

# ReticleSense® Airborne Particle Sensor™ Quartz (APSRQ)

- **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 0.14um within semiconductor process equipment and automated material handling systems.

- **Ideal for use in FAB scanners and steppers that read barcodes and alignment in transmission.**



**Large Particle Capability**

## **Speed equipment qualification with wireless measurements.**

- Collect and display particle data wirelessly using the APSRQ and CyberSpectrum™ software for real-time equipment diagnostics.
- Compare past and present as well as one tool to another easier and faster without opening an additional application, now with ParticleReview™ functionality integrated with CyberSpectrum.
- Save time by swiftly locating contamination sources with the APSRQ 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.
- APSRQ 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 APSRQ.
- Receive early warning for impending equipment failures and optimize your preventative maintenance plans.
- Establish a baseline from known clean tool, then cycle APSRQ through a candidate tool before committing monitor reticles.

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

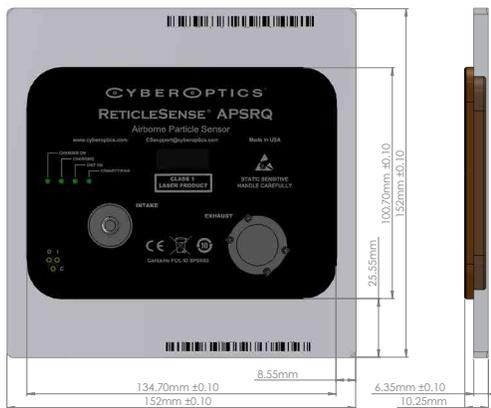


**Save Time. Save Expense. Improve Yields.**

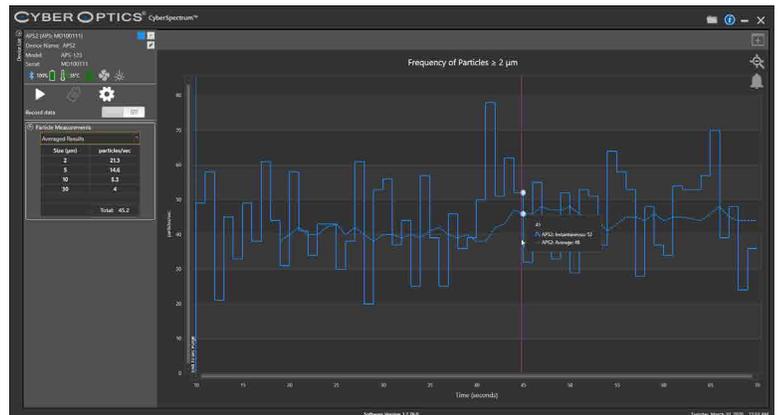
# Features

<b>Wireless, reticle-shaped and battery-powered</b>	Available in 6 inch Reticle form factor
<b>Easy-to-use software</b>	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
<b>Highly accurate</b>	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.
<b>Durable housing</b>	Quartz outer frame: Rear surface of quartz frame is an uninterrupted quartz surface
<b>Weight</b>	312g (+/- 15g)
<b>Barcodes and Alignment</b>	Bar codes and alignment marks allow placement in most scanners and steppers
<b>Airflow</b>	0.07CFM (2L/min) @ 1 atmosphere
<b>Operating pressure</b>	0 to 1.6 atmospheres
<b>Operating internal temperature</b>	15 deg C to 45 deg C non-condensing
<b>Laser Power Output and Wavelength</b>	APS devices are a Class 1 laser product, 405nm
<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
<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

# Dimensions



# CyberSpectrum™



Real-time data.



Contact CyberOptics today for your complimentary on-tool demonstration  
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