

# High voltage nanosecond pulse generator

## NPG-18/3500(N)



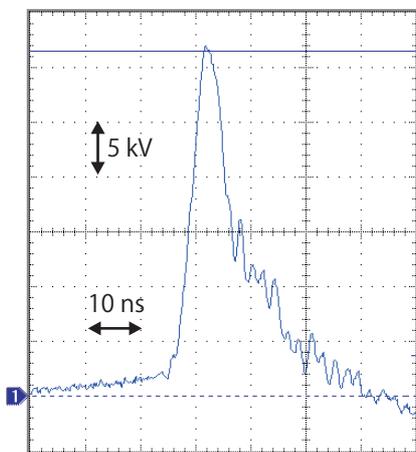
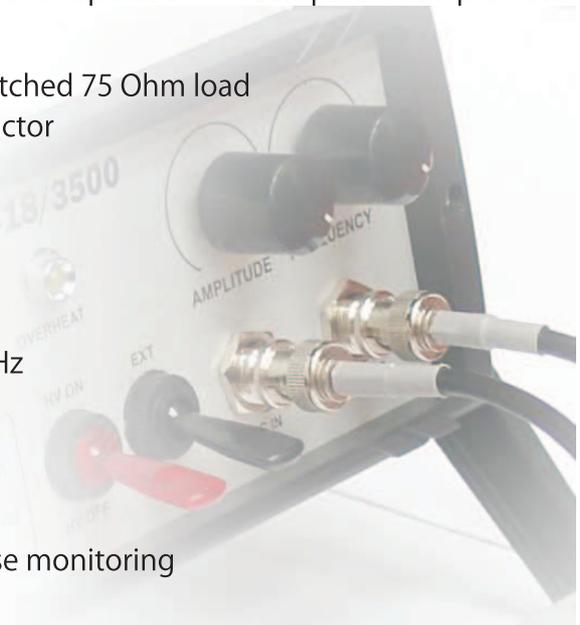
- Compact
- Low cost
- Long operation life time

Based on Drift Step Recovery Diodes (DSRD), new type of semiconductor devices which allow to obtain high reliability, high efficiency and long operation life time.

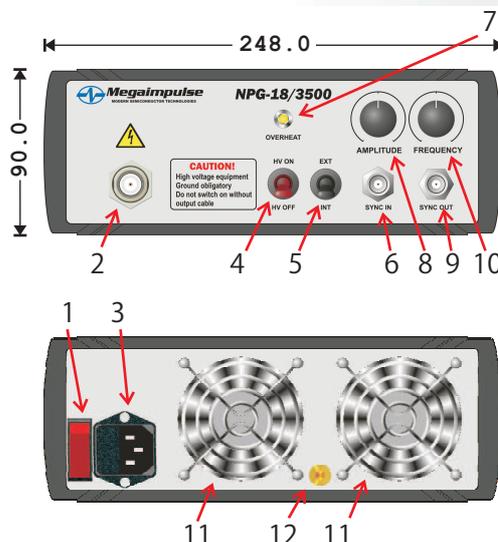
NPG-18/3500(N) generator is designed for barrier and other type discharge systems as well as others applications which requires high voltage power nanosecond pulses. Compact, reliable and cost-efficient, it can provide up to 4.5 MW peak power and about 100 W average power at the load. This generator has improved triggering and operation in compare with previous models.

Pulse amplitude	regulated 12 - 20kV at matched 75 Ohm load up to 40kV at discharge reactor
Pulse polarity	positive (NPG-18/3500) negative (NPG-18/3500N)
Pulse rise time	less than 4 ns
Max pulse energy	30mJ
Peak pulse power	5.3 MW
Repetition rate	from single pulse*) to 3.5 kHz
Inherent delay	1 $\mu$ s or less
Jitter (RMS)	less than 1 ns
Special output connector for HV applications	
Internal and external triggering	
BNC connectors for external triggering and pulse monitoring	

\*) single pulse mode in case of external triggering only



Typical pulse waveform at barrier discharge reactor



- 1 - power switch
- 2 - output connector
- 3 - power supply and fuse
- 4 - high voltage ON/OFF switch
- 5 - EXT/INT synchronization switch
- 6 - SYNC IN (BNC type)
- 7 - overheat LED
- 8 - amplitude regulation knob
- 9 - SYNC OUT (BNC type)
- 10 - frequency regulation knob
- 11 - fans
- 12 - ground terminal