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TOKNAV



GNSS Receiver

NET660

Basic System Construction Receiver

NET660 GNSS Receiver

NET660 GNSS receiver is a high-performance device engineered specifically for the construction of ground-based enhancement systems, such as those used with the Beidou navigation satellite system. It boasts an built-in Linux operating system and fully independent intellectual property rights. Its diverse interfaces and communication methods, along with support for event inputs, PPS outputs, and substantial data storage, make it an ideal choice for foundational system construction.

CHARACTERISTIC

Linux Intelligent System

Utilizing a Linux + ARM Cortex-A7 system platform, the NET660 offers efficient computation and endless possibilities for product function expansion.

Comprehensive GNSS Receiver

The device integrates a high-precision positioning module capable of receiving and processing signals from a full array of systems and frequencies, including BDS (B1I/B2I/B3I, B1C/B2a/B2b), GPS (L1CA/L2P/L2C/L5), GLONASS (G1/G2), Galileo (E1/E5a/E5b), QZSS, SBAS, and IRNSS, providing complete system and full-frequency signal reception and solution.

Advanced Positioning Capabilities

Features narrowband interference resistance and continuous wave interference suppression, enabling rapid initial positioning and fast satellite signal lock for quick and precise data acquisition necessary for subsequent processing.

Versatile Connectivity Options

Offers Ethernet, WiFi, serial ports, Bluetooth, and mobile network interfaces, allowing for flexible connectivity solutions.

Protocol Compatibility

Supports a variety of protocols including Ntrip Client/Server/Caster, TCP Client/Server, FTP for file transfers, and HTTP/HTTPS for secure communications over protected networks.

IP68 Design

Features a robust aluminum alloy casing, designed to meet IP68 standards for durability and reliability, ensuring safe and dependable operation in challenging environment.

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IP68 Design

Magnesium alloy main body

Multi-Channel

GPS GLONASS BDS GALILEO
QZSS NavIC

Abundant Hardware Interface

PWE DATA PPS SIM Ethernet
4G GNSS*1

Safe encrypted data and
cloud management

Intelligent Linux OS and
flexible route management



Comprehensive network coverage
13800mAh, Over 24 hours
Cloud service function
1.3-inch LCD display, visual experience

WIDTH	HEIGHT	LENGTH	WEIGHT
172 mm	58 mm	148 mm	1920g

SPECIFICATION

SYSTEM

HARDWARE SYSTEM ARM Cortex-A7 1.8GHz

OS Linux

GNSS

GPS L1C/A, L2P(Y), L2C, L5

GLONASS L1, L2, L3

BDS B1I, B2I, B3I, B1C, B2b, B2b

GALILEO E1, E5a, E5b

QZSS L1C/A, L2C, L5

SBAS L1C/A

NavIC(IRNSS)* L5*(Requires firmware support)

L-band

Standard Output NMEA-0183

Correction I/O Protocol RTCM 3.X

Frequency 1Hz, 2Hz, 5Hz, 10Hz, 20Hz max

Reacquisition Time <1s

Cold Start Time <40s

ACCURACY

Single(RMS) Horizontal: 1.5m / Vertical: 2.5m

DGPS(RMS) Horizontal: 0.4m / Vertical: 0.8m

RTK(RMS) Horizontal: $\pm (8\text{mm}+1\text{ppm})$
Vertical: $\pm (15\text{mm}+1\text{ppm})$

Timing Accuracy (RMS) 20ns

Static Mode Precision (RMS) Horizontal: $\pm (2.5\text{mm}+1\text{ppm})$
Vertical: $\pm (5\text{mm}+1\text{ppm})$

Data Availability $\geq 98\%$
(Data available/Data collected)

Data Completeness $\geq 98\%$ (Data collected/
Expected data to be collected)

INTERFACE

Bluetooth BR+EDR+BLE

WIFI 802.11 b/g/n

Network Full frequency
LTE FDD: B1/2/3/4/5/7/8/12/13/
18/19/20/25/26/28
LTE TDD: B38/39/40/41
WCDMA: B1/2/4/5/6/8/19
GSM: B2/3/5/8

Ethernet Port

Standard RJ45 interface,
10/100Mbps network adaptive

Serial Port

Two 5-pin connectors;
standard RS232 interface with
baud rates supporting 9600,
19200, 38400, 115200,
and 230400 bps

Storage

32GB storage

INDICATOR

LCD Display

Size: 1.3inch
Resolution: 240*RGB*240

Power Indicator

Indicates power and charging
status

Differential Signal
Indicator

Indicates the status of
network connection

Satellite Indicator

Indicates satellite reception status

Bluetooth Indicator

Indicates Bluetooth connection
status

BATTERY / CHARGE

Capacity

7.2V, 13800mAh

Endurance

Over 24 hours(Supports
continuous data collection for
26 hours on a full charge)

Charging

TYPE-C - USB PD 15V/2A 5V/3A
LEMO - 12V/2A DC
Input supported

ENVIRONMENT

Operating Temperature $-20^{\circ}\text{C}\sim+60^{\circ}\text{C}$

Storage Temperature $-20^{\circ}\text{C}\sim+70^{\circ}\text{C}$

Shock Resistance GB/T2423

Protection Rating IP68

PHYSICAL

Material

Magnesium alloy main body

Dimension

172mm*148mm*58mm

Weight

1920g

ACCESSORIES

NET660

1 Unit

Power adapter

1 PCS

Serial Port

2 PCS

WIFI Antenna

1 PCS

4G Antenna

1 PCS

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Manufacturers may update parameters at any time, please refer to the latest product information.



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