

ER220-INS N GNSS High - End Integrated Navigation And Positioning Module



Product Introduction:

ER220-INS Smaller GNSS + MEMS integrated navigation module for automotive and high-end navigation applications, ER220-INS built-in 6-axis MEMS devices, support BDS + GPS dual system, direct output GNSS and MEMS combination of positioning results, especially for positioning accuracy, reliable, low-power GNSS SoC chip-Humbird™ UC220, fully independent intellectual property rights Both sex and continuity require stringent application requirements.

Product advantages:

Miniaturized All-in-One design;

Built-in MEMS inertial device, single module output combined navigation and positioning results;

Even in the tunnel, the underground parking lot can maintain 100% continuous positioning;

Onboard integrated navigation algorithm to support odometer pulse / speed information input;

Support for D-GNSS, A-GNSS;

Forward compatible UM220-III N.

Technical indicators:

Performance:

Channel based on 64-channel Humbird™ chip positioning accuracy 2.5m CEP (dual system level)

Frequency BDS B1 <5% x Travel distance Inertial navigation, no GNSS signal

GPS L1 2.0m CEP (SBAS level) *

Positioning Mode Single System Independent Positioning Speed Accuracy 1 (RMS)
GNSS / GPS: 0.1m / s

Multi-system joint positioning BDS: 0.2m / s

First time (TTFF) Cold start: 30s 1PPS support

Hot start: 1s sensitivity BDS GPS

Re-capture: <1s tracking -160dBm -160dBm

Data update rate of 1 ~ 5Hz capture -145dBm -147dBm

Physical characteristics:

Size 12.2 × 16 × 2.4mm

Package 24-pin, SMD surface mount

Temperature Operating temperature -40 ° C to + 85 ° C

Storage temperature -45 ° C to + 90 ° C

Electrical indicators:

Voltage 2.7V ~ 3.6V DC

LNA feeds 2.7V to 3.3V, <100mA

Power consumption 2 150mW

Functional characteristics:

Active antenna, passive antenna, D-GNSS *, A-GNSS *

Function interface:

Data interface:

2 x UART / 1 x SPEED / 1 x FWD /

1 x event input / 1 x 1PPS output

Data Interface NMEA 0183 (compatible with Big Dipper)

Unicore

Note: Note * part of the optional configuration 1 typical, <30m / s open sky
2open sky, continuous tracking

Application areas:

Car installed before the navigation device