



Customer Release Notes for Firmware L23a

AirPrime WS Series



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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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	December 15, 2011	Creation
2.0	January 13, 2012	Updated restriction list



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>> 1. Introduction

1.1. Scope of this Document

The scope of this document is the Firmware **L23a** release description for the AirPrime WS Series of Intelligent Embedded Modules including WISMO218 and WISMO228.

Firmware **L23a** is a maintenance firmware, based on the Firmware **L22** of AirPrime WS Series.

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 WISMO218

Features List
GSM/GPRS class 10 capable wireless standard modem
900/1800 MHz bands
AT commands interface on UART port
Debug interface on SPI bus
User configurable GPIOs
Audio features
TCP/IP AT commands

1.3.2. Main Features of AirPrime WISMO228

Features List
GSM/GPRS class 10 capable wireless standard modem
850/900/1800/1900 MHz quad-band
AT commands interface on UART port
Debug interface on SPI bus
User configurable GPIOs
Audio features
TCP/IP AT commands

1.4. New Features/Enhancements

No new feature has been added to this release.



2. Related Documents

- [1] AT Command Manual for Firmware L23
Reference: WA_DEV_WISMO_UGD_012
- [2] WISMO218 - Product Technical Specification and Customer Design Guideline
Reference: WA_DEV_W218_PTS_002
- [3] WISMO228 - Product Technical Specification and Customer Design Guideline
Reference: WA_DEV_W228_PTS_002
- [4] ADWL-Light Downloader User Guide
Reference: WA_DEV_WISMO_UGD_005



3. Abbreviations and Definitions

Abbreviation/Acronym	Description
ACCM	Async-Control-Character-Map
AT	Attention
DCE	Data Circuit Equipment
DTE	Data Terminal Equipment
DTMF	Dual-tone multi-frequency signaling
DTR	Data Terminal Ready
GPIO	Global Purpose Input Output
GPRS	Global Packet Radio Service
IMEI	International Mobile Equipment Identity
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
L23a00gg	AirPrime WISMO218
L23a00gg	AirPrime WISMO228

>> 5. Software Release Description

5.1. Release Identification

Software Specification	AirPrime WISMO228	AirPrime WISMO218
Software Identification	L23a00gg.WISMO228	L23a00gg.WISMO218
Date of generation	12/12/2011	12/12/2011
Binary Size	2659332 bytes	2659332 bytes
Checksum	0x70BF751A	0x75A1DE29
IMEI SV	10	9
Flash type	32/16 Mbits	32/16 Mbits

5.2. Released Files and Download Processes

As this Firmware includes the Security System, which locks the embedded software to the hardware of the module, the download must be done by Sierra Wireless only.

For any reason, should Firmware L23a be downloaded on the WISMO module, the download procedure is shown in document [4] ADWL-Light Downloader User Guide.

Download Option	Files	
Download through Flash loader	AirPrime WISMO218	WISMO218 L23a00gg 121211.cla
	AirPrime WISMO228	WISMO228 L23a00gg 121211.cla

5.3. Software Tools Version

This section presents the last tools version to be used with AirPrime WS Series of Embedded module.

Software Tools Name	Version
Adwl-Light Downloader	5.3.3.5
SpyTracerV2	2.7.2



6. Software Description

6.1. Validated Corrections / Improvements

This section presents all corrections or improvements integrated in Firmware L23a.

Issues are sorted by alphabetical order of Impacted Domain.

ID	Description (What/When)	Impacted Domain	Impacted Sub-Domain
58468	During SIM initialization, AT+CPIN? could return incorrect CME error code.	AT	OTHER
58621	CME error code is missing for SIM-locked modules.	AT	OTHER
58931	Inserted SIM cannot be detected after AT+CFUN=4 and AT+CFUN=1,1.	AT	OTHER
59353	Embedded module will reset when data is transferred from a remote TCP server to module thru a CMUX channel.	AT	OTHER
59400	AT+CPIN? returns incorrect CME ERROR code (+CME ERROR: 18) at the third PIN2 authentication failure.	AT	OTHER
59548	*PSENGI returns incorrect RxLevel when Embedded module is in dedicated mode.	AT	OTHER
59570	Dropping DTR cannot switch Embedded module from data mode to AT mode at the TCP control socket. It causes data from a FTP server cannot reach the TCP data socket.	AT	OTHER
60351	Embedded module cannot enter sleep mode when its DTR pin has been connected.	AT	OTHER
60627	Embedded module is intermittently unable to make voice calls and locked up, as SIM tool kit goes to a wrong state during handling terminal responses.	AT	OTHER
60663	No ringback tone can be heard with some operators in Mexico.	AT	OTHER
60903	Embedded module is unable to generate busy tone.	AT	OTHER
61158	Embedded module cannot return correct +CRLP parameters it just set.	AT	OTHER
61162	Users cannot unlock the PS lock by AT+CLCK.	AT	OTHER
61362	If users send a 4 continuous-plus-sign ('++++') to Embedded module in the data mode, it will escape from data mode to AT mode.	AT	OTHER
60716	Embedded module does not have AT response after receiving the command AT+CMGL="REC UNREAD".	AT	SMS
61340	Embedded module is blocked after AT+CMGL="REC READ" is sent.	AT	SMS
59560	Embedded module may reset if a big file is transferred from a FTP server.	DATA	OTHER
59869	If Embedded module is set not sending "+++" sequence as data to the peer by AT+WIPCFG: 2,13,1, data followed by '+' character cannot be sent out.	DATA	OTHER
60301	When closing one of the TCP sockets, +WIPPEERCLOSE unsolicited respond appears in the data mode of another TCP socket.	DATA	OTHER
60229	Embedded module resets when 3 TCP server sockets are opened on 3 individual CMUX ports over the module.	DEVICE	CMUX
59260	For rejected GPRS attachments, AT+CGATT? cannot return +CME specific error codes.	GPRS	OTHER

ID	Description (What/When)	Impacted Domain	Impacted Sub-Domain
61893	If user terminal uses ACCM 0x00000000 in PPP negotiation, Embedded module may not actively send LCP configuration request to the terminal. It could cause PPP negotiation failure between the terminal and the module.	OTHER	OTHER
54745	Without SIM insertion, Embedded module cannot make emergency calls with 911 & 08.	SIM	OTHER
58681	After users unlock network-operator-locked SIM by AT+CPIN, they will have incorrect return AT+CPIN? response.	SIM	OTHER
61384	An SIM-PIN-unlocked embedded module is unable to activate the lock with AT+CLCK.	SIM	OTHER
59731	If an unsupported SIM Toolkit command is executed, Embedded module will return ERROR and the current SIM toolkit execution will be blocked.	SIM	STK

6.2. Other Interface Changes

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

6.2.1. Updated AT Commands

This section presents the commands that have been modified in Firmware L23a. For more information, refer to the command description in document [1] AT Command Manual for Firmware.

Command	Comment
*PSENGI	RxLevelFull added.

6.2.2. Deprecated AT Commands

This section presents the commands that are no more available in Firmware L23a. For more information, refer to the command description in document [1] AT Command Manual for Firmware.

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 WISMO218	V3.43.1	Not Applicable
AirPrime WISMO228	V3.43.1	5.9

>> 8. Additional Information/Restrictions

This section presents additional information or restrictions that must be taken into account regarding Firmware L23a. Issues are sorted by alphabetical order of Impacted Domain.

ID	Description (What / When)	Impacted Domain	Sub-functionality
56399	CMUX does not work when DTR is connected to PC.	AT	OTHER
59533	GSM 7 bit special character cannot be read and sent when bit 2 of <dc> not set to 1.	AT	SMS
59667	Embedded module does not list short messages inside READ and UNREAD boxes in ascending index order by AT+CMGL command.	AT	SMS
61785	Embedded module may return wrong responses for unread SMSs.	AT	SMS
62052	Embedded module does not list short messages inside SENT and UNSENT boxes in ascending index order by AT+CMGL command.	AT	SMS
58496	No +WIPPEERCLOSE unsolicited response when peer socket closed.	DATA	OTHER
62568	Data loss will occur or embedded module may reset if the last packet received in a TCP transmission has FIN, PSH & ACK flags enabled.	OTHER	OTHER



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