Skadi 200™

EOS
Positioning Systems

Skadi 200™ Key Features:

- Dual-frequency receiver supports all GNSS constellations
- Supports 1-centimeter RTK accuracy
- Skadi Tilt Compensation™ (activation)
- Skadi Smart Handle™ (upgrade)
- Includes hot-swap battery pack with 11+ hours of operation on one charge
- USB-C quick charging
- Compatible with iOS®, Android™, and Windows®
- Supports 30-60 centimeter accuracy with free SBAS corrections
- Supports all mobile GIS and surveying software

Skadi 200™: Our Entry-level RTK GNSS receiver for Your Smartphone, Tablet, or Laptop computer

The Skadi 200™ is our entry-level RTK GNSS receiver in the Skadi Series™ from Eos Positioning Systems®. With support for dual-frequency (L1/L2) and multi-GNSS constellations, the Skadi 200 delivers reliable centimeter-level RTK accuracy in the field. It is compatible with most existing RTK networks, base stations, CORS networks, and SBAS.

Designed for use with a broad range of mobile devices, the Skadi 200 incorporates rock-solid, wireless Bluetooth® technology, allowing you to enjoy 1-centimeter accuracy on any iOS®, Android™, or Windows® device. The Skadi 200 evolves as your mobile device needs change throughout the years, making it future proof.

Use the GIS, Surveying, or Data Collection Software of Your Choice

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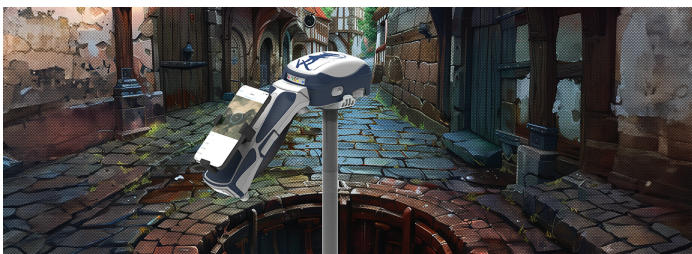
Skadi Tilt Compensation™

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 your accuracy.

Shapeshift in the Field with the Skadi 200

The Skadi 200 transforms on the fly into any configuration that best suits your needs. Transition from survey range pole to handheld to field vest to backpack in a matter of seconds.

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 either single targets, or continuously stream locations for polyline features. Depending on surface reflectivity, Skadi Smart Handle can reach targets at up to 7 meters (23 feet) in bright sunlight.

Specifications

GPS Sensor

Receiver Type:	Dual-frequency, multi-constellation GNSS RTK receiver with integrated antenna
GNSS Signals Received:	GPS: L1CA, L1P, L1C, L2P, L2C
	GLONASS: G1, G2, P1, P2
	Galileo: E1BC, E5b
	BeiDou: B1i, B2i, B2B
	QZSS: L1CA, L1C, L2C
SBAS Support:	3 channel, parallel tracking (with SBAS ranging)

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
SBAS Accuracy:	< 30 cm HRMS[1], < 60 cm 2dRMS
Autonomous Accuracy:	1.2 meters HRMS[1]

Miscellaneous Specifications:

Update Rate:	Up to 10 Hz standard (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)
RTK Datum:	Same as RTK base or RTK network
Device Compatibility:	iPhone® and iPad®
	Android™ smartphones and tablets
	Windows®, Windows Mobile®

Communication

Port:	Bluetooth®, USB 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)

Power

Battery Type:	Field-replaceable, rechargeable 24 Wh Lithium-ion pack (rechargeable inside the receiver or separately)
Battery Autonomy:	13+ hours[3] (without tilt compensation) 11+ 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″)
Skadi Standard Handle™ Dimensions:	26.6 cm x 7.6 cm x 16.2 cm (10.5" x 3.0" x 6.4")
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 200™ GNSS receiver with integrated antenna	USB-C power adapter
Pole mounting plate for Skadi Series™	USB-C cable
Phone mounting bracket for Skadi Series handles	Skadi Series hardshell case
Tablet mounting bracket for Skadi Series handles	Skadi Standard Handle™
Skadi Series Li-ion battery pack	

Optional Accessories & Activations

Skadi Tilt Compensation™	External antenna and cable
Skadi Smart Handle™	Spare Skadi Series battery pack
20 Hz data output rate	

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)

Made in Canada 🍁

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