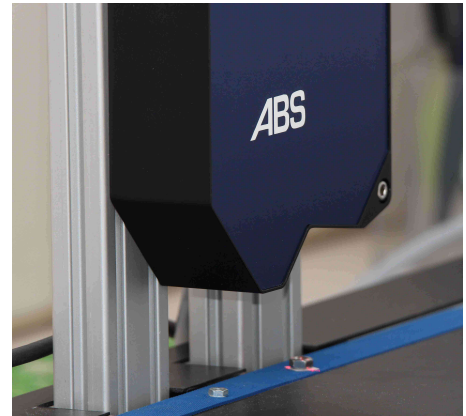


FROM VISIBLE TO MULTISPECTRAL – FROM LED TO LASER  
IMAGING, LIGHTING AND MEASURING SYSTEMS FROM A SINGLE SOURCE

## ABS GmbH – The specialist for DSP- and FPGA-based measuring camera systems

### MEASURING SYSTEMS FOR SURFACE ANALYSIS, LASER TRIANGULATION, 3D-SCANS, PROFILE MEASUREMENT

- The new laser triangulation line scanner series from the smallest MH5 with 5 mm to the largest MH1000 with a 1000 mm height measuring range from the ABS is specially adapted to the requirements of industrial automated, inline 100%-inspection tasks
- These measuring systems allow contact-free measurements of height, length, bending angle as well as gap analysis, diameter tests, position determinations, location examination and profile comparison with, for example, 1170 scans per second at a resolution of 2048 pixels per line
- Data processing and control is possible with ABS 3D software or via SDK or with interface to other software environments (e.g. Halcon)
- Hardware and ABS software can be customized and adapted as well as being integrated into existing production facilities
- The FPGA- and DSP-supported data preprocessing in the devices ensures resource-saving and low-latency data output



### SPECIAL SOLUTIONS FOR MULTISPECTRAL MICROSCOPY INSPECTION TASKS

- The combination of a high-sensitive ABS SWIR camera (wavelength range: 900 nm to 1700 nm) and an infrared microscope from Seiwa makes it possible to solve inspection tasks through various, normally non-transparent surfaces such as MEMS/MOEMS, multi-stack modules (3D stacks, 3D-ICs), wafers, photovoltaic, wafer level chip scale package (CSPs) etc.
- The user-friendly camera and operating software ImageCapture-I achieves best possible image quality through image enhancement algorithms and correction mechanisms
- SWIR cameras of the ABS can be operated via USB2.0 on any PC or notebook
- Thermoelectric cooling (TEC) increases the sensitivity even further



### SPECTRAL STABILIZED LIGHT FOR HIGH-PRECISION LIGHTING TASKS

- By means of current, voltage and temperature stabilization, the SLS generates a spectrally constant and reproducible light scene
- The corresponding software SmartControl records values for current, temperature and regulation and allows convenient control of the light source (intensity, trigger, interval operation etc.) and evaluation / processing of the data with the PC
- Different LED modules with different power, spectral properties (color composition) and light intensity distributions can be operated with the electronics
- The LED modules are recognized automatically and can be cooled or heated to target temperatures using thermoelectric cooling

