



**NEW
PRODUCT**

Model PB-5

This is our best pulser.

- ▼ Fine Value
- ▼ Fast automated testing
- ▼ Excellent linearity, stability and resolution



PB-5 Precision Pulse Generator

The Model PB-5 provides unprecedented performance in a precision pulse generator. It includes a full-featured, highly flexible ramp generator, parameter programmability and flash memory.

As a precision pulse generator, the PB-5 surpasses or equals all existing designs in the important performance areas of resolution, linearity and stability. The pulse repetition rates, which are variable over a broad range, go up to 0.5 MHz. The higher rates are required when testing for MCA and PHA linearity because of the high number of data points required for a statistically valid test.

The built-in ramp generator allows you to control ramp duration, the number of ramps and the ramp limits. Now you can test the entire range of your system or just a portion of that range. This ramp generator and precision pulse generator combination allows you to tackle the most demanding applications.

The new user interface is intuitive and easy-to-use. RS232 interface is also standard along with memory that will store and recall nine pulse settings. Parameters can be selected and changed by spinner knob and/or keypad push-buttons. Examples of parameters displayed are shown below.

Ramp Settings

Start	# of Cycles
Stop	V/KeV
Ramp Time	

Pulse Settings

Amplitude	Risetime
Rate	Falltime
Width	Polarity
Delay	Attenuation
Clamp	

Trigger Settings

External Trigger	One Pulse
External Gate	Threshold
Internal Clock	



Specifications

- Rep Rate:** 2.0 Hz to 500 kHz
- Width:** 100 ns to 10 ms
- Delay:** 250 ns to 10 ms
- Rise Time:** 0.05 us to 10 us (10%-90%) in 8 steps
- Decay Time:** 0.5 us to 1.0 ms (100%-37%) in 11 steps
- Amplitude:** 0.0 to 10.0 V (0 to 5 V into 50 ohms)
Scaleable in energy units (keV)
- | | |
|------------------------|--|
| Resolution | 155 uV |
| Jitter | ± 10 ppm |
| Attenuation | 0, 2, 5, 10, 20, 50, 100, 200, 500, 1000 |
| Integral non-linearity | ± 15 ppm |
| Temperature stability | ± 5 ppm per °C from 20°C to 45°C |
- Pulse Type:** Flat-top or Tail pulse
In flat-top mode, both rise time and decay time are adjustable
In tail pulse mode, rise time is a fixed 50 ns, decay time is adjustable
- Polarity:** Positive/Negative
- Ext. Trigger:** 0 to 500 kHz, +100 mV to +10 V. Threshold adjustable +3.5 V in 0.1 V steps
- Trigger Out:** +5 V unterminated; +2.2 V into 50 ohms, width 200 ns
- Modes:** Single pulse via a front panel pushbutton
Internal Rep Rate
External Trigger
External Gate with the same pulse requirements as Ext Trig
Internal Ramp-adjustable start and stop points; adjustable ramp period 90-900 S; selectable number of ramp cycles; ramp in keV or volts
Clamped baseline option to bring the baseline to zero prior to the next pulse
- Stored Settings:** Up to 9 parameter configurations with recall, stores parameters in use at shutdown for automatic recall when powered on
- Remote:** RS232 at 9600 baud
- Power Required:**
- | | |
|-------|--------|
| +24 V | 170 ma |
| -24 V | 150 ma |
| +12 V | 450 ma |
| -12 V | 5 ma |
- Mechanical:** Triple-width AEC NIM module 4.05" wide x 8.70" high in accordance with TID-20893 (Rev 3).
- Weight:** 3 lbs. net, 6 lbs shipping
- Portable Power Supply Available:** See BNC Model AP-3 Portable NIM Power Supply

- ▼ Completely Programmable
- ▼ High rep rates
- ▼ Built-in ramp generator

Bookmark

www.berkeleynucleonics.com
for more NIM modules and power supplies.



Model AP-3 Portable NIM Power Supply