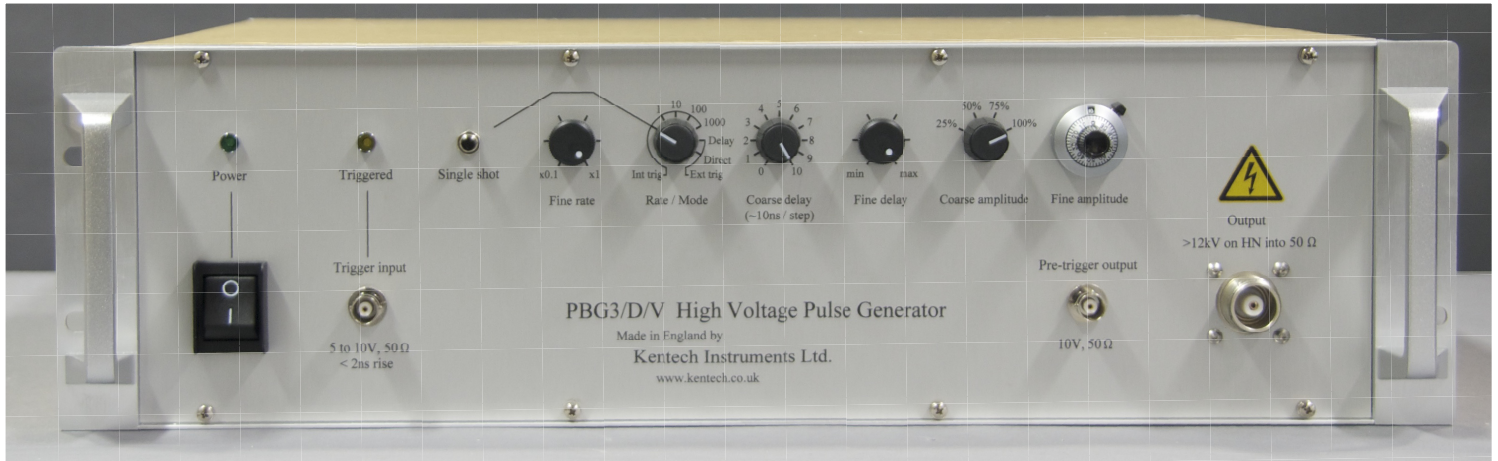


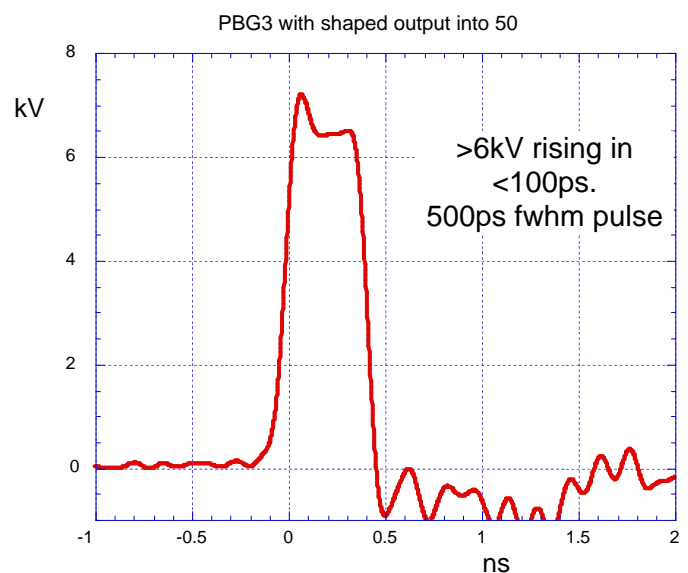
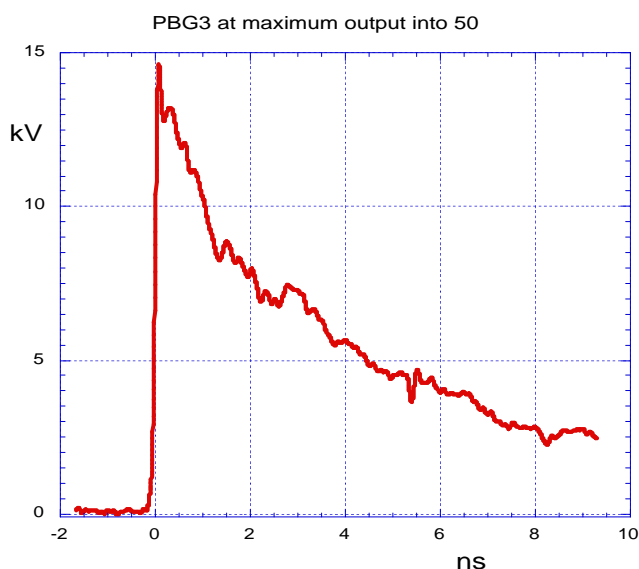
>12kV rising in <100ps into 50



Applications UWR, EMC testing. Pockels Cell driver..

Summary

- Output voltage adjustable up to $\geq 12\text{kV}$ into 50
- Amplitude adjustable from ~25% to full output
- Lockable multiturn control of output voltage.
- Fast rise (100ps) and slow decay (few ns)
- Internal rate generator 0.1 to 1kHz
- Single shot button
- External trigger mode,
- Standard deviation of trigger delay <10ps, typically ~3ps with zero set delay.
- Delay modes up to 100ns
- Rise time ~100ps
- Synchronisation output
- Optional square pulse output (half amplitude)

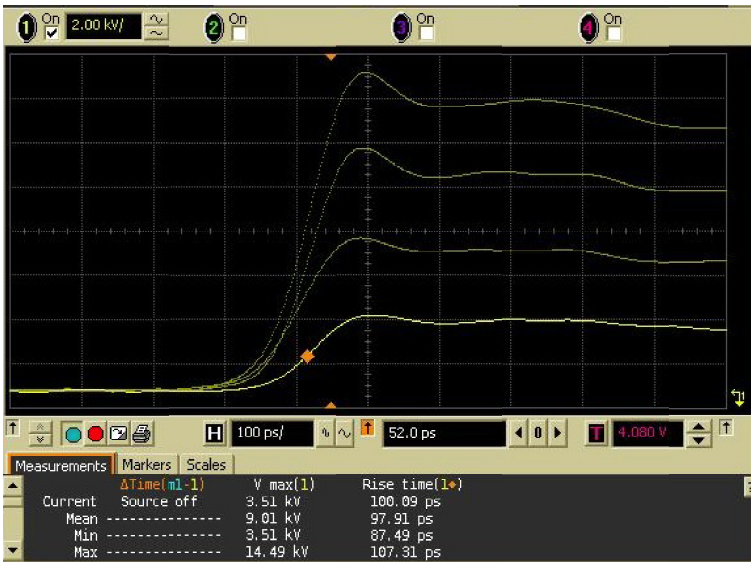


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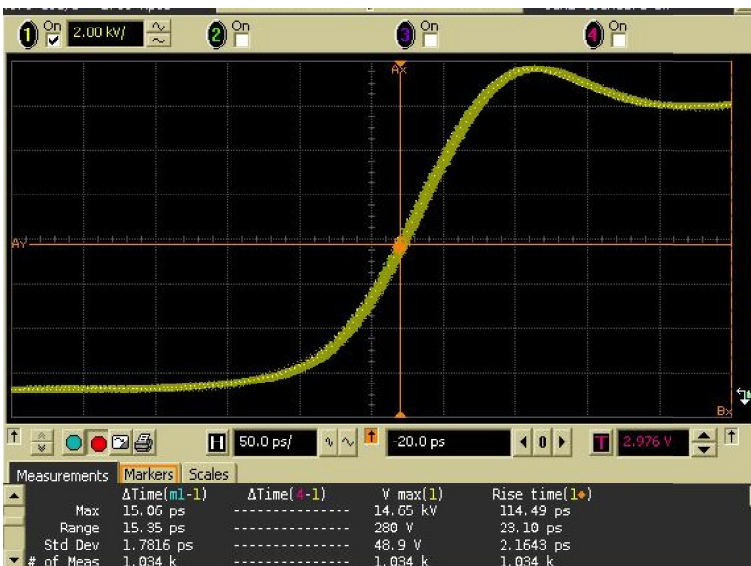
SPECIFICATIONS

Number of channels	1
Maximum output pulse voltage	>12kV into 50 .
Pulse shape	Fast rise ~100ps and slow decay ~3ns.
Polarity	Positive or negative, specified at build time.
Output voltage adjustment range	down to 21% of maximum. There are 4 ranges and a fine control. There is some overlap between the switched ranges and the fine control.
Trigger delay	~44.2ns in "direct" trigger mode. ~51.1ns at zero delay in delayed trigger mode.
Jitter	<10ps Standard Deviation in "Direct" mode, ~3ps is typical.
Output pulse trigger delay range	~100 ns in 10ns steps + fine delay.
Maximum repetition rate	1kHz gate pulse
Internal rate generator	0.1Hz to 1kHz
External trigger requirements	5 volts into 50 rising in < 5ns for optimum jitter.
Pre-trigger output	9V into 50 , precedes the main output by the delay set.
Controls	
Mode	Sets one of the following modes:- Single shot (delay active). Internal trigger 0.1-1Hz (delay active). Internal trigger 1-10Hz (delay active). Internal trigger 10-100Hz (delay active). Internal trigger 100-1000Hz (delay active). External trigger (delay active) "Delay". External trigger (delay inactive) "Direct". Varies internal rate by a ratio of 10:1.
Fine rate	Sets internal delay in 10ns steps, up to 100ns.
Coarse delay	Single turn potentiometer gives approx. 12ns adjustment.
Fine delay	Depressing this button cause a single trigger when single shot mode selected.
Single shot button	Sets amplitude in steps to 100, 75, 50 or 25%
Coarse amplitude	Single turn potentiometer gives ~60 to 100% adjustment
Fine amplitude	of the coarse amplitude voltage setting.
Power	
Input power range	Switches AC power in the pulser. 100 to 240 VAC 50 to 60Hz at <5 amps.
Indicators	
Power	Shows that AC power is applied and the unit is switched on.
Triggered	Illuminates when the unit is triggered.
Dimensions	
width	19 inch rack mount, 482 mm over handles,
depth	405mm into 19 inch rack, 445 mm over handles,
height	128.5 mm (3U)
weight	7.5 kg
Connectors	
Power inlet	IEC
Pulse output	HN female
Trigger input	BNC
Pre-trigger output	BNC
Environmental issues	
Storage	The unit should be stored in an environment within the following parameters:
Temperature	between 10°C and 40°C
Humidity	< 60% on condensing
Pressure	40 to 120 kPa
Gas type	Air or nitrogen
Use	The unit should be used in an environment within the following parameters:
Temperature	between 10°C and 30°C
Humidity	< 60% on condensing
Pressure	80 to 120 kPa
Gas type	Air or nitrogen

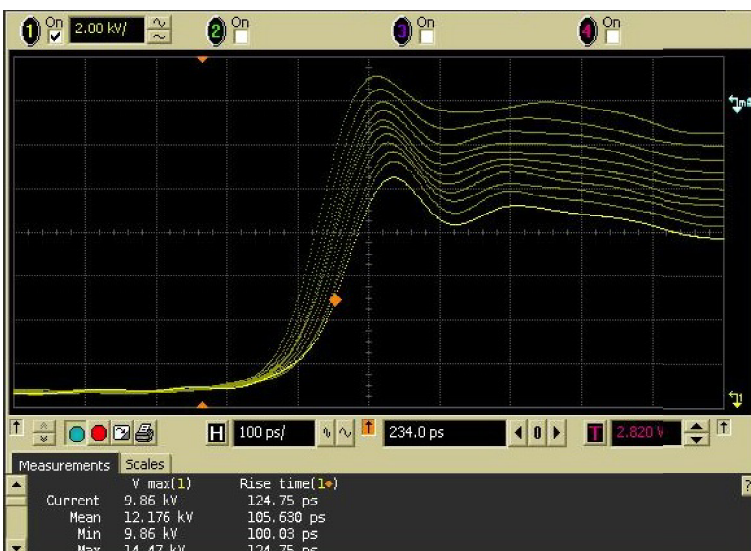
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Coarse amplitude control



Jitter over 1000 shots, SD
1.78ps, rise time <100ps



Fine amplitude control on
max amplitude range

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