Viking
GNSS Receiver

Powered By GAMA RTK

Carlson BREAK NEW GROUND

The Carlson Viking® is the ultimate solution for precision positioning in difficult environments. Used as either a base or a rover, the Viking system features a best-in-class GNSS antenna element and an integrated IMU offering centimeter-level accuracy, heightened flexibility, durability, and self-calibrating tilt compensation.

Cutting-Edge Performance and Connectivity

The Viking supports 632 channels, enabling simultaneous tracking of all major satellite constellations, including GPS, GLONASS, BeiDou, Galileo, QZSS, and NavIC (IRNSS).

Equipped with a 4G cellular modem and UHF radio, the Viking ensures robust internet connectivity and reliable RTK data transmission. Configure it as either a Rover or Base Station, providing unmatched flexibility.

Uninterrupted Power for Maximum Efficiency

With two long-life lithium batteries, the Viking offers up to 10+ hours of uninterrupted operation. The hot-swappable design allows you to replace batteries on the go, ensuring seamless performance.

Advanced Technology for Every Challenge

At its core, the Viking features the Gama RTK Navigation engine, paired with a sophisticated Web UI for effortless management and upgrades. Its innovative **RTK Triple-Fix** technology ensures high-fidelity positioning with virtually 100% reliability, guaranteeing precision in every task.

Its ruggedized antenna is engineered for extreme conditions and meets IP67 standards, making it an ideal choice for demanding environments.

Versatility Across Industries

Whether you're conducting land or marine surveys, GIS mapping, construction projects, or advanced RTK applications, the Viking is your trusted partner.

Precision, Performance, and Reliability

Combined with Carlson's SurvPC field software, the Viking is more than a positioning system—it's a powerful tool designed to enhance your efficiency, streamline your workflows, and deliver unparalleled accuracy.

Viking communication interfaces:
Wi-Fi
Bluetooth
Cellular modem
UHF Radio (400 + 900 MHz)
2x Serial RS232
1x USB for Ethernet over USB
1x removable SD card

BREAK NEW GROUND

Carlson Viking - Specifications

GNSS
- Dual GNSS RTK modules
- 3 RTK engines
- Multi-frequency
- Supports all constellations (Including GPS + GLONASS + Galileo + BeiDou + QZSS)
- 632 channels
- RTK[1,2]
  - Horizontal accuracy: 0.6 cm + .5 ppm
  - Vertical accuracy: 1 cm + 1 ppm
- Support for L-Band corrections

TILT COMPENSATION
- Accuracy with 2 m pole
  - 0.7 cm @ 20 deg
  - 0.9 cm @ 30 deg
  - 1.2 cm @ 45 deg
  - 1.5 cm @ 60 deg

PROCESSOR, MEMORY AND DATA STORAGE
- 1.7 GHz Dual Cortex-A55 + 250MHz Cortex-M33
- 2GB DDR4 RAM, 16 GB eMMC storage

PORTS
- USB for ethernet
- 2 x RS232

BATTERY
- Dual removable lithium batteries, 25 Wh each
- Operates up to 10+ hours on one charge
- Hot-swappable, easily changeable in the field
- Optimized for strong performance in cold temperatures
- Excellent lifecycle performance
- Storage life of more than 6 months
- Ready for 10-18 V external power
- Battery indicators

PHYSICAL
- Size: 6.3" (160mm) diameter, 3.75" (95mm) height
- Weight: 2.98 lbs (1.35 kg) with 2 batteries
- Durable, shock-resistant design
- Materials: powder coated aluminum housing, plastic top cover, nitrile rubber o-ring, steel screws

WIRELESS CONNECTIVITY
- Integrated Bluetooth® BT 2.1 + EDR and BLE 5.4
- UHF radio, fully configurable with TX and RX capability
- Wi-Fi 802.11 ax/ac/b/g/n, 2.4 GHz
- Worldwide network coverage, LTE Cat 4, dual antennas

FIELD-TESTED RUGGED
- IP67 for dust and water resistance
- Operating Temperature: -40 F to 149 F (-40° C to 65° C)
- Storage temperature: -40 F to 185 F (-40° C to 85° C)
- Up to 100% humidity
- Vibration: MIL-STD-810G, method 516.6
- Mechanical Shock: MIL-STD-810G, method 514.6E-I
- Unprotected drop: 2 m range pole drop on concrete, 1 m free drop on hardwood floor
- Inflammability: Fulfills US, EU safety standards; UL recognized batteries
- Chemical resistance: Cleaning agents, soapy water, industrial alcohol, water vapor, solar radiation (UV)
- CE Marking (applicable EMC, R&TTE, and LVD directives)

STANDARD ACCESSORIES
- Viking batteries (2)
- USB wall charger (dual USB with USB-A and USB-C)
- Viking external battery charger (dual-bay)
- Viking 5-pin cable for 12 V power supply and USB-C charging
- Viking 7-pin cable USB cable to connect to PC
- UHF 400 MHz UHF antenna
- UHF 900 MHz UHF antenna
- UHF cable extension bracket
- 5/8" quick release adapter

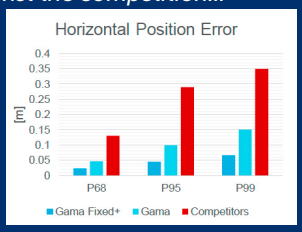
Visual and Audio Indicators
- 5x LEDs for indication of power and status
- Audio speaker for indication of GNSS status and warnings

1 Depends on multipath environment, number of satellites in view, satellite geometry, and ionospheric activity
2 Depends also on baseline length

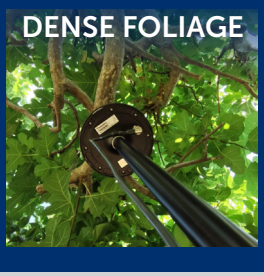
Carlson products are constantly being improved, and all specifications are subject to change without notice.

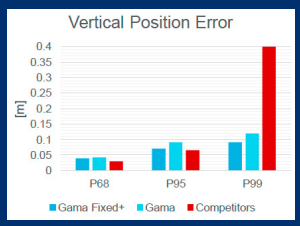
GAMA RTK

Carlson Software's next generation Gama RTK engine deploys a range of new technologies. The end result?
Best-in-class performance for your work.
And yes, we've tested it against the competition...



Based on a total of 90 hours of data from 22 different data sets recorded at different locations.





Based on a total of 56 hours of data from 13 different data sets recorded at different locations.

CERTIFICATIONS AND STANDARDS
- FCC Class B

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