

# HALLINSIGHT<sup>®</sup> HALL MAGNETIC FIELD CAMERA AC&DC TRUE 3-AXIS MAGNETIC FIELD MAPS



HallinSight<sup>®</sup> is a technology developed by Fraunhofer Institute for Integrated Circuits brought to you by Metrolab.

ABOL

METROLAB

We are the **global market leader** for precision magnetometers. Established in Switzerland **in 1985**, we have won the trust of all the large physics laboratories and all leading players in Magnetic Resonance Imaging, **across the world**.

## **TECHNICAL CHARACTERISTICS AND ACCESSORIES**

#### **SYSTEM**

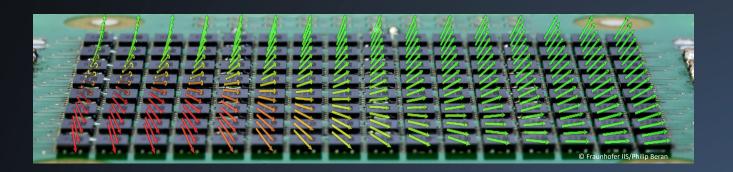
| MEASUREMENT PRINCIPLE    | Hall sensors   |  |
|--------------------------|--|--|
| MAGNETIC FIELD RANGE     | ±100 mT, ±400 mT,±800 mT, ±2 T                               |  |
| RESOLUTION -no avg       | 4 μT for ±100 mT, 96 μT for ±2 T                             |  |
| NOISE                    | 30 µT RMS  |  |
| OPERATING TEMPERATURE    | 10 to 30°C, integrated temperature sensor                    |  |
| MEASUREMENT RATE         | Up to 1000 Hz (±100 mT, single chip)                         |  |
| ABSOLUTE OFFSET ERROR    | < 25 µT (Typical)  |  |
| ABSOLUTE GAIN ERROR      | < 0.5% (Typical)   |  |
| GEOMETRIC POSITION ERROR | Lateral < 50 μm ; Vertical < 10 μm; Orthogonality < 0.1°     |  |
| COMPUTER INTERFACE       | USB with ASCII protocol                                      |  |
| SOFTWARE                 | LabVIEW interface for visualization, analysis, and recording |  |

#### **PROBE Arrays**

32x32 Hall sensors Measurement rate 25 Hz Sensor array size 80x80 mm Aluminum case 310x110x22.5 mm

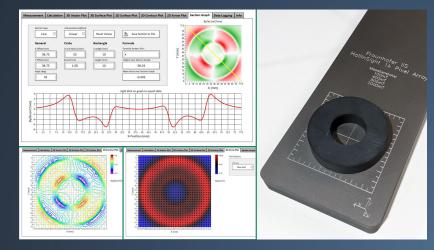
| 16x16 Hall sensors         |  |  |
|----------------------------|--|--|
| Measurement rate 100 Hz    |  |  |
| Sensor array size 40x40 mm |  |  |
| Aluminum case 200X60x22.5  |  |  |
| mm                         |  |  |
| 32x2 Hall sensors          |  |  |
|                            |  |  |

Measurement rate 250 Hz Sensor array size 80x2.5 mm PCB 106X15X2 mm



### HallinSight<sup>®</sup> SOFTWARE

| OPERATING SYSTEMS | Windows 7 or Windows 10  |
|-------------------|--|
| KEY MEASUREMENT   | Output for each measurement<br>point, or subset of array: Bx, By, Bz,,<br>Babs, azimuthal angle, polar angle,<br>temperature                                     |
| OPERATING MODE    | Teslameter   |
| Analysis          | Calculated Spherical coordinates<br>and field gradient values<br>Display: 3D vector, and surface plots<br>2D surface, contour, and arrow plots<br>Section graphs |



Warranty: 2 years Calibration interval: 18 months

Specifications are subject to change; for detailed and up-to-date specifications, see: www.metrolab.com/products/hallinsight-hall-magnetic-cameras/



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