OMEGA
by BLAXTAIR

YOUR CHALLENGE: ROBUST 3D VISION

Smart 3D Vision for Robust Automation

Reliable and accurate 3D data for all kind of applications in harsh environments.

—

No recalibration, even in demanding conditions.

—

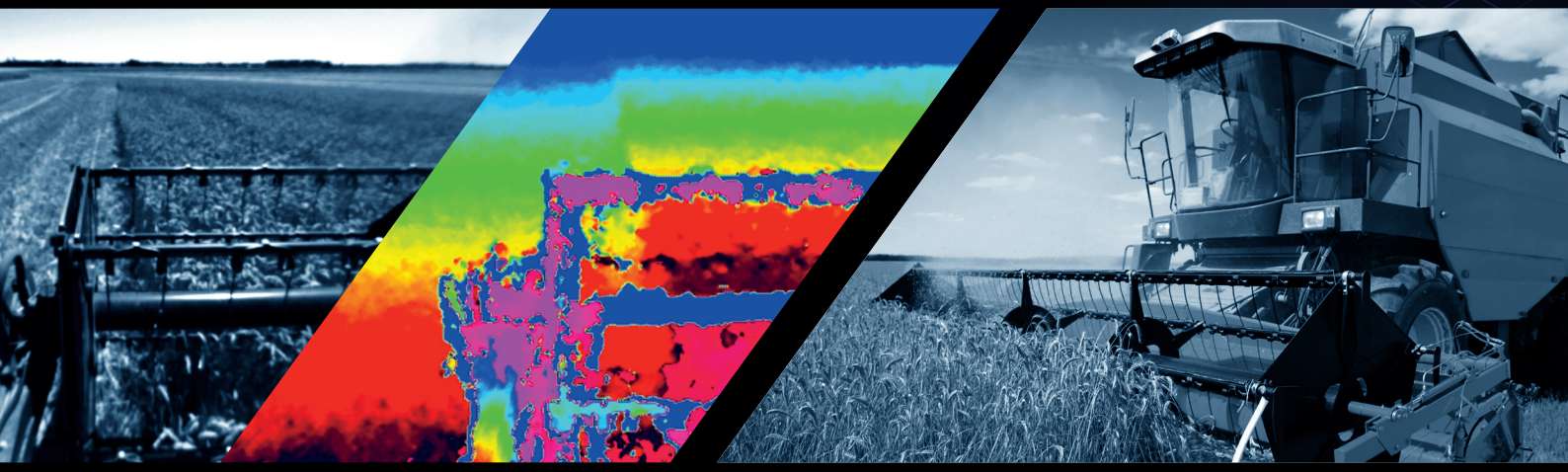
The stereoscopic sensor head provides:

- High resolution RGB raw images
- Disparity map
- Rectified images
- Metadata: exposure time, gain factor, calibration matrix/LUT, focal length, etc

—

Customization of focal length / field of view for specific MOQ.

Vehicle guidance
Object classification
Surface mapping
Obstacle detection
SLAM...



OMEGA

OMEGA'S TECHNICAL SPECIFICATIONS

WEIGHT AND DIMENSIONS

- 1.2kg
- 186,8 x 75,95 x 64,6mm
- 100mm baseline

INTERFACE AND POWER SUPPLY

- 10-32VDC
- Gb Ethernet

DISPARITY AND IMAGES

- Algorithm: semi-global-matching
- 30cm to 70m disparity range
- 50cm to 10m is the typical operating range
- 100°(h)x70°(v) field of view (disparity)

ROBUSTNESS

- IP69K
- Operating from -40°C to +75°C
- Standard compliance:

Vibrations	IEC 60068-2-64
Shocks	IEC 60068-2-29
EMC	ISO 13766 2006

OPTICS

- 1/1.8"
- 6600 LSB10/(Lux.s) responsivity
- f/2 aperture
- Global shutter
- f-θ type distorsion

COMPATIBLE WITH

LINUX X86_64

- Ubuntu 16.04
- Ubuntu 18.04
- Ubuntu 20.04

ROS NODE

- Ubuntu 16.04 + ROS Kinetic
- Ubuntu 18.04 + ROS Melodic
- Ubuntu 20.04 + ROS2 Foxy

EMBEDDED LINUX

- Ubuntu 18.04 (Nvidia Xavier)
- Ubuntu 18.04 (Nvidia TX2)
- Ubuntu 18.04 (Nvidia Nano)
- Raspbian 10 (Raspberry pi 4)

WINDOWS X86_64

- Windows 10

RESOLUTION

RAW IMAGES

- 828 x 544

DISPARITY FORMAT

- 8 bits
- 11 bits

DISPARITY RESOLUTION

- 1024 x 512
- 768 x 384
- 512 x 256
- 256 x 128

LATENCY AND FPS

DEPENDING ON THE DISPARITY RESOLUTION (INDICATIVE VALUES)

- @1024: 200ms &11 FPS
- @512: 130ms &18 FPS

BLAXTAIR®

CONTACT@BLAXTAIR.COM – WWW.BLAXTAIR.COM