Oscar Firmware v1.3.1 Release

July 23, 2020

Overview

This release is v1.3.1, and the model targeted for the release is Oscar. This firmware supports U disk upgrade. Please upgrade the firmware according to the upgrade guide.

The firmware download address is: https://tersus-gnss.com/software/oscar-receiver

Features

➢ Supports multiple constellations & frequencies:

GPS L1, L2, L5

GLONASS L1, L2

BeiDou B1, B2, B3

Galileo E1, E5a, E5b

QZSS L1, L2, L5

SBAS (EGNOS, WAAS, MSAS, GAGAN) L1C/A

➢ Supports 576 channels

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

➢ Various working modes

➢ Up to 16 hours working in 4G/3G/2G network and Rover radio mode

Change from Previous Versions

Issue	Type	FW
		v1.3.1
Fixed program crash exit due to system file node creation error under unknown conditions	Bug fix	v1.3.1 rc3
Added logdown command. Supports setting log download via Nuwa.	New function	
Optimized static data and log space management	New function	v1.3.1 rc2
Added radio - free hardware support	New function	
Added 20Hz static data recording function, and solved some software bugs in the static data recording part (out of order, inconsistent time interval, etc.)	New function	
Limits the radio editor's custom frequency to the radio support frequency range	New function	v1.3.1 rc1
Added the Oscar host card type and version number to display through the screen (device information ->GNSS information) and NUWA (device information) query	New function	
Solved some upgrade incompatibility problems caused by GNSS board version number format change of Oscar host	Bug fix	
Improved the response speed of the handbook software and solved the problem of some command timeout resending	Bug fix	v1.3.0
Fixed some board card storage mount issues	New function	
Improved flashing data light display	Bug fix	v1.3.0 rc5
Add the mandatory upgrade function of board card	New function	

Add the ability to automatically upgrade GNSS board firmware	New function	v1.3.0 rc4
Unify all models of the machine upgrade package	New function	v1.3.0 rc3
Disable write permission after USB access to computer	New function	v1.3.0 rc2
Optimize GNSS board card output information, reduce the amount of board card data, and reduce delay	Bug fix	
Other system stability updates	New function	v1.3.0 rc1
Unified the product upgrade process of different models, and only one upgrade package is needed for the subsequent upgrade of all versions of hardware	New function	
Added function of the amount of RTCM data adapts to the station air baud rate in the base station + radio mode.	New function	
Added custom radio channel and frequency features	New function	
Automatic adaptation of the station module according to PN number, increasing the frequency, protocol and baud rate of the station module.	New function	
Automatically match the system model (Basic, Advanced, Ultimate) and working mode according to product PN number	New function	
The static record section adds information about the QZSS and Galileo systems	New function	
RTCM data output for QZSS and Galileo systems in base station mode has been added	New function	
Other improvements to system stability	New function	V1.2.12
Added support for New board, adjust board message output	New function	

Send the updated status to Nuwa after the static measurement (single or automatic) is completed.	Bug fix	v1.2.11
Add the information of GALILEO and QZSS satellites in the static record RINEX file.	Bug fix	
Add the function of setting the air baud rate of the radio on the screen of the OSCAR machine and match the radio protocol.	New function	
Solve the problem of incorrectly recorded GALILEO satellite observation files in static recorded RINEX files.	Bug fix	
Solve the problem of time error and no location information in the static recorded RINEX file.	Bug fix	
Change the connection strategy of the 4G module, improve the stability of the network connection and improve the error recovery mechanism, and turn off the signal strength and system information display on the display when the SIM card is not present.	New function	
The tilt measurement function of the ultimate is turned on to optimize the available status judgment of tilt measurement.	New function	
Fixed the problem that some U disks cannot be upgraded correctly during system upgrade.	Bug fix	
Optimized the menu display of device disk information on the display interface of the advance and ultimate.	New function	
Fixed the system block problem after resetting the board (triggered by pressing the pwr button 5 times).	Bug fix	
Fixed occasional system unresponsiveness when frequently connecting and disconnecting Bluetooth devices.	Bug fix	v1.2.9
Added the function of downloading log files to U disk.	New function	
Added Bluetooth information display in device information.	New function	

Added status information display of 4G module in device information.	New function	
Added support for Nuwa to configure NMEA serial output.	New function	
Modified the problem that the machine cannot be set to output NMEA messages when NMEA connection and Oscar mode connection are switched multiple times.	Bug fix	
Added VRS ON / OFF setting under PDA CORS connection mode.	New function	
modify the missing position of the rinex file header.	Bug fix	
Fixed occasional system freezes when switching device modes.	Bug fix	v1.2.8
Increase disk capacity display and disk file deletion.	New function	
Add auto / manual selection option for static recording.	New function	
Add NMEA message serial output function, add serial baud rate setting, NMEA sentence selection, etc.	New function	
Add satellite information display and solution status display on the homepage of the display.	New function	
Fixed an issue where satellite information was not displayed after Nuwa connection	Bug fix	v1.2.7
Solve the problem that the system keeps resetting when setting the network base station mode.	Bug fix	v1.2.5
Added the Galileo ephemeris record file in the Rinex3 format for static recording, and other problems in static recording.	Bug fix	
Solved the problem that the differential data is output by the serial port when the base station is set to the base station handbook network.	Bug fix	
Open Galileo system.	New function	v1.2.4
Solved the problem of lack of Beidou ephemeris during static recording and incorrect station ID record, and solved the problem of synchronization between key operation and manual display of	Bug fix	

static record		
Modify the status of the power light to be on during the boot process.	Bug fix	
Added model verification during system upgrade to solve the problem that the system may become brick during the upgrade	Bug fix	
Added Basic, Advanced, and Ultimate releases.	New function	v1.2.3
Add FN button to enable static function.	New function	
Fixed the problem that rtd, rtcm2 data is not solved.	Bug fix	
Fixed the synchronization failure between Oscar system time and GNSS time, and a series of problems (such as incorrect static recording time).	Bug fix	
Solve the problem that Nuwa failed to configure rover PDA mode.	Bug fix	v1.2.2
Solve the problem that the status of the Ultimate indicator does not match (requires additional configuration)	Bug fix	
Solve the problem of black screen freeze	Bug fix	v1.2.1
Solve the problem with the accuracy of the core board card.	Bug fix	v1.2.0
Add several TCP connection methods	New function	
Add the NMEA mode of the Bluetooth link device.	New function	
Added some functions of tilt measurement (not released yet).	New function	
Improve the license management function and implement the license update (requires manual cooperation)	New function	v1.1.0_rc1
Add Rover TCP and Base Ntrip connection method (requires TC20 cooperation, the host can operate by buttons and display screen, this function is temporarily blocked).	Bug fix	
Realize the function that the LED and OLED display display the upgrade status during the upgrade.	New function	

Add the function of programming SN number to FUSE	New function	
Solved the problem that the information cannot be refreshed in time after the license expires; the remaining date of the license is displayed.	Bug fix	v1.1.0
Improved the U disk upgrade function, and added display screen and LED prompts during the upgrade process.	Bug fix	
Solved the problem that when Nuwa sets static measurement, 10Hz displays 10S.	Bug fix	
Solved the problem that the program crashed without a license.	Bug fix	v1.0.0_rc5
Added U disk upgrade function.	New function	
Solved the problem that the language of the LCD panel cannot be switched.	Bug fix	
Solved the stability issue of 4G network connection	Bug fix	v1.0.0_rc2
Solve the problem of static non-recording caused by reading the wrong storage capacity in static measurement	Bug fix	
The first two digits cannot be edited when the rover is setting the TCS network to edit the BaseID	Bug fix	