



TAM

Tiny aerosol conditioner inside Air Monitor

Easy-Maintenance, High-Precision Air Quality Sensor for Critical Environments



High Precision Air Quality Monitor, TAM

Certified Performance & Reliability

Korea Innovative
Product Certification
No. 2024-259



ISO 9001:2015
(Registration No.
QMS/15/R82/3295)

KC Registration No.
R-R-7GG-GGS727



1st Grade certified by the
Korean Ministry of
Environment (KTR-2021-16)



- **Top level evaluated by the U.S. SC AQMD/aa-spec**
(R^2 PM2.5, PM1.0 = 1.0 in the lab test and R^2 PM2.5 = 0.92, R^2 PM1.0 = 0.93 in the field test)



Compact, Efficient, and Secure

- **Real-time measurement** at second-level intervals
- **Low power consumption:** 2.1W (Verified by KLOAS Accredited Laboratory)
- **Compact size:** 22.0 × 16.0 × 22.6 cm³
- **Data integrity protection** between device and server
- **Competitively priced** for large-scale deployment

Smart App – Air Alarm G

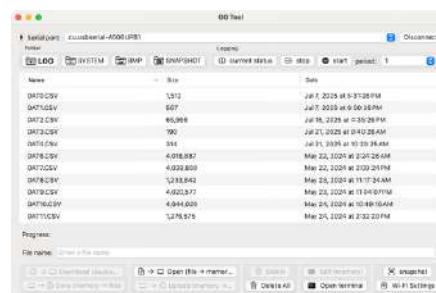
- **Easy access to real-time PM data.**
- **Instant notification service (1-minute interval updates)**
- **Supports Android, iPhone, iPad, and Mac**

Accurate, Durable, and Easy to Maintain

- **Automatic humidity control** ensures stable accuracy ($\approx 35\%$ RH)
- **Long-term outdoor operation** with minimal degradation
- **Low maintenance:** internal cleaning every 1–2 years
- **Self-diagnosis and remote fault detection** are supported

Logging & Device Management Tools

- **GG Tool (GUI):** Windows & macOS
- **ggserial (CLI):** Windows, macOS & Linux



Designed for reliable operation in hard-to-reach or harsh environments, offering easy maintenance and high accuracy.



Namsan KBS Transmission
Tower in Seoul (Dec. 2023 – Mar. 2024)



the South Pole (Oct. 2022 – May. 2023)
the North Pole (Jun. 2023 – Oct. 2023)



Socheongcho Ocean Science
Station, Korea(2024)

Smart App Solution, Air Alarm G



- **Air Alarm G** provides real-time fine and ultrafine particulate matter (PM2.5 and PM1.0) information measured by TAM. It also offers a **real-time notification service**

Main Features



Customizable Air Quality Notification

Receive notifications when the Air Quality Indexes (AQI) changes.



Location based Device Discovery

Easily find nearby monitoring devices.

Intuitive emoji indicators

The emojis visually represent air quality levels.

Even at the air quality index level, a higher watermark indicates a higher concentration.



Supports 13 languages

Korean, English, Arabic, Simplified Chinese, Traditional Chinese, Vietnamese, Thai, Japanese, Indonesian, Spanish, Italian, French, and German.

Available on

Android, iPhone, iPad, and Mac devices



Specifications

Measurement Specifications

- **Measurement Principle:** Light Scattering
- **Primary Measurement Data:** PM1.0, PM2.5
- **Secondary Measurement Data:** PM4.0, PM10, Temperature, Humidity, Atmospheric Pressure
- **PM Measurement Units:** $\mu\text{g}/\text{m}^3$ and counts/m^3
- **PM Measurement Range:** 0 – 1000 $\mu\text{g}/\text{m}^3$ and 0 – 55,000 counts/m^3 (before ML correction)
- **Measurement Resolution:** 0.1 $\mu\text{g}/\text{m}^3$ and 1 count/m^3
- **Measurement Interval:** 5 seconds
- **Automatic Humidity Control:** Built-in automatic tiny aerosol conditioner
- **Operating Temperature:** -20°C – 70°C
- **Operating Relative Humidity:** 0 – 100% RH
- **Built-in GPS:** real-time location tracking and location-based services

Power & Physical Specifications

- **Power Supply:** AC 100 – 240V
- **Power Consumption:** 2.1W (typical at 25°C, 60% RH), max 4.7W
- **Dimensions (W × D × H, cm):**
 - Main Unit: 13.8 × 8 × 17
 - With Enclosure: 22.0 × 16.0 × 22.6
- **Weight:**
 - Main Unit: 930g
 - with band bracket & enclosure: 4.19kg
 - with short stand & enclosure: 4.335kg
 - with long stand & enclosure: 8.92kg
- **Warranty:** 1 year

Serial Communication & Data Management

- **Serial Interface:** RS232 serial communication for local data logging and diagnostics
- **Device Management Software:**
 - GG Tool (GUI) for Windows 10 or higher and macOS (14.6 or higher)
 - ggserial (CLI) for Windows, macOS, and Linux
- **Data Logging:**
 - Local Logging Interval: Selectable (1, 5, 10, 30, or 60 minutes)
 - At 1-minute logging, up to 28 years of storage with 1GB memory
- **Server Logging:** 1-minute or 10-minute intervals, stored in server database
 - Data access and download available at (<https://airnow.kr/ggtam>)
- **Embedded Multitask Operating System:** TAM OS

Smart Connectivity

- **Mobile App Support:** Air Alarm G (Android, iOS, and macOS)
- **IoT LTE-M1 Modem:** supports AMT5920SK (not included)
- **Wi-Fi:** Wi-Fi 802.11b/g/n 2.4GHz
- **Wi-Fi Security:** WEP / WPA-PSK / WPA2-PSK
- **Wireless Data Transmission Interval:** Selectable between 1 minute and 10 minutes
- **Wireless Data Integrity:** Anti-tampering data transmission technology is applied

**When it comes to the air we breathe, unreliable or out-of-date information
can be more harmful than no information at all**

**If you cannot measure it, you cannot manage it. - Peter Ducker.
Innovation distinguishes between a leader and a follower. - Steve jobs.**



LA Pico Rivera - 2025.10.06



Atlanta South Dekalb - 2025.10.07



NYC Queens College - 2025.10.09

