



hiSky Ka 8X8 V3 Dynamic Terminal Installation Guide

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hiSky Ka 8X8 V3 Dynamic Terminal



Introduction

The Quick Start Guide provides basic information for installation, identification of connectors and visual indicators, as well as regulatory information for the hiSky IoT Ka Dynamic V3 Terminal.

Product Description

The Dynamic Terminal Ka 8X8 V3 is a compact form-factor device that enables on-the-move satellite connectivity to sensors/smartphones / IoT gateways. The terminal includes an innovative modem and phased array antennas with WI-FI / Bluetooth and Ethernet for user device interfaces. The terminal supports IoT data transmission such as fleet management data, environment conditions, alarm events, sensors loggers, operations, and much more, as well as command and control of sensors and remote systems.

Related Documents

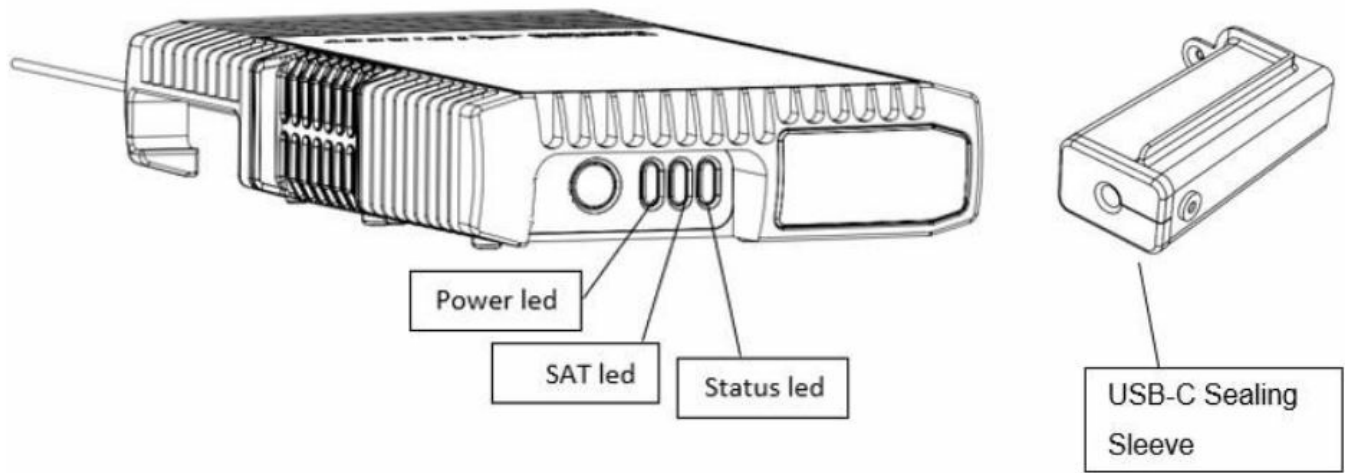
For information about related documents please navigate to <https://www.hiskysat.com>. hiSky strives to produce documentation that is technically accurate and easy to use. hiSky welcomes feedback. Send comments to support@hiskysat.com.

Getting Help

For answers to questions or for more information, contact hiSky support at support@hiskysat.com.

Terminal Overview

WARNING: Do not open the terminal or make any changes to the terminal construction. An opening may expose personnel to dangerous voltages or other hazards. There are no user-serviceable parts inside. Avoid placing the Terminal near open flames or any high heat.



Part	Description
Mounting Interface	75mm VESA and ¼ Thread interface (see Mount the Terminal).
Power Button	Terminal on/off button.
Power LED	Green: Power connected. Red: Error event occurred.
Satellite LED	Flashing green: Searching for outbound signal or limited line of sight. Green/blue: Terminal sending and receiving satellite traffic.
Status LED	Flashing green: Trying to register to hiSky network. Green: Terminal registered to hiSky network. Red: Terminal is not able to register to the hiSky network.
USB-C Sealing Sleeve	Additional mechanical part for sealing the USB-C cable when connected to the terminal. This part is not included in the terminal kit and must be purchased separately.

The terminal kit contains the IoT Dynamic Terminal Ka 8X8 V3, and this Quick Start Guide. The kit does not include a bracket, screws, cables, or any other mechanical parts for the installation.

Power Supply

Use power cable type: USB-C 65W, 15V / 3.25A (voltage and current standard for 65W). Note: hiSky requires the USB-C cable length to be less than 3 meters for EMI and spurious performance compliance.

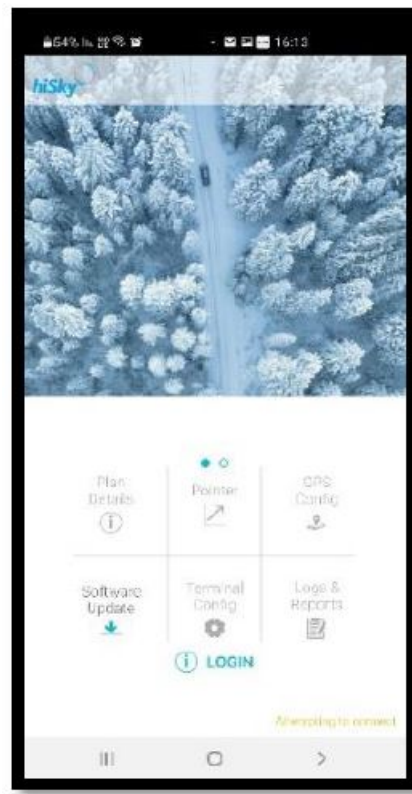
WARNING: The power supply must be certified for safety, electromagnetic compatibility, and all the regulations in the region where the terminal will operate.

Follow all safety instructions according to the manufacturer of the power supply and inverter.

The risk of electrical shock and energy hazard of power supply failures should be examined by a qualified technician according to manufacturer instructions.

Overview of the First run Operation with hiSky360 App

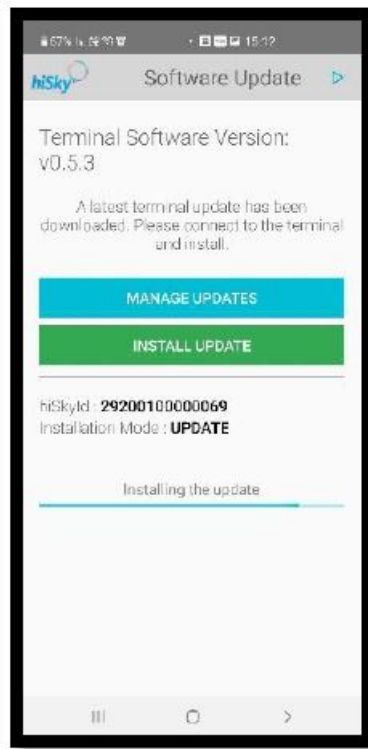
Initial Login



- Confirm Internet connectivity to your smartphone for the initial Login and software download steps.
- Download the hiSky App from iPhone App Store or Android Google Play Store.
- Click on the hiSky360 App icon.
- Click LOGIN on the main screen.
- Add the account credentials (username and password) related to your hiSky360 account.
- Choose the NMS connection and tap LOGIN.

Software Update

- On the main hiSky360 App screen, click on Software Update.
- Click Ok to continue with the software update process.
- Click on MANAGE UPDATES.
- Click on CHECK FOR UPDATES FROM NMS.
- Select the latest Ka software version for your terminal.
- Download the software files to your smartphone.
- Connect the terminal to a power source (Note: If you are using the USB-C sealing sleeve, please refer to step 6 for information about how to install the cable).
- Ensure the terminal's mounting side is facing down and hold the power button for 2 seconds until the LED starts flashing green.
- Connect your smartphone to the terminal WI-FI access point. The default SSID is the terminal serial number + the characters WF (for example 2970000000001WF). The default password is admin123.
- Wait for the application to attach to the terminal software. The status will initially show "Attempting". Wait until it shows "Connected" before proceeding with the upgrade.
- On the main hiSky App screen, click on SOFTWARE UPDATE.
- Click on INSTALL UPDATE.
- At the end of the update, the terminal will reboot.

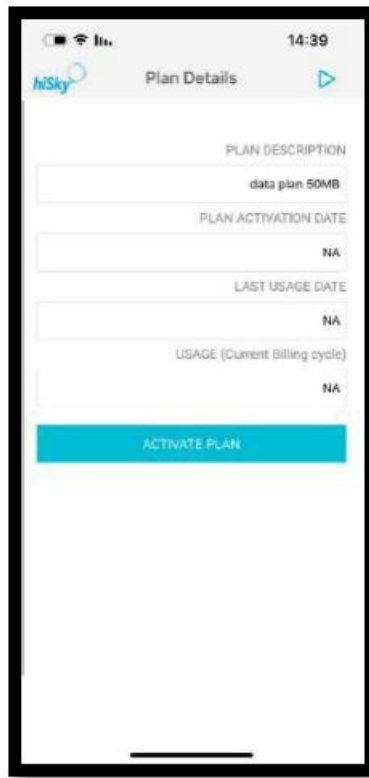


Choose Satellite Parameters

- Connect your smartphone to the terminal WI-FI access point.
- Click on the GPS CONFIG on the hiSky main screen.
- Click on REFRESH and SAVE the location parameters.
- Return to the main screen and click on TERMINAL CONFIG.
- In the Satellite Parameters section, ensure that the correct beam number is being used. If not, select the relevant beam number.
- Click SAVE.
- Restart the terminal by pushing the power button. Ensure that the terminal's mounting side is up before restarting the terminal.
- Use the TERMINAL CONFIG button to integrate between the terminal and the User Device.

Active the service plan

- Connect your smartphone to the terminal's WI-FI access point.
- Login to the hiSky App via a terminal connection.
- On the main hiSky 360 App screen, click on Plan Details.
- Click the ACTIVE PLAN button and wait for confirmation.



Connect the Satellite and the Terminal

To establish connectivity between the satellite and the terminal, do the following:

- Place the terminal on level ground or tripod mount.
- Place the terminal in a clear line of sight between the terminal and the satellite. Any buildings, trees, people, or other objects in the path may interfere with connectivity.
- Wait for the status LED to turn solid green.

Install the Terminal

- **WARNING:** Improper installation can lead to the device falling causing serious personal injury or damage to equipment. The selected mounting solution must meet the local standard requirements.
- The installer is responsible to make sure the installation will meet usage guidelines.
- **WARNING:** Radio frequency hazard – keep a distance of at least 25cm during terminal operation.

Mobile/On the move Installation

Terminal installation on a vehicle uses custom-made magnets or other mounting solutions, depending on the vehicle. For the most suitable solution, please contact your provider.

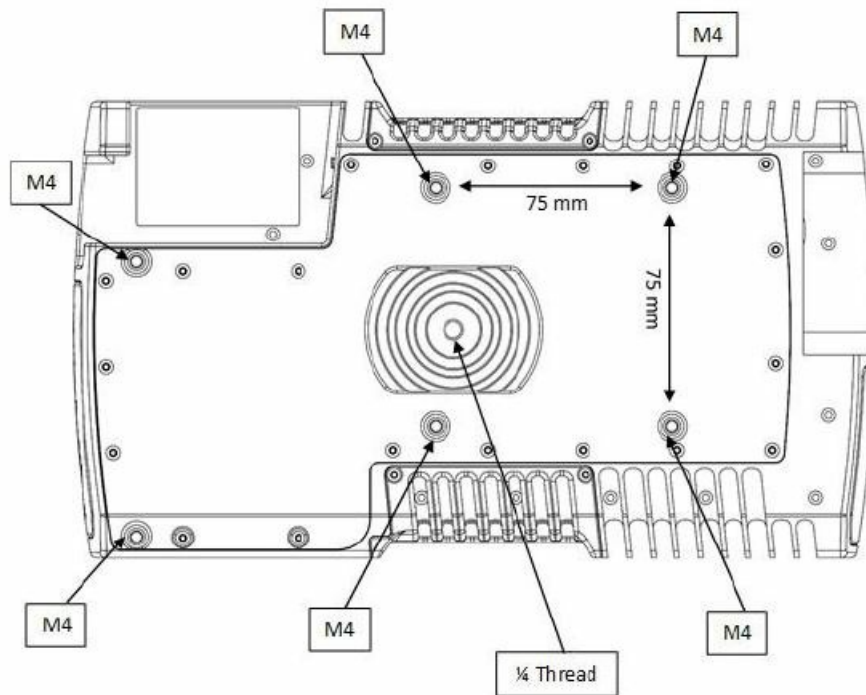
WARNING: The metal surface must be clean and straight, and all magnets should be firmly attached to the metal before driving. Before a drive, secure the power cable. Avoid driving fast on bumpy roads and in dangerous curves.

Fixed or Tripod Installation

Use the mounting interfaces described below:

- One standard tripod mounting interface- 1/4 thread size.

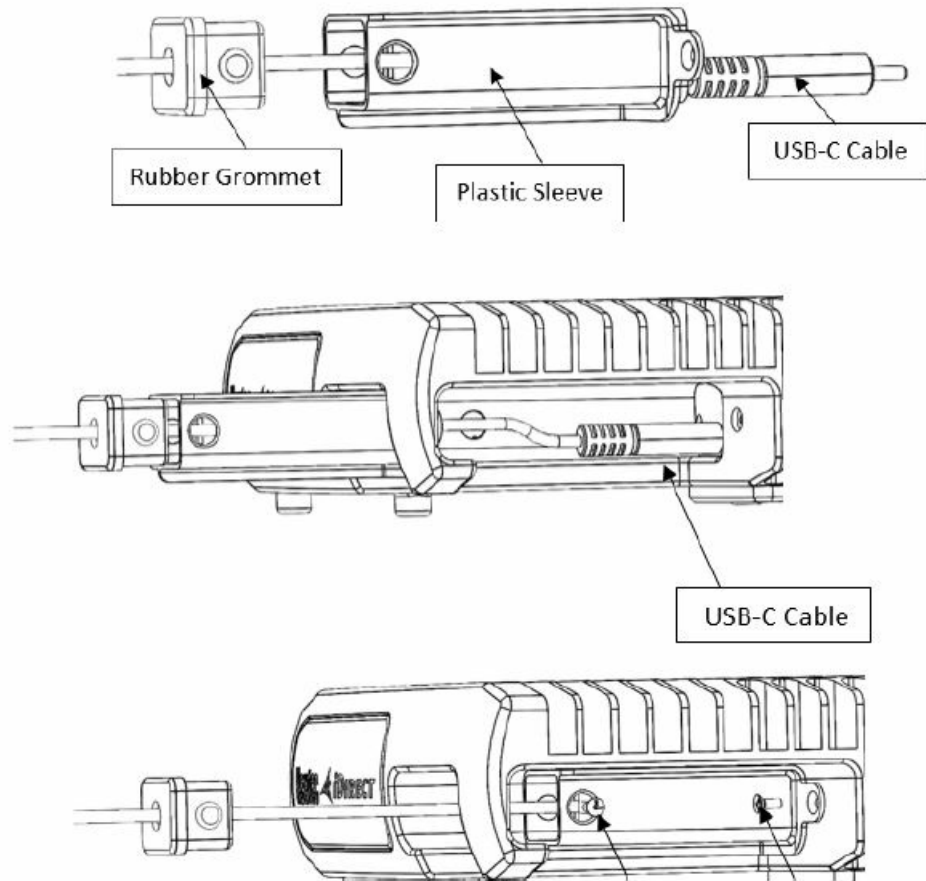
- 75×75 VESA mounting interfaces – 4 X M4 Threads thread size.
- Extra mounting interfaces- 2 X M4 thread size.



Using the USB-C Sealing Sleeve

Note: Use only when external power is in use (not relevant for internal battery operation mode).

- Insert USB-C cable through the rubber grommet and the plastic sleeve.
- Connect USB-C cable into USB-C port.
- Slide the plastic sleeve up to the USB-C panel.



- Secure the plastic sleeve using the screws.
- Fit the rubber grommet into the plastic sleeve.

Troubleshooting

Issue	Workaround
Terminal does not turn on after pushing the power button (On/Off).	Connect the terminal to the charger and re-try pushing the power button.
Charging error (This can occur when the power button is pushed. The status LED may be red or the terminal immediately reboots after it is turned on).	Ensure outside temperature is according to the Dynamic Terminal Ka 8X8 V3 Spec guidance.
Unsuccessful registration to the hiSky mobile app.	Internet connection is required for the initial Login.
WI-FI connection cannot be established between the smartphone and the terminal.	Make sure a WI-FI connection is available on the smartphone.
No signal or weak signal from terminal to satellite.	Make sure the terminal has a clear view.
Terminal cannot transmit data.	Check the service plan status in the hiSky mobile app.
Cannot perform a software version update.	Verify that the hiSky mobile app on your smartphone is running the latest version. (internet connectivity is required) . Then connect the smartphone to the terminal WI-FI.
Power Led turns RED.	Contact your reseller for troubleshooting or RMA.

IoT Dynamic Terminal Ka 8X8 V3 Specifications

- Transmission Power 30dBm (1W) Max
- Angle Coverage AZ: 360°
- EL: 30° to 90°
- Transmit / Receiver Antenna Gain $\geq 21\text{dBi}$ at 90° $\geq 18\text{dBi}$ at 30°
- Mechanical Dimensions 222 x 139 x 40 mm
- Operational Temperature -20°C to +50°C
- Water Resistance IP65
- Communication Interfaces WI-FI, BLE
- Electrical Interfaces USB type-C- 15v/3A 45w
- Transmit Antenna Frequency Range 27.5-30 GHz
- Receive Antenna Frequency Range 18.3-18.8 GHz and 19.7-20.2GHz

Danger/Warning Symbol

WARNING: This symbol means danger! You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents.

Lightning Activity Warning

WARNING: Do not work on the system or connect or disconnect cables during periods of lightning activity.

Operating Temperature and Airflow Warning

WARNING: To prevent the unit from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature as defined in the Mechanical and Environmental Specifications table. To prevent airflow restrictions, allow approximately 6 inches (15.2 cm), or adequate space, for clearance around the external heat sink fins.

Installation Warning

WARNING: Read the installation instructions before connecting the system to the power source.

Power Supply Circuit Warning

WARNING: Care must be given to connecting units to the supply circuit so that wiring is not overloaded.

Agency Compliance

For detailed information on standards, see <https://www.hiskysat.com/Product> Documentation.

FCC STATMENT

Part 15 Compliance

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to 47CFR Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. The equipment uses, generates, and radiates radiofrequency energy. If the equipment is not installed and used the instructions, it may cause harmful interference to radio communications. There is also no guarantee that interference will not occur in a particular installation. To determine if the equipment is interfering with radio or television reception, remove or apply power to the equipment and see if the interference goes away, or returns, when the unit is off or on. To meet FCC requirements, only peripherals, such as computer input/output devices, terminals, and printers certified to comply with the Class B limits, may be attached to this device. Operation with non-certified peripherals is likely to result in interference to radio and TV reception. To meet FCC requirements, shielded cables are required to connect the device to a personal computer, peripheral, or other Class B certified device.

WARNING: Modification of this equipment without written authorization from hiSky may result in this equipment no longer complying with FCC requirements for Class B digital devices. In that event, the rights to use the equipment may be limited by FCC regulations, and the user may be required to correct any interference to radio or television communications at their own expense.

Safety

TUV Rheinland of North America is a Nationally Recognized Testing Laboratory (NRTL) in the United States and is accredited by the Standards Council of Canada to test and certify products to Canadian National Standards. The Dynamic Terminal Ka 8X8 V3 compliance complies with both U.S. and Canadian National Standards on Safety.

In addition, the Dynamic Terminal Ka 8X8 V3 compliance complies with EU National Standards on Safety.

Compliance with RoHS Directive

Details can be found on the hiSky Web site located at <https://www.hiskysat.com/Product> Documentation.

Compliance with WEEE Directive

When hiSky products have reached the end of their useful life, hiSky distributors will be responsible for making provisions for the treatment of such WEEE using authorized approved treatment facilities. Please contact the distributor directly.

Canadian Labeling Requirements

The Dynamic Terminal Ka 8X8 V3 complies with Class B of Canadian ICES-003 regulations. CAN ICES-3 B/NMB-3B.

CE Compliance (European Union)

hiSky declares that the radio equipment type Dynamic Terminal Ka 8X8 V3 is in compliance with Directive 2014/53/ EU. The full text of the EU declaration of conformity is available at <https://www.hiskysat.com/Product> Documentation.

Documents / Resources

	<p>hiSky Ka 8X8 V3 Dynamic Terminal [pdf] Installation Guide</p> <p>Ka 8X8 V3 Dynamic Terminal, Ka 8X8 V3, Dynamic Terminal, Terminal</p>
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References

- [homepage | Hisky satellite | low cost voice, data and IoT | Satellite](#)
- [homepage | Hisky satellite | low cost voice, data and IoT | Satellite](#)
- [Policies | hiSky](#)
- [Smartellite Family | hiSky | Wi Fi Satellite | Engine Telemetry](#)