J-20

JANAK GNSS Receiver

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 cellularcommunication 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 roverconnections.

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 instantaneousinitialization times and cutting-edge robustness in challengingenvironments.

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, and L-band.

Long-range RTK baselines up to 50 km with fast acquisitiontimes with the use of Listen-Listen[***]

UHF (410 MHz & 470 MHz), cellular, Bluetooth, and Wi-Fiwireless 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- G1/G2/G3, P1/P2
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 (WAAS, EGNOS, MSAS,GAGAN)

Channels:
800

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	
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 3.0** mm +0.1ppm		
	Vz 3.4 mm + 0.4 ppm		

Imu Tilt Compensation ±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:
TrimTalk 450S, PCC EOT, TrimMark 111(19200)

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:
8 GB internal, SD card up to 32 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:
IP67. 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
lnput 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