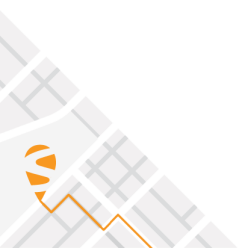# Release Notes and Installation Guide

mosaic-X5 Firmware Package v4.14.10.1

1   Installation Guidelines

In order to upgrade the firmware to version 4.14.10.1, only the following file is to be installed on the receiver:

SUF file	Located in	Contains
mosaic-X5-4.14.10.1.suf	firmware/	See section 6

There is no need to install the file mosaic-X5-4.14.10.1-failsafe.suf, unless Septentrio Support advises otherwise.

2   New Features and Improvements

2.1   New features in version 4.14.10.1

None

2.2   Improvements in version 4.14.10.1

Improved Ethernet PHYs support compatibility.

2.3   New features in version 4.14.10

1. Added option 'RTCMv3' to setDaisyChainMode command.
2. The setRTCMv3Formatting command has been updated to support setting of maximum total number of satellites in MSM output.

2.4   Improvements in version 4.14.10

1. The beta feature "Cosmos" has been removed.
2. Fixed interoperability issue with some NTRIP casters when receiving burst of data.
3. The built-in OSNMA cryptographic keys have been updated to the keys from the OSNMA Public Observation Test Phase that became operational on January 15, 2024.
4. The reporting of satellites below the horizon in the SatVisibility SBF block has been improved, in case a negative elevation mask is configured.
5. Improved RTK compatibility with base stations that introduce a quarter-cycle bias on QZSS L2C phase observations.

6. Improved receiver operation beyond the year 2048.
7. Removed restrictions on outputting raw L-Band data.
8. Fixed detection of TJA1101B Ethernet PHY.
9. RTCMv3 messages 1032 and 4091 are now correctly counted as accepted in the InputLink SBF block.

3 Known Issues and Limitations

1. When accessing the webUI over HTTPS, occasional CPU overloads can be detected.
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, Firefox and Microsoft Edge. 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.
8. The receiver is not able to remount the disk automatically when unplugging the USB cable, unless the disk is first ejected (Windows) or unmounted (Linux) from the host PC before disconnecting the USB cable.

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. On products without web interface, the License can be viewed with the "lstInternalFile, License" command.

6 System Components and Versions

Product: mosaic-X5 Version: 4.14.10.1 Receiver Platform: GRB0051 Release Date: 04 December 2024	version	mosaic-X5-4.14.10.1-failsafe.suf	mosaic-X5-4.14.10.1.suf
Failsafe	14.0.19-g50da83f	Y	
Operating System	14.0.19-g50da83f		Y
GNSS Firmware	6.14.17-g9b416b2bd4		Y
Antenna Information	24.2.0		Y