



Product Summary

AssistNow

u-blox A-GNSS services

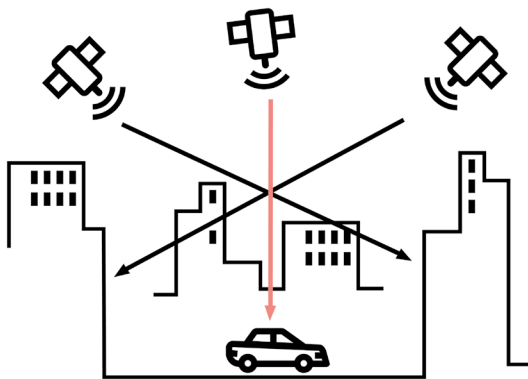
Fast Time-To-First-Fix, even under poor signal conditions

- End-to-end service for OEMs and end-users
- Global coverage and network operator independent
- Easy to install; no additional hardware required
- Seamless implementation with u-blox cellular modules that have an embedded AssistNow client
- Free of charge service
- Premium service with guaranteed QoS option
- Available for all u-blox GNSS products
- Low CPU load



The challenge of stand-alone GNSS

GNSS users expect instant position information. With standard positioning this is often not possible because at least four satellites must be identified, and their complete orbital position data (called Ephemeris) received. Under adverse signal conditions, data downloads from the satellites to the receiver can take minutes, hours or even fail altogether.



Assisted GNSS (A-GNSS) accelerates calculation of position by delivering satellite data such as Ephemeris, Almanac, accurate time and satellite status to the GNSS receiver via wireless networks or the Internet. This aiding data enables a GNSS receiver to compute a position within seconds, even under poor signal conditions.

AssistNow A-GNSS service

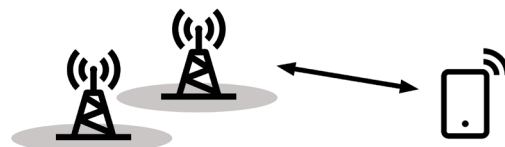
AssistNow Online and AssistNow Offline are u-blox's end-to-end A-GNSS services for OEM customers and their end users. These services boost GNSS acquisition performance for devices with or without network connectivity. AssistNow Online and AssistNow Offline can either be used alone or in combination.

AssistNow A-GNSS services require no additional hardware and generate virtually no CPU load. The system is very easy to implement and can be installed and operational within a day. u-blox cellular modules feature an embedded AssistNow client making integration simple.

AssistNow Online

Supports GPS, Galileo, GLONASS, and BeiDou

With AssistNow Online, an internet-connected GNSS device downloads assistance data from u-blox' AssistNow Online Service at system start-up. The service works on all standard mobile communication networks that support Internet access, including GPRS, UMTS and Wireless LAN. No special arrangements with mobile network operators are needed to enable AssistNow Online, making this solution network operator independent and globally available. u-blox only sends ephemeris data for those satellites currently visible to the mobile device requesting the data, thus minimizing the amount of data transferred.



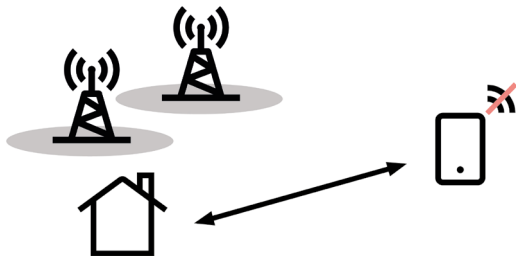


AssistNow Offline

Supports GPS and GLONASS

With AssistNow Offline, users download u-blox' Differential Almanac Correction Data from the Internet at their convenience. The correction data is then transferred to the mobile terminal via TCP/IP, serial port, memory card, etc, and can either be stored in the GNSS receiver's Flash EPROM (if available) or in the memory of the application processor. Therefore, the service requires no connectivity at system start-up and enables a position fix within seconds, even when no network is available.

u-blox provides correction data valid from 1 to 35 days. The size of these files increases with the length of the prediction period, from as little as 3 kB to 125 kB. Positioning accuracy decreases with the length of the correction data duration, with 1–3 day data providing relatively high accuracy and 10–35 day data progressively less accuracy. Regular updates help to ensure a high level of position accuracy.



AssistNow Autonomous

Supports GPS, Galileo, GLONASS, and BeiDou

AssistNow Autonomous is an embedded feature available free-of-charge that accelerates GNSS positioning by capitalizing on the periodic nature of GNSS satellite orbits. GNSS orbit predictions are directly calculated by the GNSS receiver and no external aiding data or connectivity is required. AssistNow Autonomous can be used alone, or together with AssistNow Online or AssistNow Offline for increased positioning speed and accuracy.

Free and premium service options

AssistNow data is collected by u-blox' global array of satellite receivers, and maintained in real-time on u-blox AssistNow servers accessible via the Internet. For best-effort applications, u-blox provides AssistNow free-of-charge to its customers.

For applications requiring a guaranteed minimum Quality of Service (QoS), u-blox provides AssistNow Premium which provides guaranteed availability based on a service level agreement and 24/7 support.

Products supporting AssistNow

All u-blox GNSS receiver modules and chips

SARA-G3 and SARA-G4 series 2G cellular modules

SARA-U2 and LISA-U2 series 3G cellular modules

SARA-R4/N4 series LTE Cat M1/NB1 cellular modules

LARA-R2 and TOBY R2 series LTE Cat 1 cellular modules

LARA-R3121 LTE Cat 1 cellular module

	AssistNow Online	AssistNow Offline	AssistNow Autonomous
Data			
Data download frequency	At every startup	Once every X days	Never
Data retrieval at start-up	Data downloaded from server	Pre-downloaded from local memory	Retrieved from local memory
Aiding data type	Ephemeris, almanac, time, health	Differential almanac correction	Automatically generated
Data validity period	2 - 4 hours	35 days	Up to 6 days
Size of downloaded data	1 - 3 kB	10 kB (1 day) ... 125 kB (35 days)	N.A.
Acquisition (TTFF) performance	As low as 1 second	As low as 5 seconds	As low as 10 seconds
GNSS			
Satellite systems supported	GPS, Galileo, GLONASS, BeiDou	GPS, GLONASS	GPS, Galileo, GLONASS, BeiDou
Service options			
Free service	Best-effort	Best effort	N.A.
Premium service	Guaranteed availability based on service level agreement	Guaranteed availability based on service level agreement	N.A.

Further information

For contact information, see www.u-blox.com/contact-us.

For more product details and ordering information, see the [product data sheet](#).

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