



# QUANTUM TECHNOLOGY, INC.

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MODEL  
HVP- DPH2  
H.V. PULSER  
DATA SHEET 764

## MODEL HVP-DPH2-X

- { For Twin-Peak Applications, burst
- { For Quad Peak Applications
- { Adjustable Output to 5 KV
- { Fast 5 nsec Rise Times
- { Shielded Modules
- { Excellent Noise Immunity
- { Rugged Solid State Design
- { Fast turn-around on most items

The HVP- DPH2 Series HV pulsers are completely solid state, rugged, high voltage switching devices that provide reliable twin-peak switching pulses (or customized for other multiple pulse requirement) for **RTA, RTP & Lithium Niobate for Mid-IR** or **KD\*P for Visible** and **BBO for IR-UV** Q-Switches. They offer fast (typically 5 nsec) switching times for up to 5 KV pulses. They can be used for Cavity Dumping, Chopping, Pulse Picking, Slicing, or and multiple-peak application. They can be also used to gate microchannel plates or electron beam steering and other R&D applications.

Based upon proprietary Quantum pulse technology, the HVP-DPH2 Series Pulsers offer consistent, low jitter performance. Featuring an adjustable high voltage output to 5 KV, they can be triggered up to 100 KHz continuous with pairs of pulses as close as 200nsec. These drivers can be thought of as operating a fast, digital ON-OFF switch coupled to a HV power supply. The output pulse amplitude is easily adjusted by changing the power supply voltage. The digital read-out provides a precise display of the HV output pulse amplitude. A PC-3 pulse conditioner module provides the correct trigger signals to the pulser from the user's input pulse train subsequently amplified output of the user's input pulses. The output has 2 differential output SHV connectors.

Additional timing controls such as the optional Model DD1-2 Divider Delay unit provide pulse width controls, delays, synchronization to a mode lock clock signal, etc. The driver modules can be mounted to the pockels cell for the fastest risetime and minimal cable inductance, otherwise short 10" SHV-pin term test lead cables can be provided.

MODEL	PULSE LEVELS		OUTPUT TYPE	Minimum/Maximum Pulse Width	Minimum time between pairs	MAX REP RATE	DESCRIPTION
	RISE/FALL TIME	Output					
HVP-DPH2-1	<8ns rise <8ns fall	1 KV	double pulse (1 pulse pair)	10nsec. 1msec	200nsec	100KHz*	separate trigger for each of the two pulses
HVP-DPH2-2	<8ns rise <8ns fall	2 KV	double pulse (1 pulse pair)	10nsec. 1msec	200nsec	100KHz*	separate trigger for each of the 4 edges pulses
HVP-DPH2-5	<10ns rise <10ns fall	5 KV	quad pulse (1 pulse pair)	20nsec.-1 msec	1usec	1 KHz	four triggers required

\*system power: 1KV unit PS-24-1030 for 100KHz; 2KV unit PS-24-2030 for 100KHz; 5KV unit PS-24-5001

### SPECIFICATIONS:

1. Jitter ..... <1nsec
2. Trigger requirement ... 3-5 volt into 50 ohm (TTL)
3. Display Accuracy .... <1%
4. Size HxWxD ..... 2.5"x5.5"x7.63" 2 pcs +PS-24-xxxx
5. Weight ..... 3 Lbs
6. Power ..... 100/115/230 VAC, 50-60 Hz