EAGLE HARBOR TECHNOLOGIES

High-Voltage Bipolar Microsecond Pulser

Precision pulse control in a user friendly package

KEY FEATURES

- Bipolar output up to ± 3 kV
- Allows short or long pulse widths and dwell times
- User-controlled pulse and burst repetition frequencies
- Simple graphical interface provides remote pulse control
- Overcurrent protection

APPLICATIONS

- Electroporation
- Pulsed electric fields
- Medical devices
- CAR T-cell therapy
- Dielectric barrier discharge
- Laser driver
- Light production

PRELIMINARY PULSER SPECIFICATIONS

- Output voltage: ± 3 kV (bipolar output)
- Output current: 0 – 300 A
- Positive (and negative) pulse width: 500 ns – DC
- Pulse-to-pulse dwell: 200 ns – DC
- Max pulse repetition frequency: 1.3 kHz (continuous) 10 kHz (burst)
- Max average power:
  - 500 W for 1 μs pulse width
  - 2 kW for 20 μs pulse width

Note: Pulse parameters may be limited by internal energy storage (24.5 J at 3 kV charge). Additional external energy storage can be added. Contact EHT for application-specific questions or customizations.
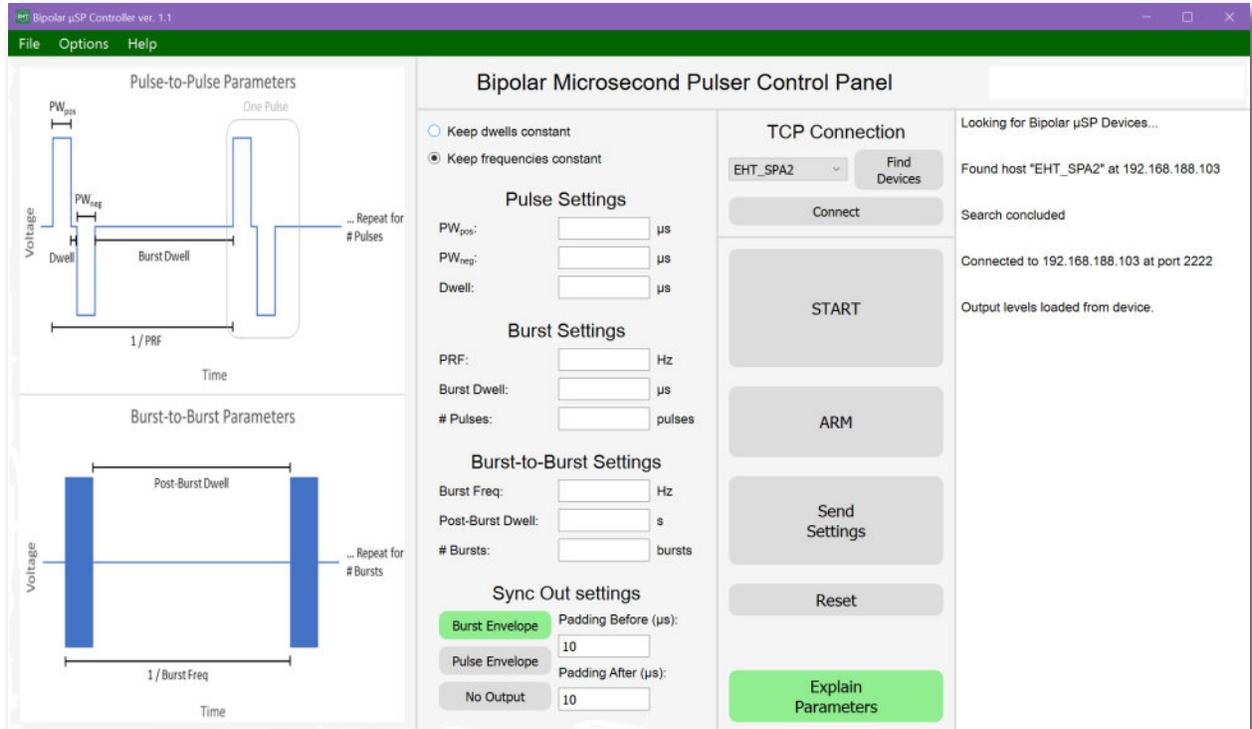
PULSE WAVEFORMS

± 3 kV pulses measured across a 70 Ω load. The pulse width is 1 μs for both the positive and negative pulse with a 100 ns (left) and 1 μs (right) dwell between pulses.
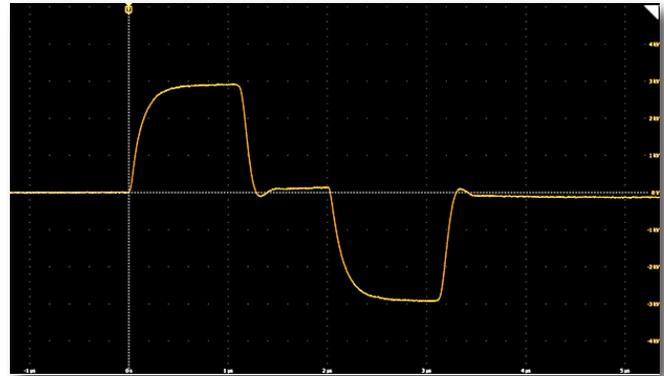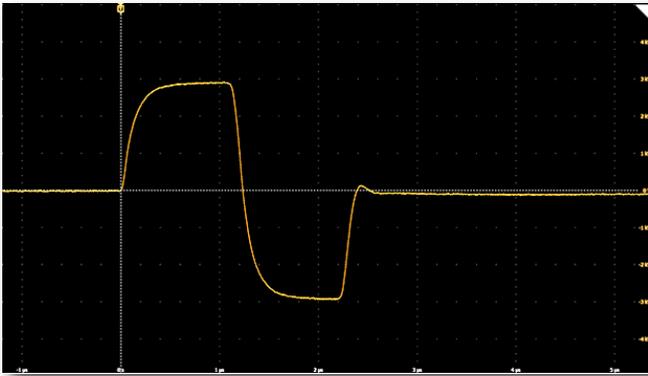
CONTROL INTERFACE

The integrated Ethernet controller simplifies pulse control and allows the user to precisely adjust the pulse widths, dwell times, number of pulses, and burst settings.