

Applications

- **Fence-line** monitoring of industrial sites
- **Urban air monitoring** in metropolitan areas
- **Accidental release detection** and identification
- **Leak detection** in industrial facilities
- **Plume mapping**
- **Monitoring** of Sulfur Hexafluoride (**SF₆**)
- **Fluorinated green house gas** measurements
- **Fugitive emissions** measurement

Open-Path FTIR Monitoring

CleanAir offers real-time monitoring of up to 200 different gases including organics, inorganics, acids and volatile organic compounds (VOCs) using Open-Path Fourier Transform Infrared (OP-FTIR) monitoring technology.

Advantages of OP-FTIR

- Field-proven and rugged system able to withstand extreme weather conditions and temperatures
- Measurement path range from 10 m to 1000m
- Real-time monitoring of up to 50 compounds
- Alarming capability for each compound
- Remote monitoring and control
- Built for continuous unmanned operation
- Automatic multi-compound calibration
- Motorized azimuth-elevation mount for multiple path data collection

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Innovation & Technology

Typical Detection Limits for a 300m Open Path

Species	Mixing Ratios (ppb)
Acetaldehyde	7
Acetone	3
1,3 Butadiene	2
Benzene	5 - 10
Carbon Monoxide	1
Formaldehyde	1
Methylene Chloride	5
Ozone	3
Styrene	1
Toluene	25
m-Xylene	10

Open-Path Fourier Transform Infrared (OP-FTIR) Spectroscopy

The Open Path FTIR monitoring system transmits an infrared beam of light through ambient air and captures this beam after traversing the air mass. The FTIR spectrometer then generates a full infrared spectrum of the light identifying all monitoring compounds present and quantifying their concentrations down to the ppb-levels.

The use of a telescope transmitting and receiving the infrared beam in conjunction with high quality retro-reflector arrays allows for the monitoring of long outdoor paths.

IMACC Inc., 2013.



Resources

Our unique combination of monitoring expertise, coupled with our extensive technology inventory can help you achieve your business and environmental goals.

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