Skadi Gold™

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Skadi Gold™ GNSS: Our Most Advanced, Highest-Productivity, Multi-Frequency RTK GNSS Receiver for Your Smartphone, Tablet, or Laptop

The Skadi Gold™ is the most advanced, productive RTK GNSS receiver in the Skadi Series™ from Eos Positioning Systems®. It supports all GNSS frequencies and constellations. With compatibility to any existing RTK networks and base stations, the Skadi Gold delivers reliable centimeter-level accuracy to any app of your choice. Thanks to powerful SafeRTK®, the Skadi Gold compensates for temporary RTK connectivity loss by maintaining your accuracy level below 10 centimeters. The Skadi Gold also supports free worldwide decimeter Galileo HAS corrections. If you work somewhere without an RTK network or internet, you may use the Skadi Gold to achieve down to 4 centimeter accuracy with a worldwide Atlas® satellite correction subscription. In addition to supporting Galileo HAS and Atlas, the Skadi Gold takes advantage of Eos GNSS receivers' unmatched performance with free SBAS corrections.

Designed for use with a broad range of mobile devices, the Skadi Gold incorporates rock-solid wireless Bluetooth® technology, allowing you to enjoy 1 centimeter accuracy in any app on iOS®, Android™, and Windows® devices.

For more details, visit:
www.eos-gnss.com

Skadi Gold™ Key Features:

- Supports all GNSS constellations and frequencies
- Supports free Galileo HAS decimeter corrections worldwide
- Supports Atlas® subscriptions for disconnected areas
- Skadi Tilt Compensation™ (activation)
- Skadi Smart Handle™ (upgrade)
- Hot-swap battery pack with 8+ hours of operation on one charge
- USB-C quick charging
- Compatible with iOS®, Android™, and Windows®
- Supports 1 centimeter RTK accuracy and SafeRTK® for temporary signal loss
- Supports all mobile GIS and surveying software

Skadi Tilt Compensation™

Skadi Tilt Compensation™ eliminates the need to level your survey range pole while collecting data. This streamlines field work and reduces human error. Adding only 0.3 millimeter of error per degree of tilt to your RTK locations, Skadi Tilt Compensation boosts your productivity without sacrificing accuracy.

Skadi Smart Handle™

The patented Skadi Smart Handle™ offers two exciting and powerful features. First, the Invisible Range Pole™ keeps your measurement plumb to the ground. Thanks to the exciting combination of LiDAR and MEMS technologies, your elevation is continuously computed at the ground below the receiver in your hand. Next, the Extensible Virtual Range Pole™ adds a laser pointer to help you aim at short-distance assets on the ground while retaining high accuracy. This is useful for assets in trenches and other hard-to-reach or unsafe locations. Simply point and shoot single targets, or continuously stream locations to create polyline features. Depending on surface reflectivity, Skadi Smart Handle can reach targets at up to 7 meters (23 feet) in bright sunlight.

Shapeshift in the Field with the Skadi Gold

The Skadi Gold transforms on the fly into any configuration that best suits your needs. Transition from a range pole to handheld to field vest and more in a matter of seconds.

Specifications

GPS Sensor

Receiver Type:	All-frequency all-constellation GNSS RTK receiver with integrated antenna
Channels:	800+ channels
GNSS Signals Received:	GPS: L1CA, L1P, L1C, L2P, L2C, L5 GLONASS: G1, G2, G3, P1, P2 Galileo: E1BC, E5a, E5b, E6BC, ALTBOC BeiDou: B1i, B2i, B3i, B1C, B2A, B2B, ACEBOC QZSS: L1CA. L1C, L2C, L5, LEX IRNSS: L5
SBAS Support:	3 channel, parallel tracking (with SBAS ranging)
L-Band (Atlas®) Support:	1 channel

Accuracy:

RTK:	8 mm[1] + 1 ppm horizontal, 2 cm[1] + 1 ppm vertical (RMS)
Skadi Tilt Compensation™:	RTK accuracy + 0.3 mm per degree of tilt
Atlas®:	H10: 4 cm HRMS[1] H30: 15 cm HRMS[1] H50 (Basic): 15 cm HRMS[1]
Galileo HAS:	< 20 cm 2dRMS SBAS: < 30 cm HRMS[1], < 60 cm 2dRMS
SBAS:	< 0 cm HRMS[1] , < 60 cm 2dRMS
Autonomous:	1.2 meters HRMS[1]

Miscellaneous Specifications:

Standard Update Rate:	Up to 10 Hz (20 Hz optional activation)
Cold Start:	< 60 seconds typical (no almanac or time)
Reacquisition:	< 1 second
Maximum Speed:	1,850 kph (1,150 mph / 999 knots)
Maximum Altitude:	18,288 m (60,000 ft)

Output Datum:

Autonomous Datum:	WGS-84 (latest revision)
SBAS and Atlas® Datum:	ITRF (current year epoch)
Galileo HAS Datum:	GTRF (latest implementation)
RTK Datum:	Same as RTK base station/network
Device Compatibility:	iPhone® and iPad® Android™ smartphones and tablets Windows®, Windows Mobile®

Communication

Port:	Bluetooth®, USB-C 2.0, serial
Pre-Qualified Bluetooth:	Dual-mode Bluetooth v4.2 BD/EDR – BLE (v5.1 tested)
Supported Bluetooth Profiles:	SPP, iAP2
Bluetooth Transmission:	Class 1 with 200 m typical range[2]
Data I/O formats:	NMEA 183, RTCM SC-104, binary
Raw Measurement Data:	Binary and RINEX
Correction I/O Protocol:	RTCM 2.x, 3.x, MSM, proprietary binary
Timing Output:	1PPS, CMOS, Active High, Rising Edge Sync, 10 kΩ, 10 pF Load (via serial port)
Event Marker Input:	CMOS, Active Low, Falling Edge Sync, 10 kΩ, 10 pF Load (via serial port)

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Power

Battery Type:	Field replaceable, 24 Wh rechargeable Lithium-ion pack (rechargeable inside the receiver or separately)
Battery Autonomy:	9+ hours[3] (without tilt compensation)
Battery Autonomy:	8+ hours[3] (with tilt compensation)
Charging Time:	2.5 hours (with supplied 20W USB-C power adapter)
Hot-Swap Back-Up Battery Autonomy:	10+ minutes

Environmental

Operating Temperature:	-40°C to +85°C (-40°F to +185°F)[3]
Storage Temperature:	-40°C to +85°C (-40°F to +185°F)
Humidity:	95% non-condensing
Compliance:	FCC, CE, RoHS and lead-free

Mechanical

Enclosure Material:	Xenoy® with TPU overmold
Enclosure Rating:	Waterproof, designed to meet IP-67
Immersion:	30 cm, 30 minutes
Reciever Dimensions:	14.2 cm x 9.5 cm x 6 cm (5.6″ x 3.7″ x 2.3″)
Weight with Battery:	610 g (1.34 lbs)
Weight with Skadi Standard Handle™:	935 g (2.06 lbs)
USB Connector:	USB type C receptacle
Serial Connector:	5-pin circular jack
External Antenna Connector:	HD-BNC female

Standard Included Accessories

- Skadi Gold™ GNSS receiver with integrated antenna
- Pole mounting plate for Skadi Series™
- Phone mounting bracket for Skadi Series handles
- Tablet mounting bracket for Skadi Series handles
- Skadi Series Li-Ion battery pack
- USB-C power adapter
- USB-C cable
- Skadi Series hardshell case
- Skadi Standard Handle™

Optional Accessories & Activations

- Skadi Tilt Compensation™
- Skadi Smart Handle™
- 20 Hz data output rate
- External antenna and cable
- Spare Skadi Series battery pack
- Atlas® satellite correction service

NOTES :
1 Depends on multipath environment, number of satellites in view, satellite geometry, baseline length (for local services) and ionospheric activities. Stated accuracies for baseline lengths of up to 50 km
2 Transmission in free space
3 Lithium-ion battery performance degrades below -20° C (-4° F)

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