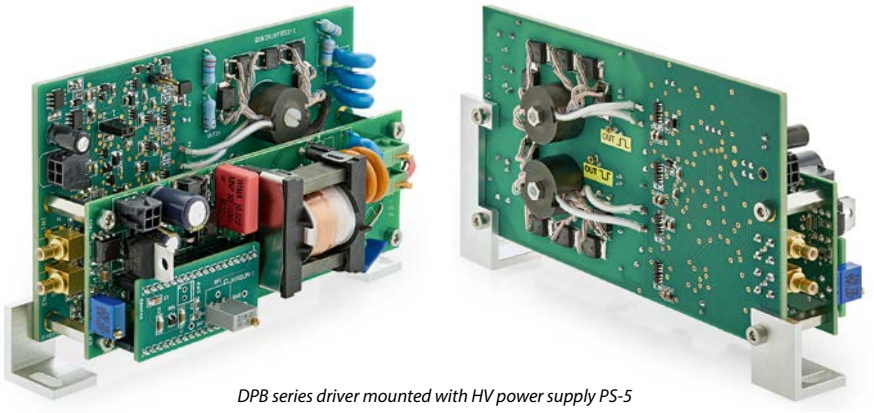
DPB HIGH VOLTAGE POCKELS CELL DRIVER

FEATURES

- HV pulse amplitude up to 9.8 kV
- HV pulse duration down to 30 ns
- HV pulse amplitude doubling layout
- Repetition rate up to 10 kHz
- Easy integration with HV power supply
- Switchable one/two trigger pulses control model



DPB series driver mounted with HV power supply PS-5

DPB series High Voltage drivers can operate with highest possible high voltage amplitudes among the Pockels cells drivers offered by EKSMA Optics.

DPB series drivers feature short HV pulse rise and fall time and fast repetition rate. It is offered with power supply integrated on the top of the driver's board ensuring compact design of the complete unit.

SPECIFICATIONS

CATALOGUE NUMBER	DPB-10-4.2	DPB-5-5.5	DPB-3-8.6	DPB-2.5-9.8
Maximum output pulse amplitude (HV)	4.2 kV	5.5 kV	8.6 kV	9.8 kV
Output polarity	bipolar			
HV pulse rise time, typical	7 ns	8 ns	10.5 ns	12 ns
HV pulse fall time, typical	7 ns	8 ns	9.5 ns	10.5 ns
HV pulse duration	30…3000 ns		35…2000 ns	
Maximum HV repetition rate	10 kHz	5 kHz	3 kHz	2.5 kHz
HV pulse delay	30 ns			
Requirement for external triggering pulse amplitude load	3.5…5 V (50 Ω load)			
Requirement for external triggering pulse rise time	< 5 ns			
External powering requirements:				
Low voltage DC supply	15 – 25 V, 150 mA or 12 V, 220 mA (0.5 A inrush current)		24…25 V, 150 mA	
HV power supply	2.2 kV, 5 W	2.8 kV, 5W	4.4 kV, 5W	5.0 kV, 5W
DC Connectors	Molex Micro-Fit 3.0			
Dimensions (L x W x H):				
Driver board	135 × 65 × 30 mm		135 × 75 × 30 mm	
Driver board mounted with PS-5 power supply	151 × 71 × 52 mm *(Fig. 3)*		151 × 86 × 59 mm *(Fig. 4)*	
Weight not including HV power supply	70 g		130 g	

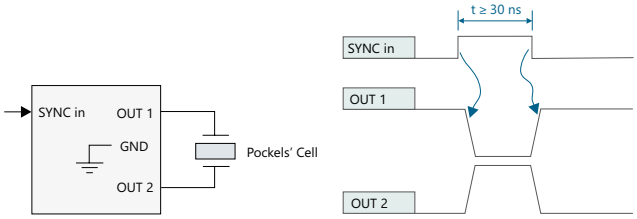


Fig. 1. Diagram of pockels cell connection to driver and timing charts of driver controlled by 1 sync pulse

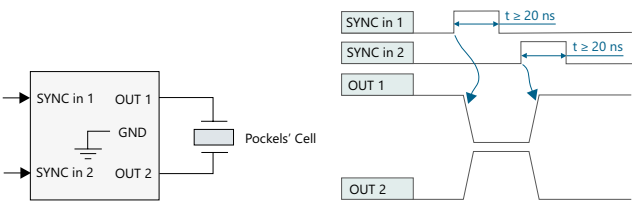


Fig.2. Diagram of pockels cell connection to driver and timing charts of driver controlled by 2 sync pulses

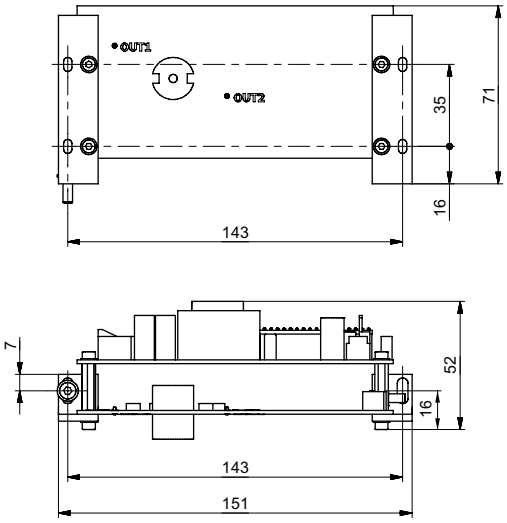


Fig. 3. Outline drawing of DPB-10 ir DPB-5 drivers

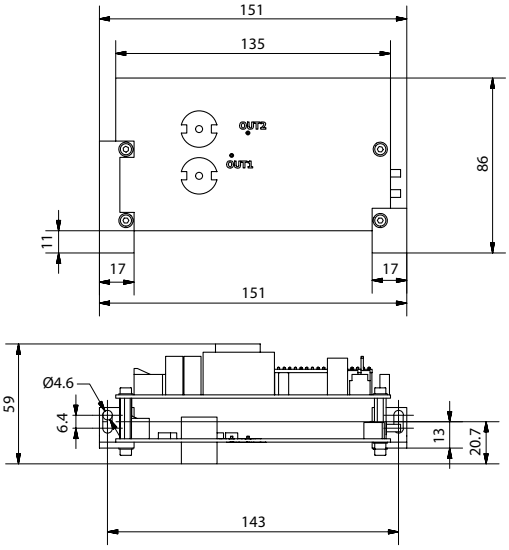


Fig. 4. Outline drawing of DPB-3 ir DPB-2.5 drivers