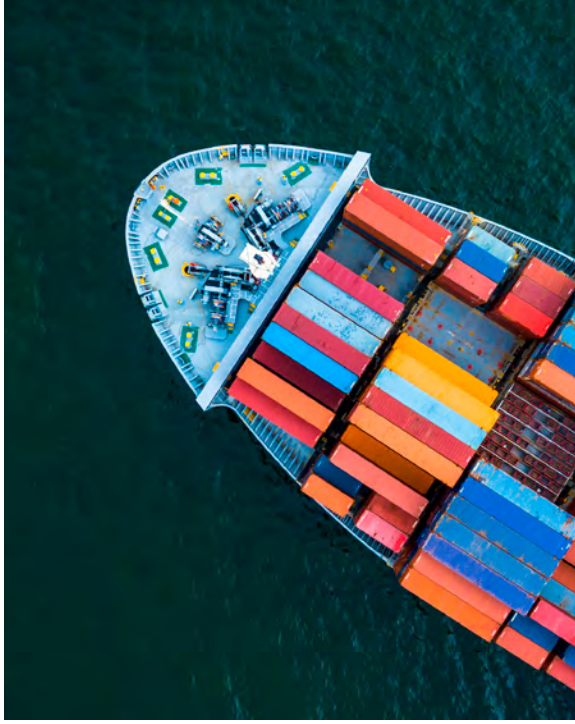

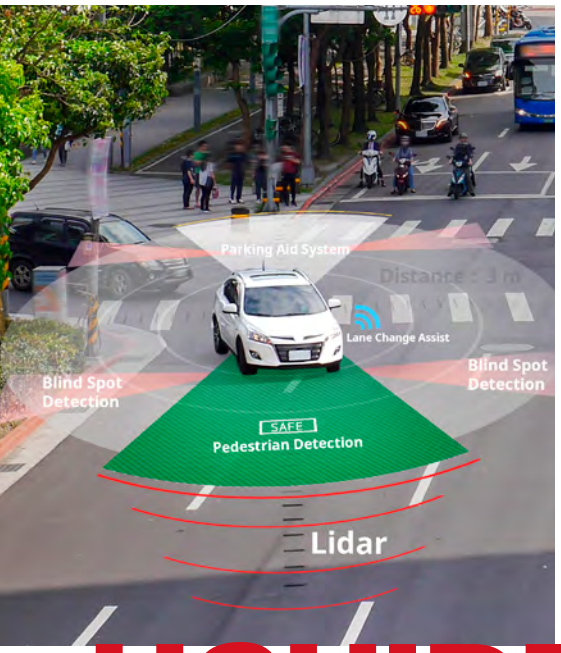

HGUIDE N380
INERTIAL/GNSS NAVIGATOR

Honeywell

HGUIDE N380 INERTIAL/GNSS NAVIGATOR

Proven - Dependable - Accurate

The HGuide n380 is an incredibly small, lightweight, 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 inertial measurement unit (IMU) and 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.

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.
- Configuration flexibility. Only purchase the features you need.
- Multiple configurable communication ports.
- The HGuide n380 is not ITAR controlled. Its Export Control Classification Number (ECCN) is 7A994.

HGUIDE n380 TYPICAL KEY CHARACTERISTICS

GNSS Capability	SBAS, PPK, RTK mode options, SIngle or Dual Antenna Capable
GNSS Signals	GPS L1, L2, L5; GLONASS L1, L2, L3; BeiDou B1, B2; Galileo E1, AltBOC, E5a, E5b; NavIC (IRNSS) L5; SBAS L1, L5 QZSS L1, L2, L5;
Time to first fix/Signal reacquisition	Cold Start, < 45 Sec: Hot Start, < 20 Sec / < 1 Second Due to Momentary Outages
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
Submersion (non-op)	2 Meters for 24 Hours (IEC 60529 IP68)
Communication Ports	RS-422 (2x), 5V CMOS, RS-232, USB, Ethernet (10/100)
Discrete Signals	System & GPS Time Marks, User Event In (2), 1 PPS Event in Marker, Supports Lidar
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, 1σ)	Vertical (m, 1σ)	Horizontal (m, 1σ)	Vertical (m, 1σ)	(°, 1σ)	(°, 1σ)
0.01 RTK 0.6 SBAS	0.025 RTK 0.6 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 AIDING[2]

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. However, the unit is capable of accepting numerous aiding types (including odometer and velocity aiding).

HGUIDE n380 STANDARD CONFIGURATIONS

Marketing Part Number	Honeywell Part Number	RF INPUTS		POSITIONING SERVICES			CONSTELLATIONS			
		1RF	2RF	SBAS	PPK	RTK	GPS	GLO	GAL	BD
n380-A113	68910380-A113	X		X			X	X		
n380-A117	68910380-A117	X		X			X	X	X	X
n380-A125	68910380-A125	X		X	X		X	X		X
n380-A153	68910380-A153	X		X	X	X	X	X		
n380-A157	68910380-A157	X		X	X	X	X	X	X	X
n380-A223	68910380-A223		X	X	X		X	X		
n380-A227	68910380-A227		X	X	X		X	X	X	X
n380-A253	68910380-A253		X	X	X	X	X	X		
n380-A255	68910380-A255		X	X	X	X	X	X		X
n380-A257	68910380-A257		X	X	X	X	X	X	X	X

For more information
Please visit: aerospace.honeywell.com/HGuide

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THE FUTURE IS WHAT WE MAKE IT

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