LUKA Firmware V2.1.0 Release

August 18, 2025

Overview

This release is V2.1.0, and the model targeted for the release is LUKA. This firmware supports the wired and wireless upgrade. Please upgrade the firmware according to the upgrade guide.

Features

- Supports multiple constellations &frequencies:

    GPS L1 C/A, L1C, L2C, L2P, L5C

    BDS B1I, B2I, B3I, B1C, B2a, B2b

    GLONASS L1OF, L2OF, L3OC

    Galileo E1, E5a, E5b, E5AltBOC, E6

    QZSS L1 C/A, L1C, L2C, L5C

    SBAS L1 C/A, L5

    IRNSS L5

    L-Band

- Supports 1792 channels

- 410-470MHz UHF radio, 4G network, Wi-Fi, Bluetooth, NFC

- Various working modes

- Up to 10 hours working in 4G/3G/2G network and Rover radio mode

Change from Previous Versions

Issue	Type	FW
Formal release		V2.1.0
Update GNSS board firmware version	New function	
Update tilt library to enhance tilt accuracy computation and support tilt initialization in TAP mode	Bug fix	
Optimize static data file header content and file naming	Bug fix	
Optimize display of automatic license extension reminder dates	Bug fix	
Optimize Wi-Fi startup performance	Bug fix	
Optimize parsing of RTCM1025 messages	Bug fix	
Fixed an issue where the manual base station coordinates could change in change battery mode	Bug fix	
Fixed an issue where NTRIP mount points obtained via receiver network could be incomplete	Bug fix	
Formal release		V2.0.90
Add customized models and features.	New function	
Optimize the blacklist function.	Bug fix	
Optimize the frequency recording of the observations.	Bug fix	
Add NTRIP caster functionality.	New function	
Fix the electronic bubble display.	Bug fix	
Fix the issue with the slant height of the static record.	Bug fix	
Other improvements to program functionality and stability.	Bug fix	
Optimize the registration code function so that LUKA does not need to be restarted after registration.	New function	V2.0.82-beta
Update OFFCOORD and fix abnormal application bugs.	Bug fix	
Fix elevation issues caused by base station antennas not being applied correctly.	Bug fix	
Update the function of the WEB UI.	New function	
Optimize the power management and indicator display.	Bug fix	
Other improvements to program functionality and stability.	Bug fix	
Formal release		V2.0.70
Add the function of temporary use after the expiration of the registration code.	New function	
Optimize upgrade logic of MCU to reduce upgrade failures and repeated upgrades due to serial port communication.	Bug fix	
Fix MFG to not lose SN.	Bug fix	
Add communication status information to update network status in real time.	New function	
Fix the format of static records.	Bug fix	

Update FGO tilt algorithm to fix accuracy and RMS issues.	Bug fix	
Update MCU firmware, Ultimate version supports IMU data display electronic bubbles.	New function	
4G module is turned on by default to provide faster internet connection speeds.	New function	
Add the corresponding information update of RTCM1021-1027.	New function	
Other improvements to program functionality and stability.	Bug fix	V2.0.60
Optimize startup time and timeout.	Bug fix	V2.0.53-beta
Other improvements to program functionality and stability.	Bug fix	
Add OTG upgrade firmware.	New function	
Add geo-fence.	New function	V2.0.49-beta
Other improvements to program functionality and stability.	Bug fix	
Initial firmware version		V2.0.41