

B760

High-Precision GNSS Positioning OEM Board



► B760 High Precision GNSS Board

B760 is a high-precision GNSS OEM board powered by CHCNAV StellaX, designed for CORS reference stations, deformation monitoring, seismic observation and other demanding positioning applications. It tracks multi-frequency signals from BDS, GPS, GLONASS, Galileo, QZSS, NavIC, SBAS and L-Band, delivering millimeter-level carrier-phase observations and centimeter-level RTK positioning. With 100 Hz raw data output, precise timing, multipath mitigation and JamAegis interference suppression, B760 provides robust, high-quality GNSS data for continuous infrastructure and monitoring operations.



► Adaptive RTK Algorithm



Built on over 20 years of RTK engine expertise, our system delivers centimeter-level positioning even in challenging environments. With adaptive scene awareness and intelligent mode switching, it significantly enhances positioning reliability and availability in complex conditions.

► C² Fusion



Seamlessly integrates with CHCNAV's PointX services to enable enhanced positioning through deep "cloud-to-chip" fusion. Leverages proprietary protocols and unique algorithms. Delivers superior performance in challenging environments such as signal obstruction, interference, and periods of high ionospheric activity.

► All-Band, All Constellation Support



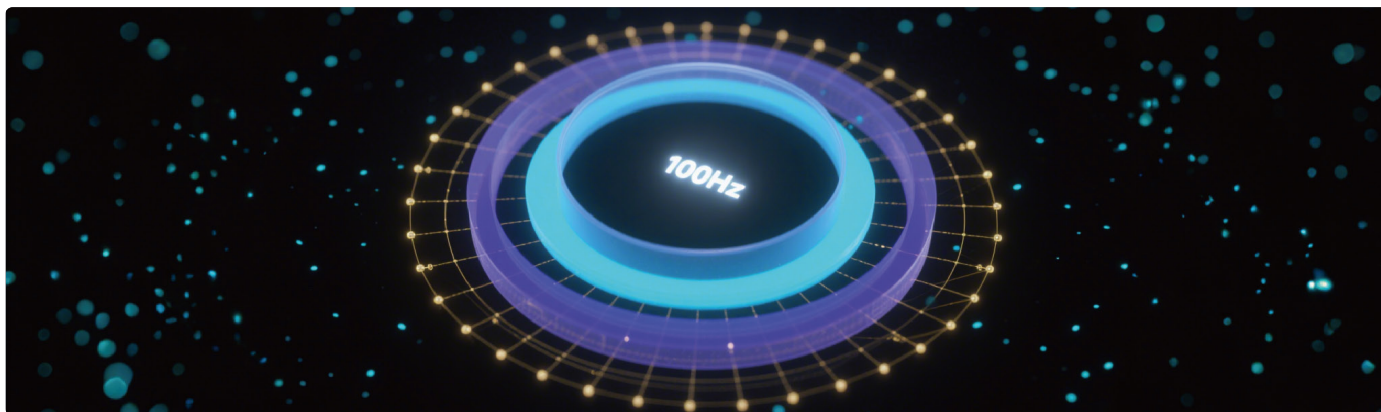
Supports acquisition and tracking of signals across all constellations and frequency bands — BDS, GPS, GLONASS, Galileo, QZSS, NavIC, SBAS, and L-Band, improving availability for high-precision positioning and providing greater adaptability for future system functions and requirements.

► Jamaegis Anti-Jamming Technology



Supports detection, assessment, and mitigation of various interference types, including single-tone, multi-tone, narrowband, and swept-frequency jamming. Builds a robust defense for high-precision positioning. Ensures stable and reliable operation in complex electromagnetic environments.

► 100 Hz Raw Data Output



Supports raw observation data (carrier, phase, pseudorange) streaming output up to 100 Hz. Providing unprecedented data dimensions and analysis precision for earthquake early warning, bridge health monitoring and landslide analysis, it truly elevates GNSS monitoring from static characterization to dynamic capture.

► Application Scenario



High-Precision Static Surveying



Monitoring Stations



CORS Reference Stations

SPECIFICATIONS

► Performance

Channels	1892 ⁽¹⁾
GNSS Signals	GPS: L1C/A, L1C, L2P(Y), L2C, L5 BDS: B1I, B2I , B3I, B1C, B2a, B2b Galileo: E1C, E5a, E5b, E5AltBoC, E6 GLONASS: G1,G2, L1OC*, L2OC*, L3OC QZSS: L1C/A(B), L1C, L2C, L5, L6D/E NavIC: L5 SBAS:L1, L5
SPP Accuracy (RMS)	Horizontal: 1.5 m Vertical: 2.5 m
RTK Accuracy (RMS)	Horizontal: 0.8 cm + 1 ppm Vertical: 1.5 cm + 1 ppm
PPP Accuracy (RMS)	Horizontal: 5 cm Vertical: 10 cm Convergence Time: < 15 min
PPP-AR Accuracy (RMS)	Horizontal: 2.5 cm Vertical: 5 cm Convergence Time: < 3 min
PPP-RTK Accuracy (RMS)	Horizontal: 2.5 cm Vertical: 5 cm Convergence Time: < 1 min
Time Accuracy (RMS)	5 ns
Velocity Accuracy (RMS)	0.03 m/s
Cold Start (RMS)	< 15 s
Initialization Time	< 3 s
Initialization Reliability	> 99.99%
RTK Frequency	1 Hz, 2 Hz, 5 Hz, 10 Hz, 20 Hz, 100 Hz*
Data Protocol	NMEA0183, RTCM3.X, CHCNAV Protocol

► Physical

Dimensions	60.0 × 100.0 × 7.4 mm
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► Environmental

Operating Temperature	-40°C ~ +85°C
Storage Temperature	-55°C ~ +95°C
Humidity	95% non-condensing
Vibration	GJB150.16A-2009, MIL-STD-810F
Shock	GJB150.18A-2009, MIL-STD-810F

► Environmental

Input Voltage	3.2 ~ 3.4V DC
Power Consumption (Typical)	800 mW
Max VCC Ripple	50 mV

► Communications

UART	3
ECLOCK	1 (10M/20M)
CLOCK_OUT	1 (10M)
LAN	1 (100M)
PPS	1
EVENT	1

► Observation Accuracy (RMS)

Signal Bands	BDS	GPS	GLO	GAL
B1I, B1C, L1C/A, G1, E1 Pseudorange	10cm	10cm	15cm	10cm
B1I, B1C, L1C/A, G1, E1 Carrier Phase	1mm	1mm	1mm	1mm
B2I, B2a, L5, L2P, E5a, E5b Pseudorange	10cm	10cm	-	10cm
B2I, B2a, L5, L2P, E5a, E5b Carrier Phase	1mm	1mm	-	1mm
B3I, L2C, G2 Pseudorange	10cm	10cm	15cm	10cm
B3I, L2C, G2 Carrier Phase	1mm	1mm	1mm	1mm
E5 AltBOC Pseudorange	-	-	-	1cm
E5 AltBOC Carrier Phase	-	-	-	1mm

*Specifications are subject to change without notice.
Note: Items marked with * are supported by specific firmware versions or hardware models.
(1) 1380 GNSS channels + 512 anti-jamming channels.

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