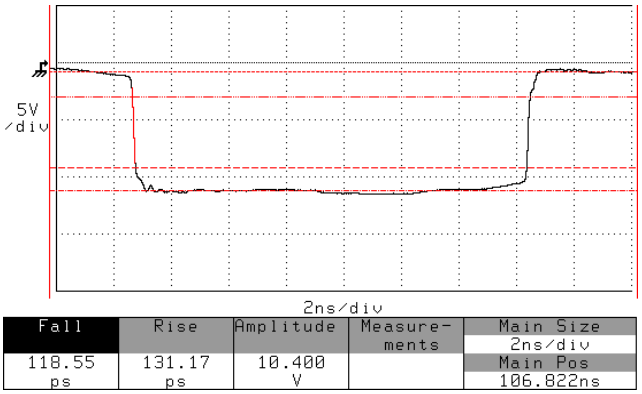
AVMR SERIES

10, 20, 50 VOLT
PULSE GENERATORS
WITH DUTY CYCLES TO 10%



Fall	Rise	Amplitude	Measure-ments	Main Size 2ns/div
118.55 ps	131.17 ps	10.400 V		Main Pos 106.822ns

AVMR-1A-C-N Output (-10V)

- Rise times as fast as 150 ps
- PRF to 3 or 10 MHz
- Pulse widths variable from 10 to 200 ns
- 10, 20, and 50V models
- IEEE-488.2 GPIB optional

The AVMR series offers medium-voltage operation at relatively high pulse repetition frequencies.

The AVMR-1A family provides pulses with amplitudes variable to 10 Volts, and pulse widths variable from 10 ns to 200 ns. The maximum pulse repetition frequency is 10 MHz. The rise and fall times are less than 150 ps (see waveform above).

The higher-voltage AVMR-2A family provides pulses with amplitudes variable to 20 Volts, and pulse widths variable from 20 ns (10 ns for -B units) to 200 ns. The maximum pulse repetition frequency (PRF) is 10 MHz. The rise and fall times are 300 ps.

Model AVMR-3 series offers amplitude to 50V, with pulse widths variable from 10 to 100 ns, and pulse repetition frequencies to 3 MHz. The rise and fall times are fixed at 2.5 ns.

Instruments with the -B suffix include a complete computer control interface (see http://www.avtechpulse.com/gpib for details). This provides GPIB and RS-232 computer-control, as well as front panel keypad and adjust knob control of the output pulse parameters. A large backlit LCD displays the output amplitude, frequency, pulse width, and delay. To allow easy integration into automated test systems, the programming command set is based on the SCPI standard, and LabView drivers are available for download at http://www.avtechpulse.com/labview.

The -C versions provide output pulse parameters similar to those of the -B models, but do not include the GPIB or RS-232 interfaces (i.e. no computer control or LCD display). The output parameters are controlled by front-panel range switches and one-turn vernier controls.

On all -C and -B models, a delay control and a sync output are provided for sampling scope triggering purposes. All models can also be triggered externally using a TTL-level pulse. All models are protected from overload conditions (such as excessively high duty cycle or short circuited load) by an automatic control feature that limits the output power for as long as the overload condition exists.

Either output polarity can be provided. A dual-polarity option is available as well. On dual-polarity -C models, the output polarity is controlled by a front-panel switch. On dual-polarity -B models, the polarity is controlled by a front-panel menu or by a computer command.

All models include an output DC offset function (similar to Model AVX-T, see http://www.avtechpulse.com/bias/avx-t). The required DC offset or bias is applied directly to rear panel solder terminals. An available option provides an internally generated DC offset (0 to ±5V) which is controlled by a front-panel one-turn control.

AVMR units are available with a monitor option that provides an attenuated (20 dB or X10) coincident replica of the main output pulse.

Additional options include electronic control (0 to +10V) of output amplitude, pulse width and DC offset. Units with these options also include the standard front-panel controls.

All models require 100 - 240V, 50 - 60 Hz prime power.



AVMR-1A-B

Model:	AVMR-1A-C[1] AVMR-1A-B[2]	AVMR-2A-C[1] AVMR-2A-B[2]	AVMR-3-C[1] AVMR-3-B[2]
Amplitude[3,4]: (50 Ohm load)	Variable to 10 Volts	Variable to 20 Volts	Variable to 50 Volts
Pulse width[3]: (FWHM)	Variable 10 to 200 ns	-C units: 20 to 200 ns -B units: 10 to 200 ns	Variable 10 to 100 ns
PRF:	0 to 10 MHz		0 to 3 MHz
Duty cycle:	10%		30%
Rise and fall times: (20%-80%):	≤ 150 ps	≤ 300ps	≤ 2.5 ns
GPIB and RS-232 control[2]:	Standard on -B units. Not available on -C units		
Polarity[6]:	Positive or negative or both (specify)		
Propagation delay:	< 150 ns. Ext trig in to pulse out.		
Jitter:	-C units: ± 15 ps. -B units: ± 100 ps ± 0.03% of sync delay. Ext trig in to pulse out.		
DC offset or bias insertion[3,7]:	Apply required DC offset to back panel solder terminals (± 50 Volts, 250 mA max)		
Trigger required:	Ext trig mode: + 5 Volts, 10 ns or wider (TTL)		
Sync delay and output:	Sync out to pulse out delay: variable 0 to 200 ns. Sync output: +2V, 200 ns, will drive 50 Ohms.		
Monitor output option[8]:	Provides a 20 dB attenuated coincident replica of main output		
Connectors:	-B and -C units: Out, Monitor: SMA. Trig / Sync: BNC		
Power, Temperature:	100 - 240 V, 50 - 60 Hz. +5°C to +40°C.		
Dimensions (H x W x D):	100 x 430 x 375 mm (3.9" x 17" x 14.8")		

1) -C suffix indicates stand-alone lab instrument with internal clock and line powering. See http://www.avtechpulse.com/formats for additional details.
2) -B suffix indicates IEEE-488.2 GPIB and RS-232 control of amplitude, pulse width, PRF and delay (See http://www.avtechpulse.com/gpib).
3) For electronic control (0 to +10V) of amplitude, pulse width, or DC offset, suffix model number with -EA or -EW or -EO. Electronic control units also include standard front-panel controls.
4) For operation at amplitudes of less than 20% of full-scale, best results will be obtained by setting the amplitude near full-scale and using external attenuators on the output.
5) For switchable rise/fall time option suffix the model number with -TRF.
6) Indicate desired polarity by suffixing model number with -P or -N (i.e. positive or negative) or -P-PN or -N-PN for dual polarity option where the suffix preceding -PN indicates the polarity at the mainframe output.
7) For internally generated DC offset option (0 to ± 5V, one-turn control) add the suffix -OT to model number.
8) For monitor option add suffix -M (not available on modules).



AVMR-1A-C

See theapplication note area of the Avtech web site at http://www.avtechpulse.com/appnote.

Use the "Pick the Perfect Pulser" parametric search engine at http://www.avtechpulse.com/pick to find the best pulser for your application!