ECOMESURE

ECOMTREK

MOBILE AIR QUALITY MONITOR

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PATENTED TECHNOLOGY

Installed on the roof of all types of vehicles, EcomTrek measures concentrations of air pollutants — including NO_2, PM_1, $PM_{2.5}$, PM_{10}, O_3, NH_3, VOC, CO, NO, SO_2, H_2S — as well as temperature, pressure and humidity.

It accurately maps air quality in order to gauge people's exposure to pollution in urban areas.

Equipped with a three-axis accelerometer and a GPS receiver, EcomTrek allows you to track a vehicle's movements and to obtain hyperlocalized measurements all the way.

Its 10-second sampling rate enables it to increase the density of measured data to keep up with driving conditions.
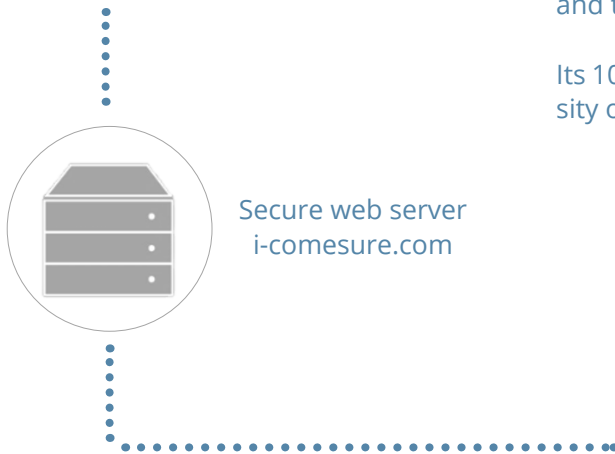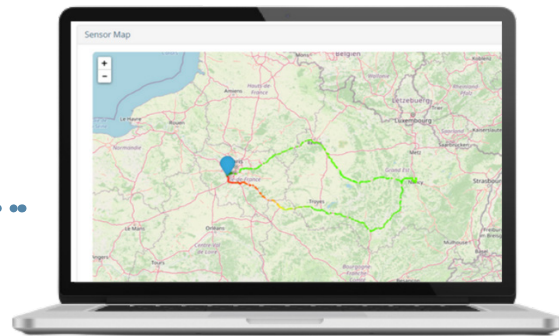
Real-time data transfer by 4G, LTE-M

Secure web server
i-comesure.com

SaaS platform for data visualization
and processing

ADVANTAGES

- Accurate and hyper-localized measurements
- Real-time pollution mapping
- Remote recalibration with reference monitors
- Easy to install device
- Affordable solution

APPLICATIONS

- Urban traffic
- Smart cities
- Monitoring networks
- Service for local and regional governments
- Service for users

ECOMTREK

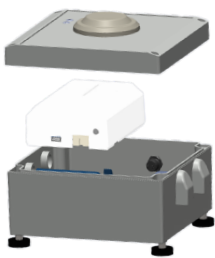## ECOMTREK TECHNICAL SPECIFICATIONS

Dimensions / Weight	H3.7" x W6.8" x L7.2" (H96 x W175 x L184 mm) / 2.07 lbs (0.94 kg)
Processor	32 bits Dual Core One measurement every 10 seconds (adjustable from 10s to 1h)
Connectivity	4G - LTE-M
Localization	Accelerometer, GPS
Access to data	https://i-comesure.com
Web services	Mapping | Multi-mode data display | Device status | Device remote control | Data storage | Data downloading | Configurable alerts/alarms | Data analytics reports | Virtual Integrated Devices (VID) | Data encryption | API | Database export | Data logger
Data security	Local + Cloud-based encryption WPA2-Enterprise compatible
Data storage	Built-in microSD memory card Web storage
Pollution index	Multicolor led
Power supply	12 VDC 1A from automobile cigarette lighter Power adapter included (100-240 VAC 50/60Hz) Integrated back-up battery (> 4h of use).
Fastening accessories	Magnetic fixing kit Mounting feet Safety flange
Certifications	CE class B, FCC class A

SENSOR CARTRIDGE SPECIFICATIONS

Select the sensors of your choice:
up to 3 electrochemical,
1 PID, 1 NDIR and 1 optical sensors

Optimized maintenance and calibration: one-step enclosure replacement

Sensors	Technology	Measurement Range	Detection Limit
NO_2	Electrochemical	0-20 ppm	< 0.02 ppm
O_3		0-20 ppm	< 0.02 ppm
CO		0-500 ppm	< 0.02 ppm
NO		0-20 ppm	< 0.08 ppm
SO_2		0-50 ppm	< 0.02 ppm
H_2S		0-50 ppm	< 0.01 ppm
NH_3		0-100 ppm	< 3 ppm
HCHO		0-10 ppm	< 0.1 ppm
Cl_2		0-20 ppm	< 0.2 ppm
HCl		0-20 ppm	< 0.5 ppm
VOC_{50} and VOC_{3000}	PID	0-50 ppm | 0-3000 ppm	1 ppb | 50 ppb
CH_4	NDIR	0-2.5%	500ppm
CO_2		0-5000 ppm	1 ppm
$PM_1, PM_{2,5}, PM_{10}$	Laser/Optical	0-1000 µg/m³	1 µg/m³

Environmental parameters	Technology	Measurement Range	Accuracy
Temperature	Temperature sensor	14 to 140 °F (-10 to +60 °C)	0.9 °F (0.5 °C)
Humidity	RH sensor	0 to 100% RH	3% RH
Pressure	Pressure sensor	300 to 1100 hPa	0.12 hPa
Noise	MEMS Microphone	10 - 80 dB SPL	1 dB

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