“Eye-safe” 1,54 µm ns lasers “KAUKAS 2”

Main features

- Compact robust design
- Wide operating temperature range
- 2 mJ energy model
- OEM version available

Application examples

- LIDAR & Laser Ranging
- LIBS
- Metrology and instrumentation

„Eye-safe“ 1,54 µm wavelength nanosecond lasers series „KAUKAS 2“ 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 2“ delivers up to 2 mJ energy per pulse with a repetition rate of up to 2 Hz.

Standard specifications

LASERS “KAUKAS 2” STANDARD SPECIFICATIONS	
Wavelength	1534 nm
Wavelength tolerance	±1 nm
Repetition rate	SS - 2 Hz
Pulse energy	>2 mJ
Energy stability, STD	<3 %
Pulse duration	<11 ns
Beam diameter at exit window	<1 mm
Beam quality	$M^2 < 2$
Beam profile	TEM_{00}

Standard products

LASER MODEL	WAVELENGTH	REPETITION RATE	PULSE ENERGY	PULSE DURATION	OPERATING TEMPERATURE	WEIGHT	POWER SUPPLY AND DRIVER	SKU
KAUKAS 2	1534 nm	SS-2Hz	>2 mJ	<11 ns	-20°C to +60°C	0,1 kg	Excluded	30828
					+10°C to +40°C	0,1 kg	Excluded	30920
					+10°C to +40°C	0,1 kg	Included	30943

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	128 x 83 x 48 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 temperature	-20 °C - +60 °C
Cooling	Passive air cooling

“Eye-safe” 1,54 µm ns lasers “KAUKAS 3”

Main features

- Compact robust design
- High energy per pulse (>3 mJ)
- Wide operating temperature range
- OEM version available

Application examples

- LIDAR & Laser Ranging
- LIBS
- Metrology and instrumentation
- Research

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

Standard specifications

LASERS “KAUKAS 3” STANDARD SPECIFICATIONS	
Wavelength	1534 nm
Wavelength tolerance	±1 nm
Repetition rate	SS-1Hz
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}

Standard products

LASER MODEL	WAVELENGTH	REPETITION RATE	PULSE ENERGY	PULSE DURATION	OPERATING TEMPERATURE	WEIGHT	POWER SUPPLY AND DRIVER	SKU
KAUKAS 3	1534 nm	SS-1 Hz	>3 mJ	<8 ns	-20°C to +60°C	0,1 kg	Excluded	30829
					+10°C to +40°C	0,1 kg	Excluded	30944
					+10°C to +40°C	0,1 kg	Included	30945

Utility requirements

LASERS “KAUKAS 3” UTILITY REQUIREMENTS	
Laser module dimensions	61 x 33 x 29.5 mm (L x W x H)
Laser driver dimensions	128 x 83 x 48 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 temperature	- 20 - +60 °C
Cooling	Passive air cooling

“Eye-safe” 1,54 µm ns lasers “KAUKAS HR”

Main features

- Compact robust design
- Energy per pulse >30 µJ @ 1 kHz
- Pulse repetition rate control
- OEM version available

Application examples

- LIDAR & Laser Ranging
- LIBS
- Metrology and instrumentation
- Automotive

“Eye-safe“ 1,54 µm wavelength nanosecond high repetition rate (up to 1 kHz) DPSS lasers „KAUKAS HR“ possess a unique compact design and are available in OEM models for dedicated applications. „KAUKAS HR“ laser models have adjustable repetition rate feature. They deliver more than 30 µJ energy per pulse with a repetition rate of up to 1 kHz available on request.

Standard specifications

LASERS “KAUKAS HR” STANDARD SPECIFICATIONS	
Wavelength	1534 nm
Wavelength tolerance	±1 nm
Repetition rate	100 Hz - 1 kHz
Pulse energy	>30 µJ
Energy stability, STD	<2 %
Pulse duration	<6 ns
Beam diameter at exit window	<1 mm
Beam quality	$M^2 < 2$
Beam profile	TEM_{00}

Standard products

LASER MODEL	WAVELENGTH	REPETITION RATE	PULSE ENERGY	PULSE DURATION	OPERATING TEMPERATURE	WEIGHT	SKU
KAUKAS HR	1534 nm	100 Hz	>45 µJ	<7 ns	15 - 35 °C	0,2 kg	9746
		1 kHz	>30 µJ	<7 ns	15 - 35 °C	0,2 kg	15575

Utility requirements

LASERS “KAUKAS HR” UTILITY REQUIREMENTS	
Laser module dimensions	111 x 34 x 25,5 mm (L x W x H)
Laser driver dimensions	164 x 105 x 44 mm (L x W x H)
Pump current	<7 A
Electric	100-240 V AC, 50/60 Hz
Working temperature	15 - 35 °C
Cooling	Passive air cooling

“Eye-safe” 1,54 µm ns lasers “KAUKAS 0.3”

Main features

- Robust design
- Integration into portable devices
- OEM version available

Application examples

- LIDAR & Laser Ranging
- LIBS
- Metrology and instrumentation

„Eye-safe” 1,54 µm wavelength nanosecond lasers “KAUKAS 0.3” possess a unique compact design and are available in OEM models for dedicated applications. This specific “eye-safe” 1,54 µm wavelength lasers model “KAUKAS 0.3” delivers up to 0.3 mJ energy per pulse with a repetition rate of up to 10 Hz. The unique laser optical design requires only up to 10 A pump current allowing this laser to be integrated into portable energy – efficient devices.

Standard specifications

LASERS “KAUKAS 0.3” STANDARD SPECIFICATIONS	
Wavelength	1534 nm
Wavelength tolerance	±1 nm
Repetition rate	1-10 Hz
Pulse energy	0.3 mJ
Energy stability, STD	<2 %
Pulse duration	<5 ns
Beam diameter at exit window	<1 mm
Beam quality	$M^2 < 2$
Beam profile	TEM_{00}

Standard products

LASER MODEL	WAVELENGTH	REPETITION RATE	PULSE ENERGY	PULSE DURATION	OPERATING TEMPERATURE	WEIGHT	SKU
KAUKAS 0.3	1534 nm	1-10 Hz	0.3 mJ	<5 ns	-20 - +40 °C	0,2 kg	32273

Utility requirements

LASERS “KAUKAS 0.3” UTILITY REQUIREMENTS	
Laser module dimensions	85 x 26 x 20 mm (L x W x H)
Laser driver dimensions	128 x 83 x 48 mm (L x W x H)
Pump current	<10 A
Pump duration	<4 ms
Electric	100-240 V AC, 3,6 A, 50/60 Hz
Working temperature	-20 - +40 °C
Cooling	Passive air cooling

1,54 µm ns lasers "Ranger"

Main features

- Compact design
- Integration into portable devices
- OEM version available

Application examples

- LIDAR & Laser Ranging
- LIBS
- Metrology and instrumentation
- Automotive

The "RANGER" nanosecond lasers at a wavelength of 1.54 µm feature a distinctive compact design and are offered in OEM configurations tailored for specific uses like LIDAR or laser ranging applications.
The "RANGER" laser operating at a 1.54 µm wavelength can provide a pulse energy of up to 1.5 mJ, and it achieves a repetition rate ranging from 5 to 10 Hz.

Standard specifications

LASERS "RANGER" STANDARD SPECIFICATIONS	
Wavelength	1534 nm
Wavelength tolerance	±1 nm
Repetition rate	5-10 Hz
Pulse energy	>1,5 mJ@5Hz >1.3 mJ@10Hz
Energy stability, STD	<3 %
Pulse duration	<6 ns
Beam diameter at exit window	<1 mm
Beam quality	$M^2 < 2$
Beam profile	TEM_{00}

Standard products

LASER MODEL	WAVELENGTH	ENERGY PER PULSE	REPETITION RATE	PULSE DURATION	BEAM DIAMETER (ON OC)	OPERATING TEMPERATURE	POWER SUPPLY AND DRIVER	SKU
1,54 µm ns lasers "Ranger"	1534 nm	>1,5 mJ	5-10 Hz	<6 ns	<1 mm	-20°C to +60°C	Excluded	32008
						+10°C to +40°C	Excluded	32009
						+10°C to +40°C	Included	32010

Utility requirements

LASERS "RANGER" UTILITY REQUIREMENTS	
Laser module dimensions	62 x 33 x 24 mm (L x W x H)
Laser driver dimensions	164 x 78 x 46 mm (L x W x H)
Pump current	<100 A
Pump duration	<2,5 ms
Operating environment temperature	-40 °C ... +60 °C
Cooling	Passive air cooling