







HGUIDE N380 INERTIAL/GNSS NAVIGATOR

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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; NavlC (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 cm³ (15.9 in³), ~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								
POS	TION	CITY	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			

¹In 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	Honeywell Part Number	RF INPUTS		POSITIONING SERVICES			CONSTELLATIONS			
Part Number		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	Χ	Χ
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	Χ	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	Χ

For more information

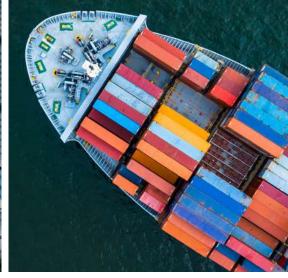
Please visit: <u>aerospace.honeywell.com/HGuide</u>

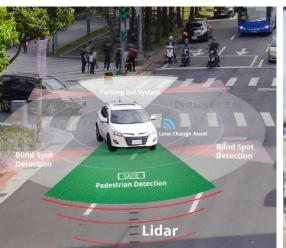
Honeywell Aerospace

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HGUIDE N580 INERTIAL/GNSS NAVIGATOR

HGUIDE N580 INERTIAL/GNSS NAVIGATOR

The HGuide n580 is a small, lightweight, self-contained, all-attitude Inertial/GNSS Navigator which can be used for a wide variety of platforms, applications and industries where continuous navigation information is a critical component.



Proven - Dependable - Accurate

The HGuide n580 contains Honeywell's leading edge HG4930 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 n580 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 n580 is not ITAR controlled. Its Export Control Classification Number (ECCN) is 7A994.

HGUIDE n580 TYPICAL KEY CHARACTERISTICS

GNSS Capability (Varies by Configuration)	SBAS, Post-Processed Kinematic (PPK), and RTK mode options Single or Dual Antenna capable
GNSS Signals (Varies by Configuration)	GPS L1 C/A, L1C, L2C, L2P, L5; GLONASS L1 C/A, L2 C/A, L2P, L3, L5; BeiDou B1, B2; Galileo E1, E5 AltBOC, E5a, E5b; NavIC (IRNSS) L5; SBAS L1, L5 QZSS L1 C/A, L1C, L2C, L5; L-Band up to 5 channels
Supply Voltage/Power Consumption	+9VDC to +36VDC / 7 Watts (Varies by Configuration)
Weight/Volume	495g (1.1 lbs) / 324 cm3 (19.8 in3), ~9 cm x 6cm x 6cm
Operating Temperature Range	-40°C to +71°C
Compliance	IP68, FCC, ISED, CE, RoHS, WEEE
Communication Ports	Navigation Interface, RS-422 and 5 VDC CMOS (Configurable) RCM3 Correction - RS422 and RS232 (Configurable)
Discrete Signals	PPS 5V CMOS Output (Supports Lidar Integration)

HGUIDE n580 NAVIGATION PERFORMANCE								
POS	ITION	VELOCITY	HEADING ¹	PITCH/ROLL				
Horizontal (m, 1σ)	Vertical (m, 1σ)	(m/s, 1σ)	(°, 1σ)	(°, 1σ)				
0.01 RTK 0.6 SBAS	0.025 RTK 0.6 SBAS	< 0.015	< 0.01	0.015				

 $^{^{1}}$ In dual antenna mode with 2m baseline; longer baselines improve performance

HGUIDE n580 RTK DUAL ANTENNA PERFORMANCE - GNSS OUTAGES WITH NO AIDING ²								
RMS Error 3 Seconds 10 Seconds 30 Seconds								
Horizontal (meter)	0.09	0.2	1					
Vertical (meter)	0.045	0.1	0.5					
Heading (degree)	0.06	0.07	0.08					
Horizontal Velocity (meters/s)	0.015	0.04	0.08					
Vertical Velocity (meters/s)	0.01	0.02	0.03					

²Odometer and velocity aiding available. Accuracy dependent upon custom device accuracy.

HGUIDE n580 STANDARD CONFIGURATIONS										
Marketing	Honeywell	RF INPUTS		POSITIONING SERVICES		CONSTELLATIONS				
Part Number	Part Number	1RF	2RF	SBAS	PPK	RTK	GPS	GLO	GAL	BD
n580-A111	68910580-A111	X		Χ			Х			
n580-A113	68910580-A113	Χ		Χ			Х	X		
n580-A117	68910580-A117	Х		Χ			Х	X	Χ	Χ
n580-A125	68910580-A125	X		Χ	Χ		Х	X		X
n580-A153	68910580-A153	X		Χ	Χ	Х	Х	X		
n580-A157	68910580-A157	X		X	Χ	X	Х	X	Χ	Χ
n580-A223	68910580-A223		Χ	Χ	Χ		Х	X		
n580-A227	68910580-A227		Х	X	Χ		Х	Χ	Х	Χ
n580-A253	68910580-A253		Χ	Χ	Χ	Χ	Х	X		
n580-A255	68910580-A255		Х	X	X	Х	Х	X		Χ
n580-A257	68910580-A257		Χ	X	Χ	Х	Х	X	Χ	X

For More Information

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