

# Fabry-Pérot Laser Diodes (FP): 1100 nm - 1700 nm

## WAVELENGTH

760–840 nm

840–1100 nm

**1100–1700 nm**

1700–2400 nm

2400–2900 nm

2800–6500 nm

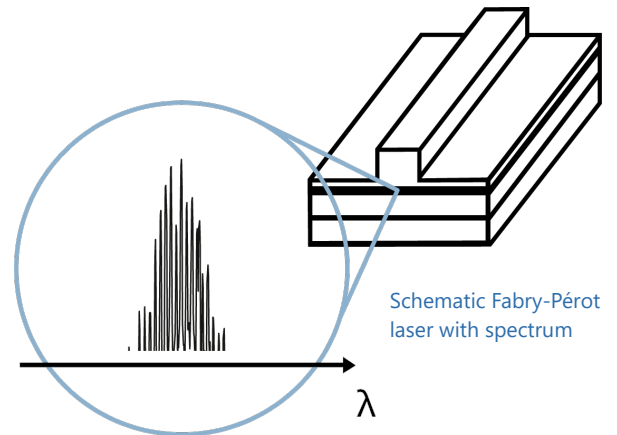
6000–14000 nm

High-Power OPT

nanoplus Fabry-Pérot Lasers (**FP**) are specially designed and characterized to fit your requirements. For 25 years, nanoplus has been manufacturing DFB and FP lasers with excellent performance. Our devices **operate** reliably in more than 50,000 installations worldwide.

### 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 the laser that fits your application.”**

If you require **custom specifications**, please contact us.

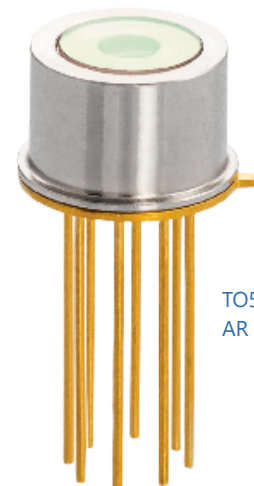
Nearly 80 % of our devices are more or less customer-specific.

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 advise you in your design and realization phase as well as after-sales:

**We make market leaders!**



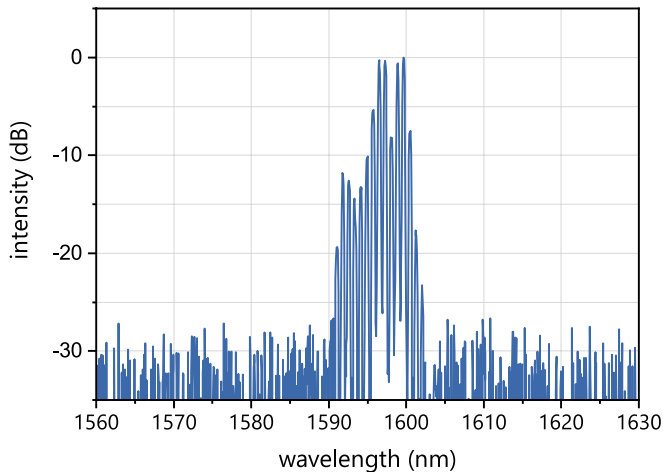
TO5 with cap and AR coated window



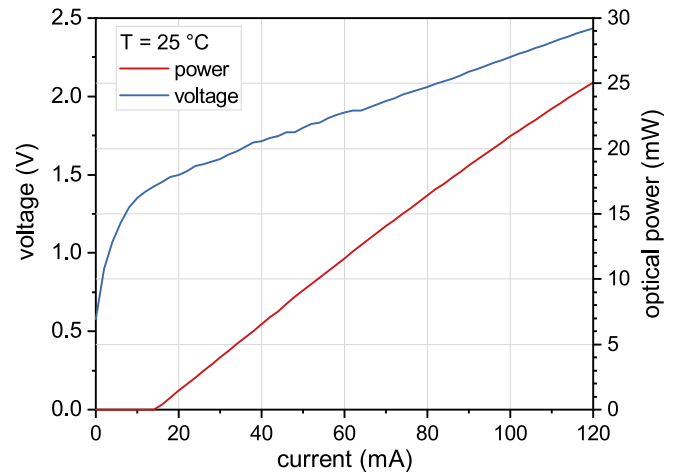
# Typical Specifications: 1100 nm - 1700 nm

This data sheet reports performance data of a **sample Fabry-Pérot laser at 1590 nm**, which is representative for the entire wavelength range.

If you need more power, please check our **High-Power Option**: [nanoplus.com/FP/1950nm-2350nm](https://nanoplus.com/FP/1950nm-2350nm)



Typical room temperature cw spectrum  
of a nanoplus FP laser at 1590 nm



Typical PI and VI curve  
of a nanoplus FP laser at 1590 nm

electro-optical characteristics	symbol	unit	min.	typical	max.
operating wavelength (at $T_{op}$ , $I_{op}$ )	$\lambda_{op}$	nm	-20	please specify	+20
optical output power (at $\lambda_{op}$ )	$P_{op}$	mW		10	
operating current	$I_{op}$	mA		45	
operating voltage	$V_{op}$	V		2	
threshold current	$I_{th}$	mA		50	
operating chip temperature	$T_{op}$	°C	+20	+25	+50
operating case temperature*	$T_c$	°C	-20	+25	+50
storage temperature*	$T_s$	°C	-40	+20	+80

\* non condensing

## packaging

**TO5 with TEC and NTC, black cap, AR coated window**

**TO56 without TEC or NTC, sealed, window**

**c-mount or other submounts without TEC or NTC**

**butterfly package with TEC and NTC, SM fiber, FC/APC connector**

**chip on carrier without TEC, with NTC**

**Technical drawings & accessories are available at:** [nanoplus.com/packaging](https://nanoplus.com/packaging)

Please contact [sales@nanoplus.com](mailto:sales@nanoplus.com) for customized specifications, quotes and further questions.  
Visit our website for technical notes, application samples or literature referrals.