

HGUIDE N380 INERTIAL/GNSS NAVIGATOR

PRE-RELEASE "BLOCK B"

Honeywell

HGUIDE N380 INERTIAL/GNSS NAVIGATOR

The HGuide n380 is an incredibly small, light-weight, self-contained, all-attitude Inertial/GNSS Navigator designed for applications where robust, continuous position and attitude navigation data is required.

The HGuide n380 contains Honeywell's leading edge i300 IMU and the Honeywell g080 GNSS card, which provides a powerful dual-antenna, multi-frequency, multi-constellation RTK capability.

Honeywell's integration expertise blends the IMU and GNSS data to provide an accurate, robust navigation service to your application with all the functionalities that you need. The HGuide n380 output data includes time-stamped position, velocity, angular rate, linear acceleration, roll, pitch and heading information. In dual-antenna mode, the device supports GNSS-based heading measurements and initialization.



Proven – Dependable – Accurate

KEY HONEYWELL ADVANTAGES

- Honeywell proven navigation algorithms for air, land and sea
- World-class inertial sensor development, calibration and compensation
- Proven reliability, dependability and ruggedness
- Accepts RTCM3 GNSS corrections
- Highest-performing Inertial/GNSS navigator of its size, weight and price
- Field-upgradeable SW
- Multiple configurable ports. Support Lidar
- ECCN 7A994. Non-ITAR
- OEM versions available
- Vehicle and railroad operating modes (LAND CONSTRAINTS)
- HGuide motion detect improves GNSS outage performance
- Accepts standard quadrature RS422 odometer input

HGUIDE n380 TYPICAL KEY CHARACTERISTICS

GNSS Capability	SBAS, RTK, and Dual Antenna Standard; PPP Capable
GNSS Signals (Standard)	GPS L1/L2/L5; GLONASS G1/G2/G3/P1/P2; BeiDou Phase 2&3 B1/B2/B3; Galileo E1/E5a/E5b/E6; NavIC (IRNSS) L5; QZSS L1/L2/L5
Time to First Fix/Signal ReAcquisition	Cold Start, 60 Sec; Warm Start, 30 Sec, Hot Start with Heading Fix, 10 Sec
Shock/Vibration	40 g for 11 msec (MIL-STD-810G) / Random 2.2g's RMS 20-2000 Hz
Supply Voltage/Power Consumption	+9VDC to +36VDC / 3.5 Watts
Weight/Volume	320 g (0.77 lbs) / 260 cm ³ (15.9 in ³), ~9cm x 6cm x 4.8cm
Temperature (Op/Non-Op)	-40°C to +71°C (0.8°C/min Max) / -54°C to 85°C (3°C/min Max)
Regulatory	FCC, ISED, CE, RoHS, WEEE, COCOM Limit Compliant
Submersion (Non-op)	2 Meters for 24 Hours (IEC 60529), IP68
Communication Ports	RS-422 (2x), 5V CMOS, RS-232, USB, Ethernet & NTRIP Client, CAN J1339
Discrete Signals	Time Mark Outputs (2), User Event In (3), Direct Quadrature Encoder Inputs
Internal Data Storage	16 GB, USB 2.0 Access
LED Status Indicators	Power, GNSS, Navigation, Data Logging

HGUIDE n380 NAVIGATION PERFORMANCE

POSITION		VELOCITY		HEADING ¹	PITCH/ROLL
Horizontal (m, 1 σ)	Vertical (m, 1 σ)	Horizontal (m, 1 σ)	Vertical (m, 1 σ)	(°, 1 σ)	(°, 1 σ)
< 0.01 RTK < 0.4 SBAS	< 0.025 RTK < 0.4 SBAS	< 0.015	< 0.01	< 0.08	< 0.03

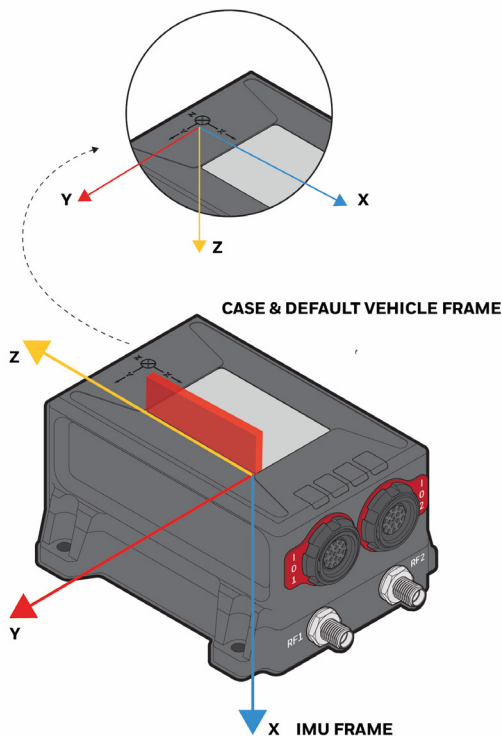
¹ In dual antenna mode with 2m baseline; longer baselines improve performance.

HGUIDE n380 RTK DUAL ANTENNA PERFORMANCE – GNSS OUTAGES WITH NO AIDING²

RMS Error	3 Seconds	10 Seconds	30 Seconds
Horizontal (meter)	0.12	0.3	2.5
Vertical (meter)	0.060	0.2	0.75
Heading (degree)	0.10	0.125	0.15
Horizontal Velocity (meters/s)	0.030	0.08	0.16
Vertical Velocity (meters/s)	0.02	0.04	0.06

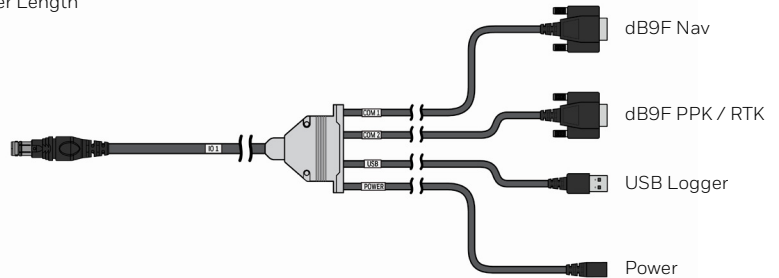
² Results in table do not include use of any aiding. Unit accepts odometer pulse count aiding through the direct quadrature encoder RS422 input. HGuide MOTION DETECT and VEHICLE LAND CONSTRAINT modes also greatly improve railroad and car performance during GNSS outages even without an odometer. Contact Honeywell for more information.

ALL ATTITUDE INSTALLATIONS USE CUSTOMIZABLE VEHICLE FRAME



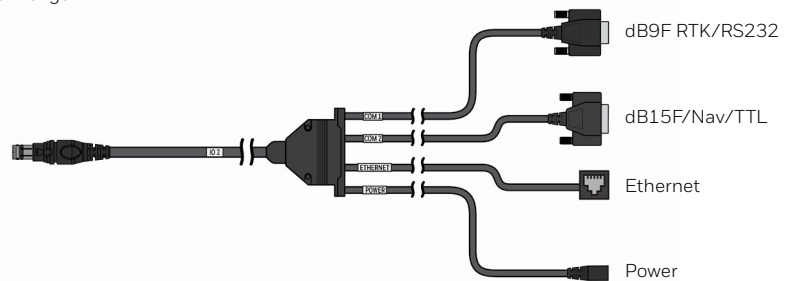
STANDARD CONFIGURATIONS

Terminated IO1 Cable - Honeywell PN 53700054-9
1.8 Meter Length



Additional accessories described in installation manual

Terminated IO2 Cable - Honeywell PN 53700054-6
1.8 Meter Length



Additional accessories described in installation manual

68910380-B258
n380 Only.

68920380-B258
n380/IO1 Cable/IO2 Cable Included

For More Information

aerospace.honeywell.com/HGuide

Honeywell Aerospace

2600 Ridgway Parkway
Minneapolis MN 55413
aerospace.honeywell.com

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THE
FUTURE
IS
WHAT
WE
MAKE IT

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