

# Superluminescent Diodes (SLD): 1700 nm - 2300 nm

## WAVELENGTH

760–1100 nm

1100–1700 nm

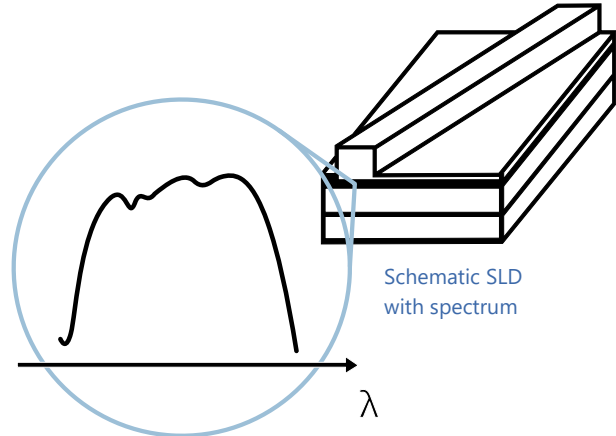
**1700–2300 nm**

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!

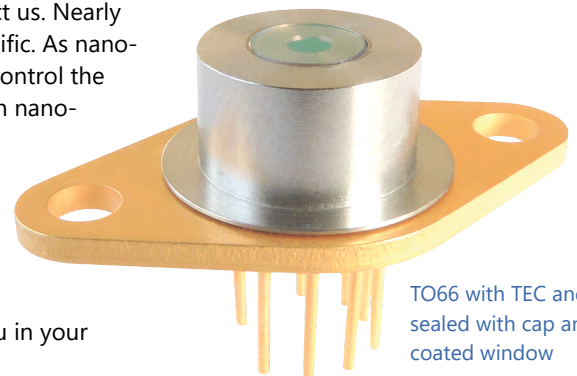
**Long-term stability** is what our customers really want! Even in **harsh environments** nanoplus devices perform excellently – low maintenance warranted.

**“Do not change your ideas, let us deliver an SLD that fits your application.”**

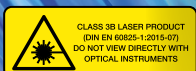
If you require **custom specifications**, please contact us. Nearly 80 % of our devices are more or less customer-specific. As nanoplus is a **fully vertically integrated company**, we control the whole process chain from design to packaging. Both nanoplus production facilities are based in **Germany**.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

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!**

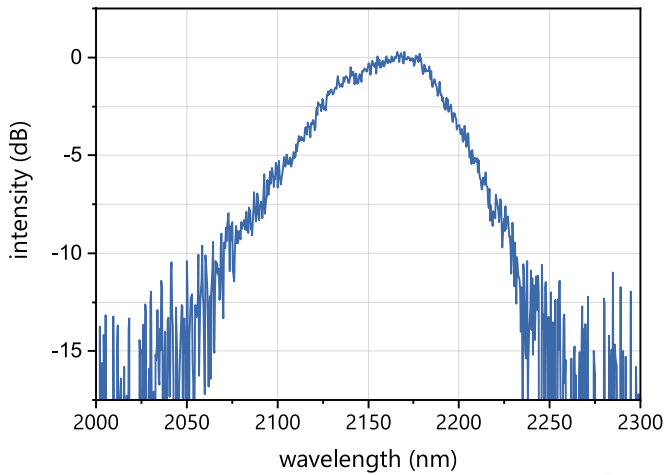


TO66 with TEC and NTC, sealed with cap and AR coated window

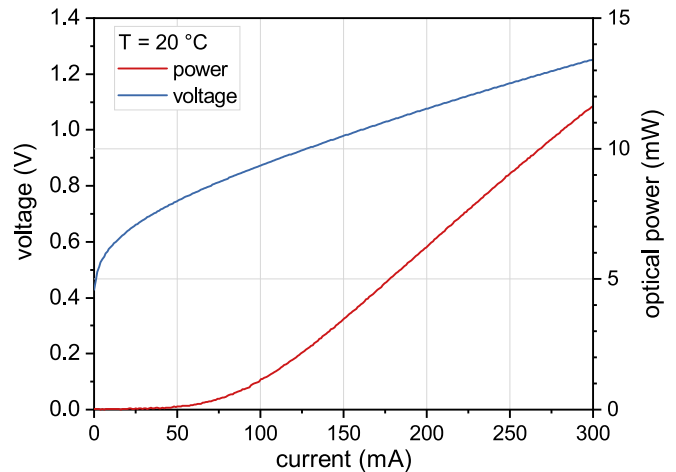


# Typical Specifications: 1700 nm - 2300 nm

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 $T_{op}$ , $I_{op}$ )	$\lambda_{op}$	nm	2160	2170	2180
optical output power (at $\lambda_{op}$ )	$P_{op}$	mW		15	
operating current	$I_{op}$	mA		500	
operating voltage	$V_{op}$	V		2	
spectral bandwidth (FWHM)	$\Delta \lambda$	nm		80	
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		+25	
storage temperature*	$T_s$	°C	-40	+20	+80

\* non condensing

## 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>

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.