



Precise, reliable, and easy to use: PointPerfect is the u-blox GNSS correction data service that delivers centimeter-level accuracy in seconds with superior coverage on a continental scale. Uniquely flexible usage-based pricing is designed to reduce your operating expense by allowing you to pay only for what you use. Integration is seamless with any high-precision GNSS RTK receiver module, u-blox or non u-blox, or even a mix within the same fleet.



**Pay only for what you use**

- Uniquely flexible usage-based plans are designed to reduce your operating expense. Pay only for what you use with by-device hourly plans or optimize your whole device fleet by sharing hours via pooled plans
- Say goodbye to the rigid high annual service fees of typical RTK suppliers and say hello to pay-as-you-go, subscription or hourly-based plans, and device or pooled plans
- Slash your mobile data costs with data rates that are up to 90% lower than typical network RTK services



**Easy, flexible, seamless**

- Works seamlessly with by any GNSS RTK receiver module, u-blox or non u-blox, or even a mix within the same fleet
- SPARTN data format optimized for u-blox receivers and RTCM format supports any non u-blox GNSS RTK receivers
- NTRIP and MQTT protocols for connecting over mobile internet
- Easy to get started without the need for integration expertise
- Zero Touch Provisioning (ZTP) to configure devices at scale



**Superior coverage**

- Wide uniform coverage over entire continents, countries, and regions including up to 12 nautical miles (~22km) off coastlines
- Redundant communication via mobile internet and L-band satellite
- Eliminate the headaches of switching suppliers and resetting data based on location. Enjoy the simplicity of one supplier and one data stream across vast geographies



**Reliable performance**

- 3-6 cm accuracy<sup>1</sup> and convergence in seconds
- 99.9% uptime availability via both internet and L-band satellite
- u-blox is a trusted industry leader in GNSS and RTK technology

1: Horizontal accuracy, typically 3-6 cm with a compatible receiver.

Accuracy results are based on:

- a) error-free GNSS observation data
- b) receiving complete and uninterrupted correction data
- c) ambiguity-fixed position results

## Precise positioning applications

With mass-market scalability in mind, PointPerfect is ideally suited to the needs of industrial and automotive application areas including partial driving automation, micro-mobility, heavy machinery, precision agriculture, autonomous mobile robotics, unmanned aerial vehicles (UAV), and other advanced navigation applications.



**Automotive**



**Heavy machinery**



**Autonomous mobile robotics**



**Micro-mobility**



**Precision agriculture**



**Unmanned aerial vehicles (UAV)**

## PointPerfect specification

Data format	SPARTN 2.0	RTCM 3.3
Technology	Advanced PPP-RTK (SSR type)	Advanced PPP-RTK (OSR type)
Horizontal accuracy <sup>1</sup> (2-sigma 95%)	3 - 6 cm	3 - 6 cm
Initialization time (depends on ionospheric activities)	10 - 30 seconds	10 - 30 seconds
Coverage	Regions of the Americas, Europe, Asia, and Australia. For latest coverage details see: <a href="http://www.u-blox.com/pointperfect-service-coverage">www.u-blox.com/pointperfect-service-coverage</a>	
Reference frame	ITRF2020 current epoch	ITRF2020 current epoch
Data rate	0.5 – 0.7 Kbits per second 2.4 Kbps for L-band satellite	4 – 6 Kbps RTCM format is not provided via L-band satellite
Standard correction rate	Satellite clock: 5 seconds Satellite orbits, bias & atmosphere: 30 seconds	1 second
GNSS signal support	GPS: L1 C/A, L2P, L2C, L5 Galileo: E1, E5A/B BeiDou*: B1I, B1C, B2A GLONASS: L1 C/A, L2 C/A	GPS: L1 C/A, L2P, L2C, L5 Galileo: E1, E5A, E5B BeiDou: B1C, B1I, B2a, B2b, B2I GLONASS: L1 C/A, L2 C/A
* Excludes L-band		
Communication methods	Mobile internet: MQTT, NTRIP L-band satellite: Europe and North America	Mobile internet: NTRIP

## Useful links

PointPerfect	<a href="http://www.u-blox.com/product/pointperfect">www.u-blox.com/product/pointperfect</a>
Getting started	<a href="http://developer.thingstream.io/guides/location-services/pointperfect-getting-started">developer.thingstream.io/guides/location-services/pointperfect-getting-started</a>
Pricing	<a href="http://portal.thingstream.io/pricing/laas/laaspointperfect">portal.thingstream.io/pricing/laas/laaspointperfect</a>
Thingstream platform	<a href="http://portal.thingstream.io/register">portal.thingstream.io/register</a>
Coverage Map	<a href="http://www.u-blox.com/pointperfect-service-coverage">www.u-blox.com/pointperfect-service-coverage</a>

## u-blox products supporting PointPerfect

ZED-F9R high precision dead reckoning modules
ZED-F9P high precision GNSS module
ZED-F9K high precision dead reckoning with IMU sensor
NEO-D9S correction receiver
NEO-F9P multi-band GNSS receiver
XPLR-HPG-1 High precision GNSS explorer kit
XPLR-HPG-2 High precision GNSS explorer kit

## Further information

Contact us: [www.u-blox.com/contact-u-blox-services](http://www.u-blox.com/contact-u-blox-services).

For more details, see [www.u-blox.com/product/pointperfect](http://www.u-blox.com/product/pointperfect).

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