



Customer Release Note

AirPrime HL6528x Firmware 6.00



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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1.0	January 15, 2016	Creation
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➤➤ | 1. Introduction

1.1. Document Scope

The scope of this document is the Firmware 6.00 release description for the AirPrime HL6528x 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. New Features/Enhancements

Table 1. New Features/Enhancements

Feature	Description
Mute loudspeaker with +CLVL	Support +CLVL=0 to mute loudspeaker
Enhancement of +CSIM	AT+CSIM can be used to switch profile locally
Random network registration +PHYR	Possibility to delay network registration procedure
Emergency Shut Down +WESHDOWN	Trigger a quick and safe shutdown of the device
+STKTR Implementation	Processing of +STKTR for value 64 (open channel) for BIP
Data buffered before sending (TCP)	Implementation of +KILOPT for TCP to send buffered data



2. Abbreviations and Definitions

Table 2. Abbreviations and Definitions

Abbreviation/Acronym	Definitions
AEC	Acoustic Echo Cancellation
AT	Attention
AVMS	Air Vantage Management Services
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



3. Related Documentation

- [1] AirPrime HL6 and HL8 Series AT Commands Interface Guide
Reference: 4114680
- [2] HiloUpgrader User Guide
Reference: 2174015
- [3] AirPrime HL6 and HL8 Series Development Kit User Guide
Reference: 4114877
- [4] Air Prime HL6528x Dual SIM Dual Standby Application Note
Reference: 2174048
- [5] AirPrime HL6 and HL8 Series Dual SIM Single Standby Application Note
Reference: 2174034



4. Compatibility

Table 3. Hardware Compatibility

AirPrime Compatibility List
HL6528
HL6528-2.8V
HL6528-G
HL6528-G2.8V



5. Software Release Description

5.1. Release Identification

Table 4. Firmware Release Information

	Services (AT13)	Comments
Identification	HL6N_006_00_20CF	DSDS (Dual Sim Dual Standby)
Date of generation	2016/01/08	
Binary Size	Total RO Size (Code + RO Data) 5239808 (5117.00kB) Total RW Size (RW Data + ZI Data) 2384672 (2328.78kB) Total ROM Size (Code + RO Data + RW Data) 5290304 (5166.31kB)	

5.2. Software Tools Version

Table 5. Software Tools Version

S/W Tools Name	Version
HiloUpgrader	6.0.0.2
SpyTracerV2	3.1.0
Hilo Starter Dev Tools	1.9.5 or higher

The upgrading tool and procedure are described in document [2] HiloUpgrader User Guide.



6. Software Changes Description

6.1. Validated Corrections/Improvements

ID	Description
86520	[AVMS] FOTA Update failure
85925	[CMM] CMM not properly detached when SIM profile has changed.
85528	CMUX: size of data received can be higher than payload N1
85311	Not able to get a GNSS fix when using the latest 5.0 build and AT+GPSINIT=41 (only in the 2V8 version)
84856	[BIP] Any ACK received by the network during a BIP session
83176	PPP connection fails initially
83602	DSDS: TCP client in direct flow not receiving data when on SIM2
82157	[BIP] 27.22.4.27.2 OPEN CHANNEL SEQ 2.7b TC fails
82156	[BIP] 27.22.4.27.2 OPEN CHANNEL SEQ 2.5 TC fails
82154	[BIP] 27.22.4.27.2 OPEN CHANNEL SEQ 2.3 TC fails
76916	On real network, jamming detection switch from 0 (no jam) to 4 (fully jammed)
74848	AT+CFUN has wrong behaviour on HL6
74744	[GNSS] AT+GPSVERS returns GPS ERROR: -1 in some GPS states
74737	[GNSS] AT+GPSNMEA syntactic checks
74795	[DSDS] SIM removal is not detected during voice call

6.2. Interface Changes

For changes to AT commands, refer to document [1] AirPrime HL6 and HL8 Series AT Commands Interface Guide.



7. Certification Description

7.1. GCF-CC & PTCRB

The following table summarizes the certifications inherited from previous release.

Module	GCF-CC (Lab Conformance only)	PTCRB
AirPrime HL6528x	Release 3.52.1	NAPRD.03 v5.18



8. Restrictions and Additional Information

This section lists out important known issues.

Issue ID	Description (What/When)	Impacted Domain	Impacted Sub-Domain
84901	A constant 400-500 meters delta is observed between the real position and the GPS fix	GNSS	GNSS
85789/86879	Lack of robustness to power outage during FOTA installation	AVMS	FOTA
87513	In some cases +CLVL=0 does not mute the loudspeaker	AUDIO	CONTROL
79547	[HTTPS] if server request client certificate, module answers with ALERT NO CERTIFICAT (then session is closed)	PROTOCOL	HTTPS
76890/76873	Jamming detection feature (+KJAM)	NETWORK	CONTROL
81578/81721	+CPAS URC notifications	ME	STATUS
87317	AT+GPSNMEA displays no frame and triggers a reboot	GNSS	NMEA
86713	NMEA frames received wrong number of frames per second	GNSS	NMEA
86609	PPP connection disconnected and can not download file or a picture after Inactive and Active DTR	PROTOCOL	PPP
86590	Can not start TCP connection in the case "TCP session on non default SIM suspended, start TCP from default SIM"	DSDS	TCP