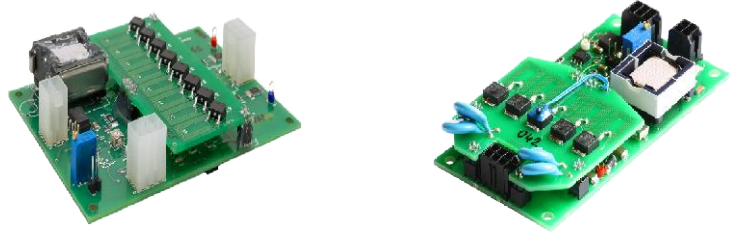


Pockels Cell Drivers

QBD and QBD-mini are a series of high repetition rate Pockels cell drivers allowing simple and reliable control of Q-switched lasers. The output voltages may be selected in range up to 6kV (QBD) and up to 4kV (QBD-mini). The drivers may be manufactured in two modifications: for pull-down scheme (normally on scheme) and for push-up scheme (normally off scheme). The high voltage level, the repetition rate, and the load capacitance depend on each other and can not achieve their maximal values simultaneously. A forced air cooling is required for operation with high repetition rates. The protection against overheating is necessary approx. at 72°C.



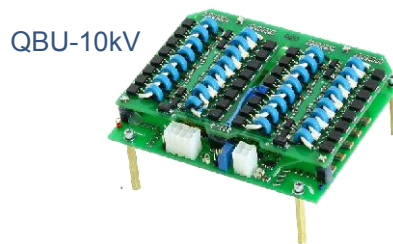
		QBD	QBD-mini
Input	Voltage, Current	+24VDC, 0.8A max	
Output	Working modes:	push-up (= normally off) high level is adjustable	
	QBD-(mini-)UP		
	QBD-(mini-)DN	pull-down (= normally on) high level is adjustable	
	Voltage, low level	fixed, 0V	
	Voltage, high level	regulated, up to 6kV	regulated, up to 4kV
	Repetition rate	up to 50kHz (CW) up to 100kHz (burst-mode)	up to 30kHz (CW) up to 50kHz (burst-mode)
Rise time (fall time)	< 20ns		
Recovery time	5-10µs (depends on load)		
Jitter	10ns		
Delay time	1µs		
Load capacitance	up to 0.5nF		
Environment	Operation temperature	+10°C to +40°C (wider temperature range is available on request)	
	Storage temperature	-20°C to +60°C	
	Humidity	90%, non-condensing	
Other	Size (L x W x H)	110x80x25mm	90x50x20mm
	Weight	0.1kg	0.1kg

Pockels Cell Drivers

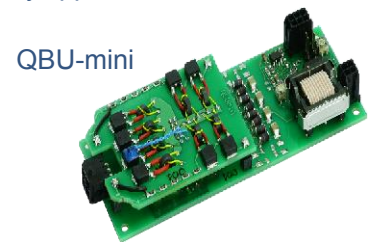
QBU, QBU-10kV, and QBU-mini are a series of high repetition rate Pockels cell drivers that repeat at their output an external driving TTL signal. As a result they may be used for q-switched lasers of push-up scheme, pull-down scheme as well as for mixed-type or other user-defined schemes. The output voltages may be selected in range up to 6kV (QBU) and up to 3.5kV (QBU-mini). The QBU-10kV is an extension of QBU-series up to 10kV operating voltage range. Due high output voltage it may be used with Pockels cells working under L/2 schemes. The high voltage level, the repetition rate, and the load capacitance depend on each other and can not achieve their maximal values simultaneously. A forced air cooling is required for operation with high repetition rates. The protection against overheating is necessary approx. at 72°C.






QBU



QBU-10kV



QBU-mini

		QBU	QBU-10kV	QBU-mini
Input	Voltage, Current Repetition of external low voltage TTL signal	+24VDC, 0.8A max	+24VDC, 1.6A max 	+24VDC, 0.4A max
Output	Working modes: QBU-(10kV-mini)-UP QBU-(10kV-mini)-DN Voltage, low level Pulse width Voltage, high level Repetition rate Jitter Delay time Rise time (fall time)	regulated, up to 6kV up to 50kHz (CW) up to 100kHz (burst) ±10ns (common) ±1ns (LJ - low jitter) 1µs (common) 100ns (LJ - low jitter) approx. 10ns	push-up (= normally off)  pull-down (= normally on)  fixed, 0V 200ns ... DC regulated, up to 10kV >5kHz at full load (10kV, 11pF) ±1.5ns 150ns <20ns / 25ns at load capacitance <11pF	regulated, up to 3.5kV up to 30kHz (CW) up to 50kHz (burst) ±2ns 150ns approx. 10ns
Environment	Operation temperature Storage temperature Humidity	+10°C to +40°C (wider temperature range is available on request) -20°C to +60°C 90%, non-condensing		
Other	Size (L x W x H) Weight	130x80x25mm 0.1kg	132x105x50mm 0.1kg	140x50x20mm 0.1kg