760 - 840 nm

840 - 1100 nm

1100 - 1700 nm

1700 - 2400 nm

2400 - 3000 nm

3000 - 6000 nm

FP laser diodes from 760 nm to 840 nm

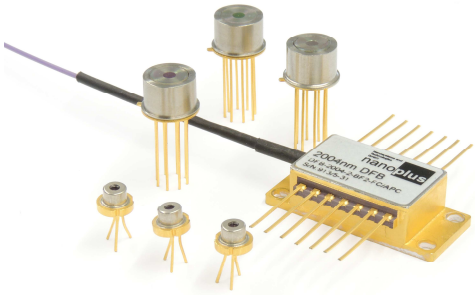
Nanosystems and Technologies GmbH

nanoplus

nanoplus multi mode laser diodes

nanoplus is the only manufacturer worldwide routinely providing single and multi mode lasers at any wavelength from 760 to 6000 nm. At wavelengths up to 14 µm, QCLs complete nanoplus' laser portfolio. Our Fabry Perot laser diodes deliver multi mode emission with well defined optical properties enabling a wide range of applications including e.g. security measures and range finding. In conjunction with an external cavity they are ideally suited for all spectroscopic tasks where a wide wavelength tuning range and a narrow linewidth is required.

nanoplus lasers operate reliably in tens of thousands of installations worldwide, including chemical and metallurgical industries, gas pipelines, power plants, medical systems, airborne and satellite applications.



key features

- ✓ excellent reliability
- ✓ broad emission spectrum
- ✓ wide variety of packaging options

application areas

- ✓ range finding
- ✓ security
- ✓ spectroscopy
- ✓ illumination

nanoplus FP lasers with excellent performance are specifically designed and characterized to fit your needs. This data sheet summarizes typical properties of nanoplus FP lasers in the wavelenth range from 760 nm to 840 nm. In this wavelength range, e.g. oxygen can be detected with particularly high sensitivity.

general ratings (T = 25 °C)	symbol	unit	typical
optical output power	P_{out}	mW	10
reverse Voltage	V_r	V	2.5
forward Current	I_f	mA	28

On request, lasers with specifically optimized properties, e.g. higher output power, are available.

laser packaging options
TO5.6 header with or without cap
TO9 header with or without cap
TO5 with TEC and NTC
butterfly housing with FC/APC fibre (available up to 2.33 µm)

For dimensions and accessories, please see www.nanoplus.com
Further packaging options available on request.

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REGISTERED COMPANY ISO 9001:2008

Rev. FP760.03

Nanosystems and Technologies GmbH
nanoplus

nanoplus FP laser diodes

nanoplus FP laser diodes in the range from 760 nm to 840 nm are ideally suited for all spectroscopic tasks where a broad laser emssion spectrum and a short coherence length is required. The variety of applications for which these FP laser diodes are key elements include range finding systems, security measures and many more. In combination with external cavity setups the laser diodes can be operated as sources for widely tunable external cavity lasers for ultra sensitive laser based gas sensing of e.g. oxygen.
For examples of performance data of nanoplus lasers in other wavelength ranges, please see www.nanoplus.com or contact sales@nanoplus.com

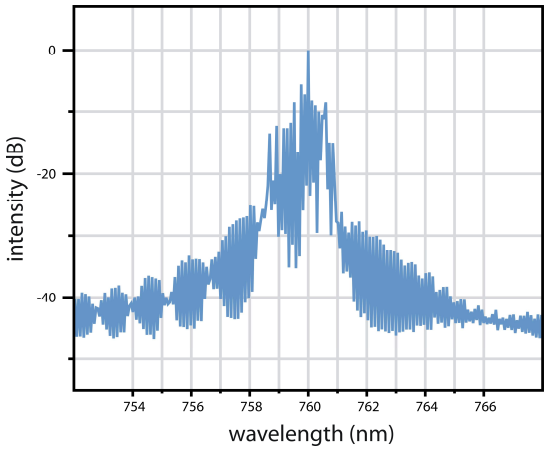

Fig. 1
Room temperature cw spectrum of a nanoplus FP laser diode operating at 760 nm

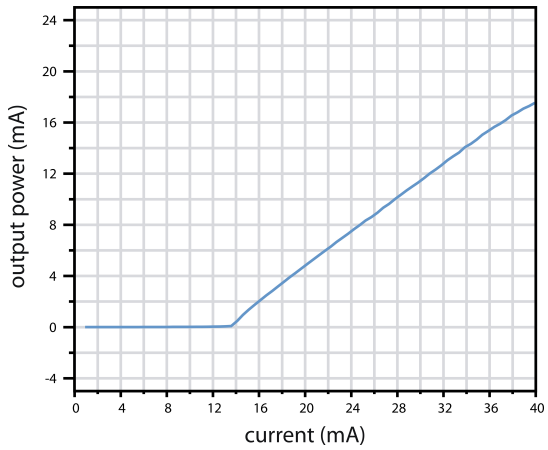

Fig. 2
Output power versus current characteristics of a 760 nm FP laser diode at room temperature

electrooptical characteristics (T = 25 °C)	symbol	unit	min	typ	max
peak wavelength	λ	nm	750	760	770
threshold current	I_{th}	mA	10	13	16
slope efficiency	e	mW / mA	0.6	0.7	0.8
slow axis (FWHM)		degrees	17	20	25
fast axis (FWHM)		degrees	35	40	45
emitting area	W x H	µm x µm	1.5 x 1.3	1.8 x 1.5	2.0 x 1.6
storage temperatures	T_S	°C	- 40	+ 20	+ 80
operational temperature at case	T_c	°C	- 20	+ 25	+ 50

We will be happy to answer further questions. Please contact us at sales@nanoplus.com

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