



Company: Small Data Garden  
 Product name: IOTSU® Rugged AQ09 Combo for LoRaWAN®  
 Product code: IOTSU®L7R AQ09  
 Rev: 1.0\_10<sup>th</sup>Jun 2022



## IOTSU® Rugged AQ09 Combo for LoRaWAN®

IOTSU® Rugged AQ09 Combo is a wireless indoor device designed for measuring and recording of changes in air quality in demanding environments. The air quality sensor elements inside the device are protected by a specialised filtration system that ensures the longevity of the device in dusty environments. IOTSU® Rugged AQ09 Combo can be used in harsh environments such as dusty work sites, machine shops and workshops, as well as parking halls where concentrations of particulate matter can be an issue.

The device can be mounted on any surface within the monitored space. Installation of this maintenance-free device is quick and easy. Transmission and measurement cycles can be adjusted according to the need.

IOTSU® Rugged AQ09 Combo uses the global LoRaWAN® network connection. There is no need for external power supply. Depending on transmission settings and environmental factors the battery of the device can last 5 years.



IOTSU® products shall not be used in any other way than their intended use defined by Small Data Garden. IOTSU® products are designed for LPWAN technologies collecting non-critical information. Small Data Garden will not be held liable for any damage which may result from inaccurate readings and delayed data transmission. For more information see SDG's General Terms and conditions for the supply of products and Legal Notices.

MEASURING AND RECORDING:	
	<ul style="list-style-type: none"> <li>Temperature, Humidity</li> </ul>
	<ul style="list-style-type: none"> <li>CO<sub>2</sub>, tVOC &amp; PM</li> </ul>
TECHNICAL SPECIFICATIONS:	
Dimensions	: 140 x 120 x 40 mm
Weight	: 512 g with battery
Sensors	: Particulate Matter, CO <sub>2</sub> , tVOC, Temperature, Humidity
Transmission cycle	: 1 h, adjustable
Measurement cycle	: Transmission cycle /2, adjustable
Connectivity	: LoRaWAN®
Battery	: 2 x Size D, 3.6 V, lifetime with default settings 5 years, replaceable
IP Class	: IP63
Operating Conditions	: -30 °C...+65 °C, The PM sensor does not take measurements if the temperature is < -10 °C or > 60 °C. The CO <sub>2</sub> sensor does not take measurements if the temperature is < 0 °C or > 50 °C
Typical Accuracy	: Temperature: ±0.2 °C Humidity: ±2 %, CO <sub>2</sub> : ±30 ppm ±3 % of reading, tVOC: ±15 %, PM2.5: ±10 µg/m <sup>3</sup> , PM10: ±25 µg/m <sup>3</sup>
Certifications	: CE
Mounting	: Screws, adhesive tape

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# Legal notices

The user right of Small Data Garden's firmware is limited to the version and specifications confirmed by Small Data Garden. Any unauthorised usage of device is prohibited and must be suspended by request of Small Data Garden. In addition, Small Data Garden is entitled to charge for unauthorised usage including administrative and solving cost.

Small Data Garden shall not be responsible for damages caused by the user connecting the Products and/or using the Products in any other way than their intended use nor for any damages caused by materials or product design defined by the Client or by the working or manufacturing processes the Client has determined.

IOTSU® products are designed for collecting non-critical information for optimising energy consumption in long term usage and the products are not intended to be used for life and security critical solutions. We rely on high-quality sensor, component and software suppliers and manufacturers and IT, LP-WAN and cloud service providers.

However, for the reason that accuracy and redundancy is depended among other things on operating circumstances, radiotechnology specifications and coverage, and because Small Data Garden relies on specifications provided by its suppliers, Small Data Garden will not be held liable for any damage which may result from inaccurate readings.

All information, including product design and specifications, in this document is subject to change without notice. Small Data Garden reserves all rights to revise or update information in this document without prior notice. Small Data Garden assumes no responsibility for any errors that may appear in this document.

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