

KEY FEATURES

The **GD-982** board from Swegeo utilizes Unicore's new-generation proprietary high-precision positioning and heading module, designed to perform on-chip **RTK positioning** and **dual-antenna heading**. The built-in advanced anti-interference unit ensures reliable and accurate positioning data even in complex electromagnetic environments, making the **GD-982** an ideal choice for **high-precision** applications such as **UAVs**, **autonomous machines**, and **precision agriculture**.



BASED ON THE NEW GENERATION GNSS SOC - NEBULAS IV

The GD-982 integrates the latest RF, baseband, and high-precision algorithms into a single, powerful SoC, ensuring exceptional performance and reliability.

SUPPORTS ALL-CONSTELLATION MULTI-FREQUENCY ON-CHIP RTK POSITIONING AND DUAL-ANTENNA HEADING SOLUTION

Enjoy comprehensive support for all GNSS constellations and multi-frequency signals, providing unparalleled accuracy and robustness in real-time kinematic positioning and dual-antenna heading applications.

DUAL-RTK TECHNOLOGY

Leverage the power of dual-RTK technology to achieve even greater accuracy and reliability in challenging environments, ensuring precise positioning and orientation.

60 DB NARROWBAND INTERFERENCE SUPPRESSION AND INTERFERENCE DETECTION

With advanced narrowband interference suppression and detection capabilities, the GD-982 maintains signal integrity and performance even in the presence of significant interference.

ADAPTIVE RECOGNITION OF RTCM FORMAT DIFFERENTIAL DATA

The GD-982 can automatically recognize and adapt to various RTCM format differential data, ensuring seamless integration and compatibility with a wide range of applications.

STANDALONE SINGLE-STATION HIGH-PRECISION POSITIONING TECHNOLOGY

Achieve high-precision positioning with a single station setup, making the GD-982 ideal for applications where simplicity and accuracy are paramount.

SUPPORTS B2B-PPP AND E6-HAS

The GD-982 includes support for B2b-PPP and E6-HAS, providing additional layers of accuracy and reliability for high-precision applications.

GENERAL	
Channels	1408 channels
Signal Supported	GPS L1C/A, L2C, L2P(Y), L5
	BDS B1I, B2I, B3I, B1C*, B2b*
	GLONASS G1, G2
	Galileo E1, E5a, E5b, E6*
	QZSS L1C/A, L2C, L5
	SBAS L1C/A
Accuracy	Single Point Positioning (RMS)
	Horizontal: 1.5m
	Vertical: 2.5m
	DGPS (RMS)
	Horizontal: 0.4m
	Vertical: 0.8m
	RTK (RMS)
	Horizontal: 0.8cm+1ppm
	Vertical: 1.5cm+1ppm
	Heading accuracy 0.1°/1 m baseline
	Time accuracy 20 ns
	Velocity accuracy (RMS) 0.03 m/s
Data Update Rate	Dual antenna 20 Hz (RTK+Heading)
Initialization / Time to first fix	Cold start <30s
	Initialization time <5s (typical)
	Initialization reliability >99.9%
Sensitivity	Sensitivity Tracking & Nav. -167 dBm
	Cold starts -148 dBm
	Hot starts -157 dBm
	Reacquisition -160 dBm
RTK performance	RTK Initialization ≤ 5 s
	RTK Solution Delay ≤ 50 ms
	Re-acquisition Time ≤ 1s DR Accuracy

PHYSICAL AND ELECTRICAL	
Dimensions	71.1 x 45.7 x 1.62 mm
Weight	644 g
Input voltage	3.3V DC
Connectors	RS232 x 2, USB x 1
	Bluetooth(Long Range SPP)

ENVIROMENTAL	
Storage Temperature	-55°C to +95°C
Working Temperature	-40°C to +85°C
Humidity	95% Non-condensing
Vibration	GJB150.16A-2009, MIL-STD-810F
Shock	GJB150.18A-2009, MIL-STD-810F

