

NPG18P14 and NPG18N14 four-channel burst mode high voltage nanosecond pulse generators



- High output power and efficiency
- Smart and user friendly digital control
- Maintenance free, 24/7 operation
- DSRD semiconductor technology ensures stable output pulse waveform, high reliability, efficiency and long operation life-time

The generators form unipolar bell-like nanosecond HV pulses of positive (NPG18P14) or negative (NPG18N14) polarity. The amplitude can be smoothly adjusted, but the rise time and the pulse width are fixed. The frequency can be set from 1 Hz to 4 kHz in continuous mode and up to 100 kHz in a burst. Each channel can be turned on and off independently. Smart digital control allows operation in continuous and burst modes in both internal and external triggering as well as prevents possible damage in case of improper external triggering and provides overheating protection. The maximum average output power of each channel is 120 W which for four channels gives 480 W in total.

Amplitude regulated 13...18 kV @ 75 Ohm
 up to 36 kV on the discharge

Polarity positive (NPG18P14)
 negative (NPG18N14)

Number of channels four

Rise time less than 4 ns

Width (FWHM) less than 10 ns

Pulse energy regulated 15...30 mJ

Repetition rates and operation modes:
 continuous from 1 Hz to 4 kHz
 burst from 1 Hz to 100 kHz
 single pulse *)

Burst length from 1 to 4000

Output power up to 120 W in each channel

Internal delay less than 1 μs

Jitter (RMS) 5 ns

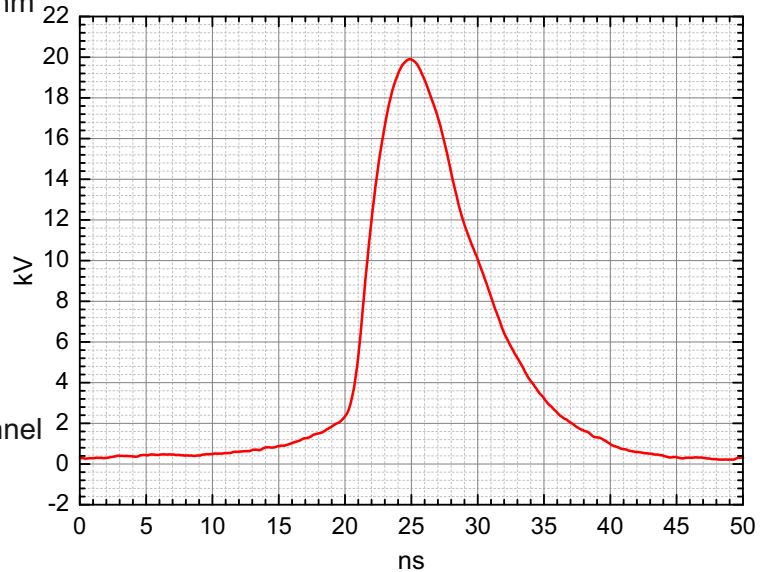
Internal and external triggering

Special output HV coaxial connectors

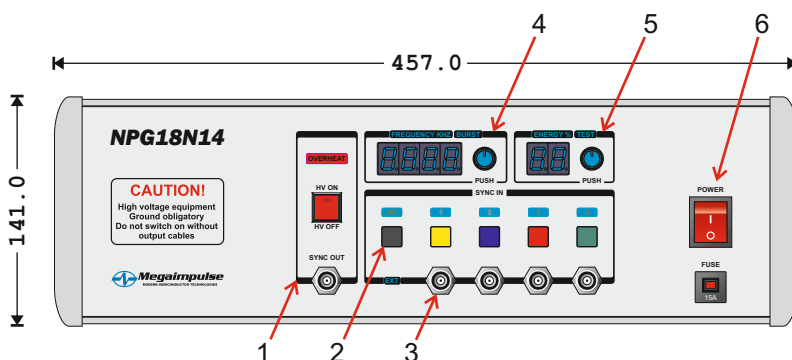
SYNC IN and SYNC OUT BNC connectors

Power supply AC 110...230V / 50...60 Hz

*) single pulse mode for the external triggering only



NPG18P14 pulse waveform on matched 75 Ohm load



- 1 - OVERHEAT LED, HV ON/HV OFF button, SYNC OUT BNC connector
- 2 - internal/external triggering button and LED indicators
- 3 - channels LED indicators, ON/OFF buttons, and SYNC IN BNC connectors
- 4 - frequency and number of pulses control
- 5 - pulse energy control and test mode
- 6 - main power supply switch and electronic fuse