



Customer Release Notes for Firmware L31

AirPrime WS6318



SIERRA
WIRELESS

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

Document History

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1. Introduction

1.1. Scope of this Document

The scope of this document is the Firmware **L31** 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
Local Firmware Upgrade	Firmware upgrade through 1K Xmodem protocol is now possible using a standard HyperTerminal.
Network Scan	Provide a simple overview of network environment quality at given location.
Non-blocking socket	While executing commands to manage TCP/UDP connection, AT commands remain available.
GPRS Class CG	Module now supports GPRS Class in GPRS mode only.

2. Related Documents

- [1] AirPrime WS6318 Firmware L31 AT Command Manual
Reference: 4112646
- [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
ACCM	Async-Control-Character-Map
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
L31	AirPrime WS6318

>> 5. Software Release Description

5.1. Release Identification

Software Specification	
Software Identification (ATI3 response)	L31_00gg.WS6318
Date of generation	November 20, 2012
Binary Size (bytes)	2767584
Checksum	0xFA2BF7BB
IMEI SV	0x03
Flash/RAM 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.

Refer to document [3] ADWL-Light Downloader User Guide for procedures on how to download Firmware L31 on the AirPrime WS6318 module.

Download Option	Files
Download through Flash loader	WS6318 L31_00gg 201112.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 L31_00gg 201112.def WS6318 L31_00gg 201112.str



6. Software Changes Description

6.1. Validated Corrections / Improvements

This section presents all corrections or improvements integrated in Firmware L31.

Issues are sorted by alphabetical order of Impacted Domain.

ID	Description	Impacted Domain	Impacted Sub-Domain
64725	ATZ does not restore the baud rate setting (+IPR)	AT	OTHER
64753	AT+CMGL does not list short messages inside READ and UNREAD boxes in ascending order of <index>	AT	SMS
64159	The AirPrime cannot handle Class0 SMS	AT	SMS
64154	The AirPrime may reset sometimes if SMS is accessed by AT+CMGD, while a GPRS data session is active	AT	SMS
64153	SMS may be sent twice if Ctrl-Z is issued twice through AT+CGMS	AT	SMS
63083	AT+CMGL="ALL" may not list all SMS after an unsent message is deleted	AT	SMS
64555	Upload of files larger than 5Kbytes using FTP may fail due to transfer buffer overflow.	DATA	OTHER
63192	There is no OK response if the AirPrime quits from FTP data mode by AT+WIPFILE	DATA	OTHER
64846 62625	+WIPPING with <repeat> more than 1 times out after the first unsolicited response	DATA	OTHER
64552	+WIPPING does not accept hostnames longer than 15 characters	DATA	OTHER
62627	+WIPPING fails if the packet size is set to be 1472 bytes	DATA	OTHER
64167	If more than 3 plus characters (+) are sent with 1 second guard time before and after the sequence, it is incorrectly treated as escape sequence by +WIPDATA	DATA	OTHER
64158	PPP connection fails if ACCM is set to 0x00000000	DATA	OTHER
64157	The AirPrime may encounter data loss or reset if the last packet received in a TCP transmission has FIN, PSH & ACK flags enabled.	DATA	OTHER
63127	If TCP data from the server to the AirPrime is sent followed by a socket closure, the unsolicited response +WIPPEERCLOSE could be missed when the AirPrime is exited from data mode	DATA	OTHER
64822	AT+CPOL? may return +CME ERROR: 24 when issued through a CMUX channel	DEVICE	CMUX
64727	+CLCC response does not show the phone number of a Mobile Terminated data call	GSM	CC
63032	AT+SIDET set command could not change side tone gain level for Speaker 2 during an active call.	HWL	AUDIO
63087	The AT+WMECHO set command could cause users are not able to answer incoming calls. Besides, if outgoing calls are made, there is no voice from the speaker of the AirPrime.	HWL	AUDIO
64131	Audio signal level in HANDSFREE mode could not be changed by AT+VGT set command	HWL	AUDIO
64155	The AirPrime may not wake up on the alarm time after AT+CPOF is entered	OTHER	OTHER

6.2. Integrated but Not Validated Corrections / Improvements

ID	Description	Impacted Domain	Impacted Sub-Domain
62020	No +CALV unsolicited response received when an alarm set by +CALA times out	AT	OTHER

6.3. Other Interface Changes

Some other changes have been performed on the following commands.

6.3.1. Updated AT Commands

This section presents the commands that have been added/updated in Firmware L31. For more information, refer to the command description in document [1] AirPrime WS6318 Firmware L31 AT Command Manual.

Command	Comment
+CMUX	Changed the value of <T1> from : 1-255 to : 1-254
+WIPCFG	Added <opt num> 15 for AT_WIP_NET_OPT_ASYNC_CLOSE_INFO
+WIPCLOSE	Added <client idx>, <server idx>, <ref> and updated the examples and the notes for the new option AT_WIP_NET_OPT_ASYNC_CLOSE_INFO
+WIPDATA	Updated AT_WIP_NET_OPT_PREF_TIMEOUT_VALUE time unit from "second unit" to "hundred ms unit"
+CGCLASS	Updated <class> for Class CG
Z	Added +IPR in the list of the parameter impacted
*PSENGI	Added RxLevelFull information
+WNETSCAN	New command for network signal scan
+WHCNF	New command to configure the UART setting
+WDWL	New command to switch the AirPrime to download mode

7. Certification Description

7.1. GCF-CC & PTCRB

The following table summarizes the certifications passed for this release.

Module	GCF-CC (Lab Conformance only)	NAPRD.03
AirPrime WS6318	3.48.0	Not Applicable



8. Restrictions and Additional Information

This section presents additional information or restrictions that must be taken into account regarding Firmware L31. Issues are sorted by alphabetical order of Impacted Domain.

ID	Description	Impacted Domain	Impacted Sub-Domain
64758	The AirPrime could not reopen a closed TCP socket by AT+WIPDATA.	AT	OTHER
59533	GSM 7 bit special character cannot be read and sent when bit 2 of <dc> not set to 1.	AT	SMS
65900	CMUX session is not restored if the embedded module with active CMUX session is reset.	DEVICE	CMUX
64824	PPP connection over CMUX is not functional if maximum frame size, N1 is 31 (default value as per 27.010) or higher than 760. Recommended value of N1 on AirPrime WS Series: 35-255	DEVICE	CMUX
62426	If RTS is de-asserted, modem can't enter sleep mode if AT commands to issued on UART	DEVICE	V24
64265	On real networks, +CSQ always reports channel bit error rate of 99.	GSM	RR
65188	ATD*99 (IP over PPP) does not return an error in +CFUN=4 mode	GPRS	OTHER
65191	Incorrect CME error code number returned when PDP context is activated in +CFUN=4 mode	GPRS	OTHER
65354 65345 65326	If +CGREG unsolicited indications are enabled, no +CGREG unsolicited response is displayed under the following conditions: <ul style="list-style-type: none">• after changing GPRS class using +CGCLASS• when PDP context is activated or deactivated	GPRS	OTHER
65342	If +CGREG and/or +CREG unsolicited indications are enabled, no +CGREG:0 &+CREG:0 unsolicited responses are displayed at power-up.	GPRS	OTHER
65899	DTMF tone duration maybe incorrect when multiple DTMFs sent in a single command (e.g.- AT+VTS="{1,1},{1,10}").	HWL	AUDIO



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