

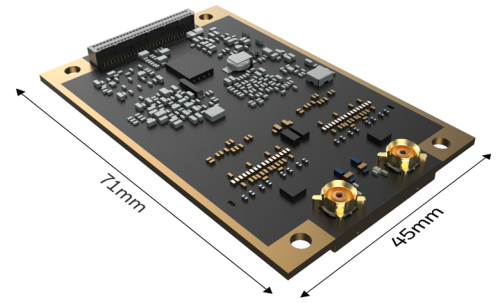
HGUIDE g080 GNSS RECEIVER

The HGuide g080 dual-RF, triple-frequency, all-constellation GNSS receiver delivers robust heading and positioning down to subcentimeter levels, even in GNSS challenged environments.

The HGuide g080 GNSS receiver provides high performance and easy integration via a leading edge API, with industry standard connectors and footprint.

The GNSS receiver itself provides fast acquisition plus advanced interference and multi-path rejection features with low power consumption in a credit-card sized form factor.

The HGuide g080 includes an onboard IMU to allow tracking during short GNSS outages and enable smooth and fast re-acquisition. The HGuide g080 is available with or without RTK functionality.



Proven - Dependable - Accurate

KEY HONEYWELL ADVANTAGES

- GPS, GLONASS, Galileo, Beidou, IRNSS, QZSS
- Gyro and Tilt Sensor coverage during short GNSS outages
- Configurable Event-In
- L-Band Correction option
- HGNSI output is compatible with HGuide range of INS/GNSS Navigators
- Integration software and support available
- 60 pin industry standard interface
- Supports Lidar Integration
- Full ROS support available
- Compatible with HGuide Post-Processing and HGuide n500 INS
- 10Hz Standard Data rate. Higher rates available on request

HGUIDE g080 TYPICAL KEY CHARACTERISTICS

GNSS Signals	GPS - L1CA/L1P/L1C/L2P/L2C/L5, GLONASS - G1/G2/G3, P1/P2 GALILEO - E1BC/E5a/E5b/E5-AltBOC/E6BC, BeiDou - B1i/B2i/B3i/B1C/B2a/B2b/ACEBOC, QZSS - L1CA/L1C/L2C/L5/LEX(L6D and L6E), NavIC (IRNSS) - L5
Channels	110 Channels
GPS Sensitivity	-142 dBm
Time to First Fix/Signal Re-Acquisition	Cold Start, 60 Sec / Hot Start with Heading Fix, 10 Sec
Supply Voltage & Power Consumption	+3.3 VDC +/- 5%, < 2.5 W, < 800 mA Maximum All Signals + L Band
Size / Weight	71 L x 46 W x 10 H (mm), 24 g
Temperature (Op/Non-Op) / Humidity	-40 °C to +85 °C / 95% non-condensing (when in an enclosure)
Antenna	Input Impedance = 50 Ohm, + 5VDC Maximum Short Circuit Protection, +10 to 35 dB Input Gain
Communication Ports	5 x 3.3VDC CMOS, USB 2X (Host, Device), Ethernet, CAN 2X (NMEA, ISO 11783)
EMC	CE (IEC 60945), FCC Part 15, Subpart B, CISPR 22, COM Limit Compliant
Shock/Vibration	EP455 Section 5.14.1 / EP455 Section 5.15.1 Random

HGUIDE g080 PERFORMANCE

Typical Accuracy	3D RMS (1 σ)	2D RMS (3 σ)
Stand Alone	1.2 m	2.5 m
SBAS/DGPS	0.3 m	0.6 m
RTK ^{1,2}	0.0083 m	1.53 cm
Heading (RMS)	0.04° @ 2.0 m antenna separation 0.08° @ 1.0 m antenna separation	
Heave (1 σ) ¹	30 cm (SBAS/DGNSS) 5 cm (RTK)	
Pitch/Roll (1 σ) ¹	0.5° RMS	
Timing Accuracy	20ns	
Velocity Accuracy	0.03m/s	

¹All accuracy is portrayed as typical. The particular GNSS environment can be degraded due to multi-path, SBAS coverage, high latitude, and ionospheric conditions

²RTK accuracy will be degraded by distance to the base station. Overall accuracy is base accuracy plus the distance (cm) to base station / 1E6 / 2 (2DRMS Only)

HGUIDE g080 COMMUNICATIONS

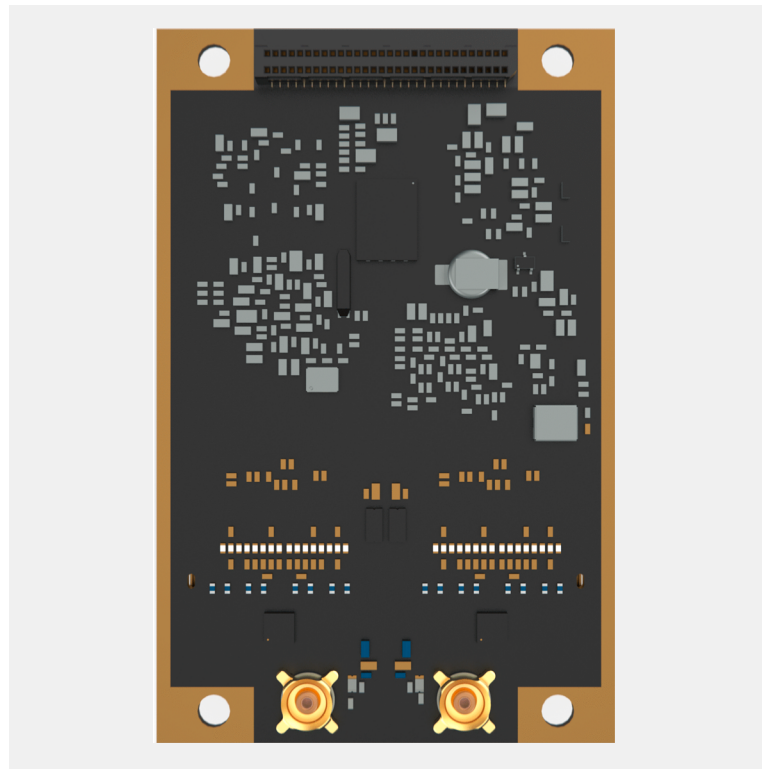
GNSS Correction Support	RTCM v2.3 & v3.2, CMR+, L-Band (Option available)
Discrete Signals	4 x PPS/Event Out 4 x Event In All at 3.3VDC Event Edge Trigger is configurable
Connectors	Data: 1 x 60 pin female socket, 0.8 mm pitch, SEMS-130-02-03.0-H-D-K-TR RF: 2 x RF, female, straight MMBX
LED Status Indicators	Power, Primary and Secondary GNSS lock, Differential lock, DGNSS position, Heading
Communication Ports	5 x 3.3VDC CMOS (Up to 460,800 baud) 2 x USB (Host, Device) 2 x CAN (ISO 11783) Ethernet

HGUIDE g080 OPTIONS

Marketing Part Number	Honeywell Part Number
g080-No RTK	68970-080-G228
g080-with RTK	68970-080-G258

ACCESSORIES AVAILABLE

- GNSS antennas and cables with Survey and UAV grade options
- Hardware Integration & Evaluation kit
- HGuide Data Reader, SDK and ROS Drivers to support easy integration



For More Information

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THE
FUTURE
IS
WHAT
WE
MAKE IT

Honeywell