EOS
Positioning Systems

Skadi 100™

Skadi 100™ Key Features:

- Support for GPS, GLONASS, Galileo and BeiDou
- Integrated antenna design
- Skadi Standard Handle™ for handheld configuration
- Over-mold design for shock-resistance
- Hot-swap battery pack
- 13+ hours of operation on one charge
- USB-C quick charging
- Compatible with iOS®, Android™ and Windows® devices
- 30-60 centimeter real-time accuracy using free SBAS (WAAS, EGNOS, MSAS, GAGAN, SouthPAN)
- Optional RTK accuracy of 1 centimeter + 1 ppm (short-baselines)
- Supports all mobile GIS software

Skadi 100™ GNSS: Submeter Receiver for Your Smartphone, Tablet, or Laptop

The Skadi 100™ is a submeter, multi-constellation GNSS receiver designed to be used with any iOS®, Android™, or Windows® device. The Skadi 100 incorporates rock-solid, wireless Bluetooth® technology to ensure high-accuracy locations are provided to any device. This makes it a future-proof submeter GNSS receiver that can evolve with your mobile devices and data collection software choice.

Real-time Submeter Accuracy, Worldwide

The Skadi 100 supports all global GNSS constellations (e.g., GPS, GLONASS, Galileo, BeiDou) to maximize your productivity. Taking full advantage of free SBAS in most regions, the Skadi 100 delivers 30-60 centimeter real-time corrected locations directly to your app. No need to connect to a local differential correction source; just fire it up! Using SBAS corrections from WAAS, EGNOS, MSAS, GAGAN, SouthPAN, and testbeds, the Skadi 100 is designed to perform and deliver corrected locations even in the most challenging conditions. For regions without a free SBAS, the Skadi 100 supports the Atlas® H50 satellite subscription service to achieve 30-50 centimeter worldwide accuracy.

Works with Any Mobile GIS App

The Skadi 100 does not require any additional hardware or software in order to obtain submeter accuracy. The Skadi 100 streams SBAS-corrected real-time submeter location data into any mapping or data-collection app of your choice on your mobile device.

Skadi Standard Handle™

The Skadi 100 ships with the Skadi Standard Handle™, an ergonomic device that turns the Skadi 100 into a handheld GNSS data collector. The Skadi Standard Handle comes with brackets to accommodate any commercial smartphone or tablet up to 11" in size and allows for rotation between portrait and landscape modes.

Shapeshift in the Field

The Skadi 100 features an integrated antenna, ergonomic handle, and hot-swap, all day battery. This innovative design offers you the flexibility of shapeshifting your field mounting setups on the go. Seamlessly transition between a handheld configuration, surveying range pole, or backpack setup in no time. The Skadi 100 can also accommodate an external antenna for use in vehicle applications or another carry-on setup (e.g., safety vest, chest pack).

Specifications

GPS Sensor

Receiver Type:	Submeter, Single-Frequency GNSS Receiver tuned for SBAS
GNSS Signals Received:	GPS: L1CA, L1P, L1C
	GLONASS: G1
	Galileo: E1BC
	BeiDou: B1i
	QZSS: L1CA
SBAS Support:	3 channel, parallel tracking (with SBAS ranging)
L-Band (Atlas® H50 only) Support:	1 channel

Accuracy:

Autonomous Accuracy:	1.2 meters HRMS[1]
SBAS Accuracy:	< 30 cm HRMS[1], < 60 cm 2dRMS
Atlas® H50 Accuracy:	30 cm HRMS

Miscellaneous Specifications:

Standard Update Rate:	1 Hz standard (10 Hz and 20 Hz optional activations)
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)
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]
Charging Time:	2.5 hours (with supplied 20W USB-C power adapter)
Hot-Swap Back-Up Battery Autonomy:	15+ minutes

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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 5.5 cm (5.6″ x 3.7″ x 2.16″)
Weight with Battery:	580 g (1.28 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 100™ 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

- 10 Hz or 20 Hz data output rate
- External antenna and cable
- Spare Skadi Series battery pack
- Tablet mounting bracket for Skadi Series handles
- Atlas® satellite correction service

Made in Canada