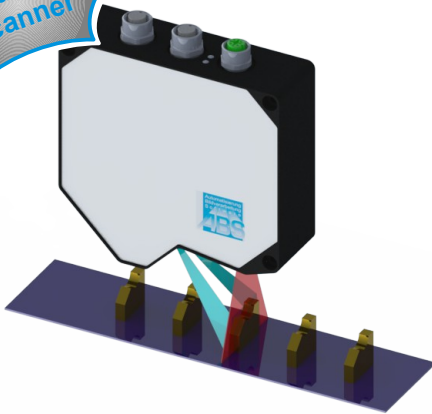


## ABS GmbH - Specialist for DSP and FPGA-based digital camera systems

### ◆ Scalable Multi-FPGA-Board

- high-end image processing with **10 Gigabit Ethernet**
- up to 6 SerDes-Interface coupled FPGA ECP3-150 from Lattice™ with up to **6 × 51,2 Gbit/s** memory bandwidth and **6 × 64 GMAC/s** processing power
- supported image resolution up to 2560x1600 pixel (WQXGA)
- Interfaces: PCIe, 10GigE, HD-SDI (4 parallel channels), DVI, LVDS, XAUI, UART, SPI, USB2.0
- expandable with plug-in modules for data-intensive applications (eg. high-resolution real-time image correction, image fusion, multi-sensor image processing)



### ◆ Lasertriangulation / Light Sheet Sensor

- for **automated 100% inspection** via profile measurement and contour detection during the ongoing production process
- **contactless** measurement of length, bending angle determination, gap analysis, diameter examination, profile comparison OK/NOK ...
- Measurements with up to **12.500 frames per second**
- **high dynamic range** and therefore robust to low light conditions and demanding surface conditions
- Modifications and adaptations to specific customer requirements and integration into existing production lines are possible
- **FPGA- and DSP-based high-performance preprocessing of measurement data** inside of the device for a resource efficient data output and transmission
- Interfaces: **Ethernet** and RS485



### ◆ UK31265 with industrial Slow-Motion

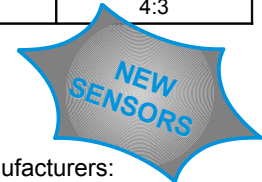
- ABS enables industrial usage of **USB3.0** – robust with transfer rates of up to **400 MByte/s**
- higher frame rates with the UK31265 (over 1000 frames per second possible)
- including software solution for recording, storing and triggering of slow-motion videos

### ◆ ABS continuously integrates new high-resolution image sensor families

#### ▪ CMOSIS CMV image-sensor-family

Image Sensor	CMV2000	CMV4000	CMV8000	CMV12000	CMV20000
Resolution (pixels)	2048x1088	2048x2048	3360x2496	4096x3072	5120x3840
Frame rate (fps)	<b>340</b>	<b>180</b>	<b>104</b>	<b>300</b>	<b>30</b>
Megapixels	2,2	4,1	8,3	12,5	19,6
Optical Format	2/3"	1"	1 1/2"	1 3/4"	2 1/2"
Format display ratio	2:1	1:1	4:3	4:3	4:3

- top-current **Sony-CMOS-Sensors** such as:
  - **IMX124** (Exmor R, BSI, Rolling-Shutter) for Security-Camera-Systems
  - **IMX174** (Exmor, Global Shutter) for industrial applications
  - **IMX224** (Exmor R, BSI, Rolling Shutter) for **4K video** with 60 fps
- in addition the ABS offers camera solutions with image sensors of the following manufacturers:
  - e2v, Viimagic, Aptina, AWAIBA, Hamamatsu, ON Semiconductor, Dalsa, Andanta, ...



**Take advantage of our 25 years of experience  
to accomplish your demanding signal processing and electronics tasks.**