

# ReticleSense™ Airborne Particle Sensor (APSR)

## ○ Improve equipment set-up and long term yields by wirelessly monitoring airborne particles in real-time.

Quickly monitors, identifies and enables troubleshooting of airborne particles down to 0.15um within semiconductor process equipment and automated material handling systems.

Easily identifies when and where the particles originate and measures the effectiveness of cleaning adjustments and repairs in real time.



## Speed equipment qualification with wireless measurements.

- Collect and display particle data wirelessly using the APSR and Particle View™ software for real-time equipment diagnostics.
- Compare past to present as well as one tool to another with recorded particle data.
- Save time by swiftly locating contamination sources with the APSR data and see the effect of cleanings, adjustments and repairs in real time.

## Shorten equipment maintenance cycles with reticle-like form factor.

- Detect particles in real-time without opening the tool so you don't need to expose process areas to the environment.
- APSR goes where reticles go to find the place where particles contaminate reticles.
- 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 reticle success, reduce your qualification expense and increase availability with APSR.
- Receive early warning for impending equipment failures and optimize your preventative maintenance plans.
- Establish a baseline from known clean tool, then cycle APSR through a candidate tool before committing monitor reticles.

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



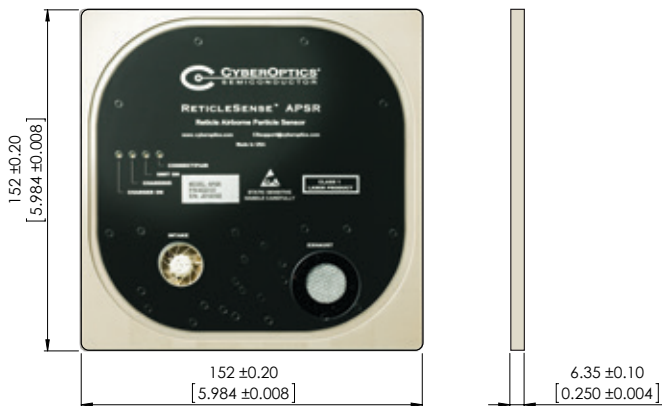
**Save Time. Save Expense. Improve Yields.**

# Features\*

<b>Wireless, reticle-shaped and battery-powered</b>	Available in 6 inch Reticle form factor
<b>Easy-to-use software</b>	ParticleView and ParticleReview software included ParticleView: Displays real-time numeric and visual feedback, cumulative or differential counting modes and density or frequency modes ParticleReview: Replays log file data for review and analysis
<b>Highly accurate</b>	Measures particles greater than 0.14µm Size channels: Reports particles in 0.1 µm and 0.5µm bin sizes (consult factory for other bin sizes)
<b>Durable housing</b>	Glass filled PEEK, polycarbonate
<b>Weight</b>	314g (± 7%)
<b>Airflow</b>	0.07CFM (2L/min) @ 1 atmosphere
<b>Operating pressure</b>	0.4 to 1.6 atmosphere
<b>Operating internal temperature</b>	15 deg C to 45 deg C non-condensing
<b>Battery-operation</b>	>1 hour per charge. Inductive wireless charging and handsfree operation.
<b>WaferSense Link</b>	Bluetooth, Class 1, 2.4 GHz
<b>Operating Systems</b>	Windows 7, 8, 10, XP, Vista
<b>Product components</b>	Particle measurement device, charging clean case, carrying suitcase, USB communications link module and application software
<b>Calibration</b>	Factory recalibration recommended annually

\*Specifications subject to change without notice

## Dimensions



Dimensions, chamfers, and squareness conform to SEMI standard for 6 inch square reticles.

## ParticleView™



Contact CyberOptics today for your complimentary on-tool demonstration  
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