

Unicore Launches High-precision GNSS Receiver Module



Unicore, based in China, has launched its next-generation quad-system multi-frequency high-precision GNSS module, the UM482. The UM482 is the quad-system multi-frequency high-precision heading module with the smallest footprint in the world and supports satellite signals including BDS B1/B2, GPS L1/L2, GLONASS L1/L2, GALILEO E1/ E5b and SBAS. It is widely used in application fields such as robotics, drones, intelligent drives and mechanical control.

The UM482 GNSS RTK module adopts Unicore's new-generation Nebulas II chip and UGypsophila real-time kinematic (RTK) algorithm. Based on the high-performance data-sharing technology and super-simplified operation system of the Nebulas II chip, the UGypsophila RTK algorithm dramatically optimises matrix processing. It can involve all

satellites from GPS, BDS, GLONASS and Galileo in RTK and heading processing, shorten RTK and heading initialisation time to five seconds and significantly improve the reliability and accuracy of RTK and heading.

Furthermore, the UM482 integrates the onboard microelectromechanical (MEMS) chip and U-Fusion integrated navigation algorithm, resulting in optimised continuity and reliability of accurate heading and positioning output in tough environments such as city canyons, tunnels and overpasses. Inputs of odometer and external higher-performance inertial components are supported.