

# GIPO-SAU Series

High voltage pulse generator (*stand alone unit configuration with instrumented front panel*)



Patented – Under licence from the French “Commissariat à l’Energie Atomique” (C.E.A.)

1 standard model

Pulse rising edge : 2.5ns typically on a load of 2pF

Vout : -500V to -5.5kV

Vin : 24Vdc

Reference : GIPO-24N552106-10



## General Description

◇ The GIPO-SAU product is the instrumented version of the GIPO. It features a clear screen display control panel. The GIPO that is included inside the box is basically composed of an adjustable high voltage dc/dc converter and a high speed, high voltage switch. The stability of the high voltage power supply integrated in the module is very high (10ppm/°C). This device is able to switch 5.5kV in less than 3ns. Pulse width, voltage and repetition rates can be adjusted by the user. For stand-alone operation, the amplitude of the HV pulse is set thanks to a potentiometer. For remote control operation, the equipment is fitted with an input for external 0/10V analogue signal. This equipment is fully qualified and has been tested by some of the most important players in the optical and photonics domain.

Parameters	Specifications
Input voltage Vin	Universal 85-264Vac + mains ON/OFF switch on rear panel with main power indicator
Output voltage vout	Continuously adjustable from -500V to -5500V
Pulse rising edge	2.5ns typically on load of 2pF
Outout signal width	Continuously variable from 1µs to 30µs
Jitter	<200ps
Repetition rate	Up to 100Hz
Polarity	Fixed negative
High Voltage assembly	The bench top case integrates a GIPO block plus facilities Pulse output connector: high voltage safety SHV RADIALL R317-580 on front panel
Controls and metering on front panel	High voltage ON/OFF switch and indicator High voltage panel meter by 3.5 digits digital meters Output voltage setting via 10-turn potentiometers with turns-counting dial Output pulse width setting via 10-turn potentiometers with turns-counting dial Output pulse frequency setting via 10-turn potentiometers with turns-counting dial Push-button for one shot manual triggering Selection switch for the internal/external/manual mode Pulse inhibits switch and indicator Standard SHV 50Ω input for external trigger Standard SHV 50 output for pulse synchronization
Internal mode	Output pulse width and frequency are controlled by front panel potentiometers
External mode	Output pulse width and frequency are controlled by standard SHV trigger input Output voltage and monitoring are controlled through SUB-D connector on rear panel



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Manual mode	Output pulse width controlled by front panel potentiometer, triggered by front panel pushbutton
MTBF	>700800 hours @25°C
Controls on rear panel	Input 24Vdc through BR2 connector (optional) Fuse for 24Vdc : 2,5A temporized (optional) Fuse for 230Vac : 0,5A temporized Mains ON/OFF switch SUB-D connector Screw plug for grounding
Operating temperature	0°C to +40°C
Storage temperature	-10°C to +70°C
Provided accessories	specific coaxial shielded cable for high voltage equipped on one end with a SHV plug of safety RADIALL R317-074.

## Possible applications

- Flash Lamps Triggers
- Intensified CTDs
- LaserDodes DRivers
- Multi Channel Plates
- Pocket Cells Drivers

Package Configuration	
Case	Box 2U 42E
Dimensions LxHxW	257 x 103 x 313 mm
Weight	2.7kg



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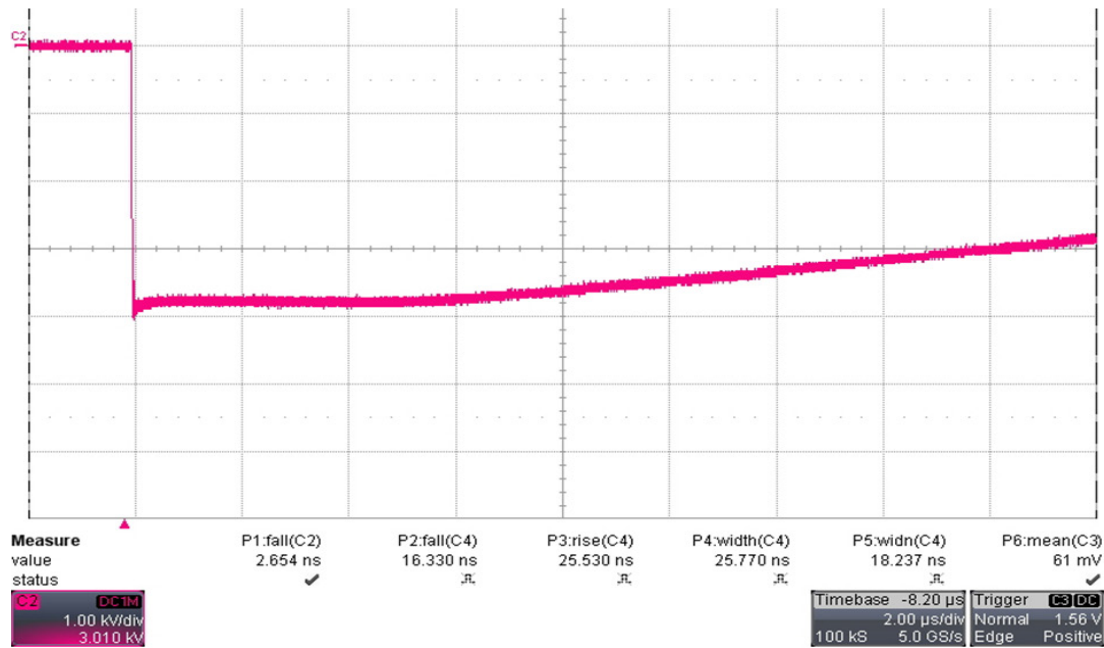


Fig.1 : overall view

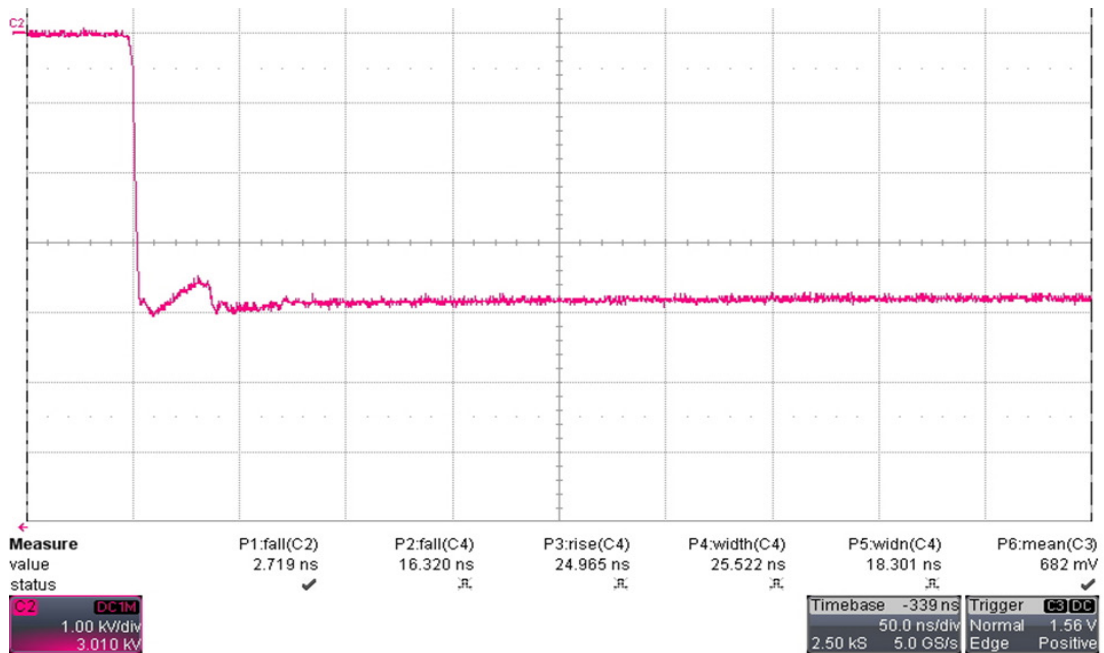


Fig.2 : detail of the falling edge

