

Superluminescent Diodes (SLD): 1700 nm - 2300 nm

WAVELENGTH

760–1100 nm

1100–1700 nm

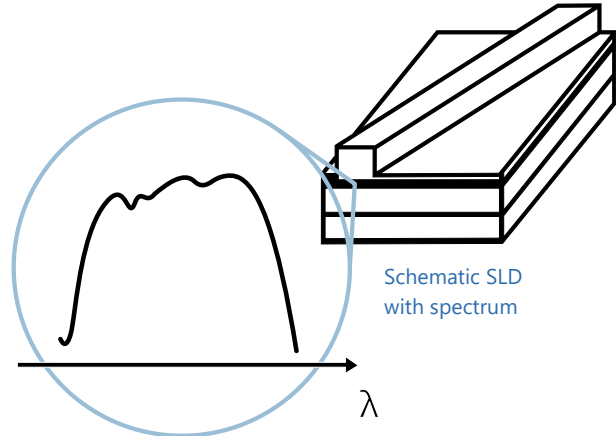
1700–2300 nm

2300–2900 nm

nanoplus SLDs are specially designed and characterized to fit your requirements. For more than 20 years, nanoplus has been manufacturing DFB and FP lasers with excellent performance: the same technology is used for our SLDs which we offer at any wavelength between 760 nm and 2900 nm.

Key features:

- BROADBAND
- HIGH-POWER
- SMALL FOOTPRINT



Any **custom wavelength** is possible: You tell us what you need and we deliver it. With our outstanding technology we design any wavelength **between 760 nm and 2900 nm** with an accuracy of +/- 10 nm.

Our SLDs exhibit a **large spectral width** up to 80 nm around the specified centre wavelength.

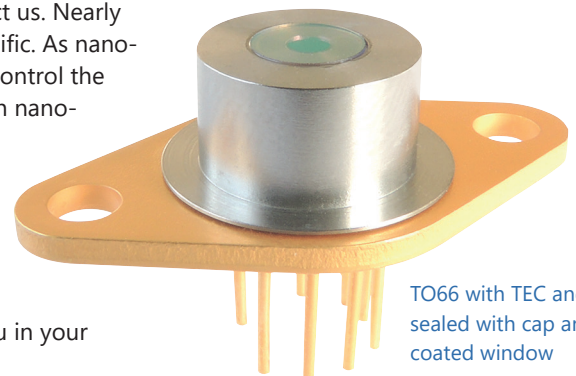
The **high output power** of **several mW** leads to a stronger signal and increases your measurement precision. Low power for diverse applications is available on request.

We offer **various packaging options**, e. g. several free space housings including TEC and NTC, fiber coupling, **collimation** and **custom designs**. You tell us what you need!

Long-term stability is what our customers really want! Even in **harsh environments** nanoplus devices perform excellently – low maintenance warranted.

“Do not change your ideas, let us deliver an SLD 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 whole 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.



TO66 with TEC and NTC, sealed with cap and AR coated window

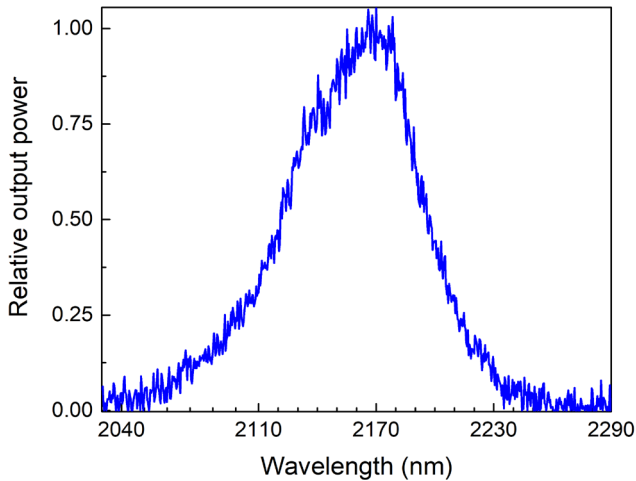
Our sales and R&D teams have long-standing experience in developing lasers. They will advise you in your design and realization phase as well as after-sales:

We make market leaders!

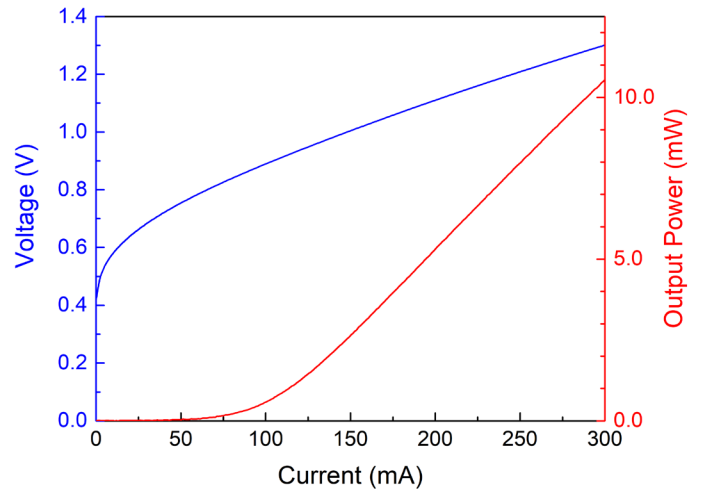


Typical Specifications: 1700 nm - 2300 nm

This data sheet reports performance data of a **sample SLD at 2170 nm**, which is representative for the entire wavelength range.



Typical room temperature cw spectrum
of a nanoplus SLD at 2170 nm



Typical PI and VI curve
of a nanoplus SLD at 2170 nm

electro-optical characteristics	symbol	unit	min.	typ	max.
operating wavelength (at T_{op} , I_{op})	λ_{op}	nm	2160	2170	2180
optical output power (at λ_{op})	P_{op}	mW		15	
operating current	I_{op}	mA		500	
operating voltage	V_{op}	V		2	
spectral bandwidth (FWHM)	$\Delta \lambda$	nm	60	80	100
current tuning coefficient	C_I	nm / mA	0.04	0.08	0.16
temperature tuning coefficient	C_T	nm / K	1.1	1.4	1.7
operating case temperature	T_c	°C	-20	+25	+50
storage temperature	T_s	°C	-40	+20	+80

laser packaging options

chip on carrier

TO66 with TEC and NTC, sealed, AR coated window

butterfly housing with SM fiber

collimation for TO66

Other packaging options may be discussed on request.

Technical drawings & accessories are available at: <https://nanoplus.com/packaging-options>