

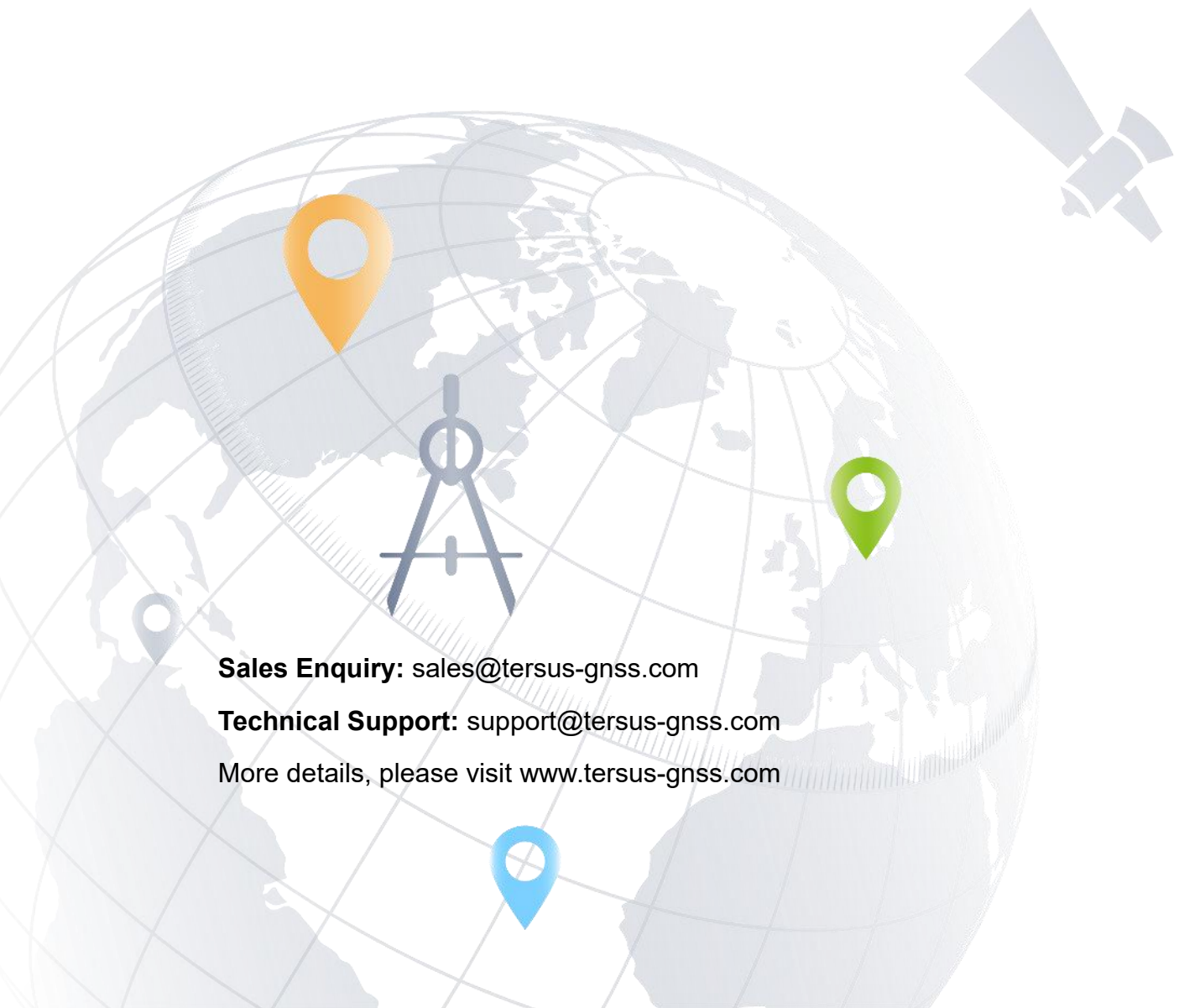
Guide

Version V1.3-20210224



Oscar GNSS Receiver Firmware Upgrade Guide

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Sales Enquiry: sales@tersus-gnss.com

Technical Support: support@tersus-gnss.com

More details, please visit www.tersus-gnss.com

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1. Interfaces of Oscar

The bottom of Oscar receiver is shown as below.

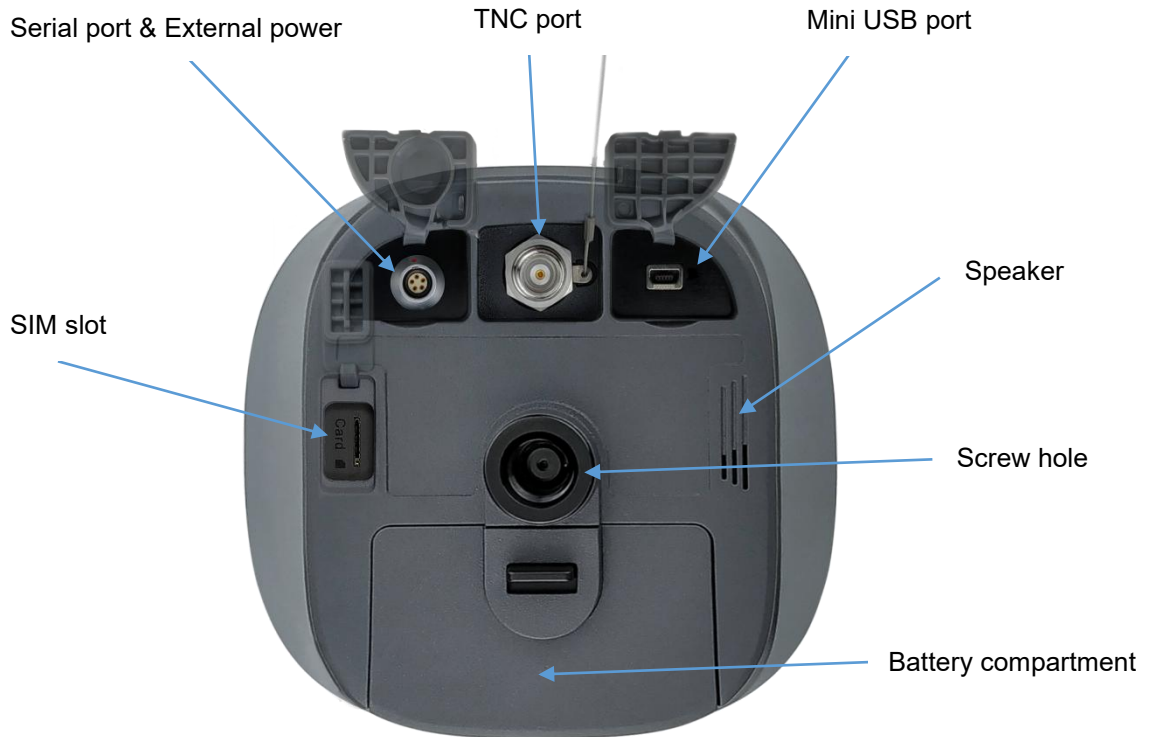









Figure 1 Bottom of Oscar

Table 1 Interfaces on the bottom side

Icon	Connector	Name	Connections
		Serial port & External power	External power, RS-232 communication, external radio
		Mini USB port	Device, computer, USB drive
SIM		SIM slot	Nano SIM card
-		TNC port	410-470MHz Radio Antenna
		Screw hole	It is a 5/8" x 11 UNC-2B connector for corresponding connector and pole.

2. Firmware Upgrade

There are two methods to upgrade firmware for Oscar GNSS Receiver: wired upgrade and wireless upgrade.

2.1 Wired Upgrade

The detailed steps of Oscar upgrade are as follows.

- 1) Download the latest firmware file from Tersus website <https://www.tersus-gnss.com/software/oscar-gnss-receiver> for different versions. If your Oscar firmware version is V1.2.x or previous versions, it is needed to download the specific upgrade package that is designated for your Oscar version (Ultimate/Advanced/Basic). If your Oscar firmware version is V1.3.0 or later, download the unified upgrade package only.

Please be noted that the downloaded file is a .zip file, unzip this file to find a pdf document and the firmware file of .GZ format or .BIN format (for V1.3.0 or later firmware upgrade).

- 2) Prepare a USB flash drive, ensure the file system of this drive is **FAT32**. Create a folder named "**OscarUpdate**" under the root directory of the USB flash drive, then put the latest firmware file in it (DO NOT unzip the firmware file further). Make sure there is only one firmware file in this folder.

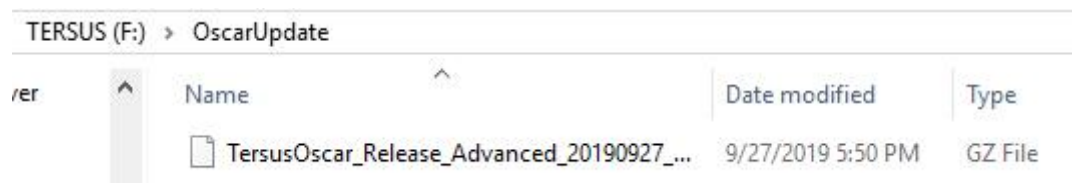


Figure 2 Copy the .GZ firmware file to a USB flash drive

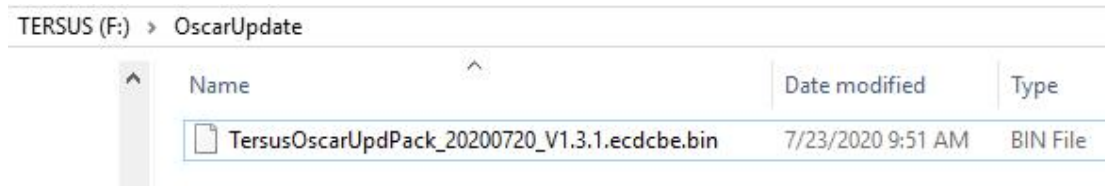


Figure 3 Copy the .BIN firmware file to a USB flash drive

- 3) Ensure Oscar is powered off, and use the Mini-USB OTG cable to connect Oscar to the USB flash drive.



Figure 4 Connect Oscar to a USB flash drive

- 4) Long press the power button to power on Oscar. If your Oscar firmware version is earlier than V1.4.0RC1 (not included), the firmware upgrade program will automatically start after boot up; if your Oscar firmware version is V1.4.0RC1 or later, it is needed to long press the FN button to start firmware upgrade program, until the OLED displays "SYSTEM UPGRADE" or the six LEDs of the basic version are all on, release the FN button and wait for the upgrade.

For Ultimate and Advanced versions, the firmware upgrade starts when the OLED displays 'SYSTEM UPGRADE', after finishing the upgrade it displays 'SYSTEM REBOOT' and it reboots automatically to present the

upgraded firmware. For Basic version, all its six LEDs light up when it starts firmware upgrade, after finishing the firmware upgrade the power LED lights up and the satellite LED flashes, which means it restarts successfully with updated firmware.

Note: Please make sure the battery has enough power for the firmware upgrade. The GNSS board inside Oscar will upgrade when the firmware is upgrading, any forced power failure will cause the system crash.

2.2 Wireless Upgrade

There are two methods for wireless upgrade: one is using web upgrade via WiFi, the other is using Nuwa app via PDA network.

The details are to be updated. Stay tuned for the new version of this guide.

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