HORIZON®

MEASURE RIGHT

KRONOS

ATOM GNSS α

Singapore technology

COMPACT. COMPETENT. COMPLETE.

New generation compact GNSS receiver.
Bigger and smaller at the same time.

The **KRONOS Atom** α is a high-performance RTK GNSS system, combining advanced SOC technology with a high-sensitivity antenna and the GEN4 Horizon Algorithm for exceptional accuracy in a compact design. Featuring 120-degree tilt compensation and a green distance measurement laser, the Kronos Atom α allows you to effortlessly capture measurements without a bubble or levelling aids, and collect points in hard-to-reach areas or inaccessible. It's the ultimate tool for professionals who demand precision and efficiency for each and every job.

AI Deep RTK

LASER
RTK Laser TECH

The HORIZON **Kronos ATOM** α GNSS adopts advanced Laser Measurement RTK technology, allowing you to capture coordinates with high precision, even in hard-to-reach locations. With its large signal-receiving sensor, the system enables seamless laser-based coordinate measurements.

AR
Visual Stakeout

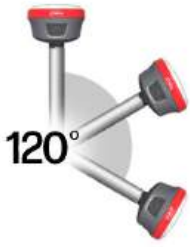
The HORIZON **Kronos ATOM** α GNSS combines GNSS positioning, IMU compensation, imaging, and real-time altitude calculation to provide accurate and easy navigation. With Kronos Atom α GNSS, targets are displayed live on the screen, ensuring precise navigation without the need for levelling aid.

AI
Deep RTK GNSS

The HORIZON **Kronos ATOM** α is equipped with Deep RTK AI, an AI driven technology that enhances GNSS performance. It features intelligent RTK processing, adaptive correction, and multi-path mitigation to improve signal tracking, reduce multi path effects, and enhance stability. Smart AI Prediction minimizes signal loss, ensuring continuous operation in various environments with the highest accuracy and reliability.

Compact Size
SOC Technology

The HORIZON **Kronos ATOM** α mainboard uses new System-on-a-Chip (SoC) technology, allowing us to create a smaller and lighter board. This new generation main board is equipped with everything needed for mapping, including NTRIP, Bluetooth, GSM, NFC, WebUI, and 64 GB of memory, all powered by the latest SoC technology. The entire unit weighs in at less than 400 grams, making it one of the most compact GNSS receivers in the market today.



SUPER IMU
120° IMU

Equipped with a 120-degree IMU, the **Kronos ATOM** α GNSS collects accurate data even when tilted, offering unparalleled flexibility in the field. Its upgraded IMU and advanced algorithms ensure fast initialization, superior accuracy, and reliable results in any conditions. Experience precision without the need to ensure perfect levelling. The focus of the user can be on the actual work instead of the often time-consuming set up job.

Multi-Constellations
Precise Anywhere

The **Kronos ATOM** α, with its 1408-channels and next-generation full GNSS chipset and mainboard, supports multiple satellite constellations including GPS, GLONASS, BEIDOU, Galileo, QZSS, SBAS, and IRNSS, providing precise and accurate spatial data for users worldwide, anytime and anyplace.

Long Rang Radio
15km Internal Radio

The **Kronos ATOM** α GNSS is equipped with a next generation long-range internal radio that can cover up to 15 km. This new radio consumes less battery power and operates longer with greater stability compared to the previous version, making it ideal for a wide range of surveying purposes.(Reaches maximum based on conditions.)

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KRONOS Atom α

PERFORMANCE		
Satellites Signals Tracked		**GPS:** L1C/A, L1C, L2P(Y), L2C, L5 **GLONASS:** L1, L2, L3 **BEIDOU:** B1I, B2I, B3I, B1C, B2a, B2b **GALILEO:** E1, E5a, E5b, E6 **QZSS:** L1, L2, L5, L6 **SBAS:** L1, L5 **IRNSS:** L5
Channels		1408 Tracking Channels
Cold Start		<60s
Hot Start		<15s
Output Rate		1Hz – 20 Hz
Signal Reacquisition		<1s
RTK Initialization		<10s
Initialization Reliability		99.99%
Time Accuracy		20 ns
POSITIONING		
Code Differential GNSS Positioning		**Horizontal:** 0.25m + 1 ppm RMS **Vertical:** 0.50m + 1ppm RMS SBAS Differential positioning accuracy: Typically <5m 3DRMS
Static		**Horizontal:** 2.5mm + 0.5 ppm RMS **Vertical:** 5 mm + 0.5 ppm RMS
RTK		**Horizontal:** 7mm + 1 ppm RMS **Vertical:** 14 mm + 1 ppm RMS
Network RTK		**Horizontal:** 7mm + 0.5 ppm RMS **Vertical:** 14 mm + 0.5 ppm RMS
Laser RTK Measurement		±1cm + 5mm/m (Tilt height less Than 60°)
Precise Point Positioning (PPP)		Accuracy (RMS): <5cm
CAMERA & LASER		
AR Camera		5mp High-Definition Camera with Large Viewing Angle, and Supports Live Scene Lofting
Laser Assisted (Green Laser)		5mp High-Definition Camera with Large Viewing Angle, Auxiliary Laser Measurement and Aiming
COMMUNICATION & DATA STORAGE		
I/O Interface	USB Type-C Port SIM Card Slot Antenna Port	Data Download, Charging Supports Nano SIM UHF Antenna Interface
Radio Modem (Long Range)	Transmit Power Frequency Band Protocols	1/1.5w Switchable 410MHz-470MHz, Supports frequency setting TrimTalk450s, PCC-EOT, and most manufacturer protocols
Cellular		Integrated Full Frequency Multiband 4G Modem Supports: WCDMA/CDMA2000/TDD-LTE/FDD-LTE
WIFI		802.11 b/g standard, Access Point & Client Mode, Supports Access to Hotspot for Correction Transmission
Bluetooth		Bluetooth 5.2 Classical/BLE Proprietary Double Mode
Data Format		RTC2x, RTCM3x, CMR, CMR+, SCMRx, RINEX, NMEA Outputs
Storage		64Gb Internal Memory. Support Cyclic Storage, with Ability to Collect Over One Year of Raw Observation at 5 Seconds intervals
ELECTERICAL		
Battery Life		**Rover:** 10 Hours | **Base:** 6 Hours | **Static:** 13Hours
Battery		Internal 10000mAh, 3.7V Lithium-ion Battery
Charging		Supports USB Type-C Fast Charging
Power		9-24V DC External Power Input on 5 Pin LEMO Port
SYSTEM INTEGRATION		
OS System		Intelligent LINUX Operating System
Tilt Compensation		IMU up to 120 degrees (Calibration Free)
Supported Controllers		Android Devices and Software
WebUI		Supports WebUI Configuration
PHYSICAL		
Material		Magnesium Alloy
Dimensions		10.2cm * 6.9cm
Weight		340g
Operation Temperature | Storage Temperature		-40°C to +75°C | -55°C to +85°C
Protection IP		IP67 Dust Proof, 30min Immersion to Depth of 1m
Humidity		100% Condensing
Vibration		MIL-STD-810G

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S8O Pro

RUGGED LIKE A ROCK

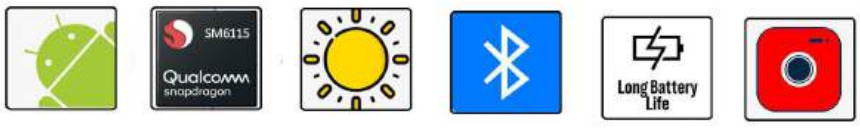
Android Controller

HORIZON S80pro

Cutting-edge Android 12 data collector built for professionals in demanding field environments. Powered by a high-performance industrial-grade Qualcomm SM6115 processor, the S80pro effortlessly handles complex mobile office tasks. Its ultra-slim design incorporates an innovative English keypad for enhanced usability. The 5.5-inch full-HD display, made from tough Gorilla Glass, delivers excellent sunlight readability, ensuring optimal visibility even in harsh outdoor conditions. With its blend of robust processing power and a sun-readable screen, the S80pro is engineered for efficient, durable, and precise data collection in the field.

Features:

- **Operating System:** Android 12
- **CPU:** Qualcomm SM6115 with an 11nm fabrication process
- **Display:** 5.5-inch with 1080P resolution and 500 nits brightness
- **Bluetooth:** New generation Bluetooth 5.0 with auto-connect
- **Battery:** Long-life 9000 mAh for up to 22 hours of operation
- **Camera:** 13 MP rear camera for geotagging data



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Surveying *Speciality*

Map Pro Software

Powerful software Design for Mapping

Features

- User friendly interface
- **Supports** Static | RTK | PPK | N-RTK | UHF-RTK
- **Supports AR Camera for staking out**
- **Supports Laser RTK measurment**
- IMU store point up to **120 degrees**
- Connection types (Bluetooth, Wi-Fi and demo)
- Global Coordinate Systems Library
- **Supports** Google satellite and vector map | Open Street map| WMS Map
- Comprehensive import/export format map: SHP|DXF|KML|KMZ|GPX|TXT|CSV
- **Supports** road Stakeout
- Stake out: Point|Line|Surface|Cad stakeout|Road stakeout
- Complete Tools menu: Offset point|Resection|Intersection|Extend point
- Convenient Quick Code and add photo to point
- Site-Calibration wizard
- **Supports** automatic rotation with Calibrate Point
- **Supports** Localization
- NMEA output for Connecting to echosounder
- Can Customize app on the software for show
- multi-protocol radio Support
- Editable Channel for input frequency manually
- Voice and audible prompts
- Multi Language

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