



AirPrime XA12xx and XM1210

Firmware H6736 Customer Release Note



SIERRA
WIRELESS®

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Important Notice

Due to the nature of wireless communications, transmission and reception of data can never be guaranteed. Data may be delayed, corrupted (i.e., have errors) or be totally lost. Although significant delays or losses of data are rare when wireless devices such as the Sierra Wireless modem are used in a normal manner with a well-constructed network, the Sierra Wireless modem should not be used in situations where failure to transmit or receive data could result in damage of any kind to the user or any other party, including but not limited to personal injury, death, or loss of property. Sierra Wireless accepts no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using the Sierra Wireless modem, or for failure of the Sierra Wireless modem to transmit or receive such data.

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Note: Some airlines may permit the use of cellular phones while the aircraft is on the ground and the door is open. Sierra Wireless modems may be used at this time.

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Document History

| Version | Date | Updates |
|---------|-------------------|--|
| 1.0 | November 15, 2018 | Creation |
| 1.1 | November 22, 2018 | Updated package names in section 5 Software Release Identification |
| 2.0 | February 21, 2019 | Updated for Firmware H6736.03_UI_8021, H6736.03_UU_8021, H6736.04_UI_8021 and H6736.04_UU_8021 |



Contents

| | |
|---|-----------|
| 1. INTRODUCTION | 7 |
| 1.1. Document Scope | 7 |
| 1.2. New Features/Enhancements | 7 |
| 2. ABBREVIATIONS AND DEFINITIONS | 8 |
| 3. RELATED DOCUMENTATION | 9 |
| 4. COMPATIBILITY | 10 |
| 5. SOFTWARE RELEASE IDENTIFICATION | 11 |
| 6. SOFTWARE INTERFACE DESCRIPTION | 13 |
| 6.1. Validated Corrections/Improvements | 13 |
| 6.2. Interface Changes | 13 |
| 7. TROUBLESHOOTING | 14 |



List of Tables

| | | |
|----------|---|----|
| Table 1. | New Features/Enhancements | 7 |
| Table 2. | Abbreviations and Definitions | 8 |
| Table 3. | Package Release Information for XM1210 and XA1210 with UART and I2C (GPS and GLONASS Default) | 11 |
| Table 4. | Package Release Information for XM1210 and XA1210 with UART and USB (GPS and GLONASS Default) | 11 |
| Table 5. | Package Release Information for XM1210 and XA1220 with UART and I2C (GPS and Beidou Default) | 11 |
| Table 6. | Package Release Information for XM1210 and XA1220 with UART and USB (GPS and Beidou Default) | 12 |
| Table 7. | Validated Corrections/Improvements | 13 |
| Table 8. | Interface Changes | 13 |



1. Introduction

1.1. Document Scope

This document is the Firmware H6736 customer release note for AirPrime XA12xx and XM1210 GNSS modules which were based on the Allystar HD8021 chipset.

This firmware is a maintenance release based on the H6736_01 and H6736_02 versions.

1.2. New Features/Enhancements

Table 1. New Features/Enhancements

| Feature | Description |
|----------------|---|
| GALILEO System | Firmware H6736 can receive GALILEO satellite navigation packets (supported by all four firmware). |

2. Abbreviations and Definitions

Table 2. Abbreviations and Definitions

| Abbreviation/Acronym | Definitions |
|----------------------|---|
| GNSS | Global Navigation Satellite System |
| FW | Firmware |
| GPIO | General Purpose Input Output |
| PPS | 1 pulse per second. |
| PVT | Position, velocity, time log. |
| UART | Universal Asynchronous Receiver Transmitter |
| USB | Universal Serial Bus |
| I2C | Inter-Integrated Circuit |



3. Related Documentation

- [1] AirPrime XA12xx and XM1210 Software User Guide
Reference number: 41112896
- [2] AirPrime XA1210 Product Technical Specification
Reference number: 41112821
- [3] AirPrime XM1210 Product Technical Specification
Reference number: 41112759

4. Compatibility

Firmware H6736 is compatible with the following AirPrime modules:

- XA1210
- XA1220
- XM1210



5. Software Release Identification

Table 3. Package Release Information for XM1210 and XA1210 with UART and I2C (GPS and GLONASS Default)

| | |
|-----------------------------------|--|
| Identification | H6736.03_UI_8021 |
| Date of generation | 25 January |
| Binary size | 245,554 Bytes |
| Applicable module | XM1210, XA1210 (note that Beidou is not supported due to the antenna) |
| Interface | UART, I2C |
| Supported Satellite System | GPS+BEIDOU+GLONASS+GALILEO+QZSS+SBAS |
| Default Satellite System | GPS+GLONASS+QZSS+SBAS |

Table 4. Package Release Information for XM1210 and XA1210 with UART and USB (GPS and GLONASS Default)

| | |
|-----------------------------------|--|
| Identification | H6736.03_UU_8021 |
| Date of generation | 25 January |
| Binary size | 246,917 Bytes |
| Applicable module | XM1210, XA1210 (note that Beidou is not supported due to the antenna) |
| Interface | UART, USB |
| Supported Satellite System | GPS+BEIDOU+GLONASS+GALILEO+QZSS+SBAS |
| Default Satellite System | GPS+GLONASS+QZSS+SBAS |

Table 5. Package Release Information for XM1210 and XA1220 with UART and I2C (GPS and Beidou Default)

| | |
|-----------------------------------|---|
| Identification | H6736.04_UI_8021 |
| Date of generation | 25 January |
| Binary size | 245,555 Bytes |
| Applicable module | XM1210, XA1220 (note that GLONASS is not supported due to the antenna) |
| Interface | UART, I2C |
| Supported Satellite System | GPS+BEIDOU+GLONASS+GALILEO+QZSS+SBAS |
| Default Satellite System | GPS+BEIDOU+QZSS+SBAS |

Table 6. Package Release Information for XM1210 and XA1220 with UART and USB (GPS and Beidou Default)

| | |
|-----------------------------------|---|
| Identification | H6736.04_UU_8021 |
| Date of generation | 25 January |
| Binary size | 246,918 Bytes |
| Applicable module | XM1210, XA1220 (note that GLONASS is not supported due to the antenna) |
| Interface | UART, USB |
| Supported Satellite System | GPS+BEIDOU+GLONASS+GALILEO+QZSS+SBAS |
| Default Satellite System | GPS+BEIDOU+QZSS+SBAS |



6. Software Interface Description

6.1. Validated Corrections/Improvements

Table 7. Validated Corrections/Improvements

| Description | Impacted Functionality/Sub-Functionality |
|---|--|
| PPS pulls high when the module is powered on. | PPS |
| Reduce current during sleep mode. | SLEEP |

6.2. Interface Changes

Table 8. Interface Changes

| Command/Feature | Description |
|-----------------|--|
| CFG-MSG | Set and query NMEA sentence output frequencies |
| CFG-CFG | Save and clear current configuration |
| \$\$-GST | GPS Pseudorange Noise Statistics (NMEA) |

7. Troubleshooting

Please contact Sierra Wireless customer service for support and debugging information.