by less than 2% for a load voltage change for -2.5 to 0 Volts. |
| Output pulse width: | 200 ns to DC. Output pulse width equals input trigger pulse width. |

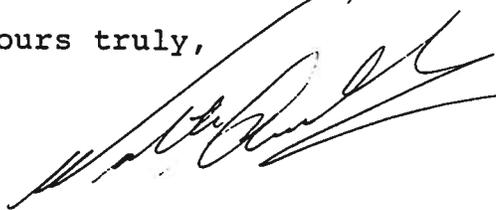
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Rise, fall time: ≤ 50 ns.
PRF: 0 to 1.0 MHz (equals input trigger PRF).
Maximum duty cycle: 100%.
Input trigger: TTL (controls output PRF, PW and duty cycle). Applied to rear panel solder terminal.
Package size: 1.7 x 2.6 x 4.3" (see enclosed sketch).
Connectors:
a) Output: 3 cm x 1 cm (width, length) 1/16" glass epoxy circuit board protrudes from end of chassis. Load solder connect.
b) Input, prime power and control: 5 rear panel solder terminals
Cooling: Module must be attached to heatsink capable of dissipating 20 watts.
Prime power: +12 VDC, 200 mA.
-10 VDC, 2200 mA.
Price: For a quantity of 3:
\$1198.00 US each FOB destination.
For a quantity of 6:
\$1078.00 US each FOB destination.
Delivery: 30-45 days.

I regret that the above pricing is moderately higher than I indicated during our last phone conversation but my costing had not been completed in detail at that time.

Thank you for your continuing interest in our products. Please call me again (1-800-265-6681) if you require any additional information or modifications to the above quotation.

Yours truly,

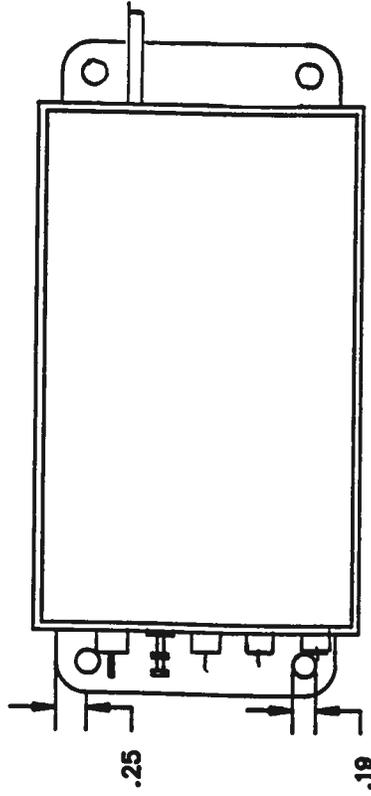


Dr. Walter Chudobiak
Chief Engineer

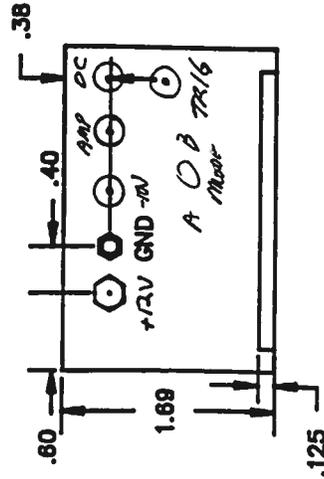
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MODEL AV-155C-DUP5

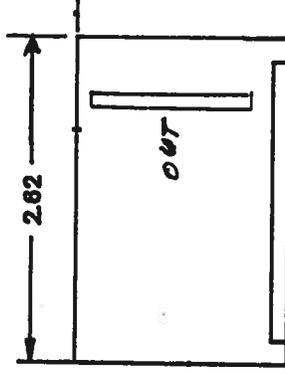
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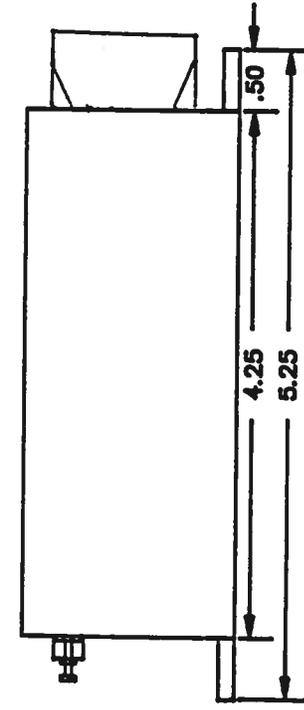
TOP



BACK

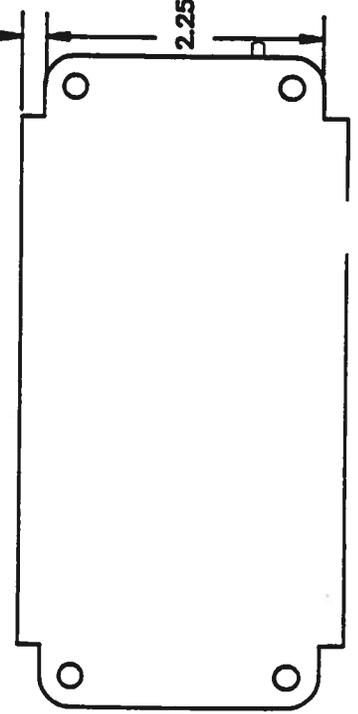


FRONT



SIDE

- NOTES: 1. ALL DIMENSIONS ARE IN INCHES
 2. OUT DIMENSION 1.3 CM TR (1/2")
 3. DC POWER CONNECTORS: SOLDER TERMINALS
 4. CHASSIS MATERIAL: CAST ALUMINUM
 5. COLOR: BLUE ENAMEL



BOTTOM

6507



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FAX: (613) 226-2802

Fax Ref No: 7018 From: Avtech Electrosystems Ltd.

To: Dupont Our Fax No: (613) 226-2802

Date: March 30, 1994

Attn: Kelly Golden Receivers Fax No: 302-451-3175
Tel: 302-451-9096

Subject: AV-155C-DUP5 No. of pages: 1

Following our phone conversation of March 28, I am pleased to provide the additional quotation.

A)

-AB option: \$100.00
Provides a two position Mode A-B switch on the input connector face of the module. In Mode A the unit operates as a voltage to current convertor ($V_{IN} = \frac{I_{OUT}}{0.375}$) while in Mode B the module requires a TTL level input trigger. To specify, add the suffix -AB to the model number and add \$100.00 to the price.

B)

Model AV-LZ0.8: \$390.00/meter (3 layer version of AV-LZ1)

Delivery: 30 days

Rgds

Dr. Walter Chudobiak
Chief Engineer

June 21/94