



Customer Release Notes for Firmware L30.1

AirPrime WS6318



SIERRA
WIRELESS

4112003
1.0
March 21, 2012

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.

Safety and Hazards

Do not operate the Sierra Wireless modem in areas where cellular modems are not advised without proper device certifications. These areas include environments where cellular radio can interfere such as explosive atmospheres, medical equipment, or any other equipment which may be susceptible to any form of radio interference. The Sierra Wireless modem can transmit signals that could interfere with this equipment. Do not operate the Sierra Wireless modem in any aircraft, whether the aircraft is on the ground or in flight. In aircraft, the Sierra Wireless modem **MUST BE POWERED OFF**. When operating, the Sierra Wireless modem can transmit signals that could interfere with various onboard systems.

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.

The driver or operator of any vehicle should not operate the Sierra Wireless modem while in control of a vehicle. Doing so will detract from the driver or operator's control and operation of that vehicle. In some states and provinces, operating such communications devices while in control of a vehicle is an offence.

Limitations of Liability

This manual is provided "as is". Sierra Wireless makes no warranties of any kind, either expressed or implied, including any implied warranties of merchantability, fitness for a particular purpose, or noninfringement. The recipient of the manual shall endorse all risks arising from its use.

The information in this manual is subject to change without notice and does not represent a commitment on the part of Sierra Wireless. SIERRA WIRELESS AND ITS AFFILIATES SPECIFICALLY DISCLAIM LIABILITY FOR ANY AND ALL DIRECT, INDIRECT, SPECIAL, GENERAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR REVENUE OR ANTICIPATED PROFITS OR REVENUE ARISING OUT OF THE USE OR INABILITY TO USE ANY SIERRA WIRELESS PRODUCT, EVEN IF SIERRA WIRELESS AND/OR ITS AFFILIATES HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR THEY ARE FORESEEABLE OR FOR CLAIMS BY ANY THIRD PARTY.

Notwithstanding the foregoing, in no event shall Sierra Wireless and/or its affiliates aggregate liability arising under or in connection with the Sierra Wireless product, regardless of the number of events, occurrences, or claims giving rise to liability, be in excess of the price paid by the purchaser for the Sierra Wireless product.

Customer understands that Sierra Wireless is not providing cellular or GPS (including A-GPS) services. These services are provided by a third party and should be purchased directly by the Customer.

SPECIFIC DISCLAIMERS OF LIABILITY: CUSTOMER RECOGNIZES AND ACKNOWLEDGES SIERRA WIRELESS IS NOT RESPONSIBLE FOR AND SHALL NOT BE HELD LIABLE FOR ANY DEFECT OR DEFICIENCY OF ANY KIND OF CELLULAR OR GPS (INCLUDING A-GPS) SERVICES.

Patents

This product may contain technology developed by or for Sierra Wireless Inc.

This product includes technology licensed from QUALCOMM®.



This product is manufactured or sold by Sierra Wireless Inc. or its affiliates under one or more patents licensed from InterDigital Group.

Copyright

© 2012 Sierra Wireless. All rights reserved.

Trademarks

AirCard® is a registered trademark of Sierra Wireless. Sierra Wireless™, AirPrime™, AirLink™, AirVantage™, Watcher™ and the Sierra Wireless logo are trademarks of Sierra Wireless.

 ,  , inSIM®, WAVECOM®, WISMO®, Wireless Microprocessor®, Wireless CPU®, Open AT® are filed or registered trademarks of Sierra Wireless S.A. in France and/or in other countries.

Windows® and Windows Vista® are registered trademarks of Microsoft Corporation.

Macintosh and Mac OS are registered trademarks of Apple Inc., registered in the U.S. and other countries.

QUALCOMM® is a registered trademark of QUALCOMM Incorporated. Used under license.

Other trademarks are the property of the respective owners.

Contact Information

| | | |
|--------------------|--|--|
| Sales Desk: | Phone: | 1-604-232-1488 |
| | Hours: | 8:00 AM to 5:00 PM Pacific Time |
| | E-mail: | sales@sierrawireless.com |
| Post: | Sierra Wireless 13811 Wireless Way Richmond, BC Canada V6V 3A4 | |
| Technical Support: | support@sierrawireless.com | |
| RMA Support: | repairs@sierrawireless.com | |
| Fax: | 1-604-231-1109 | |
| Web: | www.sierrawireless.com | |

Consult our website for up-to-date product descriptions, documentation, application notes, firmware upgrades, troubleshooting tips, and press releases: www.sierrawireless.com

Document History

| Version | Date | Updates |
|---------|----------------|----------|
| 1.0 | March 21, 2012 | Creation |



Contents

| | |
|--|-----------|
| 1. INTRODUCTION | 6 |
| 1.1. Scope of this Document | 6 |
| 1.2. Audience of this Document | 6 |
| 1.3. Release Feature List | 6 |
| 1.3.1. Main Features of AirPrime WS6318 | 6 |
| 1.4. New Features/Enhancements | 6 |
| 2. RELATED DOCUMENTS | 7 |
| 3. ABBREVIATIONS AND DEFINITIONS | 8 |
| 4. HARDWARE COMPATIBILITY | 9 |
| 4.1. Sierra Wireless Standard Modem Compatibility | 9 |
| 5. SOFTWARE RELEASE DESCRIPTION | 10 |
| 5.1. Release Identification | 10 |
| 5.2. Released Files and Download Processes | 10 |
| 5.3. Software Tools Version | 10 |
| 6. SOFTWARE CHANGES DESCRIPTION | 11 |
| 6.1. Validated Corrections / Improvements | 11 |
| 6.2. Integrated but Not Validated Corrections / Improvements | 11 |
| 6.3. Other Interface Changes | 11 |
| 6.3.1. Updated AT Commands | 11 |
| 6.3.2. Deprecated AT Commands | 12 |
| 7. CERTIFICATION DESCRIPTION | 13 |
| 7.1. GCF-CC & PTCRB | 13 |
| 8. RESTRICTIONS AND ADDITIONAL INFORMATION | 14 |

➤➤ | 1. Introduction

1.1. Scope of this Document

The scope of this document is the Firmware L30.1 release description for the AirPrime WS6318 Intelligent Embedded Module.

1.2. Audience of this Document

This release note may be distributed to all direct and indirect customers and will be posted on the corporate web site under the Support/Private area.

1.3. Release Feature List

1.3.1. Main Features of AirPrime WS6318

| Features List |
|--|
| GSM/GPRS class 10 capable wireless standard modem |
| 900/1800 MHz bands |
| AT commands interface on UART port 1 |
| Debug interface on UART port 2 |
| User configurable GPIOs, PWMs, ADCs, 26MHz/32kHz CLK output |
| Audio feature: tone generation, PCM, 2 Speakers + 1 Microphone, AEC/NR and DTMF decoding |
| TCP/IP and FTP AT commands |

1.4. New Features/Enhancements

The table below lists the features added in this release.

| Feature | Description |
|---------|-------------|
| None | None |



2. Related Documents

- [1] AirPrime WS6318 Firmware L30 AT Command Manual
Reference: 4111702
- [2] AirPrime WS6318 Product Technical Specification and Customer Design Guidelines
Reference: 4110999
- [3] ADWL-Light Downloader User Guide
Reference: WA_DEV_WISMO_UGD_005



3. Abbreviations and Definitions

| Abbreviation/Acronym | Description |
|----------------------|---|
| AEC | Acoustic Echo Cancellation |
| AT | Attention |
| DCE | Data Circuit Equipment |
| DTE | Data Terminal Equipment |
| DTMF | Dual-tone multi-frequency signaling |
| DTR | Data Terminal Ready |
| FTP | File Transfer Protocol |
| GPIO | Global Purpose Input Output |
| GPRS | Global Packet Radio Service |
| IMEI | International Mobile Equipment Identity |
| NR | Noise Reduction |
| LCP | Link Control Protocol |
| ME | Mobile Equipment |
| MS | Mobile Station |
| PDP | Packet Data Protocol |
| PLMN | Public Land Mobile Networks |
| PPP | Point-to-Point Protocol |
| SIM | Subscriber Information Module |
| STK | SIM Application Toolkit |
| TCP | Transmission Control Protocol |
| UART | Universal Asynchronous Receiver Transmitter |
| UDP | User Datagram Protocol |

➤➤ | 4. Hardware Compatibility

4.1. Sierra Wireless Standard Modem Compatibility

| Firmware Version | Sierra Wireless Standard Modem Compatibility List |
|------------------|---|
| L30.1 | AirPrime WS6318 |



5. Software Release Description

5.1. Release Identification

| Software Specification | |
|---|--------------------------|
| Software Identification (ATI3 response) | L30.1_00gg.WS6318 140312 |
| Date of generation | March 14, 2012 |
| Binary Size | 2625512 |
| Checksum | 0xF73E8BC7 |
| IMEI SV | 0x02 |
| Flash type | 32/16 Mbits |

5.2. Released Files and Download Processes

The usage of this Firmware must be authorized by Sierra Wireless only. This Firmware includes a Security Lock Feature which locks itself to the module's hardware. If the firmware is used in any unauthorized way, the firmware will be locked after the module is powered on.

Caution: *Due to the Security Lock Feature, upgrade of this Firmware on modules shipped with Firmware B30_02gg or older must be handled by Sierra Wireless only.*

For any reason, should Firmware L30.1 be downloaded on the WS6318 module, the download procedure is shown in document [3] ADWL-Light Downloader User Guide.

| Download Option | Files |
|-------------------------------|------------------------------|
| Download through Flash loader | WS6318 L30.1_00gg 140312.cla |

5.3. Software Tools Version

This section presents the last tools version to be used with AirPrime WS6318.

| Software Tools Name | Version | Resource file |
|-----------------------|----------|--|
| Adwl-Light Downloader | 5.3.3.3a | flash_nor_16bits_hwasic_WS6318_20111109.hex |
| SpyTracerV2 | 2.9.1 | WS6318 L30.1_00gg 140312.def WS6318 L30.1_00gg 140312.str |



6. Software Changes Description

6.1. Validated Corrections / Improvements

This section presents all corrections or improvements integrated in Firmware L30.1.

Issues are sorted by alphabetical order of Impacted Domain.

| ID | Description | Impacted Domain | Impacted Sub-Domain |
|-------|---|-----------------|---------------------|
| 63115 | Change default E2P parameters - 2012/03/09 | FLASH | EEPROM |
| 63125 | Changes for L30.1_00gg/B30_05gg release (IMEISV=02, naming=L30.1) | OTHER | OTHER |

6.2. Integrated but Not Validated Corrections / Improvements

| ID | Description | Impacted Domain |
|-------|--|-----------------|
| 61955 | WDGR should has one downlink gain and WDTG should has one uplink gain | AT |
| 62275 | +WLCK "PS/PN" lock can be re-written if no SIM is inserted | OTHER |
| 62288 | +WLCK "PS/PN" lock : WLCK can be rewritten when SIM verification is not yet done | OTHER |
| 62362 | failure in +CLCK unlock or +CLCK query if IMSI or MCCMNC matched | AT |
| 62397 | +WAEN, fix the incorrect variable definition. | AT |
| 62413 | Without SIM, ATD08 fails with +CME ERROR: 10 | AT |

6.3. Other Interface Changes

Some other changes have been performed on the following commands. Please refer to document [1] AirPrime WS6318 Firmware L30 AT Command Manual for more information.

6.3.1. Updated AT Commands

This section presents the commands that have been added/updated in Firmware L30.1. For more information, refer to the command description in document [1] AirPrime WS6318 Firmware L30 AT Command Manual.

| Command | Comment |
|---------|---------|
| None | None |

6.3.2. Deprecated AT Commands

This section presents the commands that are no more available in Firmware L30.1. For more information, refer to the command description in document [1] AirPrime WS6318 Firmware L30 AT Command Manual.

| Command | Comment |
|---------|---------|
| None | None |

7. Certification Description

7.1. GCF-CC & PTCRB

The following table summarizes the certifications passed for this release.

| Module | GCF-CC | NAPRD.03 |
|-----------------|---------------|-----------------|
| AirPrime WS6318 | v3.45.0 | Not Applicable |



8. Restrictions and additional Information

This section presents additional information or restrictions that must be taken into account regarding Firmware L30.1. Issues are sorted by alphabetical order of Impacted Domain.

| ID | Description | Impacted Domain | Impacted Sub-Domain |
|-------|---|-----------------|---------------------|
| 61796 | CGCLASS: Do not support "CC" class | AT | OTHER |
| 62020 | CALA: The unsolicited responses are missed when alarm is executed | AT | OTHER |
| 62272 | +WLCK "PS" lock : length of input PIN and IMSI are not checked | AT | OTHER |
| 62273 | +WLCK "PN" lock : the old MCC-MNC list is not reset unless rewritten explicitly | AT | OTHER |
| 62274 | +WLCK "PN/PS" lock : PS: PN/PS lock may collide with each other | AT | OTHER |
| 62276 | +WLCK "PN" lock : length of input list MCC-MNC are not checked on reaching limit | AT | OTHER |
| 62516 | WIPCREATE: Different response is returned when <communication index> is entered | AT | OTHER |
| 62714 | AT+WIPBR=5,6 stops TCP/IP stack | AT | OTHER |
| 62804 | Wrong error code of CGACT after dial up | AT | OTHER |
| 62872 | AT+SIDET & AT+WMECHO accept invalid input values | AT | OTHER |
| 62890 | Modules resets on FTP creation with hostname | AT | OTHER |
| 63019 | +VIP accepted 1 as valid value | AT | OTHER |
| 63101 | "CME ERROR: 1643" returns when sending error message after "SHUTDOWN" | AT | OTHER |
| 63103 | "CME ERROR: 1642" returns when sending message to server, where server is down. | AT | OTHER |
| 63105 | When client sends data followed by [ETX], server shows data correct, but the [ETX] is shown after "SHUTDOWN" | AT | OTHER |
| 62625 | WIPPING: Timeout expires when ping Echo server | AT | OTHER |
| 62627 | WIPPING: CME ERROR: 819 returned when set packet size to 1472 | AT | OTHER |
| 63032 | Speaker 2 took no effect on +SIDET change | AT | OTHER |
| 63071 | Incorrect unsolicited result for Interrogation for the CLIP status (*#30#) | AT | OTHER |
| 63087 | +WMECHO setting caused module could not answer incoming call or out call could not hear any voice | AT | OTHER |
| 63093 | +CSNS missing "CONNECT" when linking up with Fax call | AT | OTHER |
| 63096 | After send ETX on client, followed by "+++", there is no "OK" shown | AT | OTHER |
| 63098 | "WIPDATA" is missing after WIPCLOSE and then WIPCREATE. | AT | OTHER |
| 63099 | After TCP connection, transfer is incomplete when sending large file data | AT | OTHER |
| 63100 | Module still switch to AT-Cmd mode if "+++++" is entered. | AT | OTHER |
| 63104 | While sending file data on server side, remove antenna, transmission stops, client side enters "+++", but there is no "OK" returns. | AT | OTHER |

| ID | Description | Impacted Domain | Impacted Sub-Domain |
|-----------|--|------------------------|----------------------------|
| 63127 | WIPPEERCLOSE missing when peer socket closed and module escape to uart mode from different socket. | AT | OTHER |
| 63167 | <ETX> sent from client, and it is not received by server side. | AT | OTHER |
| 63190 | AT+WIPBR=4,6,0 returns wrong ERROR code 848, but expected 811. | AT | OTHER |
| 63192 | No "OK" on quitting FTP DATA mode | AT | OTHER |
| 63194 | No intermediate response after FTP option | AT | OTHER |
| 63195 | Fail to quit FTP DATA mode | AT | OTHER |
| 62950 | AT+CMGL="ALL" missing <CR><LF> before OK | AT | SMS |
| 63063 | PSCHRU: Module is hanged after sms is received when PSCHRU=509 | AT | SMS |
| 63083 | AT+CMGL="ALL" returns incomplete sms record list | AT | SMS |
| 62426 | With PSSLEEP=1, if RTS deasserted, modem can't enter sleep mode if AT/TX data buffered | DEVICE | V24 |
| 62914 | No PPP frames sent after ATD*99***1# | GPRS | SESSION_MGT |
| 62945 | Low power cut-off issue | SYS | OTHER |



SIERRA
WIRELESS