

METEK®

MATERIALS ANALYSIS DIVISION

Product Bulletin - EBSD

Hikari Super EBSD Camera



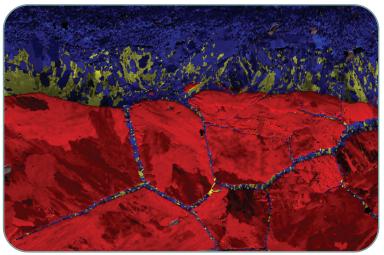
- Provides high-speed data collection at rates up to 1,400 indexed points per second with 99% indexing success rates
- Accurate and precise data powered by EDAX triplet indexing and Confidence index technology
- Phosphor screen optimized for high speed, high sensitivity collection
- Optimized EDS-EBSD collection for highest EDS throughput at fastest EBSD speeds
- Compatible with patented NPAR™ for improved data quality with challenging samples
- HR-EBSD compatible

The Hikari Super EBSD camera offers outstanding performance across a wide range of EBSD applications. Users no longer need to choose between speed and sensitivity when selecting an EBSD camera. The Hikari Super collects data at high speed when throughput is essential and performs at the same high indexing rates under challenging nanoanalysis conditions. The Hikari Super offers the highest indexing success rates on the market, guaranteeing users the best possible data quality.

The Hikari Super EBSD camera can reach speeds up to 1,400 indexed points per second and it is designed specifically to meet the requirements of key EBSD applications. The camera comes with a Forward Scatter Detector and EDAX's patented Pattern Region of Interest Analysis System (PRIAS TM) software.

Results without Compromise

Competitive EBSD offerings force customers to choose either a sensitive camera limited to low speed performance or a faster camera, which may require relatively high beam current to operate effectively. With the Hikari Super Camera, EDAX offers performance without compromise by providing the flexibility to cover a wide range of applications with one camera.



EBSD Phase and PRIAS™ map collected from a Nitrided Steel sample using the Hikari Super.

edax.com

Specifications

- Data collection rates up to 1,400 indexed points per second
- Operation down to 5 kV accelerating voltage
- Orientation precision less than 0.1° without special correction routines
- 640 (H) x 480 (W) pixel resolution
- Gain: 0 to +36 dB, fully adjustable
- 12-bit digital output
- Phosphor screen optimized for high speed/high sensitivity performance
- Compatible with NPAR™ and OIM Analysis™
- Motorized slide with metal bellows vacuum protection
- PRIAS™ and Forward Scatter
 Detector included
- Compatible with HR-EBSD

Features and Benefits

Data collection rates up to 1,400 indexed points per second

• EBSD maps can be collected in minutes for efficient SEM use

Maximum EBSD camera sensitivity

- High quality performance across a wide range of SEM operating conditions including:
 - Beam currents as low as 100 pA
 - Accelerating voltages as low as 5 kV

Precision orientation measurements to less than 0.1°

 Enables detailed microstructural characterization of plastic strain, subgrain evolution, and deformation mechanisms for better understanding of processing-microstructure-property relationships while using standard indexing routines

High indexing success rates

 EDAX's proven triplet indexing and patented Confidence Index provide unparalleled indexing performance on challenging real-world samples





EBSD orientation map collected from Gibeon meteorite with Hikari Super.

- PRIAS™ innovative imaging system for synchronous collection from multi-positional electron detectors
- FSD provides orientation, composition, and topographic contrast imaging for a preview of EBSD prepared samples

Conclusion

The Hikari Super EBSD is a camera for a wide range of EBSD applications. By combining speed, sensitivity, and precision, the Hikari Super provides performance without compromise. The camera is fully compatible with EDAX EBSD software packages, helping users solve their materials challenges quickly and easily.

