

Q-DRIVE™ OEM POCKELS CELL DRIVER

OEM Driver for KDP Pockels Cells in Q-switched Lasers

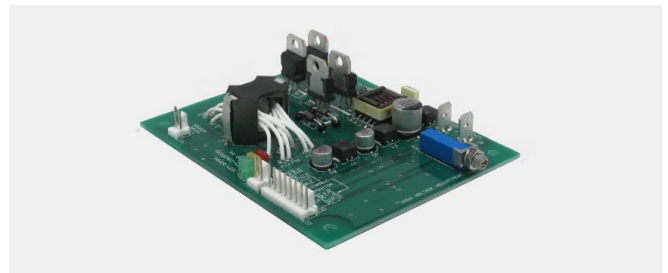
PRODUCT DATASHEET

The Gooch & Housego OEM Q-Drive™ 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 50 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

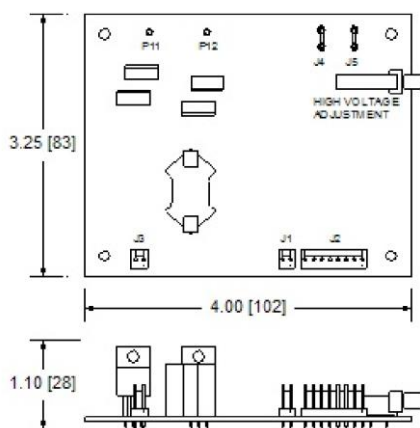
- 4-7 ns, 1.5-4.5 kV, 1Hz-4.5 kHz performance (see graph on following page)
- 50 ohm isolated trigger
- Voltage monitor
- Status LEDs for power, high voltage and trigger
- Remote on/off and voltage setpoint
- Bipolar balanced output
- 24 VDC input power
- Laboratory version available

Benefits

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

Applications

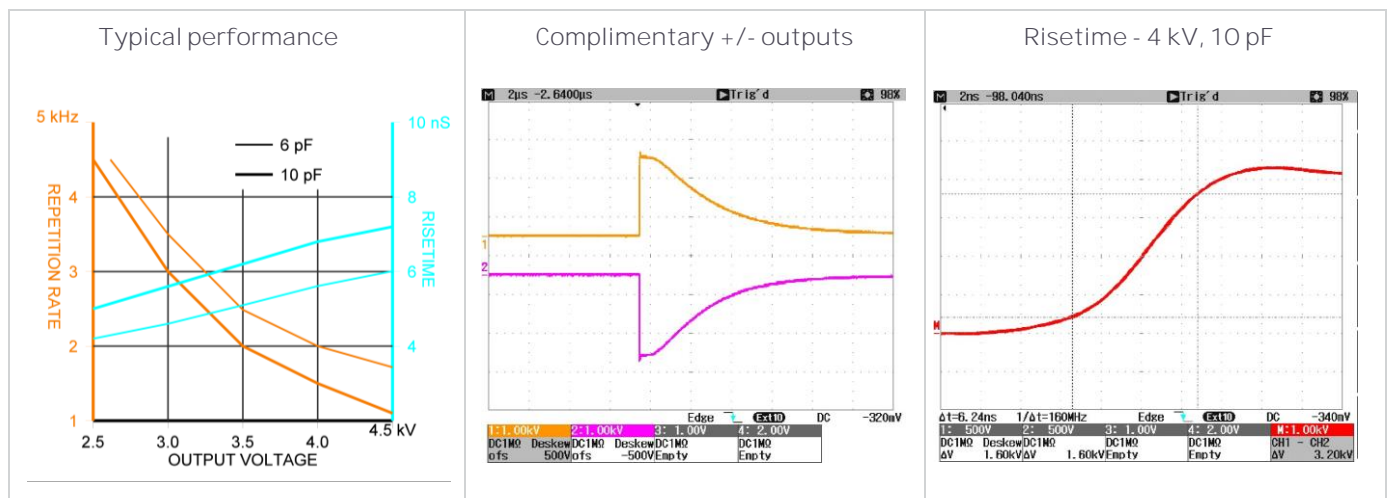
- Medical and dermatological laser systems
- Imaging
- Engraving
- Metal cutting
- Microfabrication
- Ranging
- Holography



Q-DRIVE™ 551 LABORATORY POCKELS CELL DRIVE

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)	μ s
Pulse voltage	Limits of adjustment	1.5	4.5	kV
Load capacitance			25	pF
POWER REQUIREMENTS				
24 VDC	Power limit before output fold-back		130	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	$^{\circ}$ C



For further information

E: sales@goochandhousego.com

goochandhousego.com

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Datasheet Revision No. 4.1

As part of our policy of continuous product improvement, we reserve the right to change specifications at any time.

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