AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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BOX 5120, LCD MERIVALE
OTTAWA, ONTARIO
CANADA K2C 3H4

INSTRUCTIONS

MODEL AVR-3-P-EPRIB

0 TO +200 VOLTS,

10 – 100 Hz, 500 ns – 5 us

PULSE GENERATOR MODULE

SERIAL NUMBER: _____

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 dissembled, 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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Manual Reference: /fileserver1/officefiles/instructword/avr-3/AVR-3-P-EPRIB,ed1.odt.
Last modified February 29, 2024.

INTRODUCTION

The AVR-3-P-EPRIB is a customized high-performance DC-powered module capable of generating up to +200V into 50Ω loads at repetition rates of 10 to 100 Hz. The output pulse width is variable from 500 ns to 5 us. The rise and fall times are 10 ns or less, on a 20%-80% basis.

The AVR-3-P-EPRIB is triggered by an internal 10 to 100 Hz clock. The PRF is controlled by a one-turn locking trimpot. A coincident TTL-level sync pulse is provided for oscilloscope triggering purposes.

The amplitude and pulse width are also controlled by one-turn locking trimpots.

The output is designed to drive resistive loads of 50 Ohms or higher.

The module requires a +19.5V (+/- 2V) DC power supply.

This instrument is intended for use in research, development, test and calibration laboratories by qualified personnel.

ORIGINAL QUOTATION AND SPECIFICATIONS

Date: Thu, 02 Dec 2010 09:50:17 -0500
From: Avtech Sales
To: William Chisholm
Subject: Re: Avtech Quote 13183 from 2006

December 2, 2010
William Chisholm
Kinectrics
w.a.chisholm@sympatico.ca

William,

Following your recent inquiry, I am pleased to re-quote as follows:

Quote number: 15488

Model number: AVR-3-P-EPRIB

Description: High Voltage Pulse Generator Module

Amplitude: 0 to +200V, adjustable using a one-turn locking trimpot, into load resistances of 50 Ohms or higher.

Pulse width (FWHM): 500 ns to 5 us, adjustable using a one-turn locking trimpot.

Rise and fall times (20%-80%): < 10 ns

PRF: 10 Hz to 100 Hz. Controlled by a one-turn locking trimpot. A coincident TTL-level sync pulse is provided.

Power required: +19.5 V DC, +/- 2 Volts

Chassis size: 2.3" x 4.8" x 6.8"

Connectors (SYNC, OUT): SMA female

Connectors (Power, Gnd): solder terminals

Price: $XXXXX US each. Delivery within Canada included. HST 13% extra.

Quote valid for: 8 weeks

Estimated delivery: 8 weeks after receipt of order.

I am Walter's son. Walter is still very active with our firm.

Please call or email me if I can be of further assistance.

Thank you for your interest in our products!

Regards,

Dr. Michael J. Chudobiak
Chief Engineer

--- Avtech Electrosystems Ltd. ---------- since 1975 ---

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Pulse Generators - Laser Diode Drivers - HV Amplifiers
Monocycle Generators - Impulse Generators - Pulse Amplifiers
Function Generators - Frequency Dividers - Standard & Customized
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REGULATORY NOTES

FCC PART 18

This device complies with part 18 of the FCC rules for non-consumer industrial, scientific and medical (ISM) equipment.

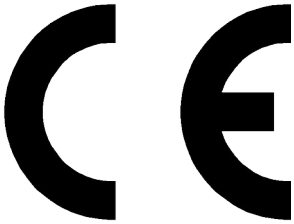
This instrument is enclosed in a rugged metal chassis and uses a filtered power entry module (where applicable). The main output signal is provided on a shielded connector that is intended to be used with shielded coaxial cabling and a shielded load. Under these conditions, the interference potential of this instrument is low.

If interference is observed, check that appropriate well-shielded cabling is used on the output connectors. Contact Avtech (info@avtechpulse.com) for advice if you are unsure of the most appropriate cabling. Also, check that your load is adequately shielded. It may be necessary to enclose the load in a metal enclosure.

If any of the connectors on the instrument are unused, they should be covered with shielded metal “dust caps” to reduce the interference potential.

This instrument does not normally require regular maintenance to minimize interference potential. However, if loose hardware or connectors are noted, they should be tightened. Contact Avtech (info@avtechpulse.com) if you require assistance.

EC DECLARATION OF CONFORMITY



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Canada K2C 3H4

declare that this pulse generator meets the intent of Directive 89/336/EEC for Electromagnetic Compatibility. Compliance pertains to the following specifications as listed in the official Journal of the European Communities:

EN 50081-1 Emission

EN 50082-1 Immunity

and that this pulse generator meets the intent of the Low Voltage Directive 72/23/EEC as amended by 93/68/EEC. Compliance pertains to the following specifications as listed in the official Journal of the European Communities:

EN 61010-1:2001	Safety requirements for electrical equipment for measurement, control, and laboratory use

DIRECTIVE 2002/95/EC (RoHS)

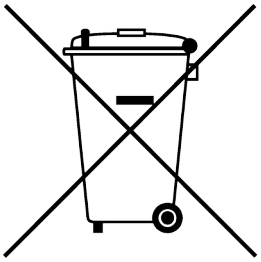
This instrument is exempt from Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the Restriction of the use of certain Hazardous Substances (RoHS) in electrical and electronic equipment. Specifically, Avtech instruments are considered "Monitoring and control instruments" (Category 9) as defined in Annex 1A of Directive 2002/96/EC. The Directive 2002/95/EC only applies to Directive 2002/96/EC categories 1-7 and 10, as stated in the "Article 2 - Scope" section of Directive 2002/95/EC.

DIRECTIVE 2002/96/EC (WEEE)

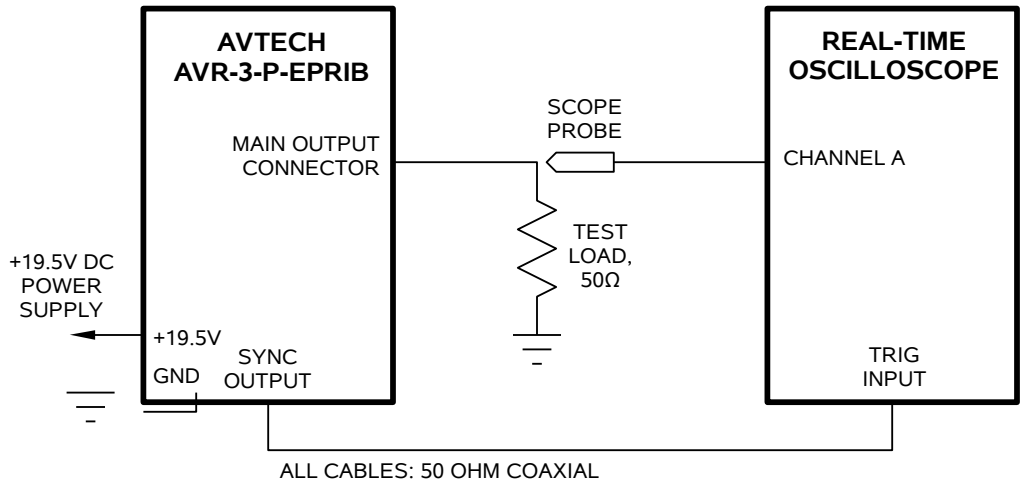
European customers who have purchased this equipment directly from Avtech will have completed a “WEEE Responsibility Agreement” form, accepting responsibility for WEEE compliance (as mandated in Directive 2002/96/EC of the European Union and local laws) on behalf of the customer, as provided for under Article 9 of Directive 2002/96/EC.

Customers who have purchased Avtech equipment through local representatives should consult with the representative to determine who has responsibility for WEEE compliance. Normally, such responsibilities with lie with the representative, unless other arrangements (under Article 9) have been made.

Requirements for WEEE compliance may include registration of products with local governments, reporting of recycling activities to local governments, and financing of recycling activities.

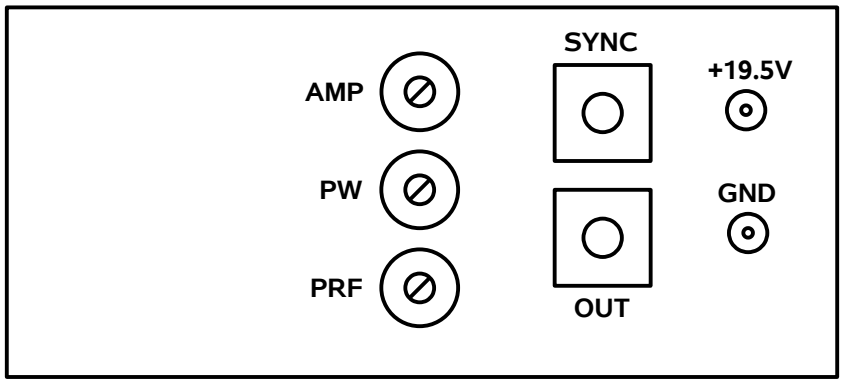


BASIC TEST ARRANGEMENT



CONTROLS

The location of the OUT and SYNC connectors, and the PRF, amplitude and pulse width controls are shown in the figure below:



The AMP, PW, and PRF controls may be adjusted using a screwdriver. Rotating the control clockwise increases the affected parameter.

PERFORMANCE CHECK SHEET