



## “Eye-safe” 1,54 $\mu\text{m}$ ns laser

### KAUKAS HR



#### FEATURES:

Compact robust design  
Energy per pulse > 30  $\mu\text{J}$  @1 kHz  
OEM version available

#### APPLICATIONS:

LIDAR and Laser Ranging  
LIBS  
Metrology and instrumentation



## Laser characteristics:

Wavelength	1534 nm	
Wavelength tolerance	± 1 nm	
Pulse energy	> 45 µJ	>30 µJ
Average output power @1 kHz	4,5 mW	30 mW
Energy stability (2 hr), @1 kHz	<3 %	
Pulse duration	<7 ns	
Pulse repetition rate	100 Hz	1 kHz
Polarization contrast	>1:80	
Beam diameter at exit window	<1 mm	
Beam divergence	<5 mRad	
Beam profile	TEM <sub>00</sub>	

## Physical dimensions:

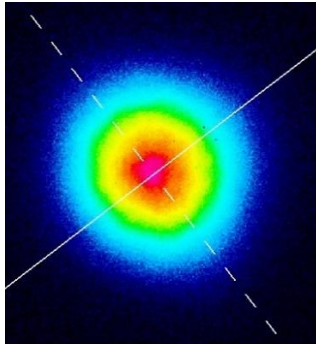
Laser module dimensions	111 x 34 x 25,5 mm (L x W x H)
Laser driver dimensions	248 x 105 x 64 mm (L x W x H)

## Utility requirements:

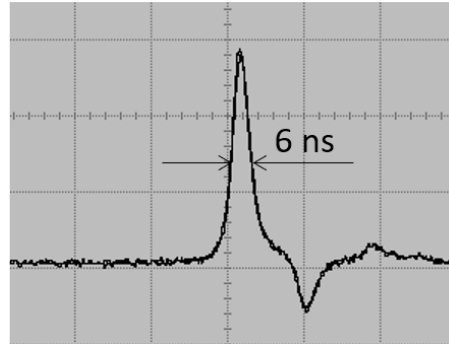
Pump current	<6 A
Working temperature	15 - 35°C
Cooling	Passive air cooling



Laser beam profile and laser pulse duration data:



Beam profile at 1 kHz laser repetition rate (46 cm distance)



6 ns pulse duration at 1 kHz repetition rate

Output energy stability:



Energy stability measurement of 1kHz laser model. Min. – 36,15  $\mu$ J, Max. – 37,97  $\mu$ J, Average – 36,77  $\mu$ J, Std.Dev. – 389,9 nJ (1,06%)

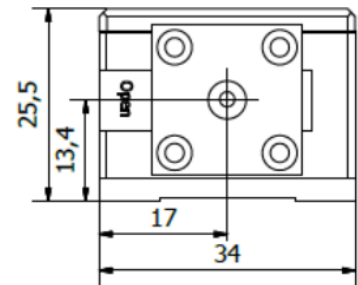
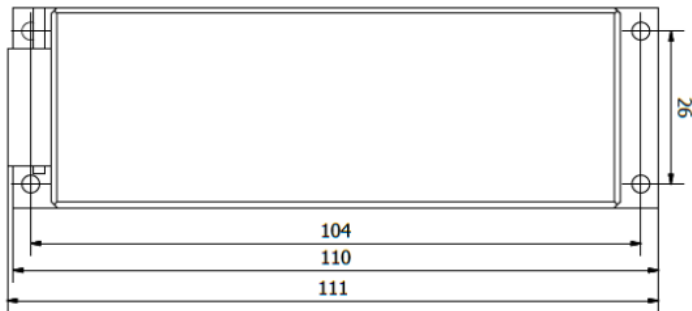




Necessary components to run the laser:

 <p>KAUKAS HR laser model</p>	 <p>Laser driver</p>
 <p>Power supply</p>	 <p>USB-RS232 adapter</p>

Laser head schemes:



Laser safety class:

