



Indoor Air Transmitter via USB

UA60-PMVT

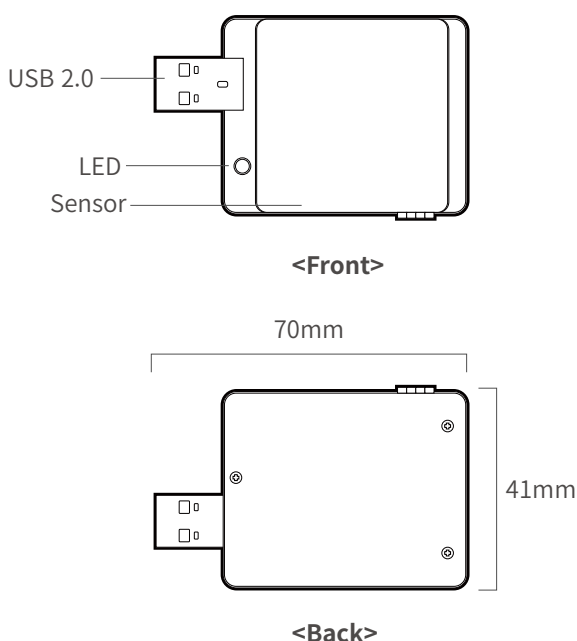
- Real-time Indoor Air Quality transmitter
- PM2.5/PM10.0/PM0.5/VOC./TEMP/HUMI support
- Calibration Certificate Included
- Operating On Windows / Linux / MacOS
- AT Command Support
- PC Recording Software (Tapaculo Lite)
- Android Recording App (Tapaculo Mobile)



The UA60-PMVT is designed to measure particles in the air. It uses the laser scattered technology to measure the number of particle and the mass of particle. UA60-PMVT supported $\mu\text{g}/\text{m}^3$, $\#/ \text{cm}^3$, $\#/ \text{ft}^3$ and $\#/ \text{m}^3$ as a measuring unit. all the particle data are transferred to the destination in real-time via the USB connector.

The UA Series is automatically recognized as a serial port on the operating system and accessed using the AT command. Multiple USB connections of the UA device could compose the multi-channel sensor. The sensor data is not stored in the UA, but recording in PC and Android device. 128CH real time monitoring software on pc, Tapaculo Lite is downloadable on our website(www.radionode365.com). And android real time recording application is also available from google play store. The optional RN17X model helps UA series for you to setup remote web monitoring system.

Hardware



⚠ CAUTION!

UA60-PMVT doesn't guarantee performance in the following environments.

- Condensation and Water
- Salt Water Contamination
- High-Temperature Operation ($>70^{\circ}\text{C}$) for more than 1 month
- Low Humidity Operation ($<15\% \text{ RH}$) for more than 3 months
- $< 10\%$ humidity may permanently damage the sensor
- Highly contaminated air over a prolonged period
- Highly levels of particles or soot (unless proper filtering is provided)

Contact Information

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UA60-PMVT Specifications

Sensor Channel Info.	<ul style="list-style-type: none"> • CH1: PM2.5 • CH2: PM10.0 • CH3: PM0.5 • CH4: TVOC • CH5: Temperature • CH6: Humidity 	Long-term Drift	<0.2 %RH / 1 year
Gas Sensor Type	Electrochemical Film	Gas Response Time	T90 < 30 secs
Body Material	PC(Polycarbonate)	Warming-up Time	< 1 min after power-on
Measurement Range	<ul style="list-style-type: none"> • PM 2.5 : 0.3 μm ~ 2.5 μm • PM10.0 : 0.3 μm ~ 10 μm • PM 0.5 : 0.3 μm ~ 0.5 μm • VOC : 0 ~ 1000 ppm • Temperature: -40 ~ 125°C (-40 ~ 185°F) • Humidity: 10 ~ 90%RH 	Operating ¹⁾ Condition	<ul style="list-style-type: none"> • Temperature: 10 ~ 40°C (50 ~ 104°F) • Humidity: 20 ~ 80% RH(non condensing)
Flow Rate	Particle Material : 0.3L / min	Lifetime ²⁾	5 Years @ (23 \pm 3°C, 40 \pm 10% RH recommended)
Response Time	<ul style="list-style-type: none"> • VOC : T63 < 10 secs • Temperature: T63 < 2 secs • Humidity: T63 < 2 secs 	Power Consumption	5V (Max. 102mW)
Mass Concentration Accuracy	<ul style="list-style-type: none"> • PM : 0 to 100 $\mu\text{g}/\text{m}^3$ \pm 10 $\mu\text{g}/\text{m}^3$ • PM : 100 to 1,000 $\mu\text{g}/\text{m}^3$ \pm 10 % • VOC: • Temperature: \pm 0.2 °C • Humidity : \pm 1.8 %RH 	Calibration Certificate	Bulk Calibration Certificate
Measurement Unit (Selection using SW)	<ul style="list-style-type: none"> • PM 2.5, PM10.0 : $\mu\text{g}/\text{m}^3$, • PM 0.5 : #/cm³ • VOC : ppm, ppb • Temperature: °C(Default), °F • Humidity: %RH 	Calibration Method	One point Calibration Mode Manual Zero Calibration Mode
Measurement Cycle	1 sec	USB Port	USB 2.0 Type A Plug
Sensor Resolution	<ul style="list-style-type: none"> • Temperature: \pm 0.01 °C • Humidity: 0.01 %RH 	Output Signal	USB digital, CDC Device (AT Command)
Sensor Accuracy (Repeatability)	<ul style="list-style-type: none"> • VOC : \pm5 % m.v. • Temperature: \pm0.04°C • Humidity: \pm0.08 %RH 	LED	Device Status Indicator <ul style="list-style-type: none"> • BLINK RED & GREEN: Warming-up • RED KEEP ON: USB Connection Failed • BLINK GREEN: Measuring
Compensation Logic	Relative Humidity	Software Support	<ul style="list-style-type: none"> • Tapaculo Lite 128CH recording software on PC Download: www.radionode365.com • Tapaculo Mobile 6CH recording software on Android devices Download: Google play store • Calibration Software Calibrator that compensates for measuring error. Download: www.radionode365.com

1) Avoid prolonged exposure to temperatures outside the recommended operating area - as this may cause irreversible damage and loss of sensitivity.

2) Gas sensors have a longer life when measured discontinuously than when measured continuously.



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Application

- Industrial safety
- AIR Quality Monitoring
- Building environment monitoring
- Fire Detection

Product Components

Model	Component
UA60-PMVT	<ul style="list-style-type: none">• UA60-PMVT(1EA)• USB Extension Cable(1EA)• Calibration Certificate(1EA)

Optional Accessories

Type	Model Number	Spec.
Sensor data transmitter via Ethernet	RN171 WC	<ul style="list-style-type: none">• Supports cloud monitoring• Supports MODBUS TCP/ HTTP data transmission• Power: PoE 48V, IEEE802.3af/at, DC6V, 1.9W
Sensor data transmitter via WiFi	RN172 WC-D	<ul style="list-style-type: none">• Supports cloud monitoring• Supports MODBUS TCP/ HTTP data transmission• Power: DC12V, 5W