



u-center 21.02

GNSS evaluation software for Windows

Release note

Abstract

This release note contains general information, features, improvements, changes and known limitations for u-center 21.02.

www.u-blox.com

UBX-21009381 - R01
C1-Public



Document information

Title	u-center 21.02	
Subtitle	GNSS evaluation software for Windows	
Document type	Release note	
Document number	UBX-21009381	
Revision and date	R01	29-Mar-2021
Document status		
Disclosure restriction	C1-Public	

u-blox or third parties may hold intellectual property rights in the products, names, logos and designs included in this document. Copying, reproduction, modification or disclosure to third parties of this document or any part thereof is only permitted with the express written permission of u-blox.

The information contained herein is provided "as is" and u-blox assumes no liability for its use. No warranty, either express or implied, is given, including but not limited to, with respect to the accuracy, correctness, reliability and fitness for a particular purpose of the information. This document may be revised by u-blox at any time without notice. For the most recent documents, visit www.u-blox.com.

Copyright © 2021, u-blox AG.

Contents

1 General information.....	4
1.1 Released files.....	4
1.2 Version and checksum of files.....	4
1.3 Released documentation.....	4
2 Features.....	5
2.1 Supported Microsoft Windows versions.....	5
2.2 Supported receiver generations.....	5
2.3 Supported protocol specification version.....	5
2.4 External hardware support.....	5
2.5 Multiple GNSS AssistNow Service.....	5
2.6 Debug messages.....	5
3 Improvements and changes.....	7
3.1 Version 21.02.....	7
3.2 Version 20.10.....	7
3.3 Version 20.06.01.....	7
3.4 Version 20.01.....	8
3.5 Version 19.12.....	8
3.6 Version 19.11.01.....	8
4 Known limitations.....	9
4.1 Known issues.....	9
5 Licenses.....	10
5.1 Licenses.....	10

1 General information

The u-center GNSS evaluation software for automotive, mobile terminal and infrastructure applications provides a powerful tool for evaluation, performance analysis and configuration of the u-blox GNSS receiver.

1.1 Released files

The following table lists the files that have been released.

File	Description
u-center_v21.02.exe	u-center installer including u-blox CDC-ACM (USB) (x64 bit) driver v1.2.0.8 for Windows 7 and 8
u-center-v21.02_ReleaseNote_(UBX-20048354).pdf	Release note
u-center_UserGuide_(UBX-13005250).pdf	User guide



For Windows 10, the CDC-ACM (USB) driver from Microsoft should be used, which is available from Windows Update.



u-blox Sensor and VCP drivers are deprecated, so they have been removed from the release package.

1.2 Version and checksum of files

The following table lists the versions and the checksums of the [Released files](#).

File	Version	MD5
u-blox GNSS Standard Driver for Windows	1.2.0.8	
u-center.exe	21.02	15a5c684c81d23001adb5448d4fe2008
bssndrpt.exe		cc672cec579490e6cfb92726a81287c1
bugsplat.dll		24e4da53ab6b3b7bb924eacbd46a59ec
bugsplatrc.dll		efa8f6d360edf491e1de52798bdacce6
flash.xml	200058	52dc2335917d87e9c53be2daca44a155
flash.xml_changelog.txt		458ac61a574fd0d7d56ae48dc5238265
flash.txt	101098	b49a4b5d33efa113737208e788cf3afc
NMEA.dll	21.02	21ee795fc01da970683fb7ceb6b4dfd9
paho-mqtt3c.dll	21.02	a6353c9edb1216a4ae90376b62766d72
RTCM.dll	21.02	babc307d9032691f577d6835826c30cb
sqlite3.dll	3.21.0.0	07fb6d31f37fb1b4164bef301306c288
UBX.dll	21.02	00bab93ed1d40a901703ce30c43bbd58
ubxfwupdate.exe	19.03	

1.3 Released documentation

- Public release note (UBX-20048354)
- u-center user guide (UBX-13005250)

2 Features

2.1 Supported Microsoft Windows versions

u-center 21.02 runs on Microsoft Windows Vista and later versions up to (including) Windows 10.

2.2 Supported receiver generations

u-center 21.02 supports the following receiver generations:

- u-blox 6 with ROM 6.00, ROM 6.02, ROM 7.03
- u-blox 7 with ROM 0.10, ROM 0.11, ROM 0.14, ROM 1.00
- u-blox 8/M8 with ROM 0.21, ROM 0.22, ROM 2.01, ROM 3.01
- u-blox 9 with ROM 0.30, ROM 0.40, ROM 1.01, ROM 1.02
- u-blox 10 with ROM SPG 5.00

2.3 Supported protocol specification version

u-center 21.02 supports the u-blox protocol specification from version 10.00 and later versions up to (including) version 38.

2.4 External hardware support

The following external hardware is supported to interface with the receiver:

Interface	Device	DLL version
DDC/I2C	Totalphase Aardvark I2C/SPI Host Adapter	aardvark.dll v5.15 for Windows 32-bit
DDC/I2C	Diolan U2C-12 USB-I2C/SPI/GPIO Adapter	i2cbrdg.dll v1.0.0.9 for Windows 32-bit
SPI	Totalphase Aardvark I2C/SPI Host Adapter	aardvark.dll v5.15 for Windows 32-bit
SPI	Totalphase Cheetah SPI Host Adapter	aardvark.dll v5.15 for Windows 32-bit
SPI	Diolan U2C-12 USB-I2C/SPI/GPIO Adapter	i2cbrdg.dll v1.0.0.9 for Windows 32-bit

2.5 Multiple GNSS AssistNow Service

u-center 21.02 includes the multiple GNSS AssistNow Service (libMGA) version 20.08.

2.6 Debug messages

The following messages will be enabled or polled when pressing the "Debug Messages" button:

- Any UBX-INF
- UBX-MON-MSGPP
- UBX-NAV-CLOCK
- UBX-NAV-PVT
- UBX-NAV-SIG
- UBX-NAV-ORB
- UBX-NAV-SAT
- UBX-RXM-SVSI (every 30 seconds)
- UBX-MON-HW (polled)
- UBX-MON-EXCEPT (polled)
- and additional u-blox debug messages

The following messages will additionally be enabled or polled when pressing the "Debug Messages" button for ADR product line:

- UBX-ESF-MEAS
- UBX-ESF-STATUS

The following messages will additionally be enabled or polled when pressing the "Debug Messages" button for HPG product line:

- UBX-NAV-RELPOSNEED
- UBX-NAV-SVIN
- UBX-MON-IO
- UBX-NAV-SOL
- UBX-NAV-AOPSTATUS

The following messages will additionally be enabled or polled when pressing the "Debug Messages" button for SPG product line:

- UBX-MON-IO
- UBX-NAV-SOL
- UBX-NAV-AOPSTATUS

3 Improvements and changes

For detailed information on any new messages or protocols, contact u-blox support or see product interface description.

3.1 Version 21.02

- Feature: Relevant UBX-NAV2-* messages are available including UBX-CFG-NAV2 configuration group and CFG-MSGOUT-UBX-NAV2-* configuration items. This will enable the support for dual-band receiver.
- Feature: Display data from UBX-NAV2-* messages in views 'Receiver' > 'Epoch detection' is available for dual band receiver.
- Feature: Added UBX-RXM-SPARTN message to monitor SPARTN input status.
- Feature: SPARTN protocol reported as a correction source in messages like UBX-NAV-SAT, UBX-NAV-SIG and reported as an input protocol in messages like UBX-MON-COMMS, UBX-MON-MSGPP.
- Feature: Added new messages UBX-CFG-ESFALG, UBX-CFG-ESFA, UBX-CFG-ESFG, UBX-CFG-ESFWT, UBX-CFG-SENIIF, UBX-CFG-SPT, UBX-ESF-ALG, UBX-HNR-ATT, UBX-MON-SPT, UBX-NAV-COV, UBX-NAV-EELL, NMEA-GxTHS, UBX-NAV2-CLOCK, UBX-NAV2-COV, UBX-NAV2-DOP, UBX-NAV2-EELL, UBX-NAV2-ODO, UBX-NAV2-POSECEF, UBX-NAV2-POSLLH, UBX-NAV2-PVT, UBX-NAV2-SAT, UBX-NAV2-SBAS, UBX-NAV2-SIG, UBX-NAV2-SLAS, UBX-NAV2-STATUS, UBX-NAV2-SVIN, UBX-NAV2-TIMEBEIDOU, UBX-NAV2-TIMEGAL, UBX-NAV2-TIMEGLO, UBX-NAV2-TIMEGPS, UBX-NAV2-TIMELS, UBX-NAV2-TIMEQZSS, UBX-NAV2-TIMEUTC, UBX-NAV2-VELECEF, UBX-NAV2-VELNED, UBX-RXM-SPARTN, UBX-SEC-SIG, UBX-RXM-TM, UBX-CFG-HW-RF_LNA_MODE.
- Feature: Added support for BeiDou SVs with PRN 38 - PRN 63.
- Feature: Added support in UBX-NAV-SAT to report SLAS as a correction source.
- Feature: Added new flag in UBX-NAV-SBAS and UBX-NAV2-SBAS messages as 'SBAS integrity used' to indicate if SBAS integrity feature has been used by the receiver or not.
- Bug fix: Fixed issue with reading/writing values for configuration items of type I4.
- Bug fix: UBX-CFG-RATE no longer marks invalid input values. Before it would mark measurement periods and navigation rate values as not acceptable, while the receiver would accept them fine as expected.
- Bug fix: Fixed issue where in NMEA 4.11 some BeiDou SVs could be misidentified as GLONASS.

3.2 Version 20.10

- Improvement: Changed some ADR/UDR messages from NDA to PUB.
- Improvement: Added protocol version 33 used by ZED-F9R (HPS 1.0) to u-center Receiver > Protocol Filter > u-blox Generation 9.
- Bug fix: Fixed bug for the u-center crash when NTRIP server/caster is opened.
- Bug fix: Fixed UBX-CFG-NMEA reporting of version number when V4.11 is selected.
- Bug fix: Fixed for crashes when changing GNSS configuration.

3.3 Version 20.06.01

- Feature: Added remaining NMEA 4.11 specific features such as support for QZSS and NavIC talker/signal IDs in NMEA-GBS and NMEA-GRS messages. Also new child messages added to all NMEA message views for the fore-mentioned constellations.
- Feature: u-center support for UBX-NAV-NMI.
- Bug fix: Fixed the bug of reporting IMU-mount Alignment Status flag on ESF-STATUS message.

- Bug fix: u-center side panes now correctly show fix information for receivers that only have UBX-NAV-RELPOSNED output enabled.
- Bug fix: Fixed "Receiver > Protocol Filter" tab, it shows the menu properly when user selects it for the second time.
- Bug fix: Fixed the NTRIP connection problem.
- Bug fix: Fixed GNSS ID letter (G->Q) in NMEA-GQGSV and fixed QZSS and NAVIC GNSS ID letters in NMEA-GNGSA which were crossed.

3.4 Version 20.01

- Feature: Added new NMEA SV IDs to support NMEA 4.11.
- Improvement: Replaced data and satellite signal level view with new logic of getting data for satellites (multi-band) and improved satellite signal history view.
- Bug fix: UBX-CFG-VALGET messages are now displayed when playing log file.
- Bug fix: Fixed crashing of u-center when AssistNow Online GNSS runs in the background.
- Bug fix: Copyright date updated to 2020 in "Help > About u-center..." dialog.

3.5 Version 19.12

- Feature: Added new version of NMEA (4.11) to UBX-CFG-NMEA and to the config item CFG-NMEA-PROTVER.
- Feature: Message UBX-NAV-SIG adds support for the prsmooth flag in the Message View. When the PR of a signal is smoothed, it will show the PPP led and mark it as 'S'. This is similar to what UBX-NAV-SAT (the predecessor of UBX-NAV-SIG) was already supporting.
- Improvement: A file overwrite warning dialog shows up while overwriting an existing configuration file.
- Bug fix: Fixed the issue that would crash u-center when protocol version was changed from menu Receiver > Protocol Filter. Added/fixed generation MA & 9 & 10 protocol filter options.
- Bug fix: Satellite Position view updated to display data from all signals (multi-band).
- Bug fix: Message UBX-ESF-STATUS now shows the correct calibration status for all sensors even when they are not being used.
- Bug fix: u-center is now prevented from ending up in a "no-response" status if NTRIP connection is lost, and the u-center window is minimized.
- Bug fix: Sky view updated to display data from all signals (multi-band) and the performance of Sky view has been improved.
- Bug fix: Fixed returning invalid mountpoints due to case sensitive names in u-center.
- Bug fix: Supported unicode file paths when opening zipped files (ubz, ubx.gz) which now fixed the Japanese named folder issue.

3.6 Version 19.11.01

- Feature: Added ESF-MEAS latency to chart view and table view.
- Bug fix: Advanced Configuration View is now fixed to also support version 0 of UBX-CFG-VALSET and UBX-CFG-VALDEL messages.
- Bug fix: Advanced Configuration View now displays the layer value correctly in the hex view.
- Bug fix: Fixed bug causing the CFG-HW-OSC_TYPE value text to be corrupted in the Advanced Configuration View.
- Bug fix: Fixed the display of some fields in UBX-NAV-TIMEQZSS message.
- Bug fix: Updated copyright date to 2019 in "Help > About u-center..." dialog.

4 Known limitations

4.1 Known issues

- Enumerating the ports on a computer with many ports can take a long time.
- Using the protocol filter with "silent" or "no receiver" results in an empty message tree.
- Full support for u-blox 10 generation receiver is not yet available.

5 Licenses

5.1 Licenses

The following open source licenses are used in the u-blox u-center package.

License number	License
1	<p>paho.mqtt license Eclipse Distribution License - v 1.0 Copyright (c) 2007, Eclipse Foundation, Inc. and its licensors.</p> <p>All rights reserved.</p> <p>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <p>Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. Neither the name of the Eclipse Foundation, Inc. nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission. THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>
2	<p>SQLite license, https://www.sqlite.org/copyright.html</p>
3	<p>Libjpeg license LICENSE TERMS (ships as a part of the libjpeg package in the README file) =====</p> <ol style="list-style-type: none">1. We don't promise that this software works. (But if you find any bugs, please let us know!)2. You can use this software for whatever you want. You don't have to pay us.3. You may not pretend that you wrote this software. If you use it in a program, you must acknowledge somewhere in your documentation that you've used the IJG code. <p>In legalese:</p>

License number License

The authors make NO WARRANTY or representation, either express or implied, with respect to this software, its quality, accuracy, merchantability, or fitness for a particular purpose. This software is provided "AS IS", and you, its user, assume the entire risk as to its quality and accuracy.

This software is copyright (C) 1991-2016, Thomas G. Lane, Guido Vollbeding. All Rights Reserved except as specified below.

Permission is hereby granted to use, copy, modify, and distribute this software (or portions thereof) for any purpose, without fee, subject to these conditions:

- (1) If any part of the source code for this software is distributed, then this README file must be included, with this copyright and no-warranty notice unaltered; and any additions, deletions, or changes to the original files must be clearly indicated in accompanying documentation.
- (2) If only executable code is distributed, then the accompanying documentation must state that "this software is based in part on the work of the Independent JPEG Group".
- (3) Permission for use of this software is granted only if the user accepts full responsibility for any undesirable consequences; the authors accept NO LIABILITY for damages of any kind.

These conditions apply to any software derived from or based on the IJG code, not just to the unmodified library. If you use our work, you ought to acknowledge us.

Permission is NOT granted for the use of any IJG author's name or company name in advertising or publicity relating to this software or products derived from it. This software may be referred to only as "the Independent JPEG Group's software".

We specifically permit and encourage the use of this software as the basis of commercial products, provided that all warranty or liability claims are assumed by the product vendor.

4**Libcurl license
COPYRIGHT AND PERMISSION NOTICE**

Copyright (c) 1996 - 2021, Daniel Stenberg, daniel@haxx.se, and many contributors, see the THANKS file.

All rights reserved.

Permission to use, copy, modify, and distribute this software for any purpose with or without fee is hereby granted, provided that the above copyright notice and this permission notice appear in all copies.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF THIRD PARTY RIGHTS. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES

License number	License
	<p>OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p> <p>Except as contained in this notice, the name of a copyright holder shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Software without prior written authorization of the copyright holder.</p>
5	<p>Tinyxml license, https://github.com/leethomason/tinyxml2/blob/master/LICENSE.txt</p>
6	<p>Libtiff license Copyright (c) 1988-1997 Sam Leffler</p> <p>Copyright (c) 1991-1997 Silicon Graphics, Inc.</p> <p>Permission to use, copy, modify, distribute, and sell this software and its documentation for any purpose is hereby granted without fee, provided that (i) the above copyright notices and this permission notice appear in all copies of the software and related documentation, and (ii) the names of Sam Leffler and Silicon Graphics may not be used in any advertising or publicity relating to the software without the specific, prior written permission of Sam Leffler and Silicon Graphics.</p> <p>THE SOFTWARE IS PROVIDED "AS-IS" AND WITHOUT WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR OTHERWISE, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.</p> <p>IN NO EVENT SHALL SAM LEFFLER OR SILICON GRAPHICS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER OR NOT ADVISED OF THE POSSIBILITY OF DAMAGE, AND ON ANY THEORY OF LIABILITY, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.</p>
7	<p>Libpng license, http://www.libpng.org/pub/png/src/libpng-LICENSE.txt</p>
8	<p>Zlib license, http://www.zlib.net/zlib_license.html</p>
9	<p>pcre license PCRE2 LICENCE -----</p> <p>PCRE2 is a library of functions to support regular expressions whose syntax and semantics are as close as possible to those of the Perl 5 language.</p> <p>Releases 10.00 and above of PCRE2 are distributed under the terms of the "BSD" licence, as specified below, with one exemption for certain binary redistributions. The documentation for PCRE2, supplied in the "doc" directory, is distributed under the same terms as the software itself. The data in the testdata directory is not copyrighted and is in the public domain.</p>

License number License

The basic library functions are written in C and are freestanding. Also included in the distribution is a just-in-time compiler that can be used to optimize pattern matching. This is an optional feature that can be omitted when the library is built.

THE BASIC LIBRARY FUNCTIONS

Written by: Philip Hazel
Email local part: Philip.Hazel
Email domain: gmail.com

University of Cambridge Computing Service,
Cambridge, England.

Copyright (c) 1997-2020 University of Cambridge
All rights reserved.

PCRE2 JUST-IN-TIME COMPILATION SUPPORT

Written by: Zoltan Herczeg
Email local part: hzmester
Email domain: freemail.hu

Copyright(c) 2010-2020 Zoltan Herczeg
All rights reserved.

STACK-LESS JUST-IN-TIME COMPILER

Written by: Zoltan Herczeg
Email local part: hzmester
Email domain: freemail.hu

Copyright(c) 2009-2020 Zoltan Herczeg
All rights reserved.

THE "BSD" LICENCE

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

* Redistributions of source code must retain the above copyright notices, this list of conditions and the following disclaimer.

* Redistributions in binary form must reproduce the above copyright notices, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

License number **License**

* Neither the name of the University of Cambridge nor the names of any contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

EXEMPTION FOR BINARY LIBRARY-LIKE PACKAGES

The second condition in the BSD licence (covering binary redistributions) does not apply all the way down a chain of software. If binary package A includes PCRE2, it must respect the condition, but if package B is software that includes package A, the condition is not imposed on package B unless it uses PCRE2 independently.

End

Contact

For complete contact information visit us at www.u-blox.com.

u-blox Offices

North, Central and South America

u-blox America, Inc.

Phone: +1 703 483 3180
E-mail: info_us@u-blox.com

Regional Office West Coast

Phone: +1 408 573 3640
E-mail: info_us@u-blox.com

Technical Support

Phone: +1 703 483 3185
E-mail: support_us@u-blox.com

Headquarters

Europe, Middle East, Africa

u-blox AG

Phone: +41 44 722 74 44
E-mail: info@u-blox.com
Support: support@u-blox.com

Asia, Australia, Pacific

u-blox Singapore Pte. Ltd.

Phone: +65 6734 3811
E-mail: info_ap@u-blox.com
Support: support_ap@u-blox.com

Regional Office Australia

Phone: +61 3 9566 7255
E-mail: info_anz@u-blox.com
Support: support_ap@u-blox.com

Regional Office China (Beijing)

Phone: +86 10 68 133 545
E-mail: info_cn@u-blox.com
Support: support_cn@u-blox.com

Regional Office China (Chongqing)

Phone: +86 23 6815 1588
E-mail: info_cn@u-blox.com
Support: support_cn@u-blox.com

Regional Office China (Shanghai)

Phone: +86 21 6090 4832
E-mail: info_cn@u-blox.com
Support: support_cn@u-blox.com

Regional Office China (Shenzhen)

Phone: +86 755 8627 1083
E-mail: info_cn@u-blox.com
Support: support_cn@u-blox.com

Regional Office India

Phone: +91 80 4050 9200
E-mail: info_in@u-blox.com
Support: support_in@u-blox.com

Regional Office Japan (Osaka)

Phone: +81 6 6941 3660
E-mail: info_jp@u-blox.com
Support: support_jp@u-blox.com

Regional Office Japan (Tokyo)

Phone: +81 3 5775 3850
E-mail: info_jp@u-blox.com
Support: support_jp@u-blox.com

Regional Office Korea

Phone: +82 2 542 0861
E-mail: info_kr@u-blox.com
Support: support_kr@u-blox.com

Regional Office Taiwan

Phone: +886 2 2657 1090
E-mail: info_tw@u-blox.com
Support: support_tw@u-blox.com