

Photonics West 2024

Pushing the Limits  
in Lighting and Sensing

amun OSRAM



## Automation & Robotics

Whether for robotics, machine vision, safety functions such as light barriers or LiDAR scanners, bar code readers, 3D printing, 3D object detection and presence sensing, ams OSRAM offers a comprehensive optical portfolio of emitters, detectors and integrated sensors that enable our customers to improve their systems.



## Medical & Health

Vital sign monitoring portfolio comprises LED, Photodiodes, Optical/ Analog Front End ICs and temperature sensors delivering high quality, accurate and reliable data. Beside vital sign monitoring our portfolio also includes laser for life science diagnostics, like laser spectroscopy for DNA-analysis. Additionally our Naneye miniature camera empowering medical imaging e.g.: endoscopy with ultra small size.





## Power of Laser

Smart photonics solutions for smart business - With the broad portfolio of laser diodes, our customers can choose the best application fit in terms of performance, size and power. Thanks to their excellent beam quality, our lasers are ideally suited for the optical imaging of light.



## World of AR/VR

The future is here! Superimposing realistic high-quality images upon a user's view of the real world, in a tiny lightweight form factor, is key to the success of Augmented Reality experiences. We elevate near to eye LED/Laser projection, scene-, body- and eye-tracking to the next level with optical solutions in all-day AR see through smart glasses and AR/VR-headsets.



# Automation & Robotics

## Path sensing and environment imaging



### Mira050 global shutter image sensor

Due to its small size, configurability and high sensitivity both in visual as well as near-infrared light spectrum, the Mira050 is well suited for 2D- and 3D-sensing applications, which include Active Stereo Vision, Structured Light Vision.



### Vertical Cavity Surface Emitting Lasers

VCSELs are a key enabler for the fast growing 3D sensing market. Dot projector or flood illuminator based on VCSEL-technology are ideal for 3D sensing applications such as robotics, factory automation, drones, range finders and smart cities and logistics.



### Direct time-of-flight (dToF) sensors

dToF sensors offer fast, precise distance measurement up to 5 meters. These devices provide solutions for a wide range of distance measurement applications including obstacle detection and collision avoidance for home and industrial robots.



# Power of Laser

## Laser illumination & Material treatment



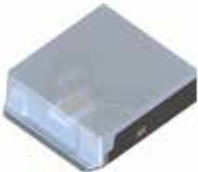
### Color Edge Emitting Laser



Laser diodes in the visible spectral range are the ideal light source in industrial, consumer, medical and automotive markets. Thanks to their excellent beam quality, our lasers are ideally suited for the optical imaging of light.



### Near infrared Edge Emitting Laser



Laser diodes designed for pulse operation are used in LIDAR or Time-of-Flight (ToF) applications.

Lasers are available in different packages from robust metal can package to low-cost plastic package.



### Material Treatment – Laser Bars



High-power Continuous Wave CW lasers are a perfect tool in industrial material treatment such as engraving or welding of metals. They are used either as a pump source for solid-state or fiber lasers or in direct diode laser systems.



# Medical & Health

## Medical imaging & vital sign monitoring



### **NanEyeM miniature camera module**

This miniature sized image sensor is ideal for vision applications where size is a critical factor. The ability of the camera head to drive a signal through long cables makes this the ideal component for minimal diameter endoscopes.



### **AS7058 PPG, ECG & BioZ**

Ultra small integrated multi-vital sign monitoring device, which provides a complete photoplethysmogram (PPG), electrocardiogram (ECG), body impedance (BioZ), and electrodermal activity (EDA).



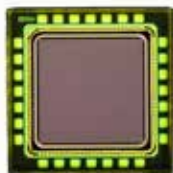
### **SFH 7018 Multichip LED**

Highly reflective package design for significantly increased light output and reduces interferences between green, red and IR chip enabling light sources to be optimally placed relative to their respective photodiodes, which leads to higher accuracy of measurement of vital signs



# World of AR/VR

## Highly integrated light sources, sensors and drivers



### Mira016 compact image sensor

Offers high sensitivity to light in the visible and NIR spectrum in a ultra-small package and with its power consumption, it requires less illumination to help extend battery run-time. It is designed to bring power savings at high-quantum efficiency for smart glasses, VR headsets.



### High power LED

RGB LED OSTAR Projection Compact R/B/G represent the state of the art in miniaturized high performance light sources for AR micro-display and laser beam scanning near to eye display systems.



### Linear Position Sensor

The high reliability, small-size linear position sensor from ams OSRAM offers several essential features for position detection in virtual reality headsets and related handheld controllers. Accurate position sensing with high resolution plus power-down-modes to extend battery life are included.



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Visit our webpage  
and learn more about our full portfolio



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