

METEK®

MATERIALS ANALYSIS DIVISION

Product Bulletin - EBSD

DigiView EBSD Camera



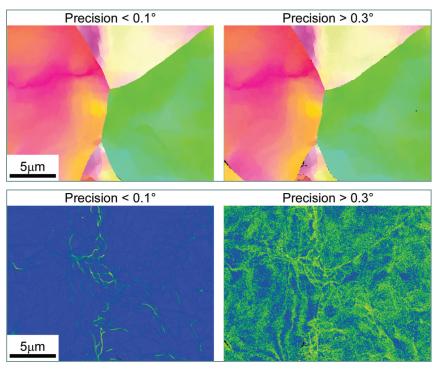
- High resolution digital camera
- Provides orientation mapping data at rates up to 200 indexed patterns per second with 99% indexing success rates
- Orientation precision values less than 0.1 degrees
- 1.4 megapixel resolution for display of fine pattern detail
- Designed for both orientation mapping and phase identification
- Automated camera setup in TEAM™ EBSD driven by application needs
- HR-EBSD compatible

edax.com

The DigiView camera offers excellent performance over a wide range of EBSD applications, providing the highest indexing success rates and best orientation precision values on the market at speeds up to 200 indexed points per second. This high resolution camera, when paired with TEAMTM software, enables users to obtain outstanding results from both routine and advanced materials and analyses and provides a flexible solution that guarantees users the best possible data quality and smart insight into their characterization needs.

Results without Compromise

With Smart Features in TEAMTM EBSD that automatically configure and optimize acquisition settings, the DigiView provides results without compromise across the entire performance range and helps users take full advantage of the camera to maximize system performance.



Orientation maps (top) and kernel average misorientation (KAM) maps from a deformed steel sample. The orientation maps suggest there is little difference in the measurements. However, the KAM maps with orientation precision values less than 0.1 degrees show that the deformation structure is sharply defined by local increases in KAM values, while with precision values greater than 0.3 degrees, this detail is lost due to higher noise in the measurements.

Specifications

- Data collection rates up to 200 indexed patterns per second
- 1.4 megapixel resolution:
 1392 (H) x 1040 (W)
- 12-bit digital output
- Dual speed readout: 40 and 20 MHz
- High signal to noise ratio
- Gigabit Ethernet protocol
- Gain: up to +35 dB fully adjustable
- Metal bellows vacuum protection

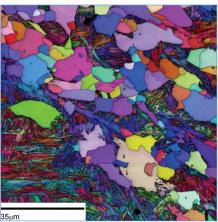
Features and Benefits

High resolution acquisition for flexibility in EBSD applications

 1.4 megapixel (1392 x 1040) CCD sensor for high resolution patterns

Data collection rates up to 200 indexed patterns per second

 EBSD maps can be collected and indexed quickly and efficiently



Orientation map from dual phase low carbon steel. DigiView provides high indexing rates from both phases for results without compromise.

Excellent camera sensitivity

- Performance over the full range of operating conditions including:
 - Beam currents as low as 100 pA
 - Accelerating Voltages as low as 5 kV

High indexing success rates

- EDAX's patented
 Confidence Index
 determines not only an indexing rate, but also an indexing success rate, which provides confidence in your orientation data
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EBSD Image Quality and Phase map of olivine (blue), quartz (yellow), and enstatite (red).

Learn more from every (red).
 sample by indexing a high
 percentage of data and avoiding assumptions caused by incomplete measurements

Optional Forward Scatter Detector for reviewing sample microstructure prior to performing EBSD scans

 Provides orientation, composition, and topographical contrast imaging for a preview of EBSD prepared samples

Conclusion

The DigiView offers high resolution image acquisition and flexible operation across mapping and phase identification applications for comprehensive EBSD analysis.

