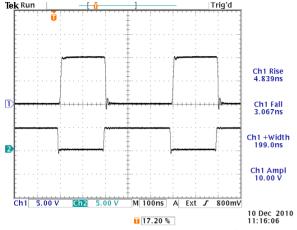


AV-1020-C SERIES

10 MHz, ±10 VOLT GENERAL-PURPOSE LAB PULSE-DELAY GENERATORS



Top: Main OUT, +10V, 2 MHz, 200 ns, into 50Ω .

Bottom: NOT-TTL out. Both: 5 V/div, 100 ns/div.

Model AV-1020-C is a full-featured, 10 MHz high-performance general-purpose lab pulse generator providing 0 to ±10 Volts, 10 ns rise time, single and double-pulse modes, variable DC offset, variable delay, ECL and TTL outputs (and their complements!), self-explanatory front panel controls and a heavy-duty metal chassis for low emissions and decades of trouble-free service. This is a versatile, cost-effective pulse source for many digital and analog applications in industrial and academic fields.

The output amplitude is controlled by a 3 position range switch (1, 5 and 10 Volts) and a one-turn control. Output polarity is controlled by a two-position switch. 50 Ohm back-matching is provided for the 1 and 5 Volt ranges.

A one-turn control allows the variation of the base line or DC offset from 0 to ± 10 Volts.

The output pulse width (and delay) is variable from 50 ns to 0.5 sec via a seven-position range switch and a one-turn control. The pulse width may also be set to the "DC" mode, allowing the AV-1020-C to be used as a variable ± 10 Volt, 200 mA DC power supply.

The pulse repetition frequency is variable from 1 Hz to 10 MHz in seven ranges. An externally applied TTL level pulse may also be used to control the output PRF and in addition the unit includes a "SINGLE PULSE" push button. A double pulse mode is available and a GATE input is provided for synchronous control of the internal triggering.

- \pm 10 Volt output (TTL and ECL also) into 50 Ω
- Variable DC offset to ± 10 Volts
- 10 ns rise and fall times
- Low jitter and variable delay
- User-friendly front panel

The logic and logic-complement outputs provide either TTL or ECL signals, depending on the TTL/ECL switch position.

The AV-1020-C operates from 100-240V, 50-60 Hz AC power.

For customers in the USA, a narrower-width version is also available (model AV-1020X-C), until stocks are depleted. At that time, it will be superseded by the full-width AV-1020-C.

See the AV-1023-C for a dual-channel version (http://www.avtechpulse.com/general/av-1023).

See the AV-1021-B for a GPIB-equipped version (http://www.avtechpulse.com/general/av-1021).

Avtech's full line of general-purpose pulse generators is summarized here:

http://www.avtechpulse.com/general



AV-1020X-C

Model:	AV-1020-C ¹	AV-1020X-C ²
Number of channels out:	One main output, plus 4 logic outputs: TTL, NOT TTL, ECL, NOT ECL	
PRF:	1 Hz to 10 MHz	
Amplitude (to 50 Ohms):	Main out: ± 0.25 to ± 10 Volts TTL low: 0 to ± 0.7 V, high: ± 0.8 V to ± 0.8 V ECL low: ± 0.8 V approx.,	
Pulse width (FWHM):	50 ns to 0.5 sec, or DC	
Rise, fall times (20%-80%):	Main: ≤ 10 ns, TTL: ≤ 5 ns, ECL: 2 ns	
DC offset:	10 Volt range: 0 to \pm 10 V 1, 5 Volt ranges: 0 to \pm 5 V	
Source impedance (main output):	50Ω (1, 5 V ranges), 1Ω (10 V range)	
Polarity (main output):	Positive or negative (two-position selector switch)	
Duty cycle (max):	80% (100% in PW DC mode)	
Waveform aberrations:	Overshoot, undershoot, ringing and slope aberration are less than the larger of $\pm 5\%$ or 100 mV at amplitudes of 500 mV and higher with outputs terminating in 50 Ω .	
Propagation delay:	70 ns to 0.5 sec (Ext trig in to pulse out)	
Trigger required: (Ext trig mode)	+ 5 Volts, ≥ 4 ns (TTL). Trigger input impedance: 50 Ω	
Gate input:	0 to +0.7 V: No output +3 to +5 V (or open): normal out	
Sync delay, jitter:	35 ns to 0.5 sec, \leq ± 50 ps or ± 0.05% (sync out to pulse out)	
Sync output:	+2 Volts, 50 ns, will drive 50 Ohm loads	
Single pulse mode:	Manual push button	
Signal connectors:	BNC	
Power requirement:	100 - 240 Volts, 50 - 60 Hz	120/240 Volts (switchable), 50 - 60 Hz
Dimensions (H x W x D):	100 x 430 x 375 mm (3.9" x 17" x 14.8")	100 mm x 215 mm x 375 mm (3.9" x 8.5" x 14.8")
Rack-mount kit option:	Add -R5 to model number	N/A
Weight & chassis material:	4.5 kg (10 lbs), anodized aluminum, with blue-grey plastic trim	
Temperature range:	+5°C to +40°C	

For other countries, consider the "full-rack-width" (17 inches) AV-1020-C or AV-1002-C models.



In full production. Supersedes models AV-1020X-C and AV-1022-C.
 Limited availability at reduced pricing while existing stocks are depleted. The "half-rack-width" (8.5 inches) chassis style is being phased out. Only available in USA.