



**Unit with replaceable preset for voltage adjustment.**

### Applications

General purpose pulse source  
Rise time testing  
High voltage TDR pulse source  
MCP gating  
Pockels cell driver  
UWB radar

### Summary

- >3kV <150ps rise time pulse into 50 Ω
- Rectangular pulse shape
- Fixed pulse width 0.2ns to 10ns
- 500 ps fall time (faster on short pulses)
- Jitter ~20ps p-p, ~2ps SD
- Rep. rate up to 10Hz
- Trigger 5V into 50 Ω with <5ns rise.

### Options

- Output polarity
- Fixed amplitude
- Unshaped output, ~6kV with fast rise (~100ps) and decay over a few ns.
- Rep. rate to 1kHz
- Built in rate generator and delay unit.
- Split output (Total output power similar)
- Pulse length set by external modules
- We can supply a suitable terminator with built in monitor

See [www.kentech.co.uk](http://www.kentech.co.uk)

CPS3 pulsers are based upon a 6kV avalanche switch unit. They can be customised to deliver ~ square pulses in the range 200ps to 10ns. Other options available include variable output voltage, built in rate generator with trigger delay facility and output pulse length control by way of replaceable pulse forming modules.

### SPECIFICATIONS

#### **Pulse generator:**

Output voltage	>=3kV adjustable into 50 .
Output polarity	Positive.
Pulse shape	Rectangular.
Pulse width	approximately 10ns FWHM.
Rise time	<150ps (10 to 90%).
Fall time	<500ps (80 to 20%).
Trigger	5V into 50 , <5ns rise time.
Jitter	<20ps RMS.
Trigger delay	~27ns (BNC trigger input to output).
Repetition rates	1 shot to 10Hz.
Power supply	100-240V AC 50-60Hz Maximum power <30W.

#### **Outputs:**

Pulse output	N type	3kV pulse.
--------------	--------	------------

#### **Inputs:**

Trigger input	BNC 5V into 50 , <5ns rise time.
---------------	----------------------------------

#### **Controls:**

Power	Switches AC power in the pulser.
Amplitude	Front mounted screwdriver adjustment.

#### **Indicators:**

Power	Shows that AC power is applied and the unit is switched on.
Triggered	Illuminates while the unit is being triggered.

#### **Environmental:**

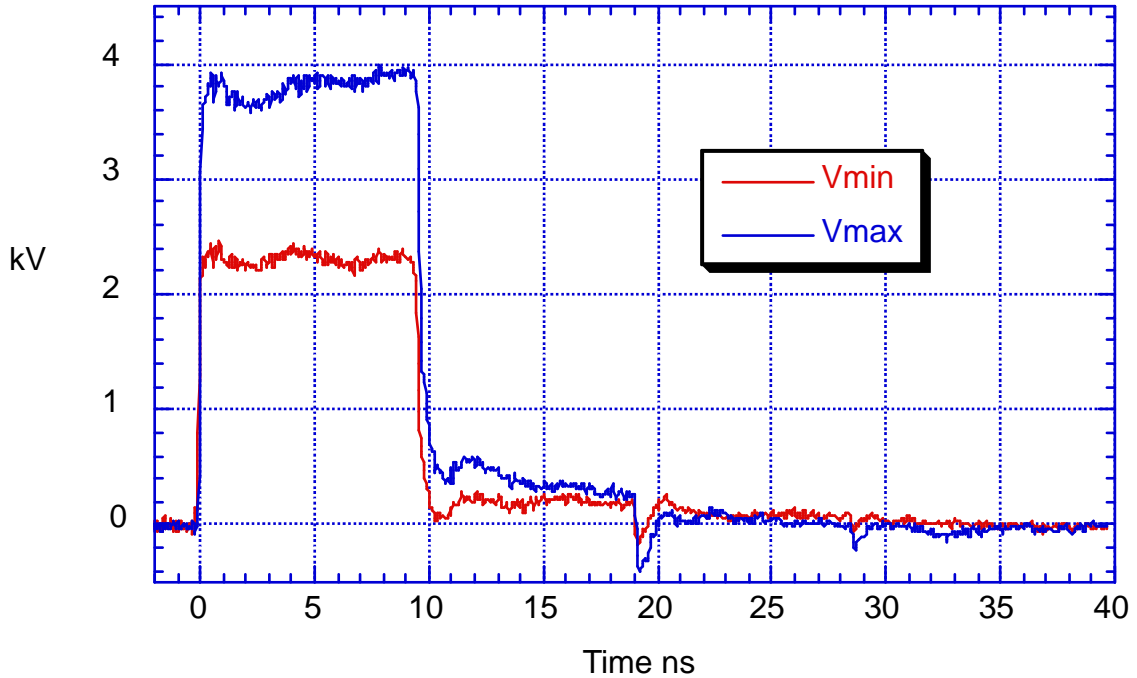
Ambient temperature	5 to 35°C
Humidity	< 95% non-condensing
Altitude	< 3000m
Dimensions	H = 90, H+feet = 100, W = 235, D = 307.
Weight:	<4kg.

#### **Terminator (optional)**

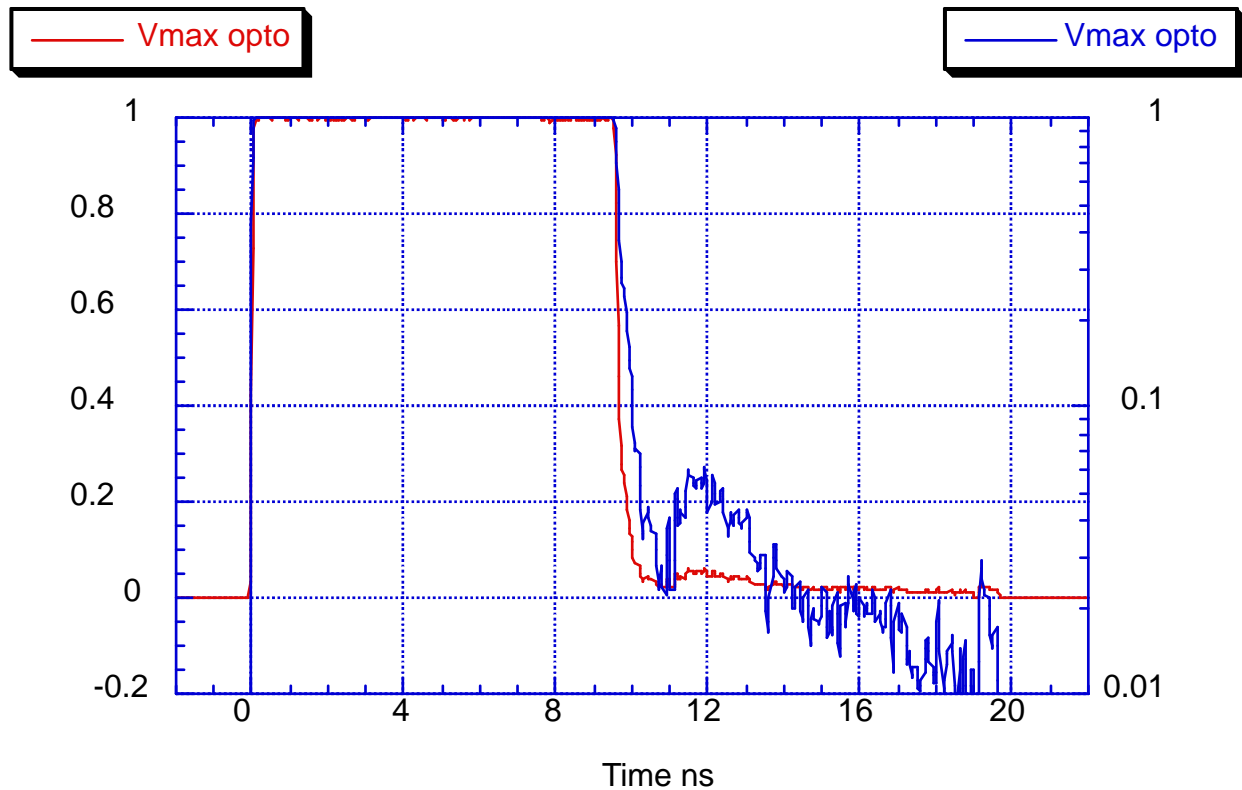
Input voltage	Maximum 4kV/10ns square pulse.
Input impedance	50 .
Input connector	N type.
Monitor output	100:1 attenuated input level.
Output impedance	50
Output Connector	SMA.
Dimensions:	L = 150, W = 82, H = 50.
Weight:	400g.

See [www.kentech.co.uk](http://www.kentech.co.uk)

Output voltage wave forms



Expected Pockels cell/polariser transmission



See [www.kentech.co.uk](http://www.kentech.co.uk)