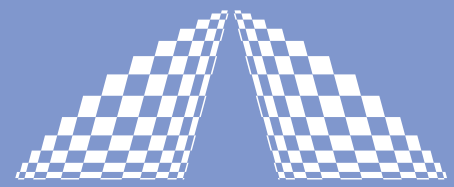


PULSE DRIVE



A P E

ACOUSTO-OPTICAL MODELOCKER

In cw lasers a train of ultrashort laser pulses can be generated by synchronous modulation techniques (mode locking). One of these methods is loss modulation by means of an intracavity acousto-optical modulator.

The modelocker **PulseDrive** has been designed as an upgrade-set to fit different types of Ar^+ -lasers, and can be operated at VIS and UV lines as well. It consists of a compact modulator head containing the modulator element and the high reflector, and the control electronics with an RF generator. The precise temperature control and the ultra stable direct digital RF synthesizer guarantee very short and stable laser pulses with high average power and minimal jitter.

All operation parameters can easily be set at the control electronics. The modelocker **PulseDrive** has a non-volatile memory for the parameter settings. Once the optimal parameters are determined (usually at the installation by our service personnel) they are stored in the memory, which means daily setup is reduced to turning the electronics on and a 15 min warm-up time.

High stability due to low noise oscillator

Compact modulator head with integrated temperature control

Standard versions for different Ar^+ -laser types and resonator lengths

Ti:Sa-, Nd:YAG- and other versions optional



Ultrafast Pulse Diagnostics

Wavelength Conversion

Pulse Management

Acousto-optics

Your Partner in Ultrafast

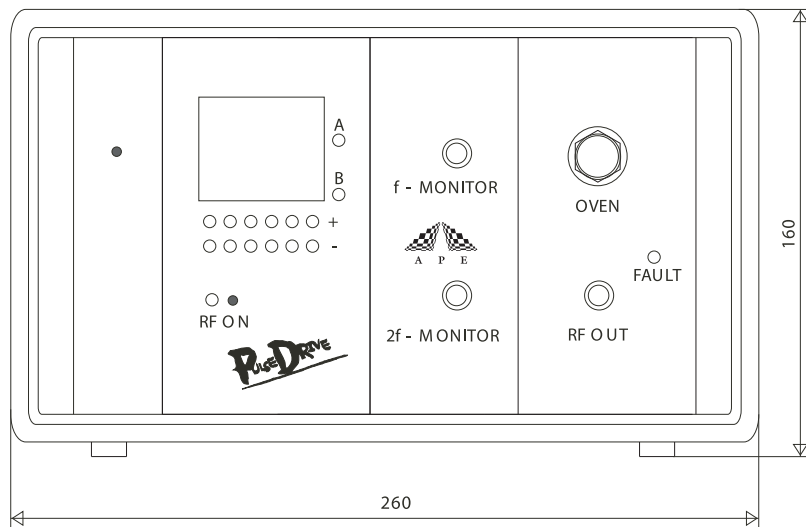
PULSED DRIVE

SPECIFICATIONS

Wavelength range	450 ... 520 nm (other ranges optional)
Optical losses	< 5 % of cw output power
Typical modelocked average power	> 25 % of cw output power (@ 514.5 nm/1W cw)
Pulse repetition rate	70 ... 130 MHz (depending on laser cavity length)
Driver frequency resolution	1 Hz
Driver frequency stability	1 ppm
Amplitude noise	< 1 %

DIMENSIONS (in mm)

RF-Driver:



Distributors

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APE follows a policy of continued product improvement. Therefore, specifications are subject to change without notice.