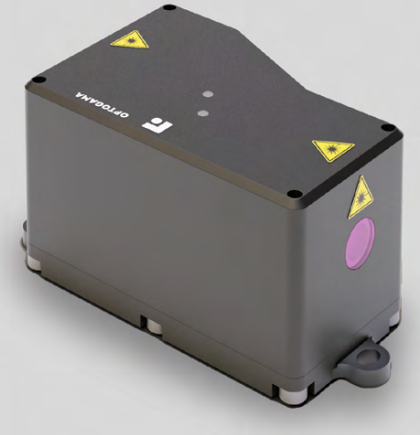

“Eye-safe” 1,54 µm ns lasers “KAUKAS”

Main features

- Compact robust design
- Wide operating temperature range
- 2 mJ and 3 mJ energy models
- OEM version available

Application examples

- LIDAR & Laser Ranging
- LIBS
- Metrology and instrumentation

„Eye-safe“ 1,54 µm wavelength nanosecond lasers series „KAUKAS“ possess a unique compact design and are available in OEM models for dedicated applications such as LIDAR or laser ranging. “Eye-safe” 1,54 µm wavelength lasers model „KAUKAS” delivers up to 2 mJ or up to 3 mJ energy per pulse with a repetition rate of up to 1 Hz.

Recommendation

- To use with Laser Driver LR100 (ref.p. 168)
  LR100 is a high-precision laser driver designed for pulsed laser systems. With adjustable current up to 100 A, pulse widths up to 5000 µs, and flexible burst and single-shot modes, it offers full control over laser performance. Its digital interface allows easy integration, while built-in monitoring of temperature, voltage, and current ensures safe, stable operation.

Standard specifications

LASERS “KAUKAS” STANDARD SPECIFICATIONS	
Wavelength	1534 nm
Wavelength tolerance	±1 nm
Repetition rate	SS - 2 Hz
Pulse energy	>3 mJ
Energy stability, STD	<3 %
Pulse duration	<8 ns
Beam diameter at exit window	<1 mm
Beam quality	$M^2 < 2$
Beam profile	TEM_{00}

Utility requirements

LASERS “KAUKAS 2” UTILITY REQUIREMENTS	
Laser module dimensions	61 x 33 x 29,5 mm (L x W x H)
Laser driver dimensions	257 x 169.5 x 58 mm (L x W x H)
Pump current	<100 A
Pump duration	<4 ms
Electric	100-240 V AC, 20 A, 50/60 Hz
Working environmental temperature	-20°C ... +60°C
Cooling	Passive air cooling

Standard products

LASER MODEL	WAVELENGTH	REPETITION RATE	PULSE ENERGY	PULSE DURATION	OPERATING TEMPERATURE	WEIGHT	SKU
KAUKAS 3	1534 nm	SS-1 Hz	>3 mJ	<8 ns	-20°C to +60°C	0,1 kg	30829
					+10°C to +40°C	0,1 kg	30944
					+10°C to +40°C	0,1 kg	30945
KAUKAS 2	1534 nm	SS-2Hz	>2 mJ	<11 ns	-20°C to +60°C	0,1 kg	30828
					+10°C to +40°C	0,1 kg	30920
					+10°C to +40°C	0,1 kg	30943

Kaukas lasers are offered as OEM solution without laser driver and with our laser driver LR100.