



# FJD TRION™ N10

CORS SYSTEM


# FJD TRION™ N10 CORS SYSTEM

FJD Trion N10 CORS System provides 24/7 high-precision correction data services. Its core N10 GNSS reference receiver features strong anti-interference capability and supports five major satellite systems including GPS, GLONASS, Galileo, BeiDou, and QZSS, ensuring high-precision positioning and stable operation. The built-in battery ensures continuous operation during power loss, and the management platform enables efficient administration of base stations and NTRIP accounts. The N10 makes it easier to access and utilize RTCM data in real-time via the internet, delivering reliable centimeter-level positioning solutions for applications such as surveying and mapping, precision agriculture, and robotic lawn mowing.

  
Centimeter-level  
Positioning Accuracy

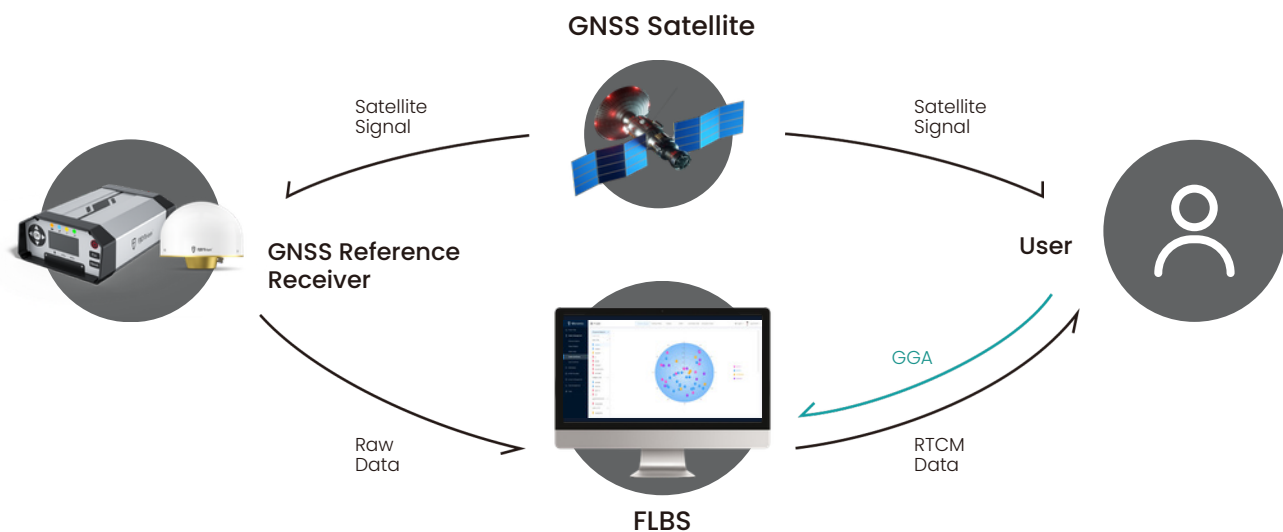
  
Multi-Satellite  
Multi-Frequency

  
24/7 All-Weather  
Operation

  
10000 Concurrent  
Users per Server

  
Timely Warning

  
High Availability  
and Fast Convergence



## RELIABLE SIGNAL RECEPTION STARTS AT THE ANTENNA

### CGX611A 3D CHOKE RING ANTENNA

#### Global Frequency & Constellation Coverage

Receive all major GNSS frequencies for maximum precision.

#### Designed to Reject Interference

Minimize multipath interference and signal reflections.

#### Built-In Precision

Offer  $\pm 1$  mm phase-center offset, an MTBF over 30,000 hours, and rugged IP67 protection for consistent field deployment.



# HIGH-PRECISION GNSS RECEIVER BUILT TO LAST N10 GNSS REFERENCE RECEIVER

## Multi-System High-Precision Positioning

Cover all major global satellite navigation systems and offer wide compatibility with 16 frequency bands. It supports the configuration of multiple coordinate systems, ensuring rapid and precise positioning in any terrain around the world.

## Durable Design, Stable Performance

Feature an IP67-rated enclosure, built-in firewall, and a 22,000mAh battery. With advanced network backup mechanism and an MTBF of over 25,000 hours, it ensures 24/7 uninterrupted performance.

## Smart Operation & Data Sharing

Support 30-day data storage, automatic FTP transmission of raw observation data, remote N2N configuration, and OTA firmware updates. It enables non-touch maintenance and seamless data sharing, significantly improving efficiency in data access, analysis, and collaboration while ensuring highly stable and reliable system operation.

## Simultaneous Broadcasting via Internet & Radio

Broadcast simultaneously RTK data via internet and radio, ensuring uninterrupted high-precision positioning in any environment. With broader coverage and higher reliability, it eliminates signal loss for efficient and consistent operations.



# INTELLIGENT SIGNAL MANAGEMENT FROM ANYWHERE

## FLBS PLATFORM

### Streamlined CORS Station Oversight

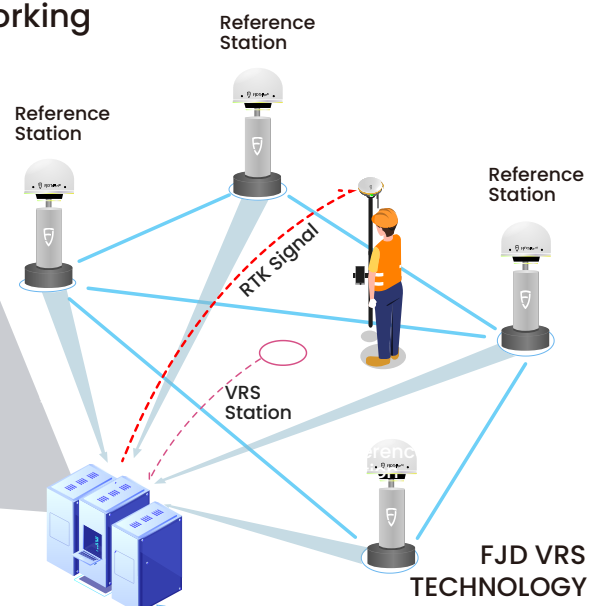
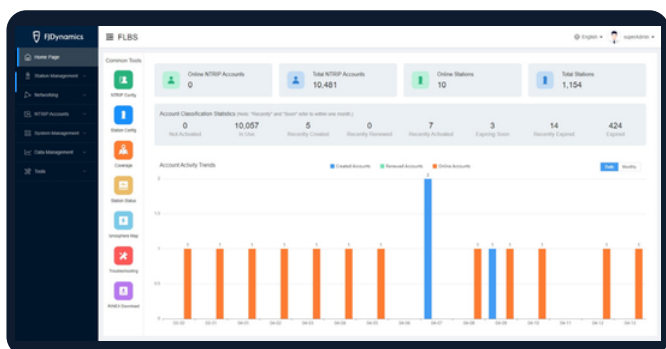
View, monitor, and manage all your stations remotely with real-time status feedback and alerts.

### User and Account Management Made Simple

Create and administer Ntrip accounts and view live connection status.

### Multi-Platform Compatibility and VRS Networking

Compatible with multi-brand GNSS receiver and terminal, VRS technology supported as well.



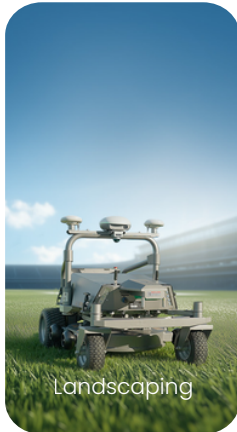
# APPLICATION



Machine Control



Precision Agriculture



Landscaping



Engineering Survey



Drone Application

## SPECS

### N10 GNSS Reference Receiver

#### Positioning

Channels	1408
Frequencies	BDS B1I, B3I, B1C, B2a, B2b GPS L1C/A, L2C/L2P, L5 GLO L1, L2 GAL E1, E5a, E5b QZSS L1C/A, L2C, L5, L1S, L1C/B
Single point(RMS)	Horizontal: 1.5 m Vertical: 2.5 m
RTK(RMS)	Horizontal: 0.8 cm + 1 ppm Vertical: 1.5 cm + 1 ppm
Static differential (RMS)	Horizontal: 2.5 mm + 1 ppm Vertical: 5.0 mm + 1 ppm
Protocols	NMEA-0183, RTCM 2.x/3.x
Update rate	Up to 5 Hz
GNSS antenna	Survey GNSS antenna or choke ring antenna

#### 4G network

4G module	Universal
Coverage	Global (except the Antarctic and Arctic regions)
SIM card slot	Micro SIM

#### Wi-Fi network

Wi-Fi hotspot	For configuring the receiver
Wi-Fi hotspot properties	Name: FJN10SN Initial password: 123456789 Initial IP address: 192.168.200.1
Wi-Fi client	For receiver networking (connect to a 2.4 GHz Wi-Fi network using DHCP)

#### Ethernet

Ethernet transceiver	Transmission speed: 10/100 Mbps Initial IP address: 192.168.1.6
----------------------	--

#### Physical and environmental

Power consumption	5 W (standard)
Dimensions	L×W×H: 220.7×152.1×81.7 mm
Weight	2.08 kg
IP rating	IP67
Operating temperature	-40°C to 65°C
Storage temperature	-40°C to 80°C

#### I/O

##### USB

Connector Type	Type-C
USB port	Compliant with USBIF USB2.0 standards. Max. transmission speed: 480 Mb/s
Usage	For connecting to an external storage or updating firmware

##### LEMO

LEMO connector	2-pin, applicable power supply: DC 9 V–36 V, recommended power supply: DC 12 V
----------------	---

##### RJ45

Aviation connector	Ethernet port
--------------------	---------------

##### COM1

RS232 connector	DB9 connector
-----------------	---------------

##### COM2

RS232 connector	7-pin LEMO
-----------------	------------

##### GNSS

GNSS antenna	TNC connector
--------------	---------------

##### 4G

4G antenna	SMA connector
------------	---------------

##### PPS

PPS output	SMA connector
------------	---------------

##### EVENT

External event input	SMA connector
----------------------	---------------

##### CLK

External frequency standard input	SMA connector, reserved
-----------------------------------	-------------------------

#### Power supply

Input voltage	DC 9 V–36 V AC 90 V–260 V
Over-voltage protection	Threshold: DC 38 V
Protection against reverse connection	Supported
Powering method	Lithium battery of 22,000 mAh (under standard conditions) External DC power supply via LEMO connector
Battery life	>24 h
Restart	Remote restart supported

## CGX611A 3D Choke Ring Antenna

### Antenna

Frequencies	BDS B1I, B3I, B1C, B2a, B2b GPS L1C/A, L2C/L2P, L5 GLO L1, L2 GAL E1, E5a, E5b QZSS L1C/A, L2C, L5, L1S, L1C/B
Impedance	50 Ω
Polarization	Right-handed circular polarization
Antenna axial ratio	≤3 dB
Horizontal coverage	360°
Output VSWR	≤2.0
Peak gain	6.5 dBi
Phase center error	±1 mm

### Low noise amplifier

Gain	50±2 dB
Noise figure	≤2 dB
Output VSWR	≤2.0
In-band flatness	±2 dB
Operating voltage	DC 3.3 V–12 V
Operating current	≤60 mA
Differential transmission delay	≤5 ns

### Structure

Size	Φ185*148 mm
Weight	≤1.8 kg
Connector	TNC female
Installation	5/8"×11 threaded

### Environment

Operating temperature	-40°C to 85°C
Storage temperature	-55°C to 85°C
Humidity	95% non-condensing



Free Quote: [sales.global@fjdynamics.com](mailto:sales.global@fjdynamics.com)  
Address: 15 SCOTTS ROAD #03-12, SINGAPORE

FJDynamics.com



## FLBS Platform

### Coverage

Within network	Full coverage
Outside network	Up to 30 km
Reference station spacing	30~80 km

### Positioning accuracy (RMS)

Network RTK	Horizontal: ≤ 2 cm Vertical: ≤ 5 cm
-------------	--

### Compatibility

Satellite signals	BDS B1I, B3I, B1C, B2a, B2b GPS L1C/A, L2C/L2P, L5 GLO L1, L2 GAL E1, E5a, E5b QZSS L1C/A, L2C, L5, L1S, L1C/B
-------------------	--

Correction data formats	RTCM 2.3, RTCM 3.0, RTCM 3.2 MSM4, RTCM 3.2 MSM5, CMR, CMR+
-------------------------	--

Broadcast rate	1 s
----------------	-----

Reference station	Supports all GNSS reference station receivers compliant with NTRIP 1.0 protocol
-------------------	--

Rover	Supports all GNSS rover receivers compliant with NTRIP 1.0 protocol
-------	--

Data storage format	RTCM 2.x/3.x, RINEX 3.04
---------------------	--------------------------

### Service modes

Operation modes	Physical reference station, Virtual reference station (Gird VRS)
-----------------	---

Station types	Nearest station, Assigned station
---------------	-----------------------------------

### Stability

Availability	99.9% (365 days/year) 24/7 continuous operation
--------------	--

Email alerts	Reference station offline NTRIP account status changes Ionospheric activity
--------------	---

Phone alerts	Service operation anomalies
--------------	-----------------------------

### Capacity

End Devices	Based on a distributed cloud architecture, supporting hundreds of thousands of concurrent device connections
-------------	---

### Internationalization

Languages supported	Simplified Chinese, English, French, Spanish, German, Hungarian, Turkish
---------------------	---

**CREATE FOR A BETTER WORLD**

Copyright © FJDynamics. All rights reserved.