

Q-DRIVE OEM

Driver for KD*P Pockels Cells in Q-switched Lasers

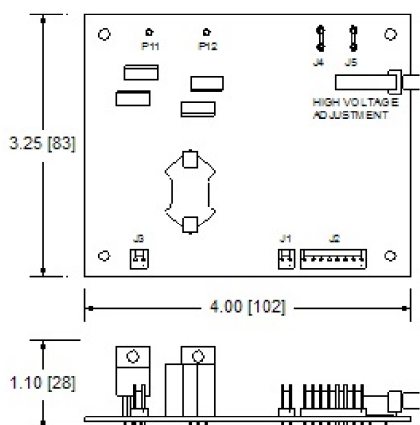
Q-DRIVE™ PRODUCT DATASHEET

The G&H Q-Drive OEM is a cost effective, high performance Pockels cell driver for incorporation into Q-switched laser systems.

The driver is packaged on a compact 100x83 mm (4x3¼") circuit board. The driver is fully self-contained with the power supply and all control circuitry, needing only 24 VDC and a trigger signal to operate.

Designed for reliability with low component stress and worst-case design margins, the driver meets specifications from -40C to +70C. It works with loads to 30 pF.

G&H can supply the driver in different form factors for high volume applications. For more information please see the Design-In Manual.



Features

- 4-7 ns, 1.5-4.5 kV, 1Hz-4.5 kHz performance (see graph on page 2)
- 50 ohm isolated trigger
- Voltage monitor
- Status LEDs for power, high voltage and trigger
- Remote on/off and voltage setpoint
- Bipolar balanced output
- 24 VDC input power
- Laboratory version available

Benefits

- Low power dissipation, less heat
- Remote control ready
- Compact footprint
- Easy integration

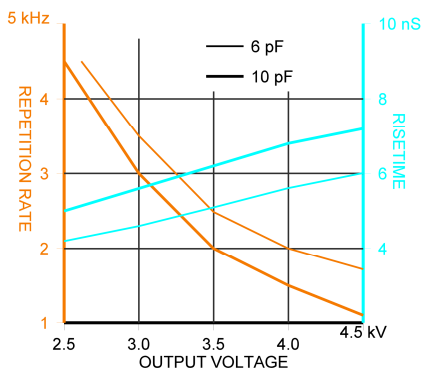
Applications

- Medical and dermatological laser systems
- Imaging
- Engraving
- Metal cutting
- Microfabrication
- Ranging
- Holography

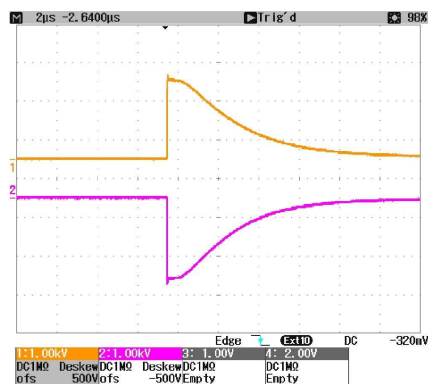
Specifications

Parameter	Conditions	Min	Max	Units
OUTPUT PULSE PARAMETERS				
Pulse top	4 kV output, 6 pF cell capacitance		150 (nom)	ns
Decay time constant	4 kV output, 6 pF cell capacitance		5 (nom)	μs
Pulse voltage	Limits of adjustment	1.5	4.5	kV
Load capacitance			30	pF
POWER REQUIREMENTS				
24 VDC	Power limit before output fold-back		180	mA
TRIGGER				
Trigger voltage		2	8	V
Input impedance		48	52	ohms
Pulse width		200		ns
Jitter, trigger to output	2 ns trigger rise time, Tektronix 11801		20 (nom)	ps RMS
ENVIRONMENTAL				
Temperature		-20	50	°C

Typical performance



Complimentary +/- outputs



Risetime - 4 kV, 10 pF

