

# Precision Structured Light Module



## Overview

High-Precision Laser Modules for Accurate 3D Imaging, Measurement, and Sensing Applications Explore our range of Structured Light Laser Modules, designed for high-precision 3D scanning, depth sensing, and other measurement applications. Structured light products and design expertise from ams OSRAM help customers get to. ProPhotonix has designed the 3D PRO Lasers range as a structured light laser platform specifically for the exacting requirements of machine vision applications. Our laser module portfolio includes low-cost solutions for general-purpose use, high-performance modules for. Line Scan Illumination Speckle reduced high power density laser line projection. True Gaussian Long range fiber-like beam quality in free space. The LIPSedge L210u/L215u 3D structured light cameras, with up to HD resolution, high precision ( $\leq 0.3\%$  @100cm), and 940nm wavelength VCSEL light source can be used indoors and outdoors.



## Article Content

Structured light-assisted wavefront shaping for enhanced and precise ...

The scattering of light by biological tissues impedes optical methods like fluorescence imaging and microscopy. These techniques are limited in such turbid media by their inability to

Structured Light Technology: A High-Precision Method

One of the most widely used techniques for close-range 3D scanning is the structured light camera. Known for its high precision, it has become a go-to

High Performance Structured Light Lasers

Structured light lasers designed for machine vision & 3D imaging applications. Excellent uniformity in a compact form factor.

3D Machine Vision Based on AM572x with DLP Structured Light

TI Designs This three dimensional (3D) machine vision design describes an embedded scanner which generates a 3D digital representation of a physical object based on structured light principles. A

High Performance Structured Light Lasers

High performance, compact and uniform laser modules ProPhotonix has designed the 3D PRO Lasers range as a structured light laser platform specifically for the

LIPSedge L Series Structured Light 3D Camera | LIPS

High-precision structured light camera for high-speed close-range depth sensing, 3D scanning, eye tracking, and inline inspection. Compact structured light module

High-Capacity Spatial Structured Light for Robust and

Spatial structured light (SL) can achieve three-dimensional measurements with a single shot. As an important branch in the field of dynamic

iHawk 100R 8M 3D Camera – High Precision Structured

The iHawk100R module is a cutting-edge 3D camera solution powered by structured light technology, designed to provide accurate depth maps for a wide range of

On-line calibrated and directional point structured light 3D imaging ...

Three-dimensional imaging based on structured light is an effective method to achieve short/medium distance and high-precision measurements. Microlens

Structured Light And Laser Beam Solutions

Structured Lighting Solutions High performance, high reliability, and superior beam shaping capabilities in a self contained laser module for 3D structured light

Generation and Detection of Structured Light: A Review

In this paper, we firstly give a brief introduction of different types of structured light. Then, we review the recent research progress in the generation

360° structured light with learned metasurfaces

Structured light has proven instrumental in three-dimensional imaging, LiDAR and holographic light projection. Metasurfaces, comprising subwavelength-sized nanostructures, facilitate

Structured light | ams OSRAM

Structured light systems from ams OSRAM enable 3D imaging applications to achieve extremely high accuracy. Accurate structured light technology is behind the user face recognition being implemented

Laser Modules – Industrial, Alignment, Structured Light

Lasermate Group offers a wide selection of laser modules designed to meet the needs of various industries—from basic alignment to high-precision machine

Generation and Detection of Structured Light: A Review

The generation and detection of diverse structured light beams on different platforms, such as free space, optical fiber, and integrated devices, have become a necessary part of structured light ...

In-Situ Form Metrology of Structured Composite Surfaces ...

Accurately measuring the form of structured composite surfaces in situ is critical for advanced manufacturing in various engineering fields. However, challenges persist in achieving

Compact 3D Structured Light Camera | LIPS 3D depth

LIPSedge™ L Series is the most compact 3D structured light camera on the market today with big features. The LIPSedge L210u/L215u 3D structured light cameras,

Superresolution structured illumination microscopy reconstruction ...

Structured illumination microscopy (SIM) has become the standard for next-generation wide-field microscopy, offering ultrahigh imaging speed, superresolution, a large field-of-view, and

Towards Unified Structured Light Optimization

Abstract Structured light (SL) 3D reconstruction captures the precise surface shape of objects, providing high-accuracy 3D data essential for industrial inspection and robotic vision

### Structured Light Module

Structured Light Module: Combination of diffractive and refractive optics for laser pattern generation in very high angles.

### STRUCTURED LIGHT

The Structured Light Advantage Structured light allows you to take a scan of the entire target surface and inspect multiple features simultaneously such as fasteners, holes, slots, studs, and surface gap

### 3D PRO™ Adjustable Focus Laser

The 3D PRO™ Adjustable Focus Laser maintains the high performance of our structured light lasers series with the addition of an adjustable focus. The lasers

## Contact Us

For more information, pricing, or custom solutions, please contact us:

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