

J-20E

JANAK GNSS Receiver



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The J-20 GNSS Receiver is JANAK's all-new multi-GNSS, multifrequency smartantenna. The J-20 provides robust performance and high precision in a compact, rugged package with IMU compensation ability. With multiple wireless communication ports and an open GNSS interface, the J-20 can be used in a variety of operating modes.

Use the J-20 as a precise network rover to work with your GNSS VRS network, or set up your J-20 as an easy-to-use base-rover package with industry-leading performance via the internal long-range and spread-spectrum radio or cellular communication via JANAK's **Janak Live Sync** Internet connection, you can enjoy a simple, easy-to-use base-rover solution that can also support a single base with multiple simultaneous rover connections. The J-20 provides state-of-the-art RTK performance when receiving corrections from a static base station or network RTK correction system. With multiple connectivity options, the J-20 allows for RTK corrections to be received over the radio, cell modem, Wi-Fi, Bluetooth, or serial connection. The J-20 delivers centimeter-level accuracy with virtually instantaneous initialization times and cutting-edge robustness in challenging environments.

The built-in web user interface (WebUI) can be used to monitor and control the receiver status and operation, as well as upgrade the J-20 with new firmware and activations. The J-20 is immune from magnetic interference.

KEY FEATURES

Multi-frequency GPS, IRNSS L5, GLONASS, BeiDou, Galileo, QZSS, IRNSS(Navic) and L-band.

Long-range RTK baselines up to 50 km with fast acquisition times with the use of Listen-Listen ***

UHF (410 MHz & 470 MHz), cellular, Bluetooth, and Wi-Fi wireless communication

Internal tilt (IMU) sensor corrects



Technical Specifications

Receiver Type:

Multi-Frequency All-in-View GNSS Receiver

Satellite Tracking-

GPS- L1CA, L1P, L1C, L2P, L2C, L5

GLONASS- L1CA, L1P, L2C /A, L2P, L3

BeiDou- B1i,B2i,B3i,B10C,B2A,B2B,ACEBOC

GALILEO- E1BC, E5a, E5b, E6BC, ALTBOC

QZSS- L1CA, L2C, L5, L1C, LEX

IRNSS- L5

L Band,

SBAS L1 & L5 (WAAS, EGNOS, MSAS, GAGAN)

Channels:

1598

RTK Formats:

RTCM2.1, RTCM2.3, RTCM3.0, RTCM3.1, RTCM3.2 including MSM, CMR, CMR+

Recording intervals:

Selectable from 1, 2, 4, 5, 10 Hz (20 Hz or 50 Hz optional)

Accuracy

Autonomous Hz: 1.2 m, Vz: 2.4m

Code Differential Hz: 0.25 m + 1 ppm

Vz: 0.50 m + 1 ppm

SBAS Hz :0.25 m, Vz: 0.5m

Network RTK Hz: 8 mm + 0.5ppm

Vz: 15 mm + 0.5 ppm

RTK Hz: 8 mm + 1.0 ppm

Vz: 15 mm + 1.0 ppm

Static Hz: 2.5mm +0.1ppm

Vz: 3.5 mm + 0.4 ppm

Imu Tilt Compensation: ±60° with accuracy

10mm+0.7mm/°tilt down to 30°

Initialization Time:

< 8s

Communications

Bluetooth:

Bluetooth 2.1 + EDR / 4.0 LE

Wi-Fi:

802.11 b/g

Network:

LTE FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/

B18/B19/B20/B25/B26/B28

LTE TDD: B38/B39/B40/B41

UMTS: B1/B2/B4/B5/B6/B8/B19

GSM: B2/B3/B5/B8

Radio:

Frequency range: 410MHz – 470MHz

Protocol:

Trim Talk 450S, PCC EOT, Trim Mark 111(19200), GMSK, SATEL

Connector Ports

TNC:

For connecting to a UHF radio antenna

LEMO 5-pin:

For connecting to the external power supply, external radio

LEMO 7-pin:

For serial port, USB

Card Slots:

Micro SIM card and Micro SD card

Data & Storage

Storage Type:

32 GB internal, SD card up to 128 GB

Physical

Weight:

1.12 kg (1 battery), 1.25 kg (2 batteries)

Dimensions:

156 x 76 mm

Environmental

Operating Temperature:

-30°C ~ +65°C

Storage Temperature:

-40°C ~ +80°C

Protection:

IP68. Protected from temporary immersion to a depth of 1 m

Shock Resistance:

MIL-STD-81 0G, method 516.6.

Designed to survive a 2 m pole drop on the concrete floor.

Humidity:

Up to 100%

Vibration:

MIL-STD-810G, method 514.6E-I

Electrical

Input Voltage:

9 to 28 V DC

Battery:

With removable dual battery, for single battery parameter: 7.2 V, 3400 mah, 24.48 Wh

Working Time:

Up to 12 hours

User interface

LEDs:

Power, Satellite, Data Link, Bluetooth



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