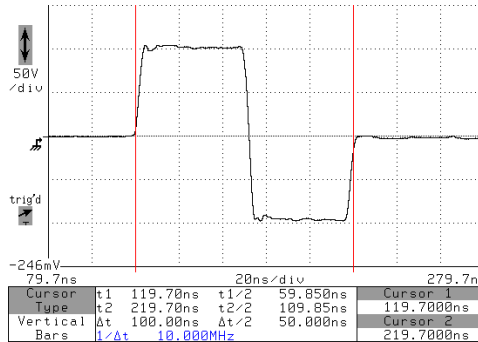


AVB2-TE-C, 200V_{PP}, f_{CENT} = 83.3 MHz



AVB2-TE-C, 200V_{PP}, f_{CENT} = 10 MHz

- ◆ 10 to 200 MHz
- ◆ x2, x5, and x10 tuning ranges
- ◆ PRF to 10 kHz
- ◆ Switchable polarity
- ◆ 200, 400 and 750 Volt models
- ◆ IEEE-488.2 GPIB control available

The instruments in the AVB2 series of high-voltage monocyclus generators provide peak-to-peak outputs of 200 or 400 Volts for frequencies in the range of 10 to 200 MHz. The AVB3 series provides peak-to-peak outputs of 750 Volts for center frequencies in the range of 50 to 100 MHz.

All models produce a single cycle of RF at pulse repetition frequencies of up to 10 kHz with spurious levels less than 26 dB immediately following the output monocyclus. The spurious level falls to <60 dB during the inter-pulse interval. The output waveform normally consists of an approximately rectangular positive pulse followed immediately by a negative pulse, as shown above.

Two 200V (peak-to-peak) series are offered. The AVB2-TD series offers an adjustable center frequency of 10 to 50 MHz, with a peak-to-peak amplitude variable from 0 to 200V. The AVB2-TE series is similar, but offers a wider tuning range of 10 to 100 MHz.

Three 400V (peak-to-peak) series offer center frequency ranges of 25 to 50 MHz (AVB2-TA), 50 to 100 MHz (AVB2-TB), and 100 to 200 MHz (AVB2-TC).

The AVB3 models offer amplitudes variable up to 750V (peak-to-peak). The AVB3-TA series offers an adjustable center frequency of 50 to 75 MHz, and the AVB3-TB series offers an adjustable center frequency of 75 to 100 MHz.

All models can withstand an infinite load VSWR but are designed for 50 Ohm operation.

Instruments with the -B suffix include a complete computer control interface (see <http://www.avtechpulse.com/gpiib> 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, pulse repetition frequency, pulse

width (1/f_{CENTER}), and delay. To allow easy integration into automated test systems, the programming command set is based on the SCPI standard. An Ethernet port for Telnet-based control is optional on all -B units (for details, see <http://www.avtechpulse.com/options/tnt>).

The -C versions provide output pulse parameters similar to those of the -B models, but do not include the GPIB or RS-232 interfaces or LCD display. The output parameters are controlled by front-panel range switches and one-turn vernier controls.

For all models, the pulse repetition frequency is variable from 1 Hz to 10 kHz using the internal clock oscillator. A delay control and a sync output are provided for sampling scope triggering purposes. The units can also be triggered externally using a TTL-level pulse. All models require 100 - 240 V, 50 - 60 Hz prime power.

The -EA option, available on all models, allows the amplitude to be controlled by an external DC voltage (0 to +10V), as well as the standard front-panel controls. The -EF option, available on all "-C" models, allows the center frequency to be controlled by an external DC voltage (0 to +10V), or the standard front-panel controls.

On standard models, the positive portion of the monocyclus precedes the negative portion. The -PN option allows this to be order to be reversed, using a front-panel switch (on -C units), or using a front-panel menu or a computer command (on -B units).

See the AVA to AVD families for 20 Volt VHF and UHF models and the AVB1-C series for 50 and 100 Volt models. Contact the factory for your special requirements. Pricing and other information is available at <http://www.avtechpulse.com>.



AVB2-TE-C-PN

Model:	AVB2-TD-C ¹ AVB2-TD-B ²	AVB2-TE-C ¹	AVB2-TA-C ¹ AVB2-TA-B ²	AVB2-TB-C ¹ AVB2-TB-B ²	AVB2-TC-C ¹ AVB2-TC-B ²	AVB3-TA-C ¹ AVB3-TA-B ²	AVB3-TB-C ¹ AVB3-TB-B ²
Center Freq. Range (MHz):	10-50	10-100	25-50	50-100	100-200	50-75	75-100
Center Freq. Tuning:	-C units: Tunes full range, using a front-panel one-turn control ³ . -B units: Tunes full range. The reciprocal of the center frequency (i.e., the pulse width) is programmed using the front panel keypad or through the computer control interfaces.						
Amplitude ^{3,4} : (into 50 Ohms)	0 to 200 Volts ⁷ , peak-to-peak		0 to 400 Volts, peak-to-peak			0 to 750 Volts, peak-to-peak	
Load impedance:	50 Ohms for proper operation. Will withstand open and short circuits.						
Max. pulse repetition rate:	10 kHz						
Spurious signals:	26 dB (WRT peak)						
Phase / Polarity:	Standard units: Positive portion leads, negative portion lags. Not adjustable. With -PN option: Positive or negative leads, switchable.						
GPIB and RS-232 control ² :	Standard on -B units. Not available on -C units.						
LabView Drivers:	-B units only; check http://www.avtechpulse.com/labview for availability and downloads						
Telnet / Ethernet control ⁵ :	Optional on -B units. See http://www.avtechpulse.com/options/tnt for details.						
Propagation delay:	≤ 300 ns (Ext trig in to pulse out)						
Jitter:	± 35ps ± 0.015% of sync delay (Ext trig in to pulse out)						
Trigger required:	Ext trig mode: +5 Volts, 50 to 500 ns (TTL)						
Sync delay:	Sync out to pulse out: Variable 0 to 200 ns						
Sync output:	+ 3 Volts, 200 ns (100 ns for -B units), will drive 50 Ohm loads						
Connectors:	Out, Trig/Sync: BNC					Out: SHV, MHV or N ⁶ , Trig/Sync: BNC	
Power requirements:	100 - 240 Volts, 50 - 60 Hz						
Dimensions (H x W x D):	100 mm x 430 mm x 375 mm (3.9" x 17" x 14.8")						
Chassis material:	Anodized aluminum, with blue plastic trim.						
Mounting:	Bench-top use. Add -R5 option for rack-mount kit.						
Temperature range:	+5°C to +40°C						

- C suffix indicates stand-alone lab instrument with internal clock and line powering. (See <http://www.avtechpulse.com/formats> for additional details of the basic instrument formats).
- B suffix indicates IEEE-488.2 GPIB and RS-232 control of amplitude, pulse width, PRF and delay (See <http://www.avtechpulse.com/gpib>).
- For electronic control (0 to +10V) of amplitude or frequency suffix the model number with -EA or -EF. (The -EF option is not available on -B units). Electronic control units also include the standard front-panel controls.

- For operation at amplitudes of less than 10% of full-scale, best results will be obtained by setting the amplitude near full-scale and using external attenuators on the output.
- Add the suffix -TNT to the model number to specify the Telnet / Ethernet control option.
- Specify desired output connector at time of ordering by adding the suffix -SHV, -MHV, or -NC. If unspecified, it will be supplied with SHV connectors.
- Falls to 150V peak-to-peak for center frequencies above 80 MHz.



AVB2-TA-B

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