

NRG1001 High Voltage Nanosecond Rectangular Pulse Waveform Generator



- · Compact and powerful
- Simple control and maintenance free
- Operation with high impedance and 50 Ohm matched loads
- Long operation life time

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

NRG1001 provides rectangular high-voltage nanosecond pulses with fixed pulse width and rise/fall times while amplitude and repetition rate can be altered in a wide range. The generator can operate with 50 Ohm and high impedance loads. The special dumping circuit minimizes the afterpulse ringing and spikes below 15% in all operation regimes. The max output pulse amplitude is 10 kV on a high impedance load and 5 kV on 50 Ohm. There are both internal and external triggering modes.

Amplitude regulated 1.5...5 kV @ 50 Ohm

regulated 3...10 kV @ high Z load

Polarity positive
Rise/fall time less than 4 ns
Width (FWHM) 10 ns, fixed
Repetition rate 1 Hz to 1 kHz
single pulse *)

Internal delay 1 µs or less

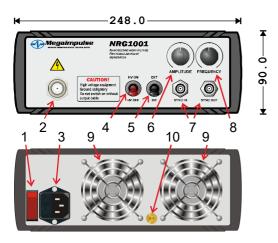
Jitter (RMS) 1 ns

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



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

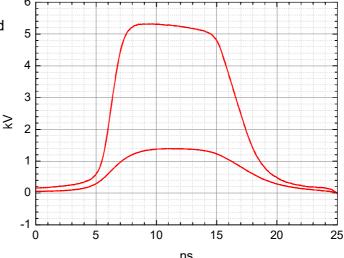


Fig.1. Typical output pulse waveforms on 50 Ohm load at max and min set amplitudes.

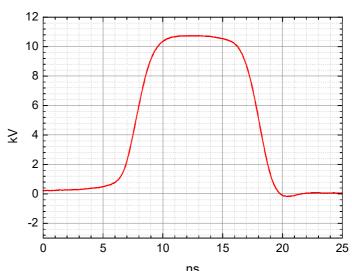


Fig.2. Typical max output pulse waveform on high impedance load.