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The AISSENS 100AW is a wireless sensor with "high sensitivity, high recording frequency, impact resistance, and long battery life." It features a 6kHz high-sensitivity sensor and an IP68 waterproof and dustproof design, allowing it to detect various rotating equipment of all sizes in harsh environments. This enables early detection of equipment anomalies. The sensor is equipped with a built-in 5400mAh battery, providing at least 2 years of operation and capable of uploading over 7,000 RAW data entries. Additionally, it supports remote monitoring through Wi-Fi and Bluetooth wireless transmission, improving efficiency and effectively reducing downtime risks.

The AISSENS 100AW is not only a standalone remote monitoring wireless sensor but also a customizable monitoring solution tailored to customer needs. It supports the MQTT communication protocol, allowing integration with ASUS AISPHM. Additionally, it seamlessly interfaces with Modbus and SCADA systems, meeting diverse requirements for diagnosing equipment health and monitoring.



### Smart Fault Prediction to Monitor Equipment Health Status

Designed specifically for rotating equipment, it can detect vibration and temperature, record waveform data, and perform data analysis. Additionally, the system allows remote monitoring of equipment health status through a computer or mobile phone, effectively predicting wear or potential failures, and enabling real-time status monitoring.



## 6KHz High Sensitivity for Early Detection of Anomalies

With a 6kHz high sensitivity detection range, it can effectively predict early equipment failures, enabling proactive maintenance. This helps prevent issues such as imbalance, misalignment, or loosening of equipment shafts and gears from occurring later on.



## IP68 Waterproof and Dustproof, Suitable for Harsh Environments

Whether in high dust, humid, or water-prone environments, the sensor operates stably, ensuring efficient performance even in harsh conditions. It serves as a continuous, reliable pillar of protection for your detection needs.



## 2-Year Battery Life for Continuous Long-Term Monitoring

Equipped with a built-in 5400mAh large-capacity battery, the sensor eliminates the need for frequent battery replacements. This allows for continuous, precise vibration and temperature monitoring without power interruption, ensuring stable operation of the equipment.



#### 7,000 Uploads to Report Equipment Data

Whether it's vibration or temperature, you can have full control. It helps continuously monitor equipment performance, predict potential issues, and make maintenance decisions more precise and effective.



## **MQTT Protocol for Customized Integration**

Through the integration of ASUS IoT hardware, software, and algorithms, the system supports both wired and wireless connectivity for sensor integration. It can further connect with customer platforms via MQTT or RESTful API for seamless integration.



### **Integrated with the AISPHM Smart Maintenance Solution**

The AISSENS 100AW can not only be used independently but also integrates with AISPHM (Predictive Health Management Platform) to create an intelligent equipment monitoring and predictive maintenance solution. Through real-time data collection and AI-driven deep analysis, it can accurately predict the health status of equipment, detect potential issues early, and prevent failures from occurring.

ASUS IOT PHM Software Platform	Dashboard Last	Updated: 10/30 12:45 😋				0
Overall Information	Number of abnormal equipment	Number of pending events	Abnormal equipm		ong 7F	umber of ending events
은 Dashboard 관 Sensor Time Log	35	12	6	5 20 15	n 1	12 /25
	Last year event rankin LiGong 10F Water Purif LiGong 10F Water Purif LiGong 10F Ice Mathin LiGong 8F Water Heat	g by equipment fiers Asus01 Motor 57 fiers Asus06 Motor 24 es Asus21 Motor 19 ters Asus17 Motor 6	7			
	Pending Event Li	i <b>st</b> Equipment Name 🗸	Component Name 🗸	Sensor Position $\lor$	Location $\lor$	Time 🗸
🔗 Account Management 🗸	Parallel Misalignment	Water Purifiers9-1	Motor A1	Inboard	LiDe 9F	10/30 12:45
Notification	Unbalance	Water Purifiers9-1	Motor A1	Inboard	LiDe 9F	10/30 11:45
🍥 Settings 🗸 🤟	Unbalance	Water Purifiers9-1	Motor A1	Inboard	LIDe 9F	10/30 10:45
		AIS	рнм			

AISPHM

## **Diverse Application Scenarios**

Applicable to industries such as semiconductor, manufacturing, heavy industry, maritime, railway transportation, energy, and more. The entire product line is designed to meet the specific needs of various applications.



Semiconductor Industry



**Manufacturing Industry** 



Heavy Industry



**Maritime Industry** 



**Railway Transportation Industry** 



**Energy Industry** 

#### **Parameter Information**

- 6kHz High Sensitivity for Precise Early Anomaly Detection.
- Dual Wi-Fi/BLE Channels to Ensure Easy Setup and Deployment.
- Comprehensive Support for PC and Mobile Applications, Providing a User-Friendly Operating Experience.
- Supports MQTT Open Protocol, Accelerating Customized Development.
- Certified with IP68, offering the highest protection level and strong impact resistance.



# **AISSENS 100AW**

# Specifications

	Three-axis	X-Y-Z
	Frequency Range	DC~6000Hz
Three-axis Accelerometer	Amplitude Range	±8g
	Recording Mode	RAW Data, OA, FFT
	Data Output Rate	26667Hz
Temperature Sensor	Range	-20°C ~ 80°C
Wireless	Architecture	Wi-Fi 2.4GHz, 802.11b/g/n + BT4.2 (+BLE)
	Transmission Power	Up to 20 dBm @ 11b; 14 dBm @ 11g/n
Configuration	Interface	BT

Instruction	LED	Power, Tx, Rx	
Waterproof and Dustproof	Protection Rating	IP68	
	Power Input	3.6V 5400mAh	
Power Supply	Battery Life	2 years (sampling raw data for 5 seconds every 3 hours)	
	Installation	Stud Mount, Mounting Pad with Adhesive, Magnetic Base	
Mechanism	Dimensions	Height: 73 mm (body) / 80.75 mm (with magnetic mount) Maximum Diameter: φ47.3 mm	
	Weight	Approximately 250 g	
	Operating Temperature	-20°C to 80°C (battery-powered)	
Environment	Storage Temperature	-20°C to 85°C (without battery)	
	Relative Humidity	10 to 95% (non condensing)	
	EMC	NCC(TW), SRRC(CN)	

## size

100AW	Magnetic Base	Mounting Pad
ASSESS 47.3mm 1/4"-28UNF	10.25mm 0 0 0 0 0 0 0 0 0 0 0 0	9.8mm 9.8mm 1/4"-28UNF 1/4"-28UNF 27mm