



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

International Distributors

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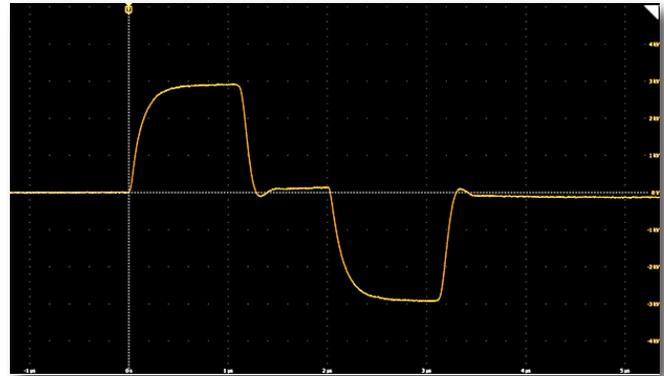
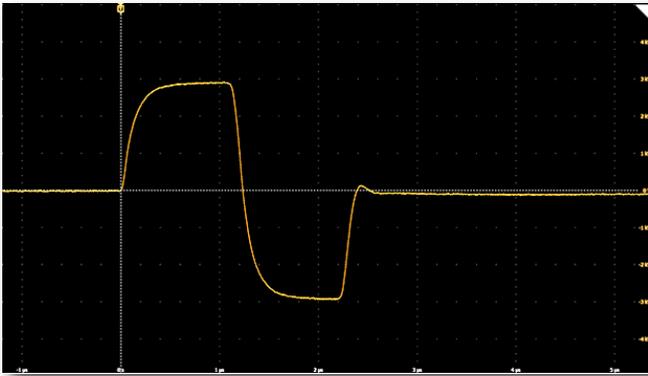
PRELIMINARY PULSER SPECIFICATIONS

- 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 μ s pulse width
 - 2 kW for 20 μ s 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.

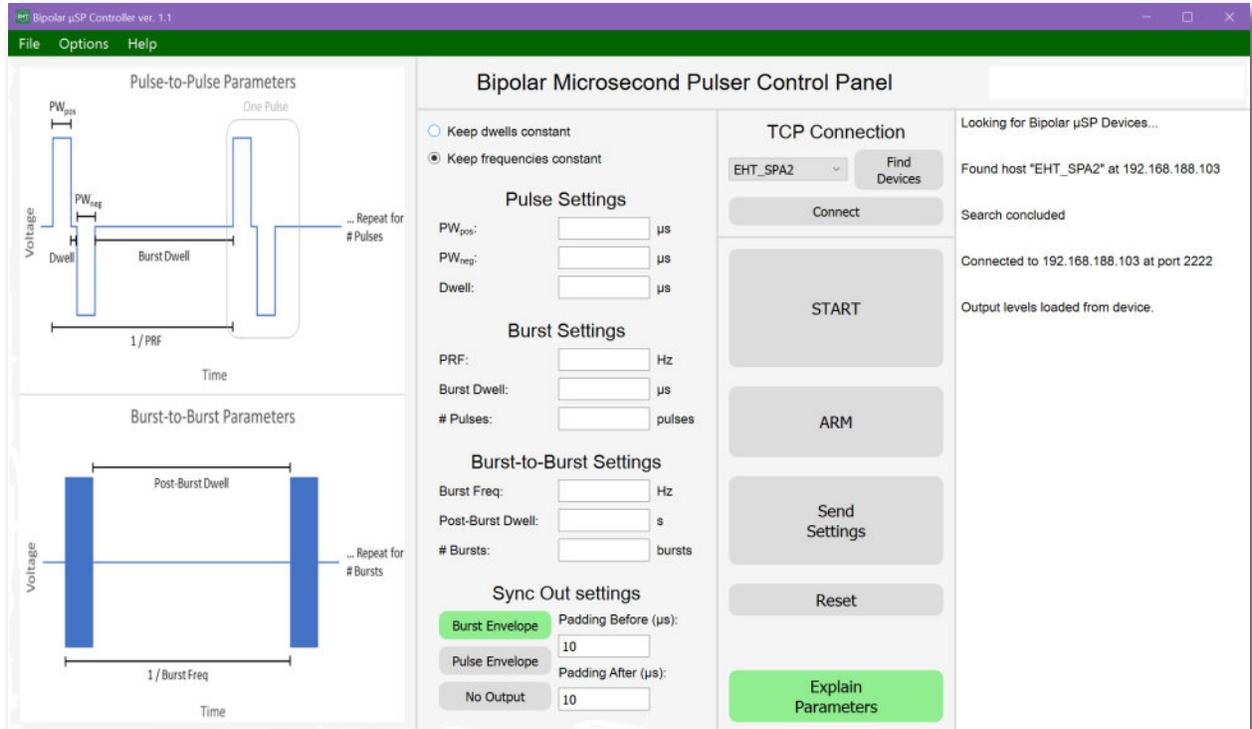
PULSE WAVEFORMS

± 3 kV pulses measured across a 70 Ω load. The pulse width is 1 μ s for both the positive and negative pulse with a 100 ns (left) and 1 μ s (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.



The screenshot displays the "Bipolar Microsecond Pulser Control Panel" software interface. The interface is divided into several sections:

- Pulse-to-Pulse Parameters:** Shows a diagram of a pulse waveform with parameters: PW_{pos} , PW_{neg} , Dwell, and Burst Dwell. The time scale is $1/PRF$.
- Burst-to-Burst Parameters:** Shows a diagram of a burst of pulses with parameters: Post-Burst Dwell and $1/Burst\ Freq$.
- Control Panel:**
 - Keep dwells constant** (radio button)
 - Keep frequencies constant** (radio button, selected)
 - Pulse Settings:**
 - PW_{pos} : [] μ s
 - PW_{neg} : [] μ s
 - Dwell: [] μ s
 - Burst Settings:**
 - PRF: [] Hz
 - Burst Dwell: [] μ s
 - # Pulses: [] pulses
 - Burst-to-Burst Settings:**
 - Burst Freq: [] Hz
 - Post-Burst Dwell: [] s
 - # Bursts: [] bursts
 - Sync Out settings:**
 - Burst Envelope** (selected): Padding Before (μ s): 10
 - Pulse Envelope**: Padding After (μ s): 10
 - No Output**: 10
- TCP Connection:**
 - Device: EHT_SPA2
 - Find Devices button
 - Connect button
 - START button
 - ARM button
 - Send Settings button
 - Reset button
 - Explain Parameters button
- Status:** Looking for Bipolar μ SP Devices... Found host "EHT_SPA2" at 192.168.188.103. Search concluded. Connected to 192.168.188.103 at port 2222. Output levels loaded from device.