

# Battery Monitoring Host | OM-BOD-A100D



The OM-BOD-A100D is a Cortex-A7 based battery monitoring host with industrial-grade design, operating at -40~70°C with a 10-year lifespan. It features 1 Ethernet port, 1 RS485, and 2 SNS buses with 4 RJ45 ports, supporting up to 128 battery cells across 4 groups. The host integrates with battery acquisition modules, voltage transmitters, Hall sensors, and temperature sensors for complete monitoring. Powered by DC 9~27V, it offers DIN rail or positioning hole mounting for flexible deployment.

## Key Features

Battery Monitoring	Provides online battery monitoring; works with Hall sensors, DC voltage transmitters, temperature sensors, and cell acquisition modules
Remote Management	Built-in web service for remote configuration and online monitoring
Fault Protection	Automatically disconnects faulty battery modules to prevent over-discharge
Northbound Protocols	Supports Modbus TCP, Modbus RTU, and SNMP for easy integration with DCIM and environment monitoring systems
Loop Communication	Each SNS bus features dual RJ45 ports supporting loop communication for uninterrupted monitoring
Auto-Addressing	Automatic addressing for connected sensors and modules, eliminating manual configuration
Port Protection	All ports protected against overvoltage, overcurrent, surges, reverse connection, and miswiring
Additional Features	Supports fast temperature/humidity response; firmware upgrade via RS485

## Specifications

### System Specifications

Processor	Cortex-A7
Operating System	Embedded Linux
Memory	512 MB

Storage	8 GB eMMC
---------	-----------

### Communication Interfaces

Upstream Interfaces	1 x LAN, 1 x RS485
Downstream Interfaces	2 x SNS buses, total 4 x RJ45 ports 1 x Phoenix terminal, 115200 bps, 30V/200mA protection
Debug Interface	
USB Interface	1 x USB 2.0

### Network (LAN)

Connector Type	RJ45 (T568B)
Ethernet	1 x 10/100M adaptive
Transmission Distance	100 meters
Protection Method	PPTC

### RS485 Port

Connector Type	Phoenix terminal
Transmission Distance	1200 meters
Overvoltage/Overcurrent Protection	30V / 200mA
Surge Protection	600W
Protection Method	PPTC + TVS

### SNS Bus

Connector Type	RJ45 (T568B)
Baud Rate	4800 bps
Transmission Distance	40 meters
Overvoltage/Overcurrent Protection	30V / 200mA
Surge Protection	600W
Protection Method	PPTC + TVS

### Power Supply

Power Input	DC 12 ~ 14V 108 mA @ 12V DC (excluding sub-device power supply)
Power Consumption	
Connector Type	Phoenix terminal
Protection Method	PPTC + TVS
Surge Protection	1500W

### Operating Environment

Operating Temperature	-40°C to 70°C
Operating Humidity	5% ~ 95% RH (non-condensing)

### Mechanical Specifications

Color	Black
Indicators	Power, status, port data Tx/Rx, alarm
Mounting Method	DIN rail, positioning hole mounting 106.2 × 76.2 × 31 mm (±1 mm, excluding terminals and brackets)
Dimensions (W×D×H)	