

# High voltage nanosecond pulse generator

## NPG-20/3500



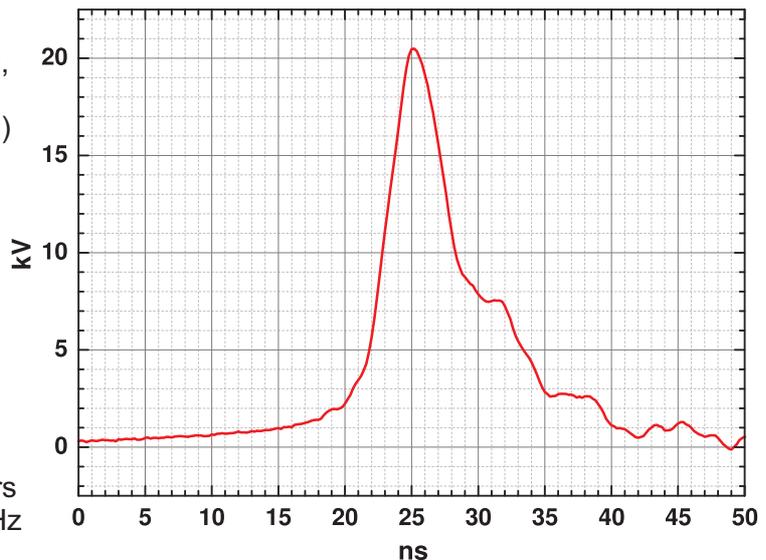
- Compact and powerful
- Long operation lifetime and maintenance free
- 50 Ohm output impedance
- Designed for the operation with matched impedance load

Completely semiconductor technology based on Drift Step Recovery Diodes (DSRD) ensures stable output pulse waveform, high reliability, efficiency and long operation lifetime.

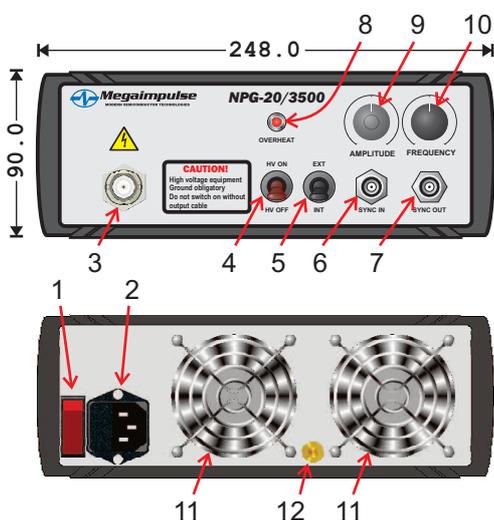
NPG-20/3500 generates bell-like nanosecond range high voltage unipolar pulses and is designed for the operation with matched impedance 50 Ohm load, for example, ultra-wide-band antenna. The output pulse rise time and width are fixed, while the pulse amplitude can be smoothly adjusted in two times and repetition rate can be set from 1 Hz to 3.5 kHz. This model has internal and external triggering, as well as overheating protection, which may occur in the case of load breakdown or unmatched load operation during long time and high amplitude/repetition rate.

Amplitude	regulated 10...20 kV on matched 50 Ohm load,
Polarity	positive (NPG-20/3500) negative (NPG-20/3500N)
Rise time	less than 4 ns
Width (FWHM)	less than 10 ns
Pulse energy	regulated 10...40 mJ
Repetition rates and operation modes:	
continuous	from 1 Hz to 3.5 kHz
single pulse *)	
Internal delay	1 μs or less
Jitter (RMS)	1 ns
Internal and external triggering	
Special output HV coaxial connector	
SYNC IN and SYNC OUT BNC connectors	
Power supply	AC 110...230V / 50...60 Hz

\*) single pulse mode for the external triggering only



Typical pulse waveform on matched 50 Ohm load



- 1 - power supply ON/OFF switch
- 2 - C14 type power supply connector and fuse holder
- 3 - special type HV output coaxial connector
- 4 - high voltage ON/OFF toggle switch with ON state LED indicator
- 5 - EXT/INT toggle switch
- 6 - SYNC IN connector, BNC type
- 7 - SYNC OUT connector, BNC type
- 8 - overheat LED
- 9 - amplitude regulation knob
- 10 - frequency regulation knob
- 11 - cooling fans
- 12 - rear panel ground terminal