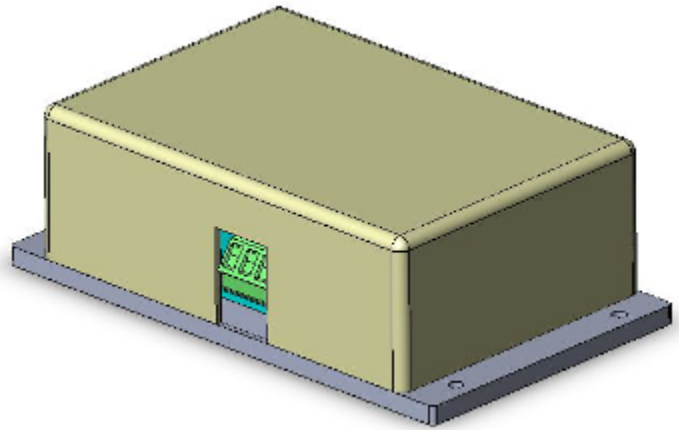


Features

- Compact, high-efficiency pockels cell driver
- Drives 250 to 1400 volts peak into capacitive load
- Pulse rate 4 MHz typical at 1000 volts
- Pulse width 7.5 nanoseconds FWHM typical
- Efficient architecture requires only 48 volts DC power at 2 amps max
- Compact assembly 3" x 4.2" x 2"
- Jitter below 30 ps RMS
- 1/200 pulse monitor output provided
- Compatible with Highland products:
 - P400 digital delay generator
 - T560 digital delay generator
 - Application-specific timing controllers
- Available as OEM product



The T850 Pockels Cell Driver is a fraction of the size, power consumption, and price of conventional devices. Its small size and very low power requirements allow it to be mounted immediately adjacent to the Pockels Cell in an optical system. There are no fans or other sources of vibration.

Highland can furnish complementary standard and custom timing controllers to manage pulse picking, Q-switching, chirped pulse amplification, cavity dumping, and two-photon microscopy.

The T850 is available as an OEM product under NDA only. The minimum order quantity starts at 50 pieces. Loaner units are available for demonstration for up to 30 days.

Specifications : T850 compact pockels cell driver

FUNCTION	Pockels Cell driver
TRIGGER INPUT	TRIG input width sets pulse amplitude. Nominal 100 ns, source- terminated 50 ohm, 5 volt pulse The falling edge of TRIG input fires shot
PULSE RATE	0 to 4 MHz at 1000 volts peak, 10 pF load
PROPAGATION DELAY	14 ns nominal, TRIG falling edge to pulse peak
POCKELS OUTPUT	Positive near-Gaussian pulse, nom 7.5 ns FWHM into 10 pF load Dynamically programmable 250 to 1400 volts Typical 30 volts average DC offset at 4 MHz trigger rate Optional AC coupling for zero average Pockels cell bias
MONITOR OUTPUTS	VMON 1/200 of Pockels drive into 50 ohm oscilloscope TMON waveform depicts major timings
JITTER	< 30 ps RMS
CONTROL	10-pin ribbon cable connector for analog control/supervision
POWER	+48 volts DC via locking barrel connector Current typ 1 A at 4 MHz trigger rate, 1KV out Wall-plug supply available for evaluation
CONNECTORS	TRIG, VMON, TMON : SMB connectors Control: 2x5 100 mil centers shrouded ribbon header Power: 2.5 mm locking barrel Pockels cell: Phoenix barrier strip
LED INDICATORS	Green POWER , blue TRIG, red ERR
PACKAGING	3.0" x 4.2" printed circuit board on 0.25" thick aluminum baseplate
COOLING	Customer cold plate required above 500 KHz

The T850 is available as an OEM/custom product. Specifications are given to illustrate functionality.