



SPECIFICATIONS

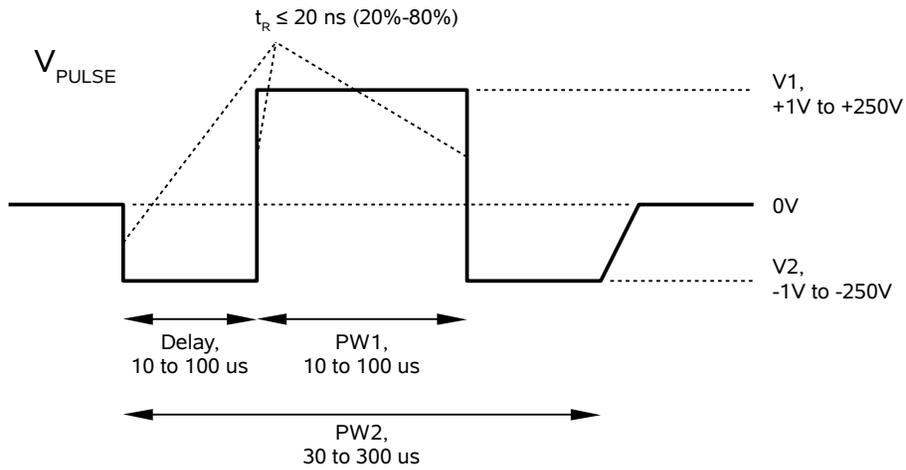
AVR-D3 SERIES

Model ¹ :	AVR-D3-B
Waveform:	See diagram on next page.
V1 amplitude:	+1V to +250V
V2 amplitude:	-1V to -250V
PW1 pulse width:	10 to 100 us
PW2 pulse width:	30 to 300 us
Output impedance (R _{OUT}):	50 Ohms
Maximum output current:	±250V / R _{OUT} = ±5 Amps
Maximum power dissipated internally, in R _{OUT} :	$(5A)^2 \times 50\Omega \times 300\text{ us} \times 10\text{ Hz} = 3.75\text{ W}$
Switching time (t _R):	≤ 20 ns (20%-80%), as measured at the “MON” connector. The switching times at the “OUT” connector may be slower due to the effective of R _{OUT} and and the cabling / circuit capacitance (C _{LOAD}). The time constant of any degradation will be given by $\tau = R_{OUT} \times C_{LOAD}$. This switching time (t _R) applies to the three transitions noted in the waveform diagram on the next page. The fourth transition will be much slower.
Pulse repetition frequency:	1 Hz to 10 Hz, adjustable, or single-shot.
Supplied test jigs:	None (user-supplied)
Propagation delay:	≤ 150 ns (Ext trig in to pulse out)
Jitter:	± 100 ps ± 0.03% of sync delay (Ext trig in to pulse out)
Trigger modes:	Internal trigger, external trigger (TTL level pulse, > 10 ns, 1 kΩ input impedance), front-panel “Single Pulse” pushbutton, or single pulse trigger via computer command.
Variable delay:	Sync to main out: 0 to 1.0 seconds, for all trigger modes (including external trigger).
Sync output:	> +3 Volts, > 50 ns, will drive 50 Ohm loads
Gated operation:	Active high or low, switchable.
Connectors:	Out, Trig, Sync, Gate: BNC
GPIB & RS-232 control ¹ :	Standard feature on all -B units.
LabView drivers:	Available for download at http://www.avtechpulse.com/labview .
Ethernet port, for remote control using VXI-11.3, ssh, telnet, & web:	Optional ² . Recommended as a modern alternative to GPIB / RS-232. See http://www.avtechpulse.com/options/vxi for details.
Settings resolution:	The resolution of the timing parameters (pulse width, delay, period) varies, but is always better than 0.15% of (set value + 20 ns). The amplitude resolution is < 0.1% of the maximum amplitude.
Settings accuracy:	Typically ± 3% (plus ±1V or ± 2 ns) after 10 minute warmup. For high-accuracy applications requiring traceable calibration, verify the output parameters with a calibrated oscilloscope.
Power requirements:	100 - 240 Volts, 50 - 60 Hz
Dimensions:	100 mm x 430 mm x 375 mm (3.9” x 17” x 14.8”)
Chassis material:	Cast aluminum frame and handles, blue vinyl on aluminum cover plates
Mounting:	Any. Add -R5 to the model number to add a rack-mount kit.
Temperature range:	+5°C to +40°C

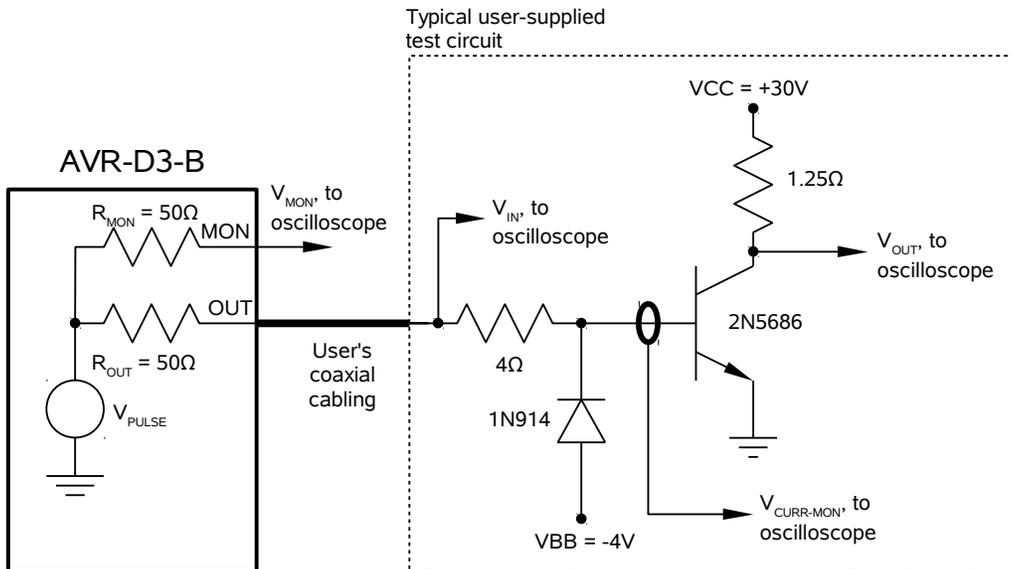
1)-B suffix indicates IEEE-488.2 GPIB and RS-232 control of amplitude and frequency. See <http://www.avtechpulse.com/gpib> for details.

2)Add the suffix -VXI to the model number to specify the Ethernet port.

WAVEFORM DETAILS



TYPICAL USER-SUPPLIED TEST CIRCUIT



TYPICAL RESULTS

Sample waveforms for various devices are included in the operating manual, available for download at:

<http://www.avtechpulse.com/semiconductor/avr-d3/#manuals>