

Release note

Topic	Firmware HPG 2.00 for ZED-X20P UBXDOC-304424225-19895	C1-Public
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1 General information

1.1 Scope

This release note applies to u-blox ZED-X20P firmware version HPG 2.00.

1.2 Related documentation

- [1] ZED-X20P Integration manual, [UBXDOC-963802114-12901](#)
- [2] ZED-X20P Data sheet, [UBXDOC-963802114-12690](#)
- [3] u-blox X20 HPG 2.00 Interface description, [UBXDOC-304424225-19888](#)
- [4] u-blox EVK-X20P user guide, [UBXDOC-963802114-12969](#)
- [5] u-blox GPS L5 configuration Application note, [UBX-21038688](#)
- [6] u-center 2 GNSS evaluation software, <https://www.u-blox.com/en/u-center-2>

2 Released firmware image

Released Firmware Image	Audience
File	UBX_20_HPG_200_ZED_X20P.cbadd47b7f0eb6224338ae146252eedb.bin
Firmware Version	EXT HPG 2.00 (1e963f3) FWVER=HPG 2.00
Protocol Version	50.02

2.1 Released software tools

Latest version of u-center 2 (version 25.03 or later) should be used with this firmware.

3 Firmware description

This section highlights selected features supported by this firmware.

- This firmware contains all-band high-precision GNSS, RTK and PPP-RTK, functionality.
- This firmware supports raw code and carrier phase measurement outputs for all supported GNSS signals.

This firmware is for u-blox ZED-X20P products.

3.1 Supported GNSS constellations and signals

This firmware supports the following GNSS signals:

- GPS: L1C/A, L2C, L5
- BeiDou: B1I, B1C, B2a, B3I
- Galileo: E1B/C, E5a, E6
- QZSS: L1C/A, L1S, L2C, L5
- NavIC: L5
- SBAS: L1C/A



Note that the GPS L5 signals are flagged as unhealthy at the time of this release. The receiver does not use unhealthy signals for navigation by default. See the GPS L5 configuration application note [5] for further details.



Regional constellations, such as QZSS and NavIC, are disabled by default. They can be enabled on demand.

3.2 GNSS features

- RTK high-precision positioning
- PPP-RTK high-precision positioning
- 25 Hz output rate with code and carrier phase (UBX-RXM-RAWX) measurements
- Local base station functionality with RTCM output
- Assisted GNSS, AssistNow Online
- Spectrum analyzer, Monitor RF environment for possible interference and anomalies
- Geofencing, Supports location-restriction and anti-theft functionality
- Monitoring and management functions, Extensive functions to monitor embedded system health such as I/O queues, pin status and correction status

- Personalization, Individualized identity to access high value features and subscriptions
- Backup modes, Hardware and software
- Anti-jamming, RF interference and jamming detection and reporting
- Anti-spoofing, Spoofing detection and reporting
- Galileo OSNMA, Galileo Open Service Navigation Message Authentication
- Configuration lockdown, Receiver configuration can be locked by command
- Secure boot where only signed firmware images are executed
- Secured storage, Tamper-resistant secure storage with end-to-end security

3.3 Message interface

See the Interface description [3] for a detailed description of the available message interfaces.

3.3.1 NMEA

The default NMEA version is 4.11. Alternatively, versions 4.10, 4.0, 2.3, and 2.1 can also be enabled.

3.3.2 UBX

This firmware supports UBX protocol version 50.02.

3.3.3 RTCM

The released firmware supports up to RTCM3 standard version 3.4.

3.3.4 SPARTN

The released firmware supports up to SPARTN protocol version 2.0.2.

4 Known limitations

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5 Open-source declaration

This u-blox positioning product described in this release note, comprising the company's proprietary software, does not contain open-source software to declare.