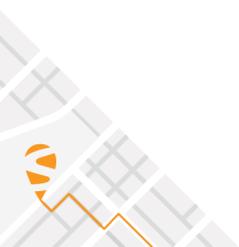# Release Notes and Installation Guide

mosaic-X5 Firmware Package v4.8.0

1 Installation Guidelines

In order to upgrade the firmware to version 4.8.0, only the following file is to be installed on the receiver:

SUF file	Located in	Contains
mosaic-X5-4.8.0.suf	firmware/	See section 6

There is no need to install the file mosaic-X5-4.8.0-failsafe.suf, unless Septentrio Support advises otherwise.

2 New Features and Improvements

2.1 New features in version 4.8.0

1. QZSS satellite visibility is now available in NMEA GSV message.
2. Support for decoding of RTCM2 message 34 (GLONASS partial correction set) was added.
3. A new SBF message NTRIPServerStatus was added.
4. Support for decoding of RTCM3 ephemeris message 1042, 1044 and 1046 was added.
5. This firmware adds support for TLS (Transport Layer Security) for NTRIP caster, client and server connections.
6. This firmware version does not support Septentrio SECORX positioning based on Terrastar service.
7. The command setPPSParameters was extended to output a PPS signal without time limitation during PVT outages.

2.2 Improvements in version 4.8.0

1. An instability in the tracking of S30 (a BeiDou SBAS satellite) has been fixed.
2. The availability of BeiDou carrier phases has been improved.
3. The RTCM2 message type 22 now correctly refers to the antenna L1 phase center height when antenna offset parameters are defined.
4. The command setLBandCustomServiceID can now be used to redefined scrambling vector for services already known by the receiver.
5. The upgrade success/failure debriefing mechanism in the Web UI was improved.
6. Certificates with an RSA key length of more than 4095 bits or less than 1024 bits are no longer accepted by the receiver.

2.3 New features in version 4.7.1

None

2.4 Improvements in version 4.7.1

1. A library update was done to improve compatibility for SFTP.
2. Occasional gaps in the carrier phase measurements for BeiDou geostationary satellites have been fixed.

3 Known Issues and Limitations

1. It is not possible to upgrade the receiver using mobile Safari on iOS devices.
2. If more than one user simultaneously changes settings via the web interface, the resulting configuration of the receiver may not be consistent.
3. The web server on the receiver has been tested with Chrome (version 61), Firefox (version 55) and Internet Explorer (version 11). If you experience any problems with your browser, please use a different client application.
4. IPS connections may stay visible in the web interface after the client has been disconnected.
5. The NTRIP server connection is sometimes not reliable when connected to a caster running "Professional Ntrip Broadcaster" (up to v2.0.22).
6. Firewall on computers can delay accepting connection by up to 4 minutes. Before using IPR functionality ensure that the desired IP port is enabled on your computer.
7. Moving base output is limited to 20 Hz.

4   Support

For further information or support, please consult the Septentrio support website (http://www.septentrio.com/support).

5   Legal Notice

Septentrio does not authorize the use of its products as critical components in devices or systems intended for safety-of-life applications or in devices or systems, of which the failure may endanger life or cause injuries, unless written approval is given.

All the firmware and documentation delivered with the mosaic-X5 Firmware Package is licensed, as explained in the About page which is accessible via the web interface of the receiver.

6   System Components and Versions

Firmware Package: 4.8.0 Applicable Product Group: mosaic-X5 Receiver Platform: GRB0051 Release Date: 08 June 2020	version	mosaic-X5-4.8.0-failsafe.suf	mosaic-X5-4.8.0.suf
Failsafe	7.0.0-gff57176	Y	
Operating System	7.0.0-gff57176		Y
GNSS Firmware	6.8.1-r79296		Y
Antenna Information	2.13.0-e47835c0		Y