



# Firmware R32 Customer Release Notes

## AirPrime WS6318



**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
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# 1. Introduction

## 1.1. Document Scope

The scope of this document is the Firmware **R32** release description for the AirPrime WS6318 embedded module.

## 1.2. Document Audience

This customer 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
Jamming detection	Support jamming detection algorithm. The threshold value can also be configured.
Restricted SIM access	Support reading SIM files whose size is up to 512 byte.



## 2. Related Documents

- [1] AirPrime WS6318 AT Command Manual  
Reference: 4112646
- [2] AirPrime WS6318 Product Technical Specification and Customer Design Guideline  
Reference: 4110999
- [3] ADWL-Light Downloader User Guide  
Reference: WA\_DEV\_WISMO\_UGD\_005



### 3. Abbreviations and Definitions

<b>Abbreviation/ Acronym</b>	<b>Description</b>
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
R32	AirPrime WS6318



## 5. Software Release Description

### 5.1. Release Identification

<b>Software Identification (ATI3 response)</b>	R32.0.201307021520.WS6318 020713 15:20
<b>Date of generation</b>	July 2, 2013
<b>Binary Size (bytes)</b>	2776720
<b>Checksum</b>	0xB815716F
<b>IMEI SV</b>	0x04
<b>Flash/RAM type</b>	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 ways, the firmware will be locked after the module is powered on.

For any reason, should Firmware R32 be downloaded on the AirPrime WS6318 module, the download procedure is shown in document [3] ADWL-Light Downloader User Guide.

<b>Download Option</b>	<b>Files</b>
Download through Flash loader	R32.0.201307021520.WS6318.cla
Download through X-modem (Supported on WS6318 Firmware L31)	R32.0.201307021520.WS6318.dwl

### 5.3. Software Tools Version

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

<b>Software Tools Name</b>	<b>Version</b>	<b>Resource file</b>
Adwl-Light Downloader	5.3.3.5	flash_nor_16bits_hwasic_WS6318_20111109.hex
SpyTracerV2	2.7.2	R32.0.201307021520.WS6318.def R32.0.201307021520.WS6318.str



## 6. Software Changes Description

### 6.1. Validated Corrections / Improvements

This section presents all corrections or improvements integrated in Firmware R32.

Issues are sorted by Impacted Domain alphabetical order.

ID	Description	Impacted Domain	Impacted Sub-Domain
62020	No +CALV unsolicited response is received when an alarm is set by +CALA times out.	AT	OTHER
64758	The AirPrime could not reopen a closed TCP socket by AT+WIPDATA.	AT	OTHER
67086	With echo cancellation, the speaker volume of the AirPrime may be decreasing during voice calls.	AT	OTHER
65145	The AirPrime is no longer able to receive data from a connected TCP server, after it exits from sleep mode.	DEVICE	V24
65188	ATD*99 (IP over PPP) does not return error after the stack has been turned off by AT+CFUN=4.	GPRS	OTHER
65191	Incorrect CME error code number will be returned when PDP context is activated in +CFUN:4 mode.	GPRS	OTHER
65326 65345 65354	If +CGREG unsolicited indications are enabled, no +CGREG unsolicited response is displayed under the following conditions: <ul style="list-style-type: none"><li>• after changing GPRS class using +CGCLASS</li><li>• when PDP context is activated or deactivated</li><li>• when PDP context is attached or detached</li></ul>	GPRS	OTHER
66449	The AirPrime fails to encode SMS in UCS2 format.	GSM	SMS
66053	The AirPrime may not be unable to detect DTMF signals whose average duration between signals is less than 90ms.	HWL	AUDIO
64946	The AirPrime does not send the terminal response after FETCH has been executed, if the alpha identifier from the proactive SIM is NULL.	SIM	STK
65476	If the STK command parameter is wrong with correct STK command name, the AirPrime could not further process the coming correct STK commands and result in +CME ERROR: 3.	SIM	STK
66366	If the length of alpha identifier from the proactive SIM is zero, even without user interaction, the AirPrime does not send the SMS.	SIM	STK
67272	The AirPrime could not send STK MO short message correctly.	SIM	STK

### 6.2. Integrated but Not Validated Corrections / Improvements

ID	Description	Impacted Domain
None	None	None

## 6.3. Other Interface Changes

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

### 6.3.1. Updated AT Commands

This section presents the commands that have been added/updated in Firmware R32. For more information, refer to the command description in document [1] AirPrime WS6318 AT Command Manual.

Command	Comment
+COPN	The table containing the operators name has been updated as per latest SE.13 list dated 9th April 2013.
+CSIM	The command could better support ISO7816-4 transmission protocol.
+WJAM	Jamming Detection algorithm provides unsolicited responses informing the jamming detection status.
I	The format of ATI3 response has been updated.
Z	Resetting default configurations will not change +IPR setting.

## 7. Certification Description

### 7.1. GCF-CC & PTCRB

The following table summarizes the certifications passed for this release.

<b>Module</b>	<b>GCF-CC (Lab Conformance only)</b>	<b>NAPRD.03</b>
AirPrime WS6318	v3.50.1	Not Applicable



## 8. Restrictions and Additional Information

This section presents additional information or restrictions that must be taken into account regarding Firmware R32. Issues are sorted by Impact Domain and Sub-Domain alphabetical order.

ID	Description	Impacted Domain	Impacted Sub-Domain
67280	With AT&S1 setting, DSR remains active after the AirPrime exits the data mode.	AT	OTHER
67916	Extra "OK" response has appended to the unsolicited response +WIPPEERCLOSE, when a TCP connection has been shutdown.	AT	OTHER
65914	GSM 7 bit special character cannot be read and sent when bit 2 of <dc> not set to 1.	AT	SMS
66133	+CME ERROR: 831 will be received, if a clean TCP connection is reopened.	DATA	OTHER
67381	When multiple sockets are opened, +WIPPEERCLOSE unsolicited response is not returned when socket is closed by peer.	DATA	OTHER
65900	CMUX session is not restored if the embedded module with active CMUX session is reset.	DEVICE	CMUX
64824 66686	CMUX may not function well if maximum frame size, N1 is 31 (default value as per 27.010) or higher than 760. For example, incomplete response may be received from some AT command. PPP connection may not be functional. 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 are issued on UART	DEVICE	V24
68044	The AirPrime could not start the cell re-selection in 11 seconds.	GSM	OTHER
64265	On real networks, +CSQ always reports channel bit error rate of 99.	GSM	RR
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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