Megaimpulse
MODERN SEMICONDUCTOR TECHNOLOGIES

High voltage burst mode nanosecond pulse generator

NPG-18/100k

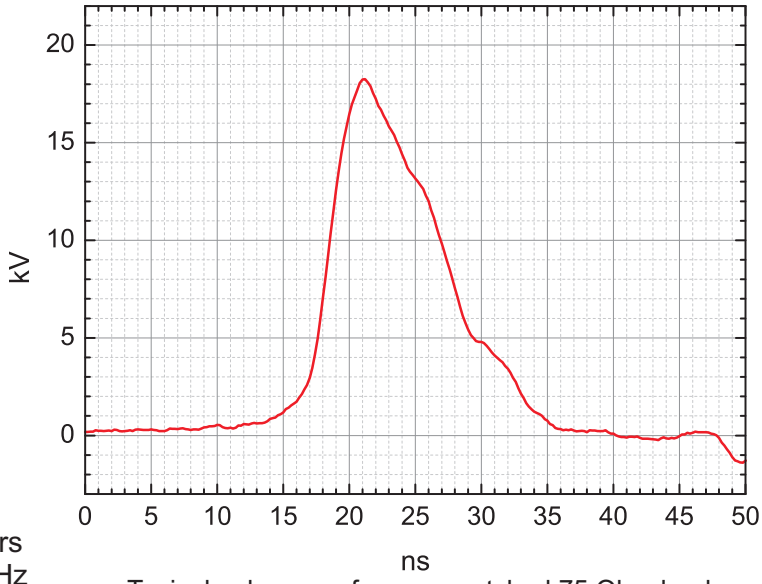
- Compact and powerful, smart and versatile
- User friendly and maintenance free
- Fully digital control
- Long operation life time

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

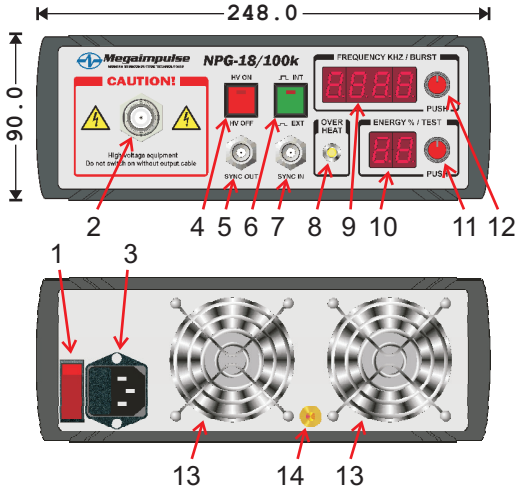
NPG-18/100k can supply discharge reactors of any type as well as it is suitable for other applications which require high voltage nanosecond rise time pulses. The output pulse waveform is bell-like. Rise time and width are fixed, while the pulse energy can be smoothly adjusted in two times and repetition rate can be adjusted from 1 Hz to 4 kHz in continuous mode and up to 100 kHz in burst operation mode. The maximum number of pulses in second (burst length) is limited to 4000. This model has internal and external triggering, overheating and short or open load protection.

Amplitude	regulated 13...18 kV on matched 75 Ohm load, up to 36 kV on discharge
Polarity	positive (NPG-18/100k) negative (NPG-18/100kN)
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
Internal delay	1.2 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 external triggering only



Typical pulse waveform on matched 75 Ohm load



1 - power supply ON/OFF switch
2 - special type HV output coaxial connector
3 - C14 type power supply connector and fuse holder
4 - high voltage ON/OFF push button with ON state LED indicator
5 - SYNC OUT connector, BNC type
6 - INT/EXT synchronization button with LED indicator
7 - SYNC IN connector, BNC type
8 - overheat LED
9 - frequency and number of pulses in burst, 4-digit display
10 - output pulse energy, 2-digit display
11 - output pulse energy regulation knob with push button
12 - frequency and number of pulses in burst regulation knob with push button
13 - cooling fans
14 - rear panel ground terminal

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