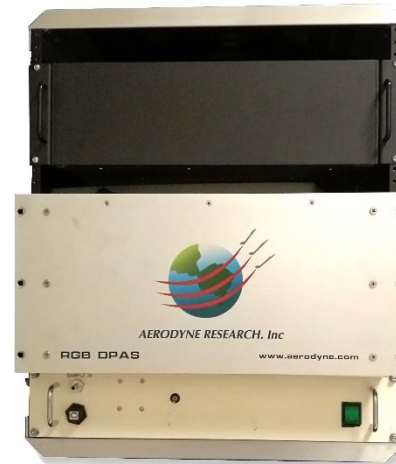




RGB Aerosol Absorption Monitor

Real-time and continuous PM measurement with high sensitivity at 671nm (red), 532nm (green) and 471nm (blue)

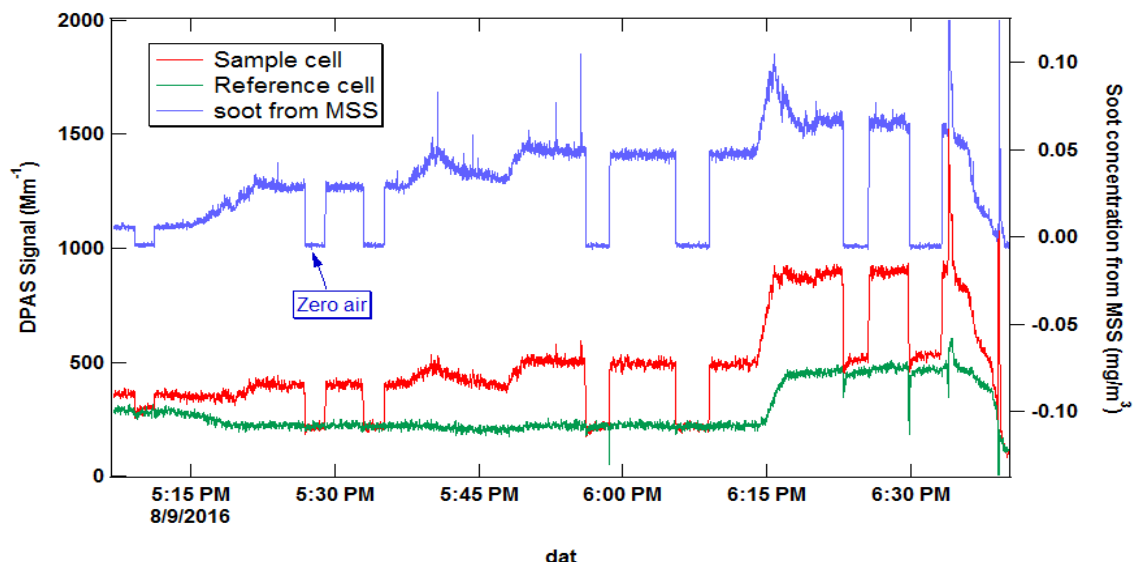


Applications

- Radiative forcing research
- Evaluation of BC and OC emissions
- Determination of AAE continuously in real-time
- Monitoring applications involving a wide range of PM sources:
 - Industrial air quality
 - Internal combustion engine emissions
 - Roadside pollution
 - Biomass burning
- Synthetic nanoparticle monitoring

Advantages

- Real-time measurements of PM light absorption at Mm^{-1} level
- Elimination of contribution from gaseous species (e.g. NO_2 and ozone)
- Simultaneous detection at RGB
- Low instrument drift
- Intuitive UI and data processing software
- Low maintenance requirements
- No consumables
- Turnkey operation



Comparison of black carbon soot measurement from a gas turbine combustor between an AVL Micro Soot Sensor (MSS) at 880nm and a DPAS monitor at 532nm, under appreciable NO_2 emissions

Specifications:

Sensitivity: **0.36 Mm⁻¹ (10s), 0.12 Mm⁻¹ (100s) at 671nm**
0.35 Mm⁻¹ (10s), 0.14 Mm⁻¹ (100s) at 532nm
1.2 Mm⁻¹ (10s), 0.48 Mm⁻¹ (100s) at 473nm

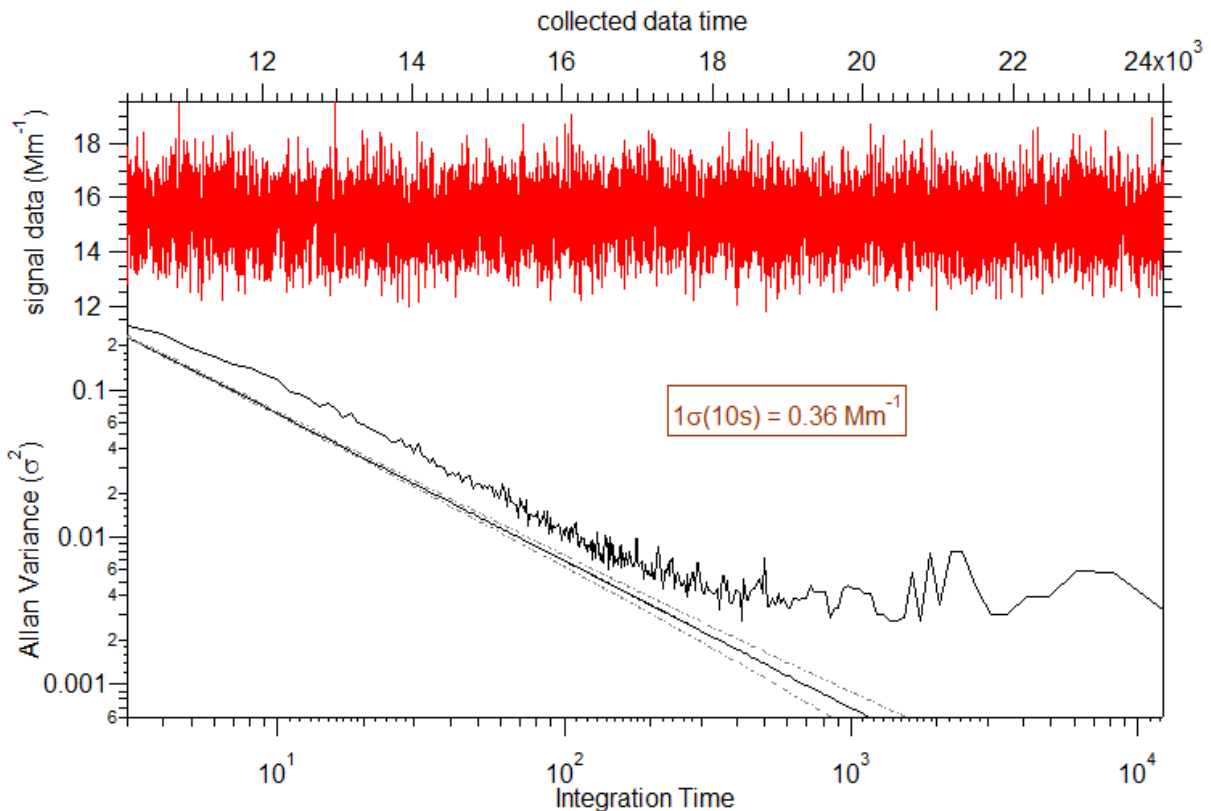
Response Time: **3s**

Optimal Flow Rate: **1.0 lpm**

System Pressure: **Ambient or low pressure**

Chamber Material: **Aluminum, Stainless Steel**

Data Logging Interval: **1s**



Allan analysis and detection sensitivity

Aerodyne specializes in collaboration and custom design. Please contact us if you would like to discuss additional measurement options and applications.