



# QUANTUM TECHNOLOGY, INC.

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**MODEL 9GP50  
and 5GP50  
HV PULSERS  
DATA SHEET 756**

## HV PULSERS

- { 50KHz repetition rates
- { Fast rise time of 12 nsec
- { AC or DC power supply options
- { OEM air-cooled package
- { Includes timing and diagnostic electronics
- { All solid state compact size

The **Models 9GP50 and 5GP50 HV Pulsers** are designed for driving **Pockels cells** and **E-O Q switches** with repetition rates of **50 KHz @ 10 kv and 5 KV respectively**. These Models are supplied complete with timing and diagnostic electronics. This includes internal voltage controlled 50KHz oscillator, HV disable and monitor functions. Applications include high repetition rate high average power Diode Pumped Solid State (DPSS) lasers, pulse picking and gating of optical pulse trains required for cutting, scribing and marking. The models are available in OEM air-cooled packages requiring HV and 325V vdc input from power supplies such as the HVPS-9024 and HVPS-6020 6KV power supplies.

### SPECIFICATIONS

<b>Output:</b>	5 KV (5GP50) and 9 KV (9GP50) negative ground reference.
<b>Rise time:</b>	12 nsec
<b>Pulse width:</b>	3 usec fixed at half power point.
<b>Repetition rate:</b>	Single shot to 50 KHz
<b>Voltage monitor:</b>	1000:1, 200 K Ohm source.
<b>Trigger output timing:</b>	200 nsec to 5 usec (screwdriver-adjustable) delay.
<b>Delay defeat:</b>	Zero or adjustable delay switch.
<b>Input trigger:</b>	3-15 Vp @ 1 K Ohm (single shot to 50 KHz.)
<b>Pulse inhibit:</b>	3-15 Vp @ 1 K Ohm High level disables.
<b>Internal pulse rate control:</b>	0 to 10 V level for 500 Hz to 10 KHz.
<b>Pulse level control:</b>	0 to 10 V level for 10% to max.
<b>Trigger out</b>	Single shot to 50 KHz TTL 50 Ohm.
<b>Trigger source select:</b>	Accept or generate trigger select switch.
<b>Trigger rate select:</b>	Remote/local trigger rate control switch.
<b>Trigger rate control:</b>	Screwdriver adjust when in local mode.
<b>Pulse level select:</b>	Remote/local switch.
<b>Pulse level control:</b>	Screwdriver adjust when in local mode.
<b>Input/output connector</b>	BNC / SHV
<b>Load</b>	50 pF including cable (RG59U- 2 feet)
<b>Power requirement</b>	24 V DC @ 2.1 A.
<b>Size:</b>	5.52 x 9 x 2.52 in <sup>3</sup> ( w x l x h )
<b>Weight.</b>	4 kg.
<b>24 V DC power supply option</b>	(-A)
<b>Power supply requirement:</b>	100-120 VAC, 200-240 VAC.
<b>Power supply size:</b>	14x14x5.5 in <sup>3</sup> ( w x l x h ) HVPS-6020, HVPS-9024