



Smart AC Controller

UC701

Payload Protocol (JSON)

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Chapter 1. Preface

Overview

This guide describes the uplink data packet and downlink commands (JSON format) supported by the device when using the [codec](#) provided by Milesight. It is intended for most users to integrate with third-party platforms.

This document does not describe physical installation and configuration steps in detail. Please use it together with the related documents.

Related Document

Document	Description
UC701 User Guide	Provides introductions, compatibility check, installation and configuration steps.
UC701 BACnet Object List	Lists the BACnet objects exposed through a Milesight gateway with the BACnet feature enabled.
UC701 Payload Protocol (HEX)	Provides the raw HEX payload format for uplink data and downlink commands.

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Revision History

Release Date	Version	Revision Content
Sept. 30, 2026	V1.0	Initial version.

Chapter 2. Uplink Data

This chapter describes the uplink packets reported by the device.

Basic Information Packet

After joining the network, the device reports a packet containing the basic device information, totaling four reports. Example:

```
{
  "all_configurations_request_by_device": 1,
  "device_status": 1, //1=On
  "lorawan_configuration_settings": {
    "mode": 2 //1=Class B, 2=Class C
  },
  "oem_id": "0000",
  "product_sn": "6556071d88020003",
  "tsl_version": "v1.0",
  "version": {
    "firmware_version": "v1.1",
    "hardware_version": "v1.2"
  }
}
```

Periodic Data Packet

The device reports a data packet at a configured reporting interval. Example:

```
{
  "celsius_internal_temp": 27.74,
  "fahrenheit_internal_temp": 81.93,
  "humidity": 51.1,
  "infrared_cmd_status": {
    "celsius_target_temp": 28,
    "cmd": {
      "air_volume": 0, //0=Auto, 3=Low, 4=Medium, 5=High
      "cmd_type": 0,
      "control_word": {
        "command_available": 1,
        "command_valid": 1,

```

```

    "reserve": 0
  },
  "mode": 2, //0=Heat, 2=Cool, 3=Auto, 4=Dehumidification, 5=Ventilation
  "switch": 1 //0=Off, 1=On
},
"fahrenheit_target_temp": 82.4
},
"running_state": {
  "data_source": 0, //0=IR Command, 1=CT
  "infrared_cmd": {
    "switch_state": 1 //0=Off, 1=On
  }
}
}

```

Alarm Packet

The device reports the following types of alarm packets.

1. Low battery alarm example

```

{
  "battery": 1,
  "low_battery_alarm": {
    "value": 1
  }
}

```

2. Temperature alarm example

```

{
  "temperature_alarm": {
    "over_range_alarm_trigger": {
      "celsius_temperature": 20.15,
      "fahrenheit_temperature": 68.27,
      "source": 0 //0=Internal, 2=External
    },
    "type": 32
  }
}

```

3. Filter cleaning alarm example

```
{
  "filter_clean_remind": {
    "usage_time": 3600 //Unit: min
  }
}
```

4. Temp limit alarm example

```
{
  "cmd_temp_limit": {
    "lower_range_alarm_trigger": {
      "celsius_high_threshold": 25.15,
      "celsius_low_threshold": 10.15,
      "fahrenheit_high_threshold": 77.27,
      "fahrenheit_low_threshold": 50.27,
      "celsius_ambient_temp": 20.15,
      "fahrenheit_ambient_temp": 68.27,
      "source": 0 //0=Internal, 2=External
    },
    "type": 0 //0=Below alarm, 1=Above alarm
  }
}
```

Status Change Packet

The device reports a packet when a parameter or status is changed.

1. Configuration Change Report

A configuration change report is sent when air conditioner on/off status, target temperature, temperature control mode or fan mode changes. The change report format is the same as the periodic data report and not includes the temperature and humidity data.

2. Battery Level Report.

A battery level report is sent when the controller is connected to the battery compartment and the battery level changes.

```
{
  "battery": 50
}
```

3. Bluetooth Status Packet.

A Bluetooth status packet will be reported once after the device joins the network or when Bluetooth pairing status changes. Example:

```
{
  "ble_new_event": [
    {
      "index": 0,
      "status": 2, //0=not pair, 1=paired, 2=disconnected
      "mac": "24e124826068b876"
    }
  ]
}
```

Thermostat Data Packet

When UC701 controller is paired with or connected to the wireless thermostat (WT401) and the communication mode of the thermostat does not include LoRa, the thermostat status will be reported via UC701 controller. The thermostat supports transfer these information:

- Battery Level: transfer when the thermostat turns on or the battery level changes;
- Battery Alarm: transfer when a low battery alarm is triggered or cleared;
- Button Event Report: transfer when the corresponding button is pressed;
- Device Status: transfer when the thermostat turns off.

Example:

```
{
  "data_transparent": {
    "res_cmd": 0,
    "res_cmd1": {
      "command": 0, //0=battery level, 15=battery alarm, 13=button event report, 200=device status
      "battery": 98
    }
  }
}
```

```
}
}
```

Historical Data Report

When data retransmission is triggered, the device will report a historical report at data retransmission interval.

Example:

```
{
  "history": [
    {
      "humidity": 51.1,
      "infrared_cmd_status": {
        "cmd": {
          "air_volume": 0,
          "cmd_type": 0,
          "control_word": {
            "command_available": 1,
            "command_valid": 1,
            "reserve": 0
          },
        },
        "mode": 2,
        "switch": 1
      },
      "target_temp": 28
    },
    "internal_temp": 27.74,
    "running_state": {
      "data_source": 0,
      "infrared_cmd": {
        "switch_state": 1
      }
    },
    "timestamp": 1788950657 //Unit: s
  ]
}
```

Chapter 3. Downlink Commands

Downlink commands can be used for remote control of the device through a network server.



Note:

The examples in this guide are JSON-like examples with inline comments for explanation. Remove all comments before sending commands if strict JSON format is required.

Downlink Commands for Network Parameters

This section describes the downlink commands for network settings.

Configure Communication Parameters

Name	Example
reporting_interval	Set the reporting interval as 15 minutes. <pre>{ "reporting_interval": { "ble_lora": { "unit": 1, "minutes_of_time": 15 //Unit: min, range: 1-1440, default: 10 } } }</pre>
ble_server	Reset the Bluetooth name. <pre>{ "ble_server": { "type": 0 //0: Reset BLE Name, 1: Cancel Pairing } }</pre> Cancel the Bluetooth pairing. <pre>{ "ble_server": { "type": 1 //0: Reset BLE Name, 1: Cancel Pairing } }</pre>

Name	Example
	<pre> } } </pre>
ble_adv_time_settings	Disable Bluetooth advertising, and set the Bluetooth advertising duration as 10 minutes.. <pre> { "ble_adv_time_settings": { "enable": 0 //0: Disable, 1: Enable (default) "duration": 10 //Unit: min, range: 1-10, default: 1 } } </pre>
ble_configuration_settings	Bluetooth name is schoolroom: <pre> { "ble_configuration_settings": { "local_name_first": "schoolro", //Max 8 characters "local_name_last": "om" //Max 5 characters } } </pre>

Rejoin the Network

Name	Example
reconnect	Rejoin the network. <pre> { "reconnect": "yes" } </pre>

Configure D2D Parameters

Name	Example
d2d_slave_enable	Enable the D2D agent.

Name	Example
	<pre>{ "d2d_slave_enable": 1 //0: disable (default), 1: enable }</pre>
d2d_slave_settings	Enable rule 1. The control command is 0011 and the control action is inserting schedule 1. <pre>{ "d2d_slave_settings": [{ "index": 0, //Rule ID, range: 0-15 "enable": 1, //0: disable, 1: enable "command": "0011", //Hex control command "value": 0 //0-15: Schedule 1-16, 16: System Off, 17: System On, 18: System Inverse }] }</pre>

Downlink Commands for Air Conditioner Control Parameters

This section describes the downlink commands for air conditioner control related parameters.

IR Code Learning

Name	Example
trigger_infrared_learn	Activate the IR learning mode. <pre>{ "trigger_infrared_learn": "yes" }</pre>
infrared_learn.predefine_brand	Set the preset mode as M96b (TCL/XIAOMI). <pre>{ "infrared_learn": { "predefine_brand": 1 //1: XIAOMI/TCL, 2: SHINCO/SAMSUNG/ELECTROLUX, 3: RSD/MCQUAY/TICA, 4: FUJITSU/McQUAY, 5: TRUMA } }</pre>

Name	Example
	<pre> } } </pre>
infrared_format_code_divide	Write the IR code. <pre> { "infrared_format_code_divide": [{ "index": 0, "format_code": "000006015304100400" //9 bytes }, { "index": 1, "format_code": "000000000400044410" //9 bytes }, { "index": 2, "format_code": "044000800000000000" //9 bytes }, ...] } </pre>
clear_infrared_format_code	Clear the IR code. <pre> { "clear_infrared_format_code": "yes" } </pre>

Configure Air Conditioner System Parameters

Name	Example
system_switch	Turn the AC on. <pre> { "system_switch": 1 //0: Off (default), 1: On } </pre>

Name	Example
temperature_control_mode_enable	Enable Auto and Heat mode. <pre>{ "temperature_control_mode_enable": { //0: disable, 1: enable "heat": 1, "em_heat": 0, //reserved "cool": 0, "auto": 1, "dehumidify": 0, "ventilate": 0 } }</pre>
temperature_control_mode_ctrl_mode	Set the temperature control mode as Cool. <pre>{ "temperature_control_mode": { "ctrl_mode": 2 //0: Heat, 2: Cool, 3: Auto, 4: Dehumidification, 5: Ventilation } }</pre>
target_temperature_settings	Set the target temperature as 20 °C in Cool mode. <pre>{ "target_temperature_settings": { "cool": 20 //Unit: °C, range: 16-30 } }</pre> Set the target temperature as 20 °C in Heat mode. <pre>{ "target_temperature_settings": { "heat": 20 //Unit: °C, range: 16-30 } }</pre>
target_temperature_tolerance	Set the target temperature tolerance as 5 °C. <pre>{ "target_temperature_tolerance": {</pre>

Name	Example
	<pre>"target_value": 5 //Unit: °C, range: 0.1-5, default: 1 } }</pre>
fan_settings .fan_mode	Set the fan mode as Auto. <pre>{ "fan_settings": { "fan_mode": 0 //0: Auto (default), 3: Low, 4: Medium, 5: High } }</pre>

Configure Open Window Detection

Name	Example
	Enable open window detection. <pre>{ "window_opening_detection_settings": { "enable": 1 //0: Disable (default), 1: Enable } }</pre>
window_opening_detection_settings	Set the temperature change as 10 °C/min. <pre>{ "window_opening_detection_settings": { "difference_in_temperature": 10 //Unit: °C/min, range: 1-10, default: 3 } }</pre>
	Set the stop temperature time as 360 minutes. <pre>{ "window_opening_detection_settings": { "stop_time": 360 //Unit: min, range: 1-1440, default: 30 } }</pre>
	Trigger the open window alarm.

Name	Example
open_window_alarm	<pre>{ "open_window_alarm": { "mode": 1 //0: Release, 1: Alarm } }</pre>

Configure Filter Cleaning Alarm

Name	Example
filter_clean_settings	Enable the filter cleaning alarm. <pre>{ "filter_clean_settings": { "enable": 1 //0: Disable (default), 1: Enable } }</pre>
	Set the reminder interval as 1 day. <pre>{ "filter_clean_settings": { "reminder_period": 1 //Unit: day, range: 1-730, default: 90 } }</pre>
filter_clean_alarm	Trigger the filter cleaning alarm. <pre>{ "filter_clean_alarm": { "mode": 1 //0: Release, 1: Alarm } }</pre>

Configure Plan Parameters


Tip:

To delete a plan, just leave the value of the command as all 0.

Name	Example
schedule_settings	Enable/Add plan 4. <pre>{ "schedule_settings": [{ "id": 3, //Schedule ID, range: 0-7 "enable": 1 //0: Disable (default), 1: Enable }] }</pre>
	Schedule name is Schedule 1. <pre>{ "schedule_settings": [{ "id": 0, //Schedule ID, range: 0-7 "name1": "schedu", //First 6 characters "name2": "le 1" //Last 4 characters }] }</pre>
	Schedule 1 fan mode is Auto and target temperature is 16 °C. <pre>{ "schedule_settings": [{ "id": 0, //Schedule ID, range: 0-7 "fan_mode": 0, //0: Auto, 3: Low, 4: Medium, 5: High "target_temp": 16 //Unit: °C, range: 16-30 }] }</pre>
	Schedule 1 AC on in Cool mode. <pre>{ "schedule_settings": [{</pre>

Name	Example
	<pre> "id": 0, //Schedule ID, range: 0-7 "switch_on": 1, //0: Off, 1: On "work_mode": 2 //0: Heat, 2: Cool, 3: Auto, 4: Dehumidification, 5: Ventilation }] } </pre> Enable schedule time 1, time is 8:00, repeat day is Mon., Wed., Fri. <pre> { "schedule_settings": [{ "id": 0, //Schedule ID, range: 0-7 "cycle_settings": [{ "id": 0, //Time ID, range: 0-15 "enable": 1, //0: Disable (default), 1: Enable "execution_time_point": 480, //Unit: min, range: 0-1439 "execution_day_sun": 0, //0: Disable, 1: Enable "execution_day_mon": 1, //0: Disable, 1: Enable "execution_day_tues": 0, //0: Disable, 1: Enable "execution_day_wed": 1, //0: Disable, 1: Enable "execution_day_thu": 0, //0: Disable, 1: Enable "execution_day_fri": 1, //0: Disable, 1: Enable "execution_day_sat": 0, //0: Disable, 1: Enable "reserved": 1 }] }] } </pre>
insert_temporary_plan	Execute plan 1. <pre> { "insert_temporary_plan": { "id": 0 //0-15, 255: Stop insertion } } </pre>

Name	Example
	<pre> } } </pre>
delete_task_plan	Delete plan 2. <pre> { "delete_task_plan": { "type": 1 //0-15, 255: Reset all } } </pre>

Configure Energy Saving Parameters



Tip:

To delete a task, just leave the value of the command as all 0.

Name	Example
temperature_limit_task_settings	Enable the temp limit task. <pre> { "temperature_limit_task_settings": [{ "id": 0, //Task ID, range: 0 "enable": 1 //0: Disable (default), 1: Enable }] } </pre> Valid date is 1.1 to 12.31. <pre> { "temperature_limit_task_settings": [{ "id": 0, "task_date_settings": { "start_mon": 1, //Range: 1-12 "start_day": 1, //Range: 1-31 "end_mon": 12, //Range: 1-12 </pre>

Name	Example
	<pre data-bbox="414 268 722 478"> "end_day": 31 //Range: 1-31 } }] } </pre> Active period is 8:00 to 18:00. <pre data-bbox="414 573 888 1050"> { "temperature_limit_task_settings": [{ "id": 0, "execute_period": { "start_minute": 480, //Unit: min, range: 0-1439 "end_minute": 1080 //Unit: min, range: 0-1439 } }] } </pre> Repeat cycle is Mon., Wed., Fri. <pre data-bbox="414 1144 902 1843"> { "temperature_limit_task_settings": [{ "id": 0, "cycle_settings": { "execution_day_sun": 0, //0: Disable, 1: Enable "execution_day_mon": 1, //0: Disable, 1: Enable "execution_day_tues": 0, //0: Disable, 1: Enable "execution_day_wed": 1, //0: Disable, 1: Enable "execution_day_thu": 0, //0: Disable, 1: Enable "execution_day_fri": 1, //0: Disable, 1: Enable "execution_day_sat": 0 //0: Disable, 1: Enable } }] } </pre>

Name	Example
	Low threshold is 16 °C. <pre data-bbox="412 323 850 680">{ "temperature_limit_task_settings": [{ "id": 0, "low_threshold": 16 //Unit: °C, range: 16-30 }] }</pre> High threshold is 30 °C. <pre data-bbox="412 764 850 1121">{ "temperature_limit_task_settings": [{ "id": 0, "high_threshold": 30 //Unit: °C, range: 16-30 }] }</pre>
delete_temperature_limit_task	Delete the temp limit task. <pre data-bbox="412 1205 753 1436">{ "delete_temperature_limit_task": { "type": 0 //0: Task 1 } }</pre>
vacation_task_settings	Add/Enable task 1. <pre data-bbox="412 1520 850 1877">{ "vacation_task_settings": [{ "id": 0, //Task ID, range: 0-7 "enable": 1 //0: Disable (default), 1: Enable }] }</pre>

Name	Example
	Task 1 valid date is 1.1 to 12.31. <pre data-bbox="412 317 1421 909"> { "vacation_task_settings": [{ "id": 0, "task_date_settings": { "start_mon": 1, //Range: 1-12 "start_day": 1, //Range: 1-31 "end_mon": 12, //Range: 1-12 "end_day": 31 //Range: 1-31 } }] }</pre> Task 1 active period is 8:00 to 18:00. <pre data-bbox="412 968 1421 1476"> { "vacation_task_settings": [{ "id": 0, "execute_period": { "start_minute": 480, //Unit: min, range: 0-1439 "end_minute": 1080 //Unit: min, range: 0-1439 } }] }</pre> Task 1 repeat cycle is Mon., Wed., Fri. <pre data-bbox="412 1535 1421 1852"> { "vacation_task_settings": [{ "id": 0, "cycle_settings": { "execution_day_sun": 0, //0: Disable, 1: Enable "execution_day_mon": 1, //0: Disable, 1: Enable </pre>

Name	Example
	<pre> "execution_day_tues": 0, //0: Disable, 1: Enable "execution_day_wed": 1, //0: Disable, 1: Enable "execution_day_thu": 0, //0: Disable, 1: Enable "execution_day_fri": 1, //0: Disable, 1: Enable "execution_day_sat": 0 //0: Disable, 1: Enable } }] } </pre>
	Task 1 fan mode is Auto.
	<pre> { "vacation_task_settings": [{ "id": 0, "fan_mode": 0 //0: Auto, 3: Low, 4: Medium, 5: High }] } </pre>
	Task 1 target temperature is 16 °C.
	<pre> { "vacation_task_settings": [{ "id": 0, "target_temp": 16 //Unit: °C, range: 16-30 }] } </pre>
	Task 1 AC on.
	<pre> { "vacation_task_settings": [{ "id": 0, "switch_on": 1 //0: Off, 1: On }] } </pre>

Name	Example
	<pre>] } </pre> Task 1 cool mode. <pre> { "vacation_task_settings": [{ "id": 0, "work_mode": 2 //0: Heat, 2: Cool, 3: Auto, 4: Dehumidification, 5: Ventilation }] } </pre>
delete_vacation_task	Delete holiday mode task 1. <pre> { "delete_vacation_task": { "type": 0 //0-7, 255: Reset all } } </pre>

Downlink Commands for Auxiliary Features

This section describes the downlink commands for the auxiliary features.

Configure General Parameters

Name	Example
reboot	Reboot the device. <pre> { "reboot": "yes" } </pre>
temperature_unit	Set the temperature unit as °F.

Name	Example
	<pre>{ "temperature_unit": 1 //0: °C (default), 1: °F }</pre>
temperature_data_source	Set the temperature data source as External. <pre>{ "temperature_data_source": { "source": 0 //0: External, 4: Built-in (default) } }</pre>
enhanced_infrared_emission_power_enable	Enable the enhanced IR emission. <pre>{ "enhanced_infrared_emission_power_enable": 1 //0: Disable (default), 1: Enable }</pre>
battery_enable	Enable the battery compartment. <pre>{ "battery_enable": 1 //0: Disable (default), 1: Enable }</pre>
dormant_settings	Enable sleep duration time 1. <pre>{ "dormant_settings": [{ "id": 0, //Time ID, range: 0-1 "enable": 1 //0: Disable (default), 1: Enable }] }</pre> Duration time 1 is 1.1 to 12.31. <pre>{ "dormant_settings": [{ "id": 0, //Time ID, range: 0-1 </pre>

Name	Example
	<pre> "heating_date_settings": { "start_mon": 1, //Range: 1-12 "start_day": 1, //Range: 1-31 "end_mon": 12, //Range: 1-12 "end_day": 31 //Range: 1-31 } }] } </pre>
air_power_settings	AC cooling power is 1000 W. <pre> { "air_power_settings": { "refrigeration_power": 1000 //Unit: W, range: 0-60000, 0: blank } } </pre> AC heating power is 1000 W. <pre> { "air_power_settings": { "heating_power": 1000 //Unit: W, range: 0-60000, 0: blank } } </pre>
indicator_light_disable_settings	Enable the indicator Auto-off, and the time is 10 minutes. <pre> { "indicator_light_disable_settings": { "enable": 1, //0: Disable, 1: Enable (default) "time": 600 //Unit: s, Range: 600-3600, Default: 600 } } </pre>
data_storage_settings	Enable data storage. <pre> { "data_storage_settings": { "enable": 1 //0: Disable, 1: Enable } } </pre>

Name	Example
	<pre> } } </pre> Enable data retransmission. <pre> { "data_storage_settings": { "retransmission_enable": 1 //0: Disable, 1: Enable } } </pre> The retransmission interval is 1200s. <pre> { "data_storage_settings": { "retransmission_interval": 1200 //Unit: s, range: 30-1200, default: 600 } } </pre>
clear_historical_data	Clear the historical data. <pre> { "clear_historical_data": "yes" } </pre>

Configure Time Parameters

Name	Example
time_zone	Set the time zone as UTC-4. <pre> { "time_zone": -240 //Unit: min, INT16/60 } </pre>
daylight_saving_time	Enable DST, start time is October 1st Sunday 2:00, end time is April 1st Sunday 2:00, bias is 60 minutes. <pre> { "daylight_saving_time": { "enable": 1, //0: Disable (default), 1: Enable "daylight_saving_time_offset": 60, //Unit: min, range: 1-120 } } </pre>

Name	Example
	<pre> "start_month": 10, //Range: 1-12 "start_week_num": 1, //Range: 1-5 "start_week_day": 7, //Range: 1-7 "start_hour_min": 120, //Unit: min, range: 0-1439 "end_month": 4, //Range: 1-12 "end_week_num": 1, //Range: 1-5 "end_week_day": 7, //Range: 1-7 "end_hour_min": 120 //Unit: min, range: 0-1439 } </pre>
synchron ize_time	Sync time from LNS. <pre> { "synchronize_time": "yes" } </pre>

Configure Sensor Parameters

Name	Example
internal_sens or_settings	Built-in sensor name is <code>sensor</code>. <pre> { "internal_sensor_settings": { "name1": "sensor", //First 6 charaters "name2": "", //Middle 6 charaters "name3": "" //Last 6 charaters } } </pre> Built-in sensor temperature calibration value is 1 °C. <pre> { "internal_sensor_settings": { "temp_calibration": 1 //Unit: °C, range: -80-80 } } </pre> Built-in sensor humidity calibration value is -0.3%RH.

Name	Example
	<pre data-bbox="414 275 925 485">{ "internal_sensor_settings": { "humi_calibration": -0.3 //Unit: %RH, range: -100-100 } }</pre> Temp & humidity sampling interval is 3600s. <pre data-bbox="414 575 982 785">{ "internal_sensor_settings": { "collect_period": 3600 //Unit: s, range: 30-3600, default: 30 } }</pre>
external_sensor_settings	External sensor name is sensor. <pre data-bbox="414 892 787 1186">{ "external_sensor_settings": { "name1": "sensor", //First 6 charaters "name2": "", //Middle 6 charaters "name3": "" //Last 6 charaters } }</pre> Enable the external sensor. <pre data-bbox="414 1281 836 1491">{ "external_sensor_settings": { "enable": 1 //0: Disable, 1: Enable (default) } }</pre> External sensor temperature calibration value is 1 °C. <pre data-bbox="414 1581 852 1791">{ "external_sensor_settings": { "temp_calibration": 1 //Unit: °C, range: -80-80 } }</pre>
	Enable the external CT.

Name	Example
ct_sensor_settings	<pre>{ "ct_sensor_settings": { "connected": 1 //0: Disconnected (default), 1: Connected } }</pre> External CT sampling interval is 128s.
	<pre>{ "ct_sensor_settings": { "collect_period": 128 //Unit: s, range: 1-128, default: 5 } }</pre> External CT threshold is 30mA.
	<pre>{ "ct_sensor_settings": { "collect_threshold": 30 //Unit: mA, range: 30-1000 } }</pre> AC type is wall-mounted.
	<pre>{ "ct_sensor_settings": { "ac_type": 0 //0: Wall-mounted (default), 1: Standing Cabinet, 2: Ceiling-mounted } }</pre>

Configure Threshold Parameters

Name	Example
continuous_high_temp_alarm_settings	Enable the persistent high temperature alarm. <pre>{ "continuous_high_temp_alarm_settings": { "enable": 1 //0: Disable (default), 1: Enable } }</pre>

Name	Example
	Difference is 3.15 °C. <pre>{ "continuous_high_temp_alarm_settings": { "difference": 3.15 //Unit: °C, range: 1-10, default: 3 } }</pre> Duration is 5 mins. <pre>{ "continuous_high_temp_alarm_settings": { "duration": 5 //Unit: min, range: 0-60, default: 5 } }</pre>
continuous_low_temp_alarm_settings	Enable the persistent low temperature alarm. <pre>{ "continuous_low_temp_alarm_settings": { "enable": 1 //0: Disable (default), 1: Enable } }</pre> Difference is 3.15 °C. <pre>{ "continuous_low_temp_alarm_settings": { "difference": 3.15 //Unit: °C, range: 1-10, default: 3 } }</pre> Duration is 5 mins. <pre>{ "continuous_low_temp_alarm_settings": { "duration": 5 //Unit: min, range: 0-60, default: 5 } }</pre>
temperature_alarm_settings	Enable the temperature threshold.

Name	Example
	<pre>{ "temperature_alarm_settings": { "enable": 1 //0: Disable (default), 1: Enable } }</pre> Condition is below threshold. <pre>{ "temperature_alarm_settings": { "threshold_condition": 1 //0: Disable, 1: Below, 2: Above, 4: Below or Above } }</pre> Below threshold is -5.15 °C. <pre>{ "temperature_alarm_settings": { "threshold_min": -5.15 //Unit: °C, range: -20-60, default: -20 } }</pre> Above threshold is 25.15 °C. <pre>{ "temperature_alarm_settings": { "threshold_max": 25.15 //Unit: °C, range: -20-60, default: 60 } }</pre>

Downlink Commands for Query

This section describes the downlink commands for querying the device data.

Query Current Data

Name	Example
query_device_status	Enquiry the periodic report.

Name	Example
	<pre>{ "query_device_status": "yes" }</pre>

Query Historical Data

Prerequisites: Data Storage was enabled and device time is synced.

Name	Example
retrieve_historical_data_by_time	Query data for a specified time point. <pre>{ "retrieve_historical_data_by_time": { "time": 1697445000 //Unix timestamp, unit: s } }</pre>
retrieve_historical_data_by_time_range	Query data from 1697445000s to 1697445600s. <pre>{ "retrieve_historical_data_by_time_range": { "start_time": 1697445000, //Start Unix timestamp, unit: s "end_time": 1697445600 //End Unix timestamp, unit: s } }</pre>
stop_historical_data_retrieval	Stop the data query report. <pre>{ "stop_historical_data_retrieval": "yes" }</pre>
data_storage_settings.retrieve_val_interval	The query report interval is 1200s. <pre>{ "data_storage_settings": { "retrieve_val_interval": 1200 //Unit: s, range: 30-1200, default: 60 } }</pre>

Reply description: [Historical Data Packet](#)

Chapter 4. Services

Milesight provides customers with timely and comprehensive technical support services. End-users can contact their local dealer to obtain technical support. Distributors and resellers can contact Milesight directly for technical support.

Technical Support Mailbox: iot.support@milesight.com

Online Support Portal: <https://support.milesight-iot.com>

Resource Download Center: <https://www.milesight.com/iot/resources/download-center/>

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