

HIGH SPEED – HIGH CURRENT – HIGH VOLTAGE

Avtech produces a unique series of fast pulsers, drivers, amplifiers, and accessories for research laboratory and production testing applications.

These products are currently in use in over 54 countries.

For the full product line, pricing, test results, and application ideas see:

<http://www.avtechpulse.com>



FAST PULSE TEST SOLUTIONS FOR:

Pulsed Laser Diodes

- ▶ <http://www.avtechpulse.com/laser>
- ▶ <http://www.avtechpulse.com/current>

Blue Diode Research

- ▶ <http://www.avtechpulse.com/current>

MEMS Research

- ▶ <http://www.avtechpulse.com/function>
- ▶ <http://www.avtechpulse.com/high-voltage>

Ground Penetrating Radar

- ▶ <http://www.avtechpulse.com/monocycle>
- ▶ <http://www.avtechpulse.com/impulse>

100 ps Rise Times

- ▶ <http://www.avtechpulse.com/speed>

High Current

- ▶ <http://www.avtechpulse.com/laser>
- ▶ <http://www.avtechpulse.com/current>

Air Bag Testing

- ▶ <http://www.avtechpulse.com/current>

Ultrasonic Excitation

- ▶ <http://www.avtechpulse.com/monocycle>
- ▶ <http://www.avtechpulse.com/impulse>

Semiconductor Switching Times (t_{RR} , t_{FR} , V_{FM} , dI/dt , etc.)

- ▶ <http://www.avtechpulse.com/semiconductor>

Phototriac dV/dt Testing

- ▶ <http://www.avtechpulse.com/dvdt>

Opto Coupler Transient Immunity Testing (CMTI)

- ▶ <http://www.avtechpulse.com/cmti>

UWB and Impulse Technology

- ▶ <http://www.avtechpulse.com/impulse>

Fuse and Resistor Testing

- ▶ <http://www.avtechpulse.com/current>
- ▶ <http://www.avtechpulse.com/medium>

Pulse Amplification

- ▶ <http://www.avtechpulse.com/amplifiers>

Time of Flight, Beam Blanking, Image Intensifier Gating

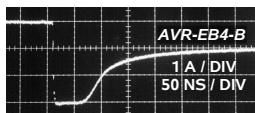
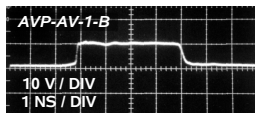
- ▶ <http://www.avtechpulse.com/flight>

Frequency Division

- ▶ <http://www.avtechpulse.com/divider>

High Voltage

- ▶ <http://www.avtechpulse.com/medium>
- ▶ <http://www.avtechpulse.com/high-voltage>
- ▶ <http://www.avtechpulse.com/flight>



SPECIALIZED SEMICONDUCTOR TESTS

Avtech offers 16+ standard models specifically for semiconductor test application. Each high-speed waveform pulser is available with GPIB and RS-232 computer control ports. User-friendly output test jigs are available for convenient socket-mounting of the DUT. Standard and customized test jigs are available to simplify testing of a wide variety of packages (DO-41, MELF, STUD, TO-220, TO-3, and others).

For Opto Coupler Transient Immunity Tests, 3 models, see:
 ▶ <http://www.avtechpulse.com/cmti>

For MIL-STD-750E Method 4031.4 reverse recovery time tests (Conditions A, B, C, and D), 5 models, see:
 ▶ <http://www.avtechpulse.com/trr>

For MIL-STD-750E Method 4026.3 forward recovery time (tFR) and voltage (VFM) tests, 2 models, see:
 ▶ <http://www.avtechpulse.com/tfr>

For MIL-STD-750-3 Method 3472.2 MOSFET tests, see:
 ▶ <http://www.avtechpulse.com/transistor>

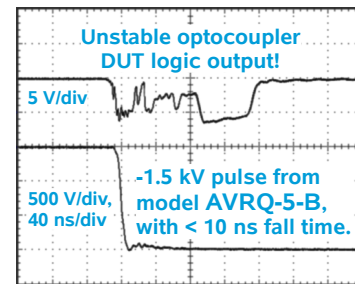
For MIL-PRF-19500 Switching Time Tests, 2 models, see:
 ▶ <http://www.avtechpulse.com/transistor>

For Phototriac dV/dt Tests, 1 model, see:
 ▶ <http://www.avtechpulse.com/dvdt>

Avtech can provide testers for other semiconductor test requirements, such as PIN diode carrier lifetime tests, step recovery diode transition time tests, and others. Email Avtech (info@avtechpulse.com) with your special requirement or talk with a design engineer at +1-613-686-6675!



Model AVRQ-5-B-FPD for CMTI tests.



Datasheets, test results and pricing at www.avtechpulse.com/semiconductor

LASER DIODE DRIVERS WITH HIGH-SPEED SOCKETING

A simple way to test ultra-fast laser diodes! Each model includes the driver and a specially-designed, ultra-high-speed socket for your laser diode. The AVO-9 series combines cutting-edge performance with ease-of-use.

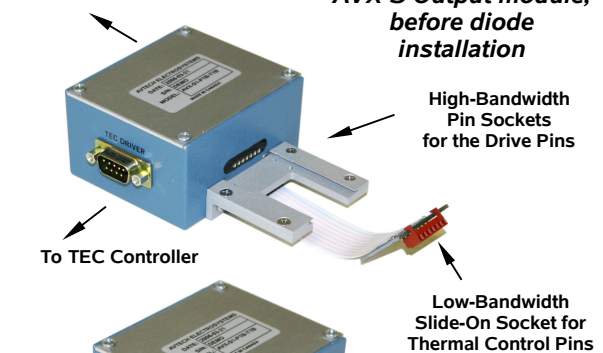
Each of the 22+ models in the AVO-9 series of laser diode drivers includes a replaceable AVX-S output module with an easy-to-use ultra-high-speed socket suitable for use with sub-nanosecond rise time pulses. Models with maximum currents of 0.1A to 10A are available. GPIB, RS-232, and Ethernet control available.

Driver Mainframe



Cables To Driver Mainframe

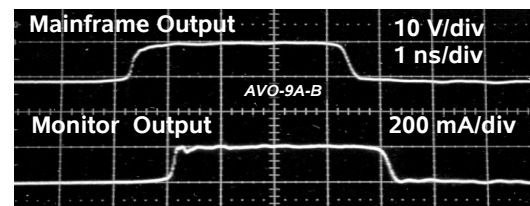
AVX-S Output module, before diode installation



Model	Max Ampl	Pulse Width	Rise Time	PRF
AVO-9A-B	200 mA	0.4 – 4 ns	≤ 0.2 ns	1 MHz
AVO-9E-B	400 mA	10 – 200 ns	≤ 0.3 ns	10 MHz
AVO-9A3-B-W4	800 mA	0.4 – 4 ns	≤ 0.2 ns	1 MHz
AVO-9G-B-W1	1 A	1 – 200 ns	≤ 0.5 ns	100 kHz
AVO-9A5-B	1 A	1 – 10 ns	≤ 0.5 ns	1 MHz
AVO-9H1-B	2 A	10 – 500 ns	≤ 1.2 ns	200 kHz
AVO-9M-B	4.5 A	1 – 10 ns	≤ 1.0 ns	20 kHz

There are numerous other standard models. Customization is available.

Datasheets, test results and pricing at
<http://www.avtechpulse.com/laser>



Talk with a design engineer at +1-613-686-6675!

GENERAL-PURPOSE HIGH-VOLTAGE PULSERS

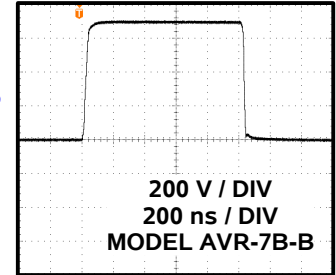
Avtech offers an extensive line of medium-voltage and high-voltage pulse generators for general laboratory use and production test environments.

All models include GPIB, RS-232, and Ethernet ports, providing ease-of-use from the front panel and in automated environments.

Some of these models may be suitable for replacing discontinued HP/Agilent models such as the 214B/8114A, or high-voltage Velonex instruments.



Model	Max. Ampl	t _{RISE}	Pulse Width	PRF	
AV-1015-B	50V / 1A	10 ns	20 ns – 10 ms	10 MHz	
AV-1010-B	100V / 2A	10 ns	20 ns – 10 ms	1 MHz	Possible 214B/8114A alternative
AVR-3HF-B	250V / 5A	10 ns	100 ns – 100 us	100 kHz	
AVR-5B-B	500V / 10A	20 ns	100 ns – 100 us	10 kHz	All with GPIB, RS-232, Ethernet
AVR-7B-B	700V / 14A	20 ns	100 ns – 100 us	10 kHz	
AVR-8A-B	1000V / 20A	50 ns	200 ns – 200 us	1 kHz	Possible Velonex alternative
AVOZ-D6-B	1000V / 200A	200 ns	1 us – 10 us	500 Hz	Very high current!

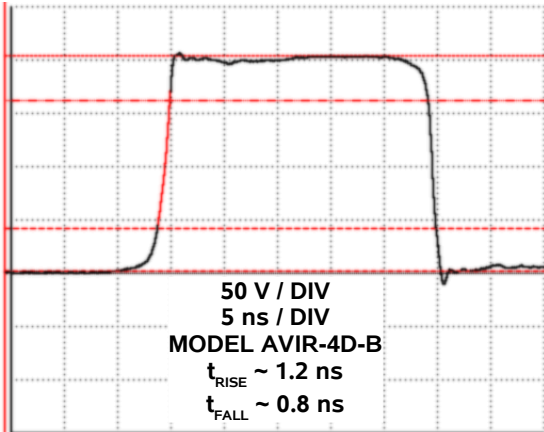


More solutions are available at <http://www.avtechpulse.com>

HIGH-SPEED HIGH-VOLTAGE PULSERS

For higher-performance applications, Avtech offers many models capable of delivering both high amplitudes and nanosecond-scale rise times.

All models with the “-B” suffix include a complete computer-control interface, and an easy-to-use front panel with keypad and LCD.



Model	Max. Ampl	t _{RISE}	Pulse Width	PRF
AV-1011B3-B	50V	500 ps	100 ns – 10 ms	100 kHz
AV-1011B1-B	100V	2 ns	100 ns – 1 ms	100 kHz
AVR-E3-B-W3	100V	500 ps	1 ns – 5 us	20 kHz
AVIR-4D-B	200V	2 ns	4 – 1000 ns	20 kHz
AVL-2D-B	240V	1.5 ns	10 – 100 ns	20 kHz
AVL-5-B-TR	400V	2.5 ns	8 – 100 ns	2 kHz
AVRZ-5W-B	500V	6 ns	15 ns – 10 us	5 kHz
AVRF-7A-B	750V	5 ns	0.15 – 10 us	5 kHz
AVRK-4-B	750V	4 ns	6 – 20 ns	1 kHz
AVG-4C2-B	920V	1.5 ns	< 5 ns	10 kHz

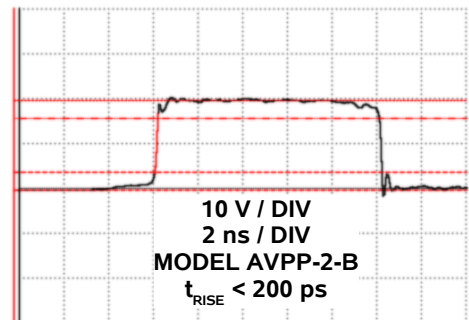
More solutions are available at <http://www.avtechpulse.com>

ULTRA-HIGH-SPEED PULSERS

Pulser generators and impulse generators with sub-nanosecond rise times are offered for the very highest performance applications.

Model	Max. Ampl	t _{RISE}	Pulse Width	PRF
AVP-AV-1S-C	5V	60 ps	0.2 ns – 4 ns	1 MHz
AVMH-1-C	10V	N/A*	0.2 ns – 1 ns	25 MHz
AVP-3SA-C	10V	50 ps	0.2 ns – 4 ns	1 MHz
AVPP-1A-B	10V	150 ps	0.4 ns – 100 ns	1 MHz
AVPP-1A-B	10V	200 ps	0.5 ns – 1 us	500 kHz
AVP-AV-HV2-B	20V	100 ps	0.3 ns – 2 ns	1 MHz
AVPP-2A-B	20V	200 ps	0.5 ns – 1 us	100 kHz
AVMR-2D-B	20V	200 ps	0.5 ns – 200ns	10 MHz
AVH-SB-B	30V	N/A*	< 350 ps	1 MHz
AVP-AV-HV3-B	40V	150 ps	0.4 ns – 2 ns	1 MHz
AVI-V-HV1A-B	50V	100 ps	2 – 100 ns	20 kHz
AVI-V-HV2A-B	100V	300 ps	4 – 100 ns	20 kHz
AVH-HV1-B	100V	N/A*	< 1 ns	100 kHz
AVMH-5-C	100V	N/A*	2 ns – 4 ns	1 MHz

* impulse generator, with a narrow “spike” waveform



**PICK THE PERFECT
PULSER ONLINE**

www.avtechpulse.com/pick

Just enter your specs, and instantly search the world's largest selection of high-speed pulsers and laser diode drivers!

Voltage V
 Current A
 Rise Time ns
 Min. Pulse Width ns
 Max. Pulse Width ns
 Minimum PRF Hz
 Maximum PRF Hz

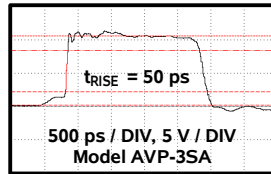
For additional help:
info@avtechpulse.com
 Tel: 613-686-6675 or 888-670-8729

Prices are published on our website but we would be pleased to provide you with a formal emailed price and lead-time quotation!

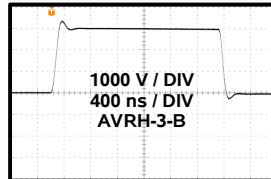
Quote request form at
<http://www.avtechpulse.com/quote>

Challenge us if you find that Cat. 23S did not offer the necessary

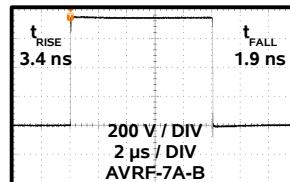
SPEED



AMPLITUDE



SPEED & AMPLITUDE



Then call and tell us what you need:
info@avtechpulse.com
 Tel: 613-686-6675 or 888-670-8729

AMPLIFIERS & FUNCTION GENERATORS



AV-153 SERIES FUNCTION GENERATORS

- Amplitudes up to ±200 Volts, 15 – 90 Watts
- Sine, square, or triangle, with DC offset
- Amplifier mode for arbitrary input waveforms
- GPIB / Ethernet standard, burst mode optional



AV-112 SERIES AMPLIFIERS

- Four variable-gain linear amplifiers
- 8 to 90 Watts average output power
- AV-112AH-PS: ± 200 V to 1.2 kΩ, 300 kHz
- AV-112C-PS: ± 90 V to 100 Ω, 30 kHz
- DC offset, dual channel options available

Datasheets, test results and pricing at
<http://www.avtechpulse.com/function>
<http://www.avtechpulse.com/high-voltage>

HIGH-CURRENT PULSERS

Avtech offers voltages pulsers with high current capability (up to 500A!), as well as true pulsed constant-current sources. These are useful for testing power semiconductors, lasers, airbag initiators, and other test applications.

Selected Voltage Pulsers with High Current Capability

Model	Max. Ampl	t _{RISE}	Pulse Width
AVO-8C3-B	40V, 200A	1.5 us	2 us – 1 sec
AVO-8D3-B	50V, 500A	2.5 us	5 us – 0.1 sec
AVOZ-D5-B	50V, 20A	25 ns	200 ns – 10 us
AVOZ-B4-B	100V, 100A	35 ns	100 ns – 2 us
AVOZ-DF3-B	200V, 20A	5 ns	20 ns – 200 ns
AVOZ-E5-B	500V, 250A	200 ns	200 ns – 10 us
AVOZ-D7-B	1000V, 100A	120 ns	200 ns – 10 us

Pulsed Constant Current Sources

Model	Max Ampl	Load Voltage	t _{RISE}	Pulse Width
AV-156M-B	1.5A	0 – 350V	0.3 ms	1 ms – 50 ms
AV-156A-B	5A	0 – 15V	4 us	10 us – 10 ms
AV-156G-B-HC-PW	10A	0 – 25V	4 us	10 us – 100 ms
AV-107D-B	20A	0 – 60V	30 ns	50 ns – 5 us
AV-106A-B	30A	0 – 30V	50 ns	0.5 us – 50 us
AV-106B-B	100A	0 – 100V	1 us	2 us – 200 us
AV-108E-4A-B	150A	0 – 100V	15 us	20 us – 200 us
AV-108E-3A-B	200A	0 – 20V	10 us	20 us – 1 ms