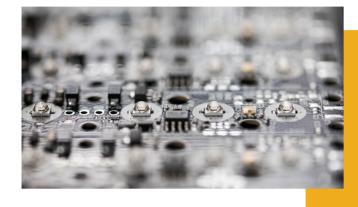
# AQUARIUM LED LIGHTING

Niviss also specializes in the production and design of modules for the broadly understood aquarium hobby. Our portfolio of projects ranges from very simple solutions, e.g. the LED module itself and a DC power supply, to advanced ones with a remote control and a driver integrated with the LED module.

In our products, we can use any color of the LEDs to match the customer's requirements perfectly. Beside there is an example of a color palette available from the portfolio of the Cree LED manufacturer.

Royal Blue	450 - 465 nm
Blue	465 - 485 nm
PC Blue	
Green	520- 535 nm
Amber	585 - 595 nm
PC Amber	
Red-Orange	610 - 620 nm
Red	620 - 630 nm
Photo Red	650 - 670 nm
Far Red	720 - 740 nm
RGBW	
White	



In addition, we use UV diodes from 365 to 425 nm if the application requires it.

Our modules can be divided into the following groups:

tunable

BY SHAPE:

BY POWERING METHOD:

linear circural constant current constant voltage

rectangular

polygonal

Our solutions are based on the highest quality Cree LED diodes and specialized UV emitters from leading manufacturers. What distinguishes our projects is the high quality of both workmanship and the materials used.

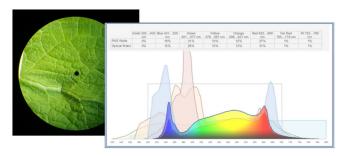
We are able to design complete solutions from A to Z. We provide thermal analysis, photometric and EMC

# HORTICULTURE LED MODULES

Niviss offers wide range of Horticulture LED modules with various shapes and sizes, according to customer requirements.



Our experienced R&D team can select special configurations of LEDs to develop optimal wavelength spectrum adjusted to application requirements.



We offer a wide range of LED secondary optics that could be used depending on the environment in which the product is said to operate. Project can base on optic solutions from Ledil, Khatod, Ledlink, Carclo or many more.



Power supplies and power sources are selected in accordance with the requirements of our customers.





# WE CREATE WE DESIGN WE PRODUCE ...YOUR MODULE

NIVISS is a modern, fast-growing company with extensive experience in the electronics industry. Since its inception, NIVISS has specialized in the design and manufacture of products based on LEDs manufactured by CREE. Our main focus is the highest quality of all offered solutions.

We offer help with choosing and designing of dedicated mechanical componenets. Our mechanical section offers help in the scope of dedicated thermal solutions. Mechanical solutions in the field of LED lighting have no secrets for us.

Additionally, as one of very few companies, we offer modules in a wide solder mask colour range. Our strong point is the ability to apply a high reflectance solder mask. Additionally, we offer modules with a wide range of copper thickness, cover type and MCPCB thickness.

By using our services you can also use our knowledge and experience in the scope of the development of optical solutions. LED optics can now be fully compatible with your products. It's also an opportunity for a further personalization of your products.

NIVISS specializes in the design and manufacture of products based on LEDs, focusing on solutions of very high quality.

NIVISS implements the production process comprehensively. We provide technical consulting (choice of LEDs, optics, power supply and PCB), design of LED modules, drivers, housings and we adapt them to the requirements of a particular application.

The company is able to provide both mass production, as well as smaller series of custom solutions implemented for a particular customer.

All NIVISS products are energy efficient and environmentally friendly.

NIVISS constantly improves and increases the qualifications of its employees by investing in its own laboratory, necessary for the production and testing of new LED solutions.

The company's mission is to provide customers with high quality products of the XXI century.



www.niviss.com



## AUTOMOTIVE AND RAILWAY INDUSTRIES LED MODULES

LED modules are the area of Niviss' activity where it can show its market advantages and extensive experience. Our modules are characterized by high quality and special attention to detail. Niviss LED modules are not only highquality end products, but also the result of many hours of work by the design, sales and production teams. It is the result of passion and commitment of all their members. Our clients know that they are in good hands and their lighting products will be characterized by high reliability, based on proven optoelectronic components from global manufacturers. The combination of trust, passion, commitment and quality is our key to success. We share our experience with our current and new clients.







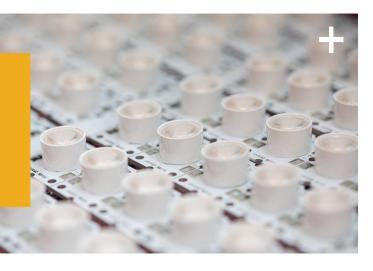
LED modules used in the automotive and railway industries are our pride. The difficult working conditions of the LED modules themselves and their compliance with global standards and regulations mean that their design and production processes require the use of an appropriate process approach specific for these areas. Experience, passion and commitment make our modules applicable in automotive and railway products of global manufacturers of this type of equipment. Our own laboratory allows us to verify the compliance of our products with domestic and international standards as well as preparing them for further effective certification. Our team of engineers is ready for next challenges and will be happy to face them with your expectations. We invite you to cooperation.





# BACKLIGHT LED MODULES

It is a group of LED modules characterized by high efficiency and their integral part, depending on the customer's needs, is a diffusing lens. These are LED modules dedicated, among others, to illuminate small and medium-sized spatial letters as well as advertising coffers.



Niviss LED backlight modules are characterized by innovative design and the latest technology. They are equipped with high-quality LEDs, which are distinguished by energy efficiency and long operation time, and a lens that diffuses light asymmetrically. The lifetime and durability of our products are the answer to the high requirements of the advertising industry.

Niviss LED backlight modules have gained special recognition among our customers, due to the fact that they are characterized by a more flexible assembly than LED strips. Our backlight modules are able to illuminate virtually any surface with unusual shapes and small dimensions.

# GENERAL LIGHTING LED MODULES



is always a benefit for both parties, because for the customer it means a product of high quality and durability, while for us it is a satisfaction that we could turn our technical and organizational capabilities into the customer's success.

Niviss LED modules dedicated to general lighting applications are our special source of pride. They are our response to the needs and visions of our clients. This is a very specific area of designing LED modules because each module is different. This is not a problem for us, it is even a motivating factor that will allow us to present our flexible approach to the most non-obvious needs of our current and new customers. It is in the area of general lighting that we can directly contribute to making our clients' lighting products stand out from the competition, because their success is also the success of our engineers, designers and production team.

