

Multipath Extinction Detector (MPED)

APPLICATIONS

- ☐ Point vapor detection
- ☐ Exhaust monitoring
- ☐ Process control monitoring
- ☐ Threat detection

Product Details

- ☐ Detection, identification, and quantification of measured chemicals
- ☐ Sensitive detection from pathlengths up to 4 m
- ☐ Selectivity from broad spectral coverage over fingerprint region
- ☐ Broad dynamic range from range of measured pathlengths
- ☐ Rapid response with 1 s update rate
- ☐ Open path and sampling configurations
- ☐ Optional sample cell heating up to 225C



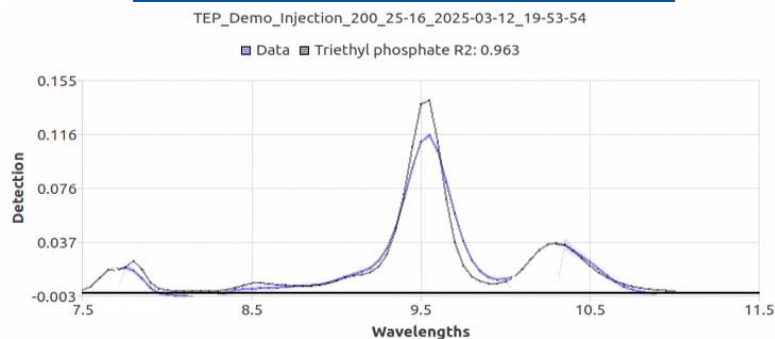
Key Performance Parameters

Parameter	Value
System Overview	
Spectral Range	7.5-11 μm
Spectral Resolution	0.05 μm (5 cm^{-1})
Maximum Pathlength	4 m
Sensitivity	0.001 m^{-1} ($\alpha \cdot c$ product) $c = 1 \text{ mg/m}^3$ for many chemicals
Dynamic Range	>5000:1
Update Rate	1 s
Packaging Specifications	
Volume	14 L (6"x6"x24")
Weight	24 lb
Power	230 W during heater warm-up 145 W in steady state 40 W w/o heater

Under Development

- ☐ Dynamic Baselining
- ☐ Mixture Detection
- ☐ Reduced Volume Packaging (<4 L, 5.5 lbs)
- ☐ Extended Dynamic Range (>10,000:1)

Sample Measured Spectra



MPED Live GUI

