



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

info@avtechpulse.com
<http://www.avtechpulse.com/>

Tel: 888-670-8729 (USA & Canada)
or +1-613-686-6675 (Worldwide)

BOX 5120, LCD MERIVALE
OTTAWA, CANADA K2C3H5

INSTRUCTIONS

MODEL AVR-8A-P-EPRIF-EA

+80 TO +800 VOLT,

10 – 100 Hz, 500 ns – 5 us

PULSE GENERATOR MODULE

SERIAL NUMBER: 14495

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: 888-670-8729 (USA & Canada)
or +1-613-686-6675 (Worldwide)

E-mail: info@avtechpulse.com
World Wide Web: <http://www.avtechpulse.com>

TABLE OF CONTENTS

WARRANTY..... 2
TECHNICAL SUPPORT..... 2
TABLE OF CONTENTS..... 3
INTRODUCTION..... 4
ORIGINAL QUOTATION AND SPECIFICATIONS..... 5
BASIC TEST ARRANGEMENT..... 6
 POWER SUPPLY..... 6
 OTHER CONTROLS..... 7
PERFORMANCE CHECK SHEET..... 8

Manual Reference: /fileserv1/officefiles/instructword/avr-8/AVR-8A-P-EPRIF-EA,sn14495.odt.
Last modified January 23, 2025.
Copyright © 2025 Avtech Electrosystems Ltd, All Rights Reserved.

INTRODUCTION

The AVR-8A-P-EPRIF-EA is a customized high-performance DC-powered module capable of generating up to +800V into 50 Ω loads at repetition rates of 10 to 100 Hz. The output pulse width is variable from 500 ns to 5 μ s. The rise and fall times are 30 ns or less, on a 20%-80% basis.

The AVR-8A-P-EPRIF-EA 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 +10V to +36V DC power supply.

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

ORIGINAL QUOTATION AND SPECIFICATIONS

Model number: AVR-8A-B-P-EPRIF-EA

Description: Customized High Voltage Pulser Module

Amplitude: < +80V to +800V, into load resistances of 50 Ohms or higher. Adjustable using a 0 to +10V DC control voltage applied to a solder terminal (input impedance $\geq 1k\Omega$)

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

Rise and fall times (20%-80%): < 30 ns

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

Power required: +10V to +36V DC. Includes reverse polarity protection.

Chassis size: 3.25" H x 10" W x 5.75 D" (Bud AN-2808-AB or similar)

Connectors (SYNC, OUT): SMA female

Connectors (Power, Gnd): banana safety, red and black, Pomona 6387 or similar

Note: All trimpots and coaxial connectors will be located on one end (3.25" H x 5.75 D") of the module. All power connectors will be on the opposite end.

Price: \$XXXXXX USD each, DAP (Delivered At Place, to USA/Canada). Includes the cost of shipping and insurance, but excludes customs duties, taxes, and other import fees. Shipments are from Canada, via FedEx, and are normally duty-free. (Customers who wish to order from an authorized US reseller to avoid international shipping can contact Sales@Testequipmentconnection.com for an alternative quotation.)

Estimated delivery: 10-12 weeks after receipt of order.

Note: Orders with Avtech are non-cancelable, non-refundable. Avtech does not offer returns, due to the highly-specialized, low-volume, build-to-order nature of our product line.

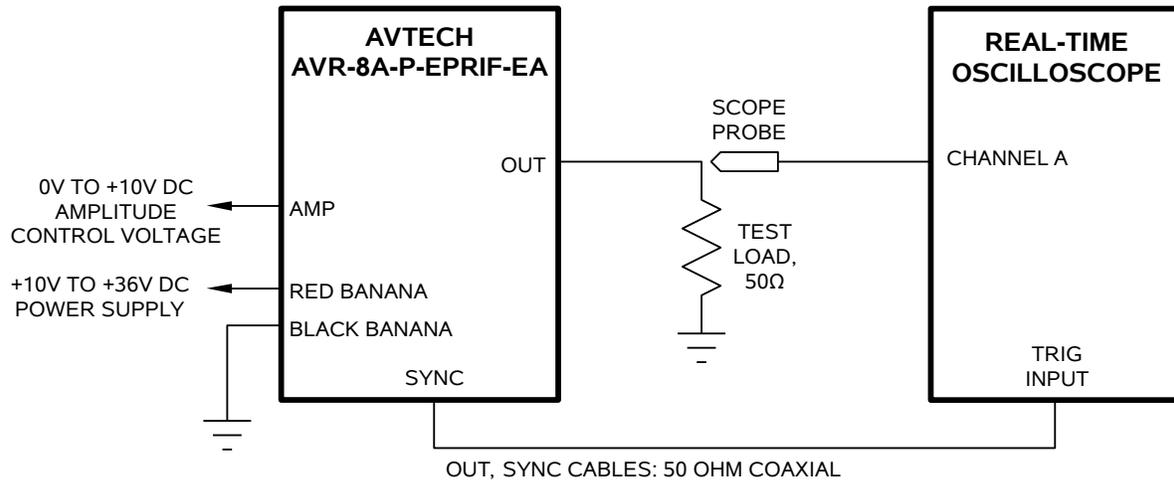
Quote valid for: 4 weeks

Avtech W-8BEN-E tax form: <http://www.avtechpulse.com/misc-forms/W-8BEN-E.pdf>

Terms: Net 30 days.

Avtech corporate registrations: DUNS: 208 910 836, Cage Code (USA): 0BWA5, Tax ID (USA EIN): 98-0117622

BASIC TEST ARRANGEMENT



POWER SUPPLY

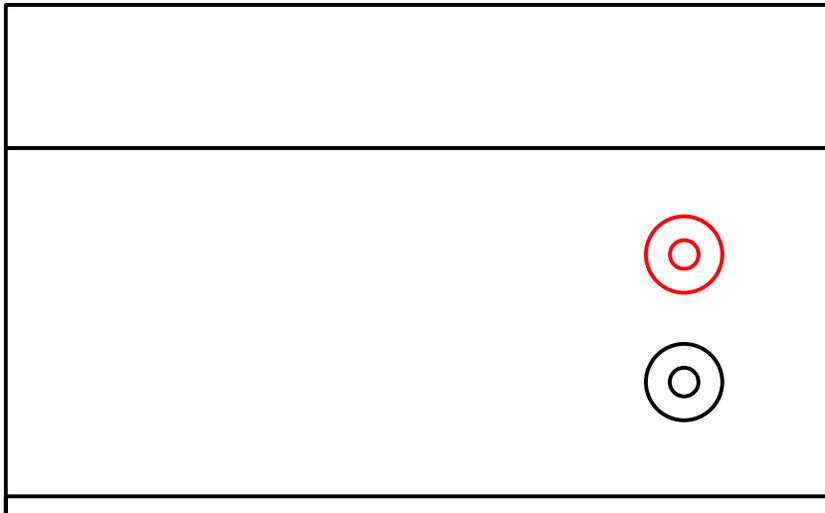
The AVR-8A-P-EPRIF-EA requires a DC power supply in the range of +10V to +36V.

At +10V, the worst-case *average* current consumption is 2.1A.

At +36V, the worst-case *average* current consumption is 0.6A.

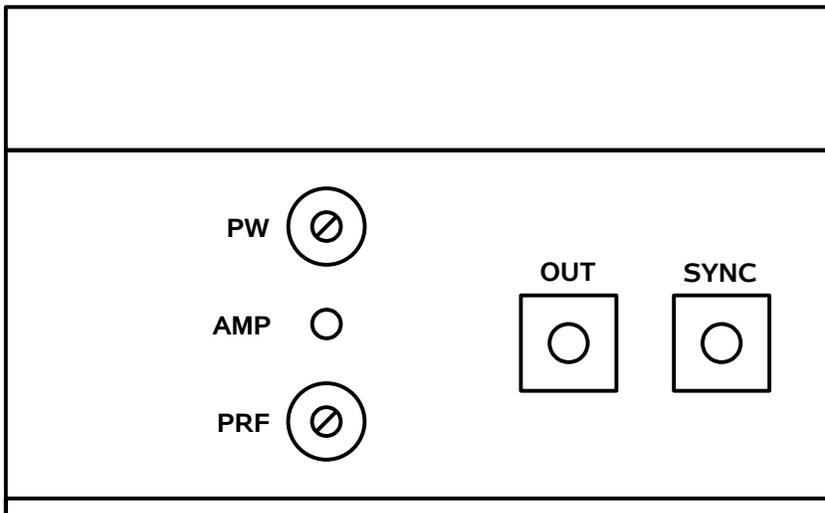
The worst-case peak surge currents may be several times higher. If the operation of the module appears to “cut out” at times, the peak current capability of the DC power supply may be too low.

This voltage should be applied to the red banana safety socket on the end face of the manual. The black banana safety socket must be connected to ground. The locations of these sockets are shown below:



OTHER CONTROLS

The location of the OUT and SYNC connectors, and the PRF, amplitude and pulse width controls are located on the front end of the module, as shown in the figure below:



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

The AMP control is a solder terminal. A 0 to +10V DC control voltage must be applied to this input. 0 corresponds to 0 output amplitude, and +10V corresponds to +800V output amplitude (approximately).

PERFORMANCE CHECK SHEET