Hikari EBSD Camera Series

The Hikari camera series offers outstanding performance across the complete range of EBSD applications. Users no longer need to choose between speed and sensitivity when selecting an EBSD camera. The Hikari collects data at high speed when throughput is essential and performs at the same high indexing rates under challenging nano-analysis conditions. When paired with TEAM™ software, the Hikari offers the highest indexing success rates on the market, guaranteeing users the best possible data quality.
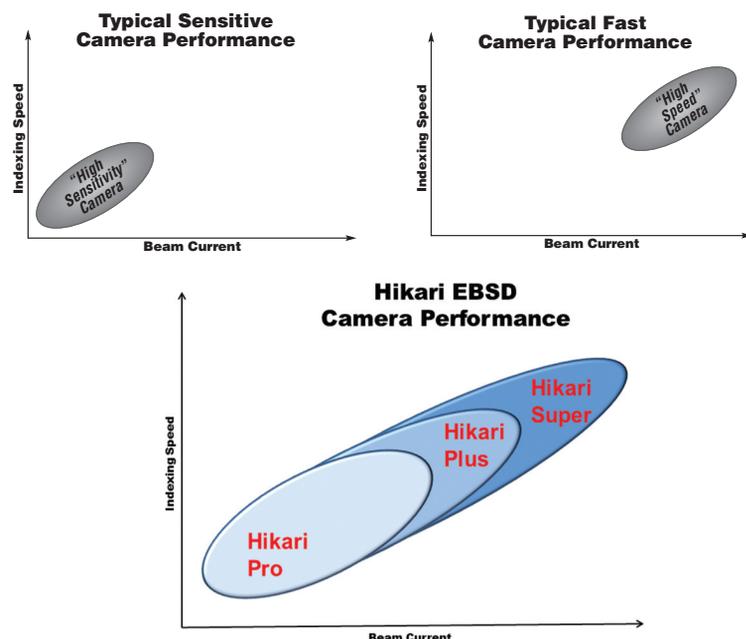
Hikari Series

The Hikari series includes 3 models, designed specifically to meet the requirements of key EBSD applications. The indexing speed increases between each model are available at all camera resolutions, allowing real acquisition speeds to be achieved on both routine and challenging samples.

- **Hikari Pro -** up to 600 indexed points per second
- **Hikari Plus -** up to 1,000 indexed points per second
- **Hikari Super -** up to 1,400 indexed points per second

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 camera series, EDAX offers performance without compromise by providing the flexibility to cover the entire range of applications with one camera.

- The camera series for all EBSD applications

- Provides high-speed data collection at rates up to 1,400 indexed points per second with 99% indexing success rates

- Offers the best available orientation precision with values less than 0.1˚

- Achieves industry best sensitivity for operation at beam currents as low as 100 pA with >99% indexing success rates

- Phosphor screen optimized for high speed, high sensitivity collection

- HR-EBSD compatible

Typical Sensitive Camera Performance

Typical Fast Camera Performance

Hikari EBSD Camera Performance

edax.com

Specifications

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

- Operation down to 100 pA beam current

- Operation down to 5 kV accelerating voltage

- Orientation precision less than 0.1°

- 640 (H) x 480 (W) pixel resolution

- Gain: 0 to +36 dB, fully adjustable

- 12-bit digital output

- Camera Link Communication protocol

- Phosphor screen optimized for high speed/high sensitivity collection with 45% higher brightness and 40X faster decay time

	PRIAS	FSD
Pro	Optional	Optional
Plus	Optional	✓
Super	✓	✓

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
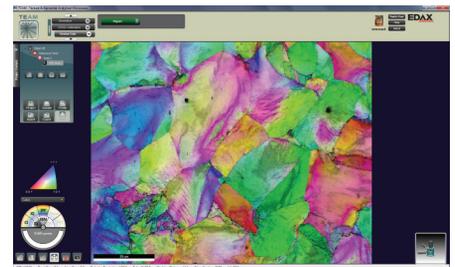
Maximum EBSD camera sensitivity

- High quality performance across the entire 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

High indexing success rates

Dynamic Map of Image Quality and Orientation collected with the Hikari in TEAM™ Pegasus.

- EDAX's patented Confidence Index determines not only an indexing rate, but also an indexing success rate, which provides confidence for your orientation data
- Learn more from every sample by indexing a high percentage of data and avoiding assumptions caused by incomplete measurements

Pattern Region of Interest Analysis System (PRIAS) and Forward Scatter Detector (FSD) Options

- 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 EBSD camera series - cameras for all EBSD applications. By combining speed, sensitivity, and precision, the Hikari series provides performance without compromise. The cameras are fully compatible with EDAX TEAM™ Trident, TEAM™ Pegasus and TEAM™ EBSD software packages, helping users solve their materials challenges quickly and easily.

For more information about our products please contact edax.info@ametek.com or visit edax.com

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