

WaferSense® Airborne Particle Sensor™ (APS3)

APS3

- **Thinner. Lighter. Precision accuracy.**
- **The next generation of the APS improves equipment set-up and yields by wirelessly monitoring airborne particles in real-time.**



Quickly monitors, identifies and enables troubleshooting of airborne particles down to 0.14µm within semiconductor process equipment and automated material handling systems. Easily identifies when and where the particles originate. **Now in 150mm, 200mm and 300mm sizes.**

Speed equipment qualification with wireless measurements.

- Collect and display small and large particle data wirelessly using APS3 and new CyberSpectrum™ software for real-time equipment diagnostics.
- Compare past and present data as well as one tool to another easier and faster without opening an additional application, now with Review functionality integrated with CyberSpectrum.
- Save time by swiftly locating contamination sources and see the effect of cleanings, adjustments and repairs in real time.

Shorten equipment maintenance cycles with wafer-like form factor.

- Detect particles in real-time without opening the tool, so you don't need to expose process areas to the environment.
- Thinner and lighter APS3 goes where wafers go to find the place where particles contaminate wafers. Once the location of particles is identified, tools may be selectively cleaned. Open only the dirty portion, keep the clean areas clean.

Lower equipment expenses with objective and reproducible data.

- Raise your first-pass monitor wafer success, reduce your qualification expense and increase availability with APS3.
- Receive early warning for impending equipment failures and optimize your preventative maintenance plans.
- Establish a baseline from a known clean tool, then cycle APS3 through a candidate tool before committing monitor wafers.

Semiconductor fabs and OEMs worldwide value the accuracy, precision and versatility of the WaferSense APS3 – The most efficient and effective wireless measurement device for airborne particles.



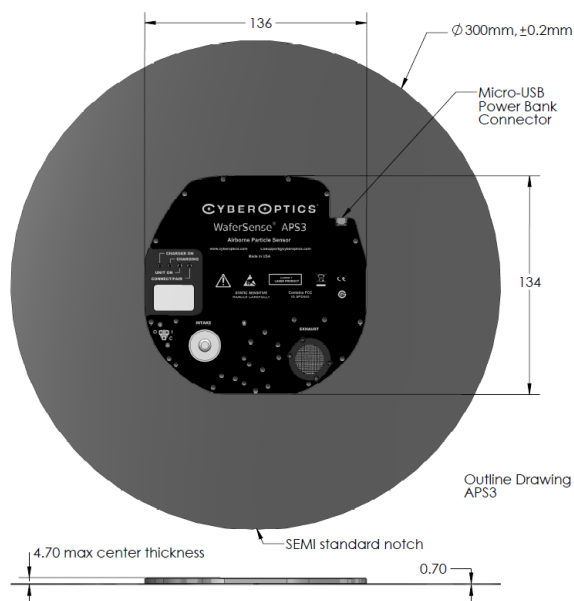
Save Time. Save Expense. Improve Yields.

CYBEROPTICS®

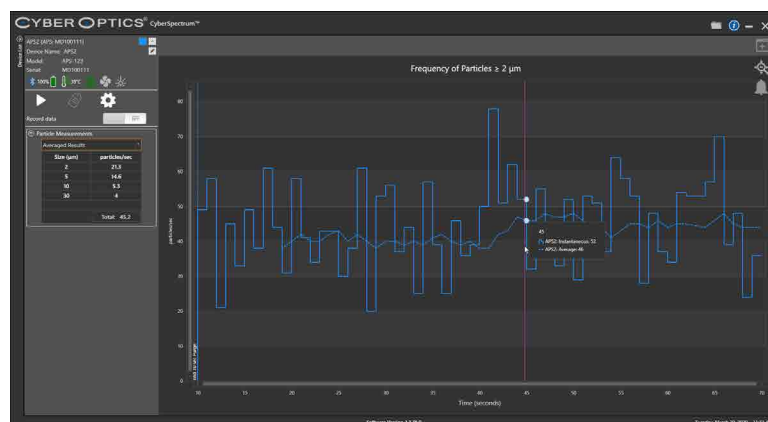
Features

Wireless, wafer-shaped and battery-powered	Available in 150mm, 200mm and 300mm
Easy-to-use software	CyberSpectrum software included. CyberSpectrum: Displays real-time numeric and visual feedback, cumulative or differential counting modes and particle frequency. Review functionality integrated; replays log file data for review and analysis
Highly accurate	Measures particles greater than 0.14µm Size channels: Reports particles in 0.1 µm and 0.5µm bin sizes and larger particles in 2, 5, 10 and 30 µm bin sizes. Less than 5 false counts per hour
Durable housing	Carbon fiber composite substrate
Lightweight	150mm (122g); 200mm (139g); 300mm (190g) (± 7%)
Airflow	0.07CFM (2.0 L/min)@ 1 atmosphere
Operating Pressure	0 to 1.6 atmospheres
Operating internal temperature	15 deg C to 45 deg C non-condensing
Laser Power Output and Wavelength	APS devices are a Class 1 laser product, 405nm
Battery-operation	>1 hour per charge. Inductive wireless charging and handsfree operation.
WaferSense Link	Bluetooth, Class 1, 2.4GHz
Operating Systems	Windows 7, 8, 10
Product Components	Particle measurement device, charging clean case, carrying suitcase, USB communications link module
Calibration	Factory recalibration recommended annually.

Dimensions (APS3 300)



CyberSpectrum™



Real-time data.



Contact CyberOptics today for your complimentary tool demonstration
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