MiBatteryPro

Smart Battery Monitoring for Enhanced Device Management

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MiTAC Enterprise Utilities

	MiDM	MiLock	MiBatteryPro
Type	Mobile Device Management (MiDM)	Kiosk Launcher App	Battery Monitoring Utility
Plan	Per-device license (1Y / 3Y)	Free, complimentary	Free / Paid License
Remote / Local	Remote cloud console	Local [1]	Local / Remote
Minimum OS	AOS 6.0.1 or above	AOS 9.0 or above	AOS 13.0 or above [2]
Features	Remote app/firmware/files install (OTA) Remote settings configurations App & URL blacklisting Location tracking Remote device control Data usage monitoring Battery health monitoring [2] Restrict UI / Settings access And more	Single/multi app mode App blacklisting Restrict UI / Settings access Custom home screen MiLock configurations can be remotely deployed through MiDM (requires license)	Battery health monitoring Local on-device info and alerts Historical battery data Data reporting is integrated into MiDM (requires Std + BatteryPro license)

[1] Peer-to-peer via local WiFi / manual
[2] Supported on selected models only. Requires AOS 13+

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MiBatteryPro™

MiDM

MiDM Console

MiDM Client App

MiLock

MiLock App

MiBatteryPro

MiDM Console

BatteryPro Data

MiBatteryPro App

MiDM Client App

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MiBatteryPro™

MiBatteryPro™

Intelligent, Real-Time & Proactive Battery Health Monitoring Solution

MiBatteryPro collects real-time data on both **electrical and physical** performance of the **battery pack** and provides an accurate overall **battery health** assessment, so you can continue to use your batteries and devices with confidence.

- Access to ***real-time battery health*** data enhances mobile workers' confidence in device performance.
- ***Proactive battery management*** minimizes downtime costs, maximizing operational efficiency.

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Advanced Power Management Solution

Intelligent, comprehensive battery management system tailored to your business needs

On-device Battery Intelligence

Ground-Up, All-Encompassing Design

Battery Data APIs for Integration

Real-Time Cloud Battery Management

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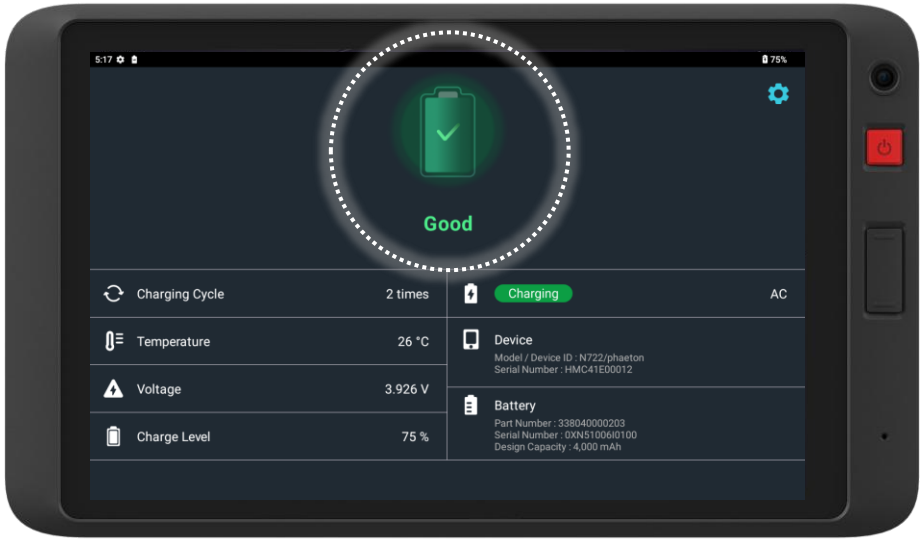
On-device Battery Intelligence

MiBatteryPro dashboard allows users to view live **battery health** information, providing mobile workers and backroom managers with instant insight to **crucial battery parameters.**



Battery Aging Prediction

Monitors battery health metrics to predict lifespan and potential replacement needs.

State of Health (SOH)

Charging Cycle

Deviations From Battery Design Parameters

Monitors for (physical) battery irregularities to ensure device safety

Deviation Occurrences

Duration of Occurrence

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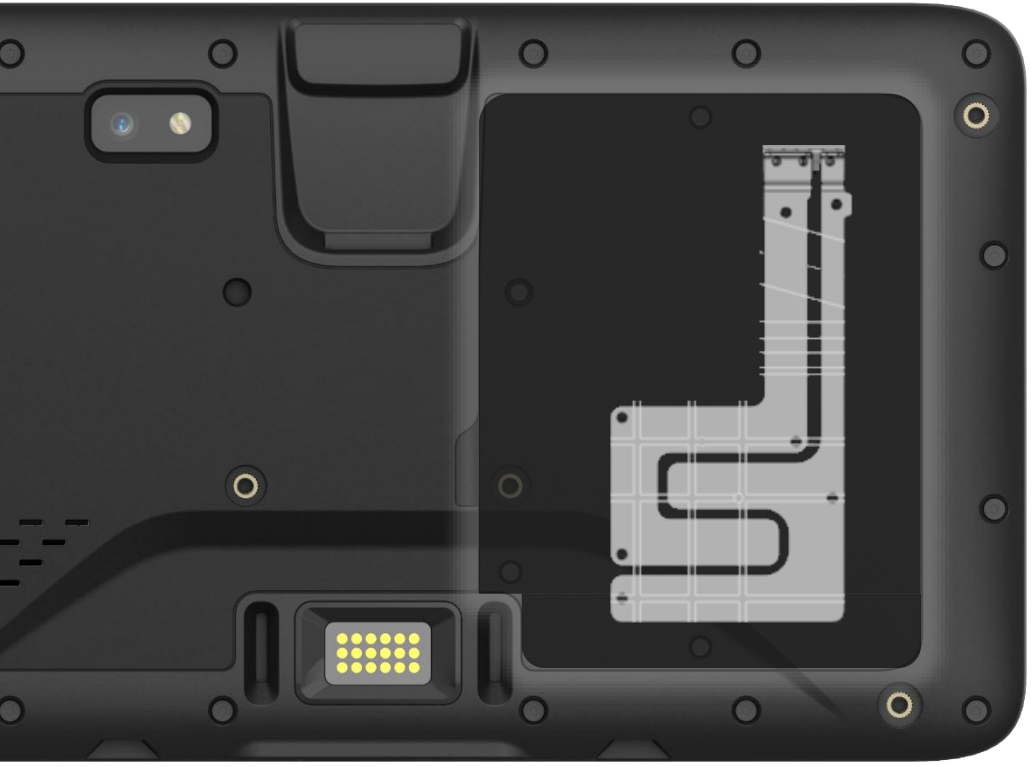
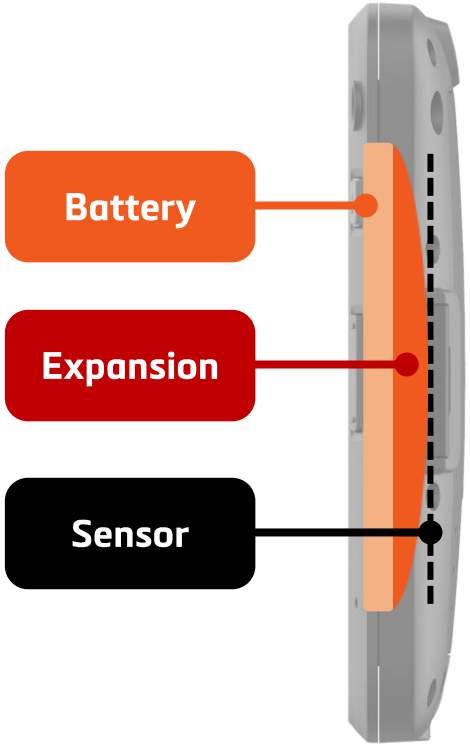
Battery expansion is a known characteristic of Li-ion battery technology and is typically well within design tolerances. In rare cases, physical changes may exceed expected limits and impact device performance. Therefore, we use a combination of **physical detection** via sensors on the battery cover and intelligent software analysis. This enables fleet managers from proactively replacing problematic batteries.





If the battery expands beyond its design tolerance, it comes into contacts with a metal plate, triggering a monitoring sensor. This sensor **immediately notifies both the local user and the remote fleet administrator via MiDM**.

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Battery Health Monitoring

Battery condition is categorized into 3 types:

Good

Device's battery is in good working condition

No action is needed

Average

Device's battery is starting to exhibit signs of aging

Conditions based upon:

- State of Health (SOH) **< 80%**
- Charging Cycle **> 500 times**

Service Soon

Device's battery needs servicing or replacement

Immediate action is required

Conditions based upon:

- Deviation from normal battery parameters **≥ 3 times**
- Duration of deviation **> 2hrs**

Battery Asset Information

Clear battery data allows service and support staff to swiftly access backend systems and provide the necessary assistance.

- **Battery Part Number**
- **Battery Serial Number**
- **Device Serial Number**
- **Model / Device ID**
- **Designed Capacity**

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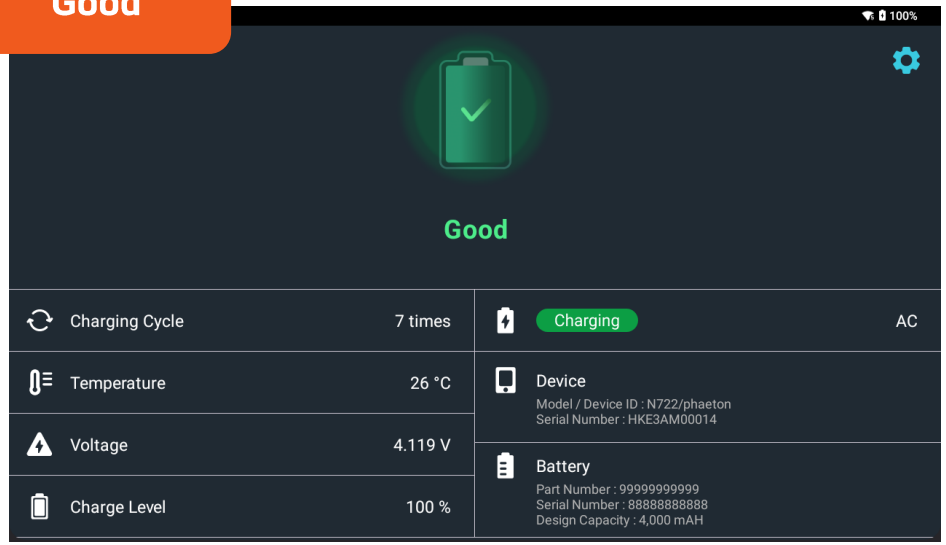
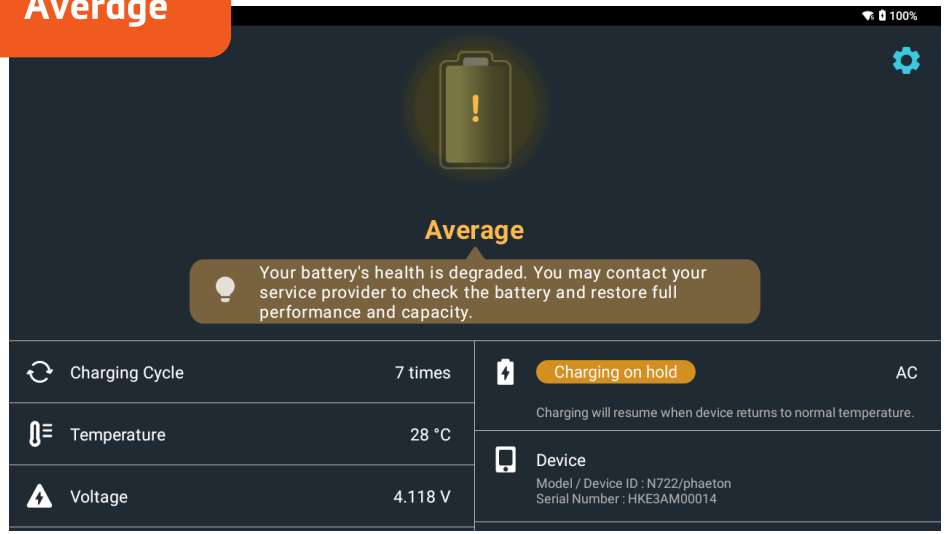
Good

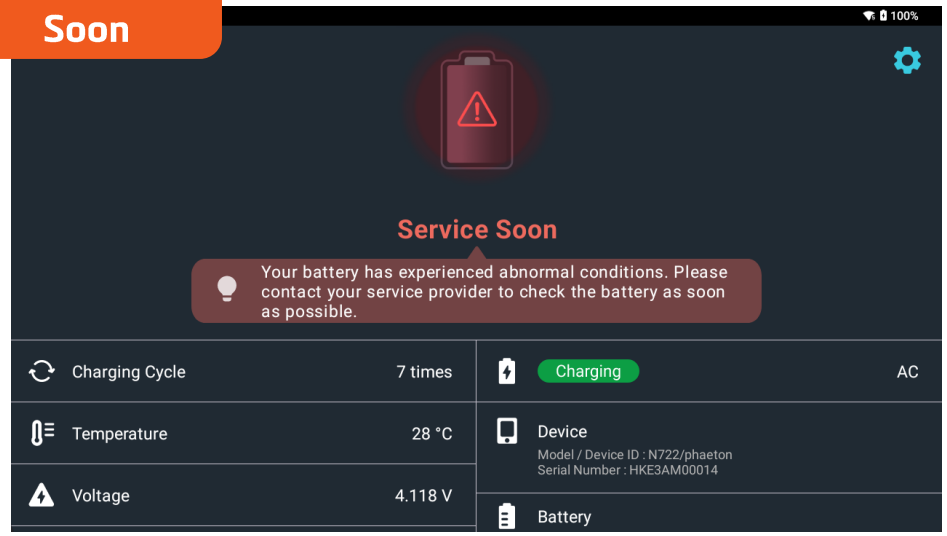


Average

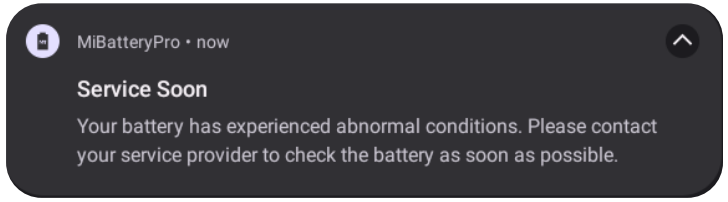


"Average" Notification in MiBatteryPro App Only

Service Soon



"Service Soon" Warning in MiBatteryPro App



"Service Soon" Warning in Notification Panel

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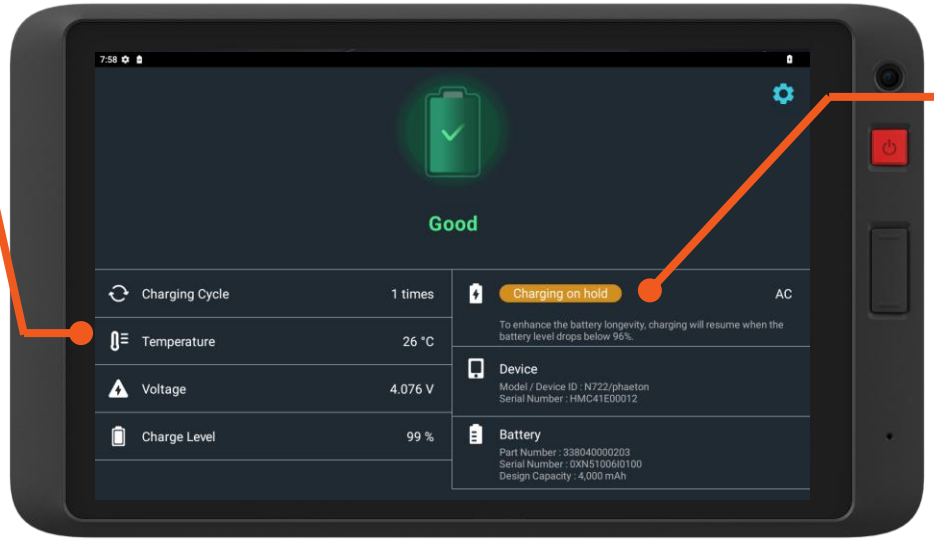
Real-Time Power Insights

With the insights, users and administrators can identify potential issues early on and take preventive measures.

- **Current Temperature**
- **Current Voltage**
- **Charge Level**
- **Charging Status**



Smart Charging Management

When a battery reports abnormal conditions, charging is automatically paused to safeguard the battery, resuming once it returns to normal conditions.

Along with the accompanying information, this enhances user awareness of the charging status and contributes to extending the lifespan of the battery.

- **Battery Expansion**
- **Operating Tempera-ture**
- **Optimized Battery Charging**

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MiBatteryPro™

Ground-Up, All-Encompassing Design

Our batteries are meticulously crafted to exceed stringent standards, particularly tailored for demanding environments to deliver unparalleled performance and unwavering reliability.

High Quality Battery Cell

Serviceability: Secured but Removable

Enhanced Temperature Durability

Tested and Certified by Global Standards

Over Charge/Discharge Protection

High Energy Density, Light Weight

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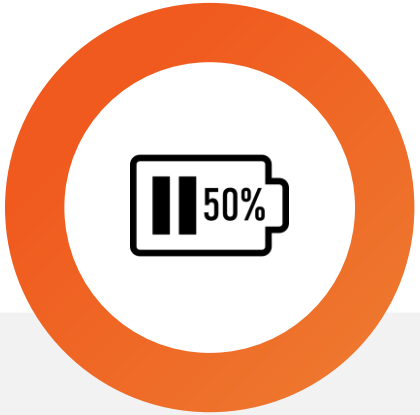
Maximize Battery Life, Power the Future of Productivity

Battery Storage Mode

Long storage periods without charging can take a toll on your battery. Battery Storage Mode helps maintain optimal battery capacity for whenever you pick your device back up.

Smart Power Mode

Smart power mode allows you to bypass the battery entirely, powering the device directly through a constant connection, which is perfect for fixed installation.



Battery Protection Mode

Once activated, Battery Protection Mode gently halts the charging process when your battery reaches 50% to prevent the constant strain of full charges.

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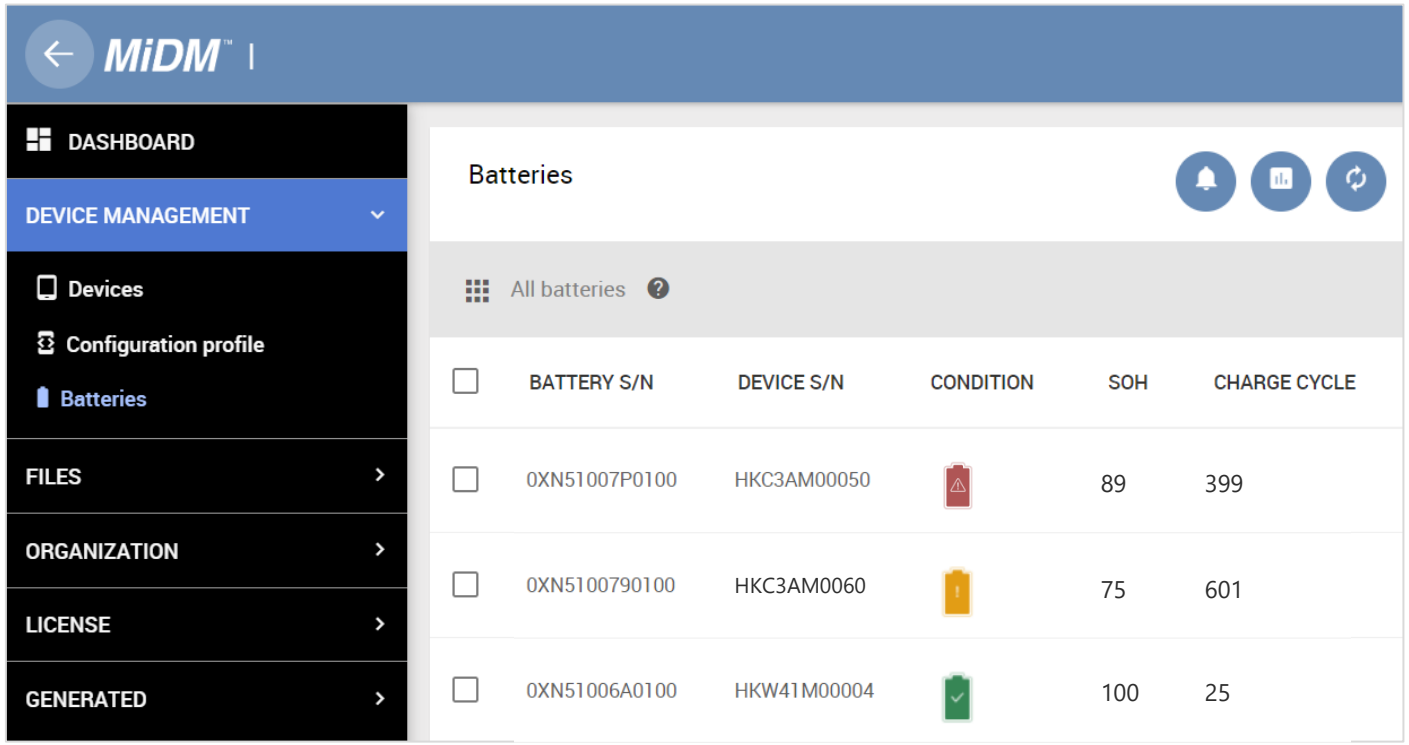
Real-Time Cloud Battery Management

The integration of **MiBatteryPro with MiDM** streamlines access to battery health metrics alongside device data, facilitating a comprehensive evaluation of device health's impact on mobile worker productivity.

+ MiDM™



- **Remote Battery Monitoring**
- **Cloud All-in-one Console**
- **Historical Data & Insights**
- **Proactive Notification & Report**

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All devices

DEVICE S/N	GROUP	LICENSE	BATTERY	DEVICE ID	BUILD NUMBER	IMEI	BUILD DATE	ENABLED
HM941M00002	Team A	1Y		phaeton	SR16.0.7220.1.3.20240226	862064060023465	Feb 26, 2024 12:57:58 AM	
HKW41M00004	Team A	1Y		phaeton	SR16.0.7220.1.3.20240226	358101610001087	Feb 26, 2024 12:57:58 AM	
HKC3AM00050	Team A	1Y		phaeton	SR16.0.7220.1.3.20240226	862064060023507	Feb 26, 2024 12:57:58 AM	
HKC3AM00024	Team A	45D		phaeton	SR16.0.7220.1.3.20240226	862064060022863	Feb 26, 2024 12:57:58 AM	
HKC3AM0028	Team A	1Y		phaeton	SR16.0.7220.1.3.20240226	862064060023242	Feb 26, 2024 12:57:58 AM	

Clear lists of devices and batteries allows back-end administrators to conveniently manage the status of devices and batteries

Device List

All batteries

BATTERY S/N	DEVICE S/N	MODEL	DEVICE ID	CONDITION	SOH	CHARGE CYCLE	PART NUMBER	STATUS	LAST UPDATED
0XN510070080	HKC3AM00024	N722	phaeton		100	168	338040000203	enrolled	2024-03-13 10:08
0XN510070060	HKC3AM0060	N722	phaeton		100	123	338040000203	enrolled	2024-02-27 08:46
0XN51007P0100	HKC3AM00050	N722	phaeton		100	300	338040000203	enrolled	2024-03-20 00:02
0XN5100790100	HKC3AM0030	N722	phaeton		78	510	338040000203	enrolled	2024-03-13 17:18
0XN4500NC0100	HKC3AM0028	N722	phaeton		80	430	338040000203	enrolled	2024-03-20 09:22

Battery List

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Device > HKC3AM00050

GENERAL | REMOTE CONTROL | APPS | FILES | LOCATION | BATTERY | LOGS

Charging Status

Battery Health

Battery Information

Historical Data

Categories

Historical Data

Charging Information

- Temperature: 12 °C
- Voltage: 3.813 V
- Charge Level: 54 %
- Charge Status: discharging
- Power Source: battery

Battery Health

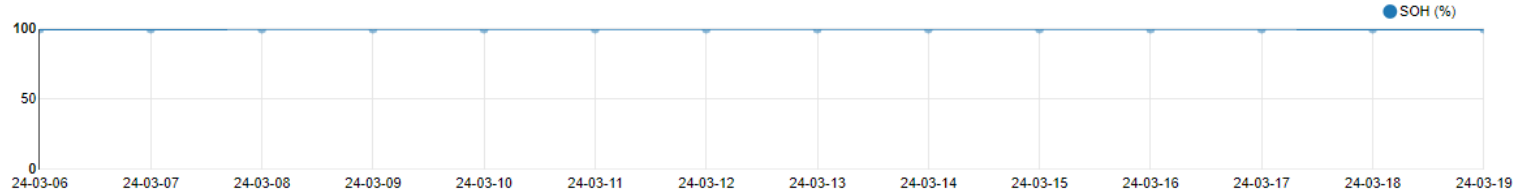
- Battery Condition: Good
- State of Health (SOH): 100 %
- Charge Cycle: 9
- Historical Max Temperature: 61 °C
- Historical Min Temperature: -9 °C
- Historical Max Voltage: 4.267 V
- Historical Min Voltage: 3.096 V

Basic Information

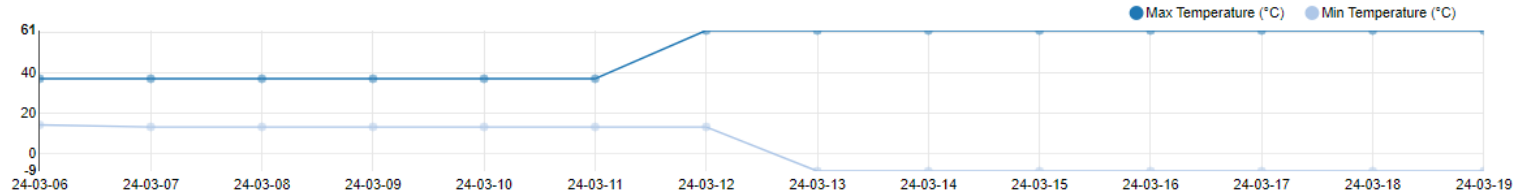
- Battery Part Number: 338040000203
- Battery Serial Number: 0XN51007P0100
- Design Capacity: 4000 mAh
- Device Model: N722
- Device ID: phaeton
- Status: enrolled
- Last Updated: 2024-03-20 09:45:36

From: Dec 20, 2023 To: Mar 20, 2024

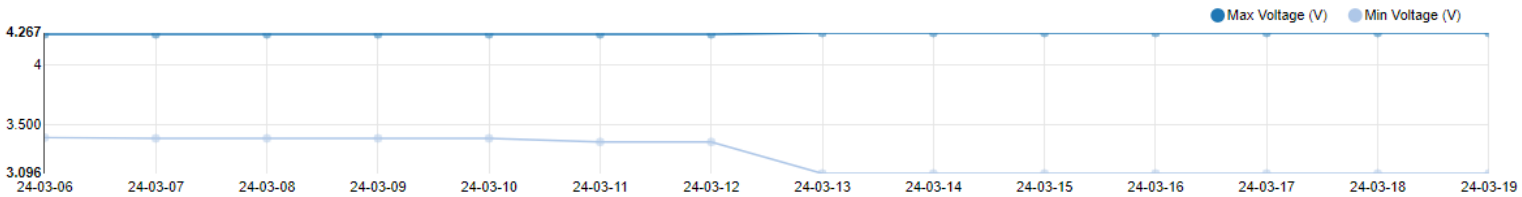
State of Health (SOH)



Historical Max./Min. Temperature



Historical Max./Min. Voltage



Provide real-time visibility into meaningful battery statistics to determine when it should be replaced

Battery Data APIs for Integration

By leveraging **MiBatteryPro APIs**, you can seamlessly integrate battery performance and health data into your existing management software or create your own solution.

Basic Battery Data
Battery Part Number
Battery Serial Number
Manufacture Date
Design Capacity
Model / Device ID
Device Serial Number

Charging/Temperature Data
Charge Level
Charging Status
Power Source
Full Charge Capacity
Current Temperature
Current Voltage
Historical Min./Max. Temperature
Historical Min./Max. Voltage

Battery Health Data
Battery Expansion Occurrences
Battery Expansion Duration
State of Health (SOH)
Charge Cycle

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MiBatteryPro Product Portfolio

	MiBatteryPro APIs	MiBatteryPro	MiDM + BatteryPro
Product Type	APIs	Standalone App	Cloud Platform
Pricing	Free	Free	Sold Separately as a MiDM add-on
Software Required	Tablet: MiTAC APIs	Tablet: MiBatteryPro App	Tablet: MiDM Client App + MiBatteryPro App
Key Features	● Pre-installed on MioWORK Tablet ● Provides data from onboard Battery IC + expansion sensor data for customers to integrate with their own MDM or App	● Pre-installed on MioWORK Tablet ● Auto detects the battery status and notifies on the tablet when the battery needs repair	● Gain real-time insights into the battery status through MiDM ● Administrators can receive instant notifications via Console / Email
Battery Health Monitoring	O	O	O
Battery Expansion Detection	O	O	O
Battery Information	O	O (Current)	O (Current & Historical)
Charging Status	O	O	O
Service Soon Notifications	-	O (On tablet)	O (Cloud, Email)
Dashboard & Console	-	-	O
Device + Battery Reports	-	-	O

* MiBatteryPro currently supports the following devices: 8” F840 tablet (Android 13+).

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MiBatteryPro™

MiDM + BatteryPro Hosting & Licensing

SaaS CLOUD HOST (AWS)

Licensing

- 1 Year (per device)
- 3 Year (per device)

Description

The most appropriate and economical plug-and-play option for most users.[1]

Our MiDM server is hosted on AWS for excellent reliability, maximum uptime and is easily scalable as your projects grow.

LOCAL PRIVATE HOST

Licensing

- Time-based unlimited device qty (1Y/3Y)
- Device-based (1Y/3Y)

Description

Most suitable for those organisations that have the IT infrastructure to support it.[2]

Suitable for large scale projects where device management must be hosted locally and privately. For example in Healthcare or Governmental organisations.

70,000+
Active Subscriptions

MiDM + BatteryPro

45-day
Evaluation Free Trial

[1] A one-time setup fee applies for both cloud-hosted and private host solutions
[2] Project-based and subject to commercial discussion. - Customer will be responsible for maintaining their server in-house.

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Thank You

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Mio™

Appendix – Li-Ion Battery Care Tips

Storage & Maintenance

- Default shipping mode minimizes battery drain during transport or storage.
- Store batteries between 50% and 70% charge in a cool, dry place.
- Keep batteries away from extreme temperatures and direct sunlight.
- Set up a schedule every 3 to 6 months to recharge to batteries during its storage life.

Factors Affecting Battery Lifespan

- Battery lifespan is influenced by usage, environment, charge levels, and demands.
- Performance degradation may increase over time due to regular charging and discharging.
- Li-Ion batteries typically last 300 to 500 charge cycles or until capacity drops to 70-80%.
- Temperature, age, and usage patterns affect the actual lifespan of the battery.

Usage & Discharge

- Prolonged usage affects device performance.
- Use only the charger supplied with your device. Use of another type of charger will result in malfunction and/or danger.
- Avoid discharging batteries below 5% to prevent capacity loss from self-discharge.
- Follow manufacturer recommendations for optimal battery usage and maintenance.

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