

JAVAD GNSS Inc.  
Configuring the HPTxxxBT Radio  
on Triumph-2 Triumph-3NR

Using NetView and Modem application

June, 2023



The **HPTxxxBT** radio modem and the **TRIUMPH** receiver ship from the factory already paired and ready to communicate with each other out of the box.

Once powered, both the radio modem and receiver will show their blue LEDs lit indicating their linked communications.

Usually this only takes a few seconds.

When you purchase a radio from Javad GNSS separately from the purchase of the receiver, the *NetView and Modem* application is available to establish their pairing.

NV&M can also be used in establishing a pairing with multiple radio modems in the HPT series which include:

HPT901BT\*, HPT401BT, HPT404BT and the HPT435BT

## Step 1

- Connect the **TRIUMPH** to your PC using the USB cable: USB Cable, A / micro B, (3.3 ft / 1.0 m) [14-578156-01].
- Power the **TRIUMPH** receiver on.

## Step 2

- Connect the **HPTxxxBT** to your PC via a Serial port or the USB port.
  - \*\* Be sure to connect the antenna before powering the radio on \*\*
- Power the **HPTxxxBT** radio modem on.

## Step 3

- Run the **Net View and Modem** (NV&M) application on your PC.

# Pairing the Radio Modem

## Step 4

- Using NV&M, establish a connection to the **TRIUMPH** to your PC by using USB connection (or TCP).

Net View & Modem - 2.3.3.4 (2021-11)

**JAVAD**

Connect: **Receiver** Modem Terminal

Connection Mode **Receiver**

**TCP**

Address  Port  Logical Port  Password   TLS/SSL  Raw

TCP Connections

- 166.166.26.91:8002 Receiver /

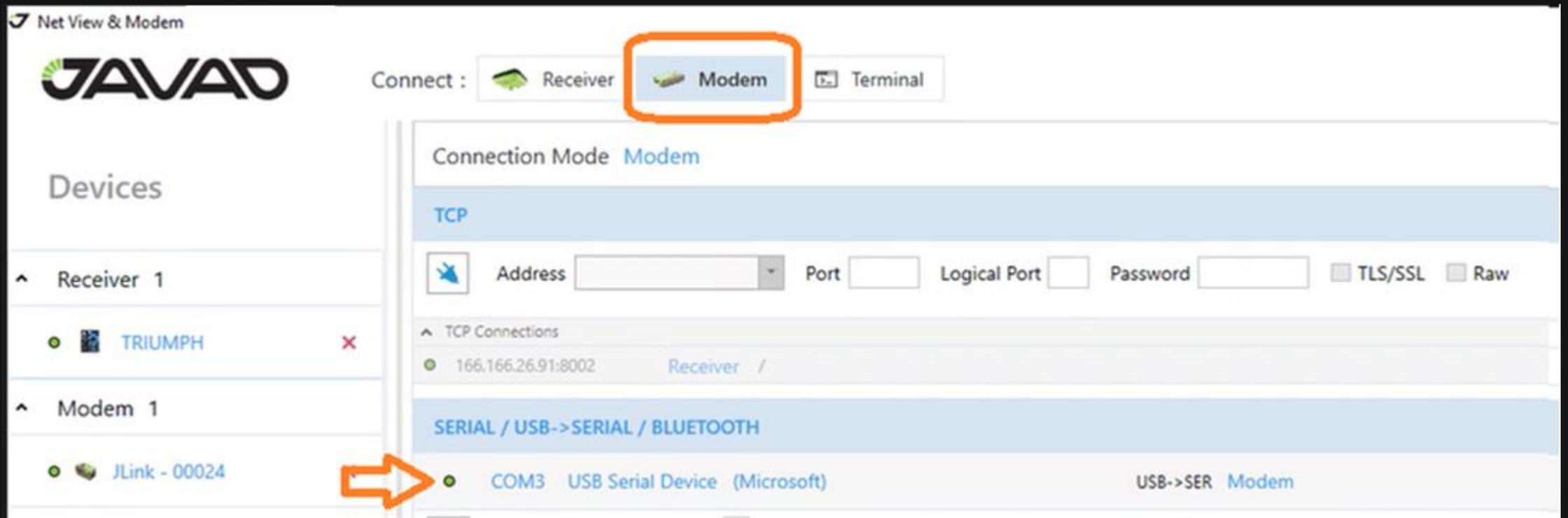
**SERIAL / USB->SERIAL / BLUETOOTH**

- COM3 USB Serial Device (Microsoft) USB->SER Modem
- COM4 1500000** GNSS Receiver (USB Serial) (JAVAD GNSS, INC) FTDI

# Pairing the Radio Modem

## Step 5

- Using NV&M, establish a connection to the **HPTxxxBT** to your PC by using either Serial or USB



# Pairing the Radio Modem

## Step 6

- Select Modem Option on the Receiver menu and then select the Modem Parameters 'tab' & the Modem b 'tab'.
- Select  `'/dev/blt/b'` for the **Triumph** Receiver Port Radio Modem.
- Select the UHF Radio 'tab'.
- and Select the Confirm 'Icon'.

The image displays two screenshots of the JAVAD Net View & Modem software interface, illustrating the steps for pairing a radio modem.

**Left Screenshot:** Shows the 'Devices' list on the left sidebar. The 'Modem' option is highlighted with a green box. A green arrow points from this box to the 'Modem' tab in the right screenshot.

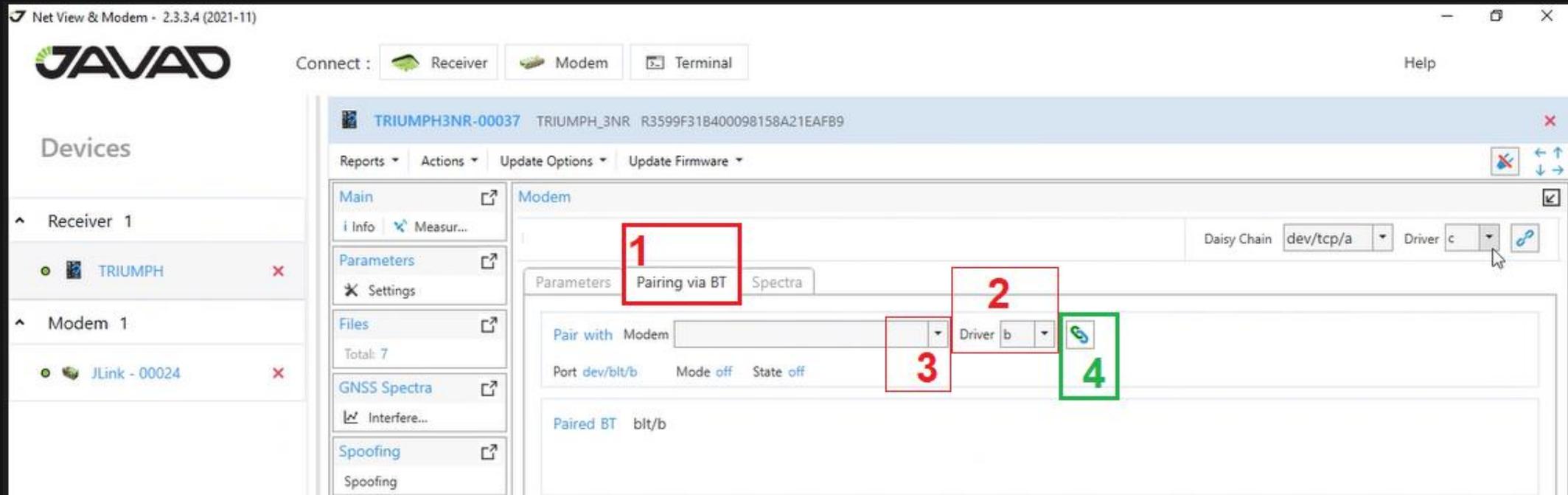
**Right Screenshot:** Shows the 'Modem Parameters' configuration page for 'Modem b'. The page is divided into several sections:

- Parameters:** The 'Parameters' tab is selected (1).
- Modem b:** The 'Modem b' tab is selected (2).
- Receiver Port:** The 'Receiver Port the Modem is...' field is set to  `'/dev/blt/b'` (3).
- UHF Radio:** The 'UHF Radio' tab is selected (4).
- Confirm:** A green checkmark icon (5) is visible at the bottom of the page.

# Pairing the Radio Modem

## Step 7

- Select the Pairing via BT 'tab'.
- Select Driver 'b' for the 'Pair with Modem'.
- Select the Modem type from the dropdown box selection and Select the confirm 'Icon'.
- then Click the Pair 'Icon'.

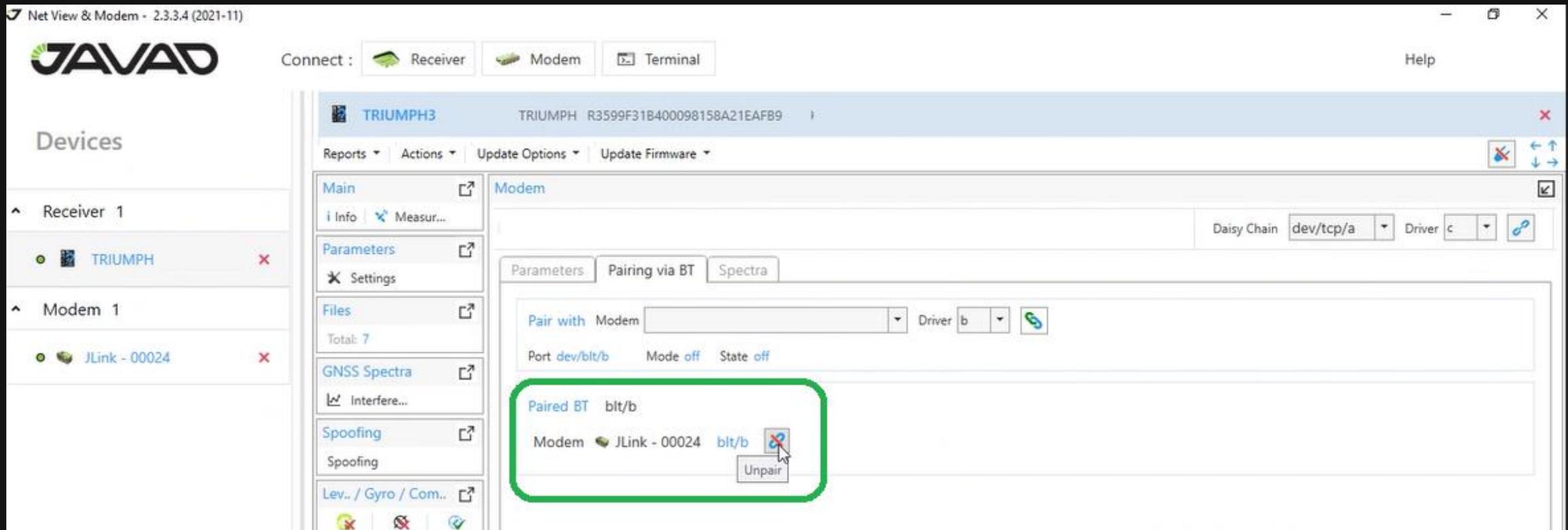


# Pairing the Radio Modem

## Step 8

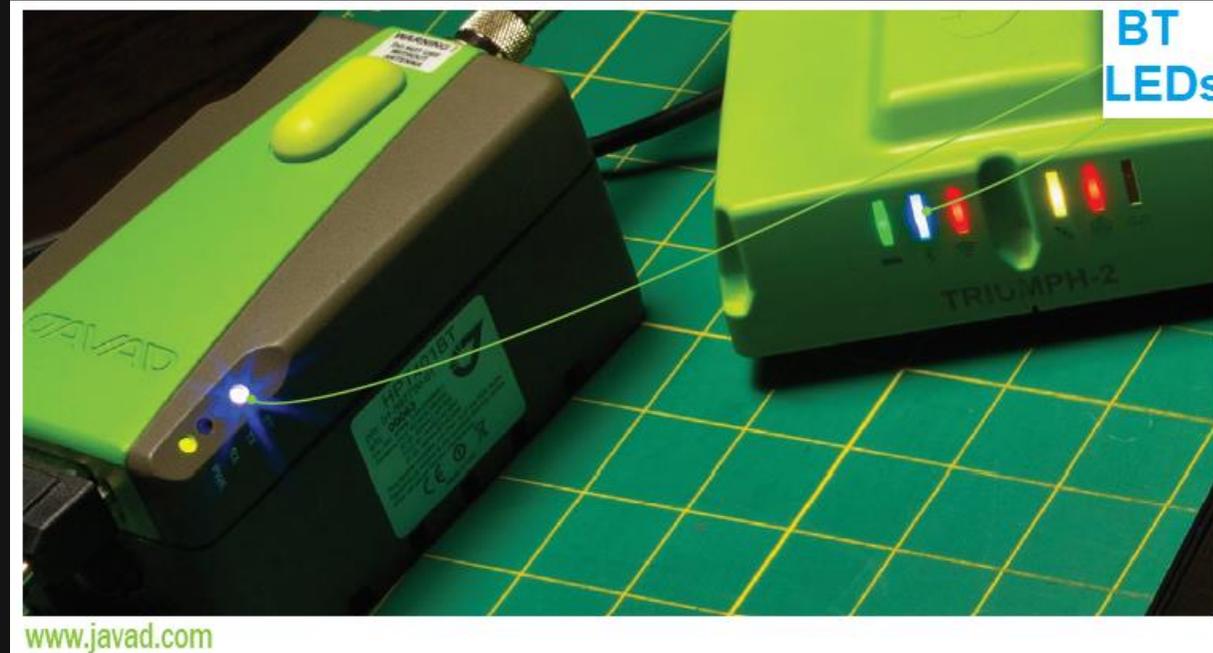
- Check that the **Triumph** and **HPTxxBT** radio are 'paired' using '**blt/b**' (Bluetooth Port b).

*Note: The BT link can be 'un-paired' by selecting the Unpair 'Icon'*



## Step 9

- The Bluetooth LED on both the **TRIUMPH** and **HPTxxxBT** should now both be blue.



# Pairing the Radio Modem

## Step 10

- Configure Base station RTK RTCM3 correction data output using the Ports 'tab' & Bluetooth 'tab'.
- and Select the Confirm 'Icon'.

The screenshot displays the JAVAD Net View & Modem software interface. The main window shows the configuration for a device named 'TRIUMPH3'. The 'Ports' tab is selected, and the 'Bluetooth' sub-tab is active. The 'Bluetooth b' configuration panel is visible, showing the 'Output' field set to 'RTK RTCM3 MSM Short'. Red annotations highlight the following steps:

1. The 'Ports' tab is selected.
2. The 'Bluetooth' sub-tab is selected.
3. The 'Output' field is set to 'RTK RTCM3 MSM Short'.
4. The 'Confirm' icon (a green checkmark) is selected.

# Pairing the Radio Modem



## Step 11

- Base station RTK RTCM3 correction data output can also be configured using the Receiver Output menu option, then select the Ports 'tab'.
- Locate the Port **'/dev/blt/b'**.
- Select the Message Set from the 'drop down menu.

Net View & Modem - 2.3.3.4 (2021-11)

Connect : Receiver Modem Terminal

Help

Devices

- Receiver 1
  - TRIUMPH
- Modem 1
  - JLink - 00024

TRIUMPH TRIUMPH R3599F31B400098158A21EAFB9

Reports Actions Update Options Update Firmware

Main Info Measur... Parameters Settings Files GNSS Spectra Interfere...

Output

Ports Message Sets

Port	Output Messages	em	dm
dev/blt/b	rtcm3/1006={10.000,0.000,0.0x0}, rtcm3/1008={10.000,0.000,0.0x0}, rtcm3/1073={1.000,0.000,0.0x0}, rtcm3/1083={1.000,0.000,0.0x0}, rtcm3/1093={1.000,0.000,0.0x0}, rtcm3/1103={1.000,0.000,0.0x0}, rtcm3/1113={1.000,0.000,0.0x0}, rtcm3/1123={1.000,0.000,0.0x0}, rtcm3/1133={1.000,0.000,0.0x0}	Message Set	II

# Pairing the Radio Modem

## Step 12

- Return to the Main screen and you can check the system.

Net View & Modem - 2.3.3.4 (2021-11)

Connect: Receiver Modem Terminal

Help

Devices

- Receiver 1
  - TRIUMPH3
- Modem 1
  - JLink - 00024

TRIUMPH3 TRIUMPH R3599F31B400098158A21EAFB9

Parameters Main

Settings

Files Total: 7

GNSS Spectra Interfere...

Spoofing Spoofing

Modem JLink Lev.. / Gyro / Com..

Options Actual

Output Ports Message...

Greis Commands

Real-Time Log

Parameters

ID R3599F31B400098158A21EAFB9

Model TRIUMPH Vendor JAVAD GNSS

Serial No 00037

Firmware 4.3.00

Board TRIUMPH

UpTime 0d01h41m49s

Memory (Used/Total) 27.09 MB / 52.27 GB

Number of files 7

Communication Interfaces B- W- G- U- C-

Spooing Mode

Satellites Sky Plot RTK Engines

Sys	Num	EI	Az	SNR	Track Time	Status	Health
GPS : (3)							
GPS	13	48	136	28	00:00:00	23	✓
GPS	25	15	236	33	00:00:15	0	✓
GPS	29	61	298	29	00:00:02	23	✓
GLO : (1)							
GLO	17/4	67	24	27	00:00:04	23	✓
GAL : (3)							
GAL	4	56	150	25	00:00:00	23	✓
GAL	9	17	194		00:02:12	45	✓
GAL	25	17	266	30	00:01:49	23	✓
BDS : (1)							
BDS	11	33	128		00:05:35	2	✓

Satellites 8 (3) | GPS - 3 (1) | GLO - 1 (0) | GAL - 3 (1) | QZSS - 0 (0) | BDS - 1 (1) | SBAS - 0 (0) | IRNSS - 0 (0) | L BAND - 0 (0)

