



AIR QUALITY MONITORING SYSTEM

Control the Air Pollution in Industries, Smart Cities, Airports, Highways, and Any Other Place You Care About



ABOUT AERON

Aeron is a fast growing tech company developing innovative solutions for global customers. Aeron offers a wide range of technology driven products and solutions under Inertial Sensing and IIoT verticals. Backed by strong technical knowhow, refined algorithms and domain research, Aeron's products offer premium features at attractive price points.

Aeron started its IoT business with engine temperature monitoring systems for locomotives and vehicle telematics solutions for automotive OEMs. After this initial success, Aeron started offering data logger and weather monitoring station for smart agriculture and solar applications. Today, Aeron offers a large number of solutions like weather and environment monitoring solutions for renewable energy, smart environment and urban infrastructure and manufacturing sectors.

Under INS vertical, we offer highly refined product families of MEMS based inertial navigation systems. Our superior quality hardware and proven algorithms promise a performance better than most global tactical class MEMS systems. Aeron's Inertial Sensors and Systems offer everything that today's tough applications demand: versatility, ruggedness, precision and reliability over time. Aeron also offers a range of tilt sensors, inclinometers, tilt switches and digital compasses.

At Aeron, we believe that expertise is not merely an accident but an outcome of consistent team effort. Passionate people, well equipped manufacturing, testing facilities and excellent support network make us the trusted partner of our customers.



Located in
Pune, India



Serving customers
in 20+ countries



Installed base of
5,000+ units



India's leading
company in Inertial
Systems

Air Quality Monitoring System

AQM21 is a smart air quality monitoring system, ideal for real time monitoring of criteria pollutants, particulate matter, noise level, weather parameters and other gaseous contaminants. AQM21 is equipped to monitor air pollution data for PM2.5, PM10, CO, CO₂, NO, NO₂, SO₂ and O₃, VOCs and environmental data for temperature, humidity, pressure, wind speed and wind direction along with the noise, UV and Light intensity and more.



AQM21 is easy to install, calibrate and maintain and consumes very less power. The device can be customised to accommodate sensors suitable for various applications and communication requirements.

AQM21 is suitable for numerous applications in town planning and development of smart cities, for tracking industry emissions, identifying pollution hotspots in the city, traffic re-routing and management, developing expansion plans for the city, approving or rejecting development proposals, etc.

PARAMETERS MEASURED

| | | | |
|--|----------------------------------|--|---------------------------------|
| 0 – 1,000 ppm CO | 0 – 5,000 ppm CO ₂ | 0 – 100 ppm NH ₃ | 0 – 360 Deg. Wind Direction |
| 0 – 20 ppm O ₃ | 0 – 100 ppm SO ₂ | 0 - 10 %vol CH ₄ | 0 - 300 kmph Wind Speed |
| 0 – 20 ppm NO ₂ | 0 – 20 ppm NO | 0 - 100 ppm TVOC | 0 - 999.8 mm Rainfall |
| 0 – 500 µg/m ³ PM _{2.5} | 0 – 100 ppm H ₂ S | 0 - 10 ppm CH ₂ O | 500 - 1150 mBar Pressure |
| 0-1,000 µg/m ³ PM ₁₀ | 0 – 134 dB Noise | 0 - 100 ppm C ₂ H ₄ | 0 - 100% RH Humidity |
| 0-20000 µg/m ³ PM ₁₀₀ | 0 – 20,000 Lux Light | 0 - 16 Index UV | -40 - +65 °C Air Temperature |

ADVANTAGES

WIDE RANGE OF SENSORS

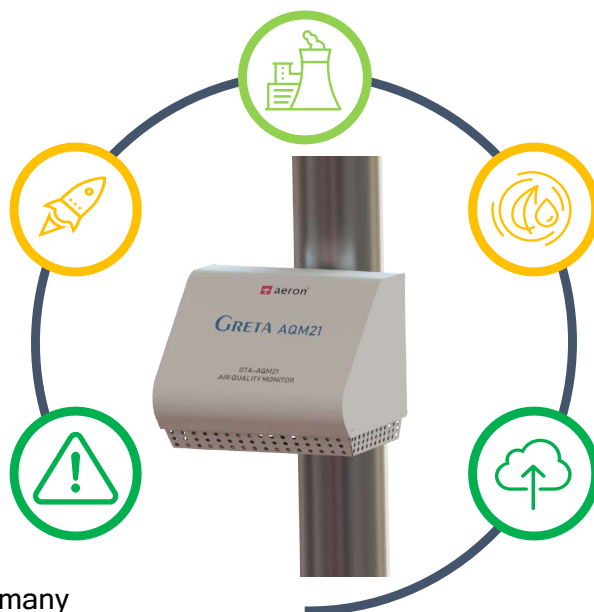
Measurement of CO, CO₂, NO₂, NO, O₃, SO₂, H₂S, Noise, PM2.5, PM10, Temperature, UV, Wind speed, Wind direction, Rain fall and others

TEMPER PROOF

Compact size, environmentally protected rugged construction, temper alert, ergonomic design

COST EFFECTIVE

With latest technology, the cost so attractive that it makes many applications possible unviable before.



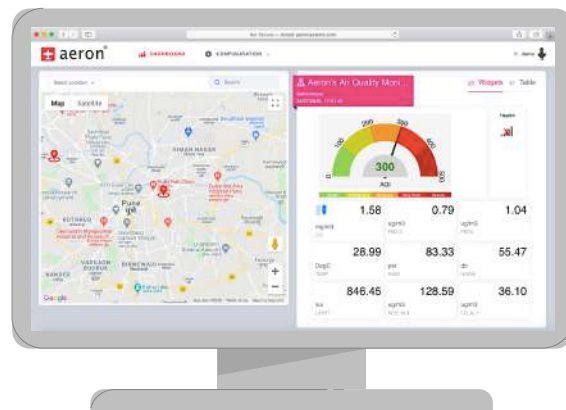
AERON LIVE

Aeron Live is the cloud platform offered by Aeron for the real-time monitoring and analysis of the data being sent by the GRETA AQM21 devices.

Aeron Live displays the real-time data in widgets, Air Quality Index and in tabular format. The graphs of various pollutants are plotted over time.

User can compare the data from two sites over time and can compare two parameters from the same station. The threshold values of the parameters can be defined and alerts are sent to user when the parameter(s) breach the threshold.

There are other features like data over email, system health, geo-location and many more.



APPLICATIONS



Smart City



Smart Highway



Clean Mining



Clean Industry



Clean Construction



Smart Campus

SPECIFICATIONS

| PARAMETER | RANGE | RESOLUTION | MINIMUM DETECTION | UNIT |
|---------------------|-----------|------------|-------------------|-------|
| CO | 0-1,000 | 0.1 | 0.1 | ppm |
| CO2 | 0-5,000 | 1 | 1 | ppm |
| O3 | 0-20 | 0.02 | 0.02 | ppm |
| NO2 | 0-20 | 0.02 | 0.02 | ppm |
| SO2 | 0-20 | 0.02 | 0.02 | ppm |
| NO | 0-20 | 0.02 | 0.02 | ppm |
| H2S | 0-100 | 0.01 | 0.01 | ppm |
| PM1 | 0-1,000 | 0.1 | 1 | ppm |
| PM2.5 | 0-1,000 | 0.1 | 1 | µg/m3 |
| PM10 | 0-1,000 | 0.1 | 1 | µg/m3 |
| Noise | 0-140 | 1 | 1 | dB |
| Light | 10-20,000 | 1 | 10 | Lux |
| UV | 0-16 | 0.1 | 1 | Index |
| Ambient Temperature | -40 - +65 | 0.01 | 0.2 | °C |
| Relative Humidity | 0 - 100 | 0.1 | 0.1 | %RH |
| Barometric Pressure | 300-1100 | 0.2 | 300 | mBar |
| Rainfall | 0-999.8 | 0.2 | 0.25 | mm |
| Wind Speed | 0-300 | 0.1 | 1.5 | m/s |
| Wind Direction | 0-360 | 1 | 7 | deg |

Power Source

9-30 VDC from solar power pack or AC power source using AC-DC converter

Weight

7 Kg including internal sensors

Size

25 x 30 x 30 cm

Time Synchronization

Through GPS, and internet, RTC with backup battery

Data Backup

32 GB flash memory

Wireless

Wi-Fi, LTE (4G) / UMTS / GPRS, LORA, NB-IoT

Wired

Ethernet, RS485 MODBUS, RS232

Protocols

HTTPS, MQTT, APIs

Are you looking to measure parameter not mentioned here?
Please write to us at sales@aeronsystems.com





XTREME - Smart Data Logger

XTREME 2 is a family of powerful smart data loggers which can acquire measurements from multiple sensors over various analog and digital interfaces and communicate the data securely to the cloud (Ethernet/ Wi-Fi / LTE) for real-time data monitoring.

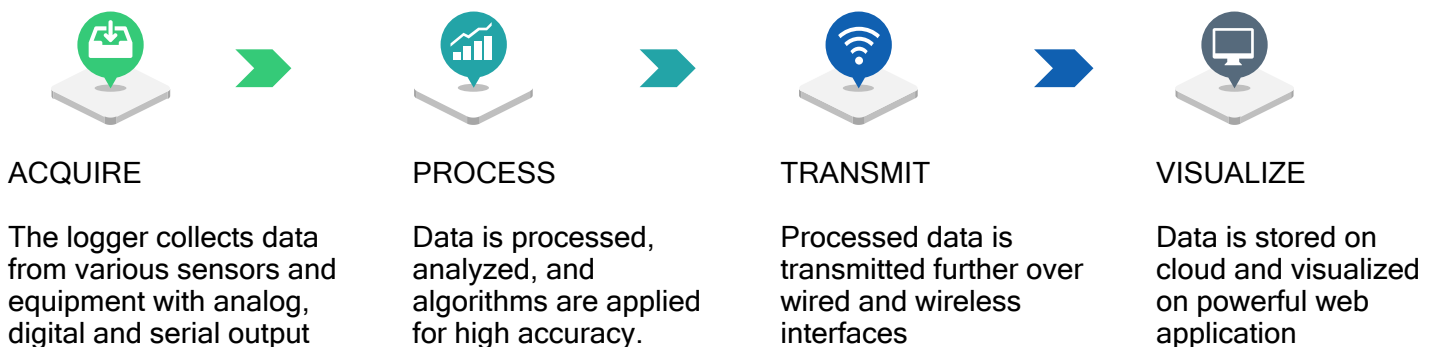
XTREME 2 is capable of sensor sampling at the rate of 1KHz with industry's leading ADC which has a resolution of 24 bit ensuring precision data acquisition. The device comes with inbuilt storage of 32GB.



KEY FEATURES

- | | |
|--|---|
|  High Precision With industry leading 24 bit ADC data is acquired with high resolution and precision. |  Communication Wireless communication over 4G/LTE, Wi-Fi, LORA, NB-IoT, Wired communication over Ethernet, RS485 MODBUS, RS232 |
|  Versatile Inputs Various analog (0-5V, 0-1V, 0-20mV, 4-20mA), digital and serial inputs (RS232, RS485, MODBUS) |  GPS Built-in GPS for precise time synchronisation and location information |

HOW IT WORKS



APPLICATIONS



Weather station for solar & wind projects



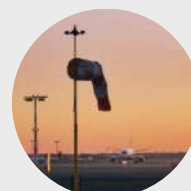
Remote asset monitoring & control



Water quality monitoring and control



Weather Research



Airport Monitoring

IOT PRODUCT TIMELINE



Wireless Data Logger
ACE DLG88
2010



Wireless Data Logger
ACE DLG89
2014



Wireless
Data Gateway
FLINT WDG45
2015



Smart Data Logger
XTREME
2019



Water Quality Monitoring System
STREAM
2019



Weather Station
2012



Weather Sensors
ALTAIR
2020



Air Quality Monitoring System
GRETA
2018

“What You Can Measure is What You Can Control”



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