

# **Release Notes**

| Topic : | Firmware 7.03 DR 6R C0 2.02 for u-blox 6 |
|---------|--|
|         | UBX-13001201                             |
| Author: | ffel                                     |
| Date :  | 11-04-2013                               |

We reserve all rights in this document and in the information contained therein. Reproduction, use or disclosure to third parties without express permission is strictly prohibited.

© 2013 u-blox AG

| 1 G  | ieneral Information     | 2 |
|------|-------------------------|---|
| 1.1  | Released firmware image | 2 |
|      | Released documentation  |   |
| 1.3  | Released software tools | 2 |
| 2 C  | onstraints              | 2 |
|      | Hardware limitations    |   |
|      | Software limitations    |   |
| 3 Pe | erformance              | 3 |



### 1 General Information

The u-blox 6 firmware version 7.03 DR 6R C0 2.02 is a flash firmware intended for LEA-6R modules. The firmware is a replacement for the u-blox 6 firmware version 7.03 DR 6R C0 2.00 providing several bug fixes. It is kept backwards compatible to it successor firmware. Version information is provided in the NMEA \$GPTXT and UBX-MON-VER messages.

### 1.1 Released firmware image

#### Flash image for LEA-6R

File: U6\_EXT\_FW703\_ADR202\_LEA6R\_dffc778e43a7866fd3597ef2004e0560.bin

ID String: EXT CORE 7.03 (67496) Apr 9 2013 13:12:02

Extension: DR 6R C0 2.02

Supports ROM: 7.03

#### 1.2 Released documentation

u-blox 6 Receiver Description including Protocol Specification, Docu. No. GPS.G6-SW-10018-F

#### 1.3 Released software tools

u-center version 7.02 (including UBX.dll version 7.02) can be used. This version of u-center was already released for the firmware version 7.03 and is available on the u-blox website.

#### 2 Constraints

#### 2.1 Hardware limitations

The firmware will be able to run properly on LEA-6R hardware only.

#### 2.2 Software limitations

The same basic feature set as used for u-blox 6 firmware version 7.03 DR 6R C0 2.00 is supported, but **AssistNow™ Autonomous** has been disabled for this version.



## 3 Performance

The following improvements in terms of positioning accuracy and reliability have been realized:

- 1. Improvement of Dead Reckoning (DR) performance for large wheel tick quantization (>2cm/tick)
- 2. Output of heading of vehicle (NMEA-Standard-THS: *True Heading and Status*)
- 3. Improved static hold behavior in difficult environment
- 4. Avoidance of position jumps after receiver restart
- 5. Handling of spurious wheel ticks during receiver shutdown to ensure continuous DR/Fusion after restart
- 6. Increase of available memory to handle higher input load on communication interface
- 7. Ferry mode is not triggered in difficult environment
- 8. No flipping of heading when moving backwards and stopping
- 9. Faster recovery from position offset, e.g. get back to the street faster