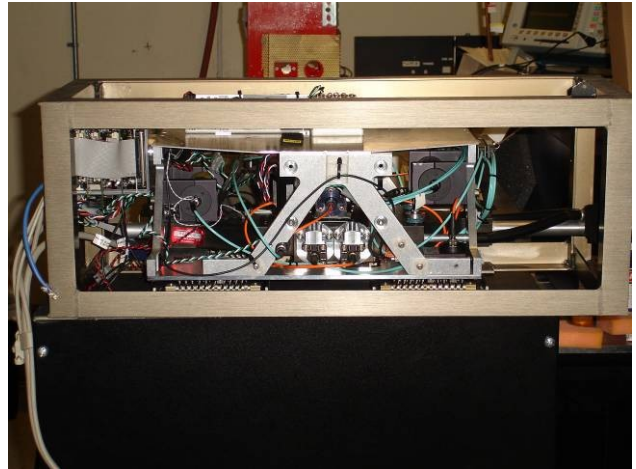
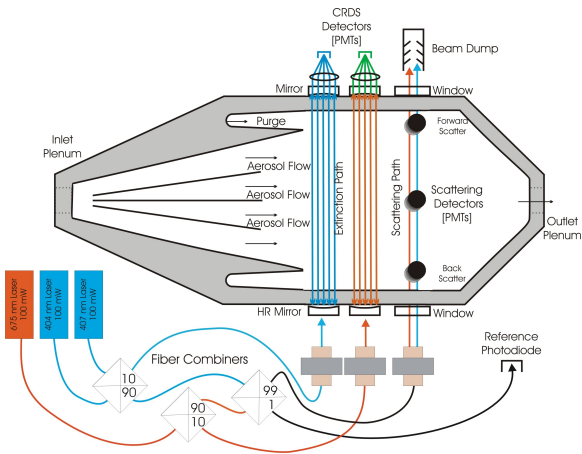


Aero3X



- Measurement of
 - Aerosol extinction and scattering @ 405 nm
 - Aerosol extinction and scattering @ 675 nm
 - Scattering in Forward and Back directions at both wavelengths
 - NO₂ mixing ratio
- Sample Rate: 2 sec.
- Total weight is ~25 lbs
- Power requirements less than 50 watts
- Estimates of measurement sensitivity and precision
 - Extinction and scattering – 2 σ sensitivity $\approx 0.2 \text{ Mm}^{-1}$
 - Extinction and scattering – 2 σ precision $\approx 0.1 \text{ Mm}^{-1}$
 - NO₂ mixing ratio – 2 σ sensitivity better than $\approx 1 \text{ ppb}$
- Determination of
 - Absorption coefficient, both wavelengths
 - Single-scattering albedo, both wavelengths
 - Extinction to backscatter ratio, both wavelengths
 - Estimate of asymmetry parameter, both wavelengths