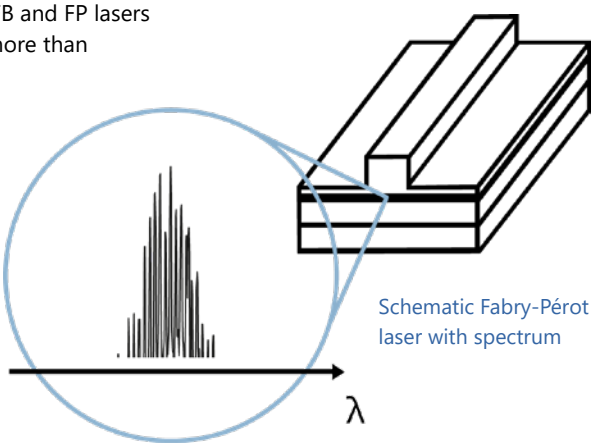
Fabry-Pérot Laser Diodes (FP): High-Power Option

nanoplus FP are specially designed and characterized to fit your requirements. For more than 25 years, nanoplus has been manufacturing DFB and FP lasers with excellent performance. Our devices operate **reliably** in more than 100,000 installations worldwide.



Schematic Fabry-Pérot laser with spectrum

Key features:

- BROADBAND
- HIGH-POWER
- SMALL FOOTPRINT

Any **custom wavelength** is possible: You tell us what you need! With our outstanding technology we design any wavelength **between 760 nm and 14000 nm** with an accuracy of +/- 20 nm.

The **output power** of **several mW** yields a strong signal and gives large flexibility to your application. **High power up to 1 W** is available on request **between 1950 nm and 2350 nm**.

We offer **various packaging options,** e. g. several free space housings including TEC and NTC, fiber coupling, **collimation** and **custom designs.** What are your requirements?

Long-term stability is one of the principal features customers value about our lasers! Even in **harsh environments** nanoplus devices perform excellently – low maintenance warranted.

"Do not change your ideas, let us deliver a laser that fits your application."

If you require **custom specifications,** please contact us. Nearly 80 % of our devices are more or less customer-specific. As nanoplus is a **fully vertically integrated company,** we control the entire process chain from design to packaging. Both nanoplus production facilities are based in **Germany.** To guarantee consistent product quality we apply a strict and **ISO certified quality management system** at all levels.

Our sales and R&D teams have long-standing experience in developing lasers. They will be pleased to provide advice at any time - rely on us from design stage to product realization as well as after-sales:

We make market leaders!

nanoplus high-power Fabry-Pérot laser on submount with AlN carrier

WAVELENGTH

- 760–840 nm
- 840–1100 nm
- 1100–1700 nm
- 1700–2400 nm
- 2400–2900 nm
- 2800–6500 nm
- 6000–14000 nm
- **High-Power OPT**

REGISTERED COMPANY ISO 9001 14001

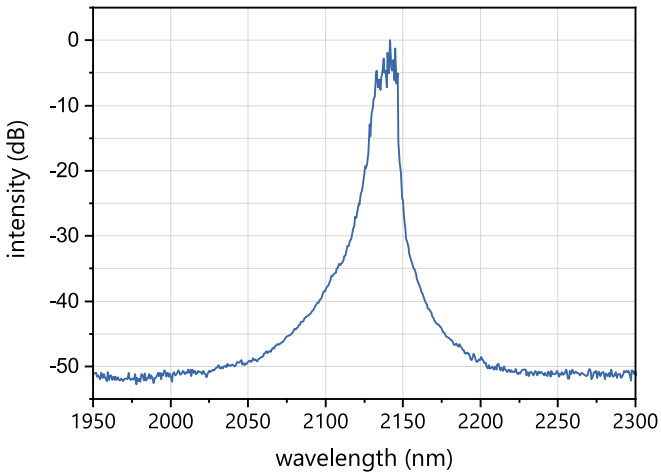
CLASS 4 LASER PRODUCT (DIN EN 60825-1) DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS

ATTENTION OBSERVE PRECAUTION FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES

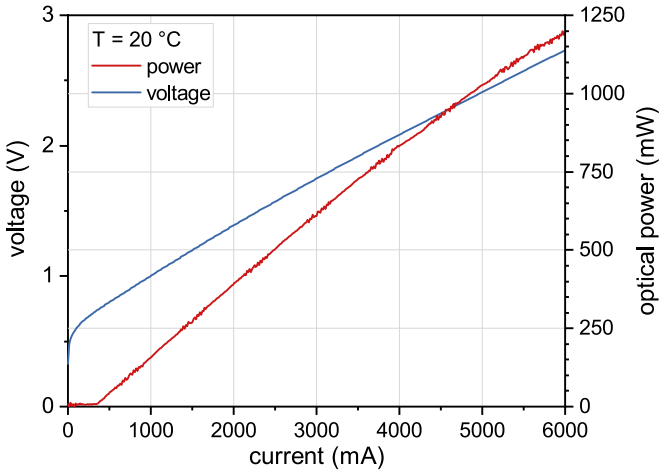
DANGER LASER RADIATION AVOID DIRECT EXPOSURE TO BEAM CLASS 3B LASER PRODUCT

Typical Specifications: High-Power Option

This data sheet reports performance data of a **sample High-Power Fabry Pérot Laser at 2145 nm,** which is representative for all wavelengths between 1950 nm and 2350 nm with **high-power option**.
For standard specifications with less power, please refer to our standard power section: http://www.nanoplus-usa.com/products/FP.



Typical room temperature cw spectrum of a nanoplus HPFP laser at 2145 nm



Typical PI and VI curve of a nanoplus HPFP laser at 2145 nm

electro-optical characteristics	symbol	unit	min.	typ	max.
operating wavelength (at T_{op}, I_{op})	λ_{op}	nm	-20	please specify	+20
optical output power (at λ_{op})	P_{op}	mW		1000	
operating current	I_{op}	mA		5000	
operating voltage	V_{op}	V		2.5	
threshold current	I_{th}	mA		300	
operating chip temperature	T_{op}	°C	+15	+20	+40
storage temperature*	T_S	°C	-40	+20	+80

* non condensing

laser packaging options

submount with AlN carrier, without TEC, without NTC

Technical drawings & accessories are available at: https://www.nanoplus-usa.com/products/packaging

Rev.HPFP2145.06

Please contact victor.perez@nanoplus.com for customized specifications, quotes and further questions.
Visit the nanoplus website for technical notes, application samples or literature referrals.

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