



Product Bulletin - EDS



- Octane SDD series with resolutions down to 121 eV
- >90% resolution stability up to 200 kcps for high quality data - FAST!
- Advanced electronics provide three times the efficiency of a typical SDD
- Intuitive and easy to use TEAM™ interface
- Smart Features guarantee optimized acquisition setup and quality data
- X-ray maps in under 15 seconds while maintaining the quantitative data integrity underlying the image

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Octane Silicon Drift Detector Series

The Octane Silicon Drift Detector (SDD) series delivers highquality EDS data at previously unachievable speeds. Until now, the potential speed advantages of SDD technology have been unrealized due to losses in data quality at high count rates. With the Octane Series, customers are no longer forced to choose between fast data collection and high-quality results. Finally, microanalysis experts can benefit from both speed and data quality to maximize their materials insight.



Resolution Stability

Recommended Octane SDDs

The Octane Series includes four models designed specifically to meet the demands of key microanalysis applications.

- Octane Pro ideal for oxides, semiconductors and B-N-C analysis where resolution performance is key to quantifying light elements and resolving low energy X-ray lines
- Octane Plus offers superior value and performance across a wide range of applications, including materials science, metals, polymers, simultaneous EDS-EBSD analysis and 3-D EDS
- Octane Super tailored for nano-analysis where spatial resolution is critical and for biological materials and other applications where X-ray generation is limited
- Octane Ultra for 4-D analyses such as in-situ testing and reaction characterization where X-ray capture must be maximized

Specifications

- Resolution
 - 129 eV standard on all models
 - Pro: 121,123,126,129
 - Plus: 123,126,129
 - Super: 126,129
 - Ultra: 129
 - Measured according to ISO15632:2012
- Resolution stability >90% up to 200 kcps
- SDD modules up to 100 mm²
- Count rates up to 1.6 Mcps with throughput rates of 800 kcps
- Standard with TEAM™ EDS Software Suite
 - Smart Diagnostics
 - Smart Acquisition
 - EXpert ID
 - Smart Mapping
 - Smart Data Management

Features and Benefits

Advanced spectrometer design with on-chip FET

• Mn energy resolution down to 121 eV

Stable energy resolution at high collection speeds

- Data quality guaranteed at all count rates
- Extraction of high-resolution quantitative analysis at mapping speeds up to 200,000 cps

State-of-the-art pulse processor and electronics reduce spectrum artifacts

- World-class efficiency in converting input counts into stored data
- Maps can be collected in much shorter times, boosting user productivity



Octane models optimized for each application.

TEAM[™] Software Suite allows users to optimize their analysis time and get the best possible data from their sample

- Smart Diagnostics and Smart Acquisition facilitate optimized collection and analysis conditions
- Smart Pulse Pile-Up Correction minimizes concerns typical of high count rate collections and allows maximum use of SDD technology

Conclusion

The Octane Series delivers on the full promise of SDD technology - high quality EDS analysis performed at high count rates. With industry best levels of resolution stability and detectors designed with key application needs in mind, the Octane SDDs offer increased materials insight to EDAX users enabling them to spend more time on materials discoveries.

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