



AirPrime HL7648

Firmware A19 Customer Release Note



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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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.

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Document History

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1.0	August 20, 2019	Created for SWIMCB71XX-AIM1.04.02.A19.164804.201904041422.02



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1. Introduction

1.1. Document Scope

This document describes AirPrime HL7648 Firmware release A19.
Firmware A19 is a maintenance release based on Firmware A14.

1.2. Main Features

Table 1. Main Features

Feature	Description
LTE	Wireless stack and 3GPP AT commands
Diversity	1x Main Antenna and 1x RX Diversity
USB/UART interface	USB 2.0 and UART serial interface, V24 AT commands
USB/UART	USB 2.0 interface and UART serial interface
SIM	SIM access AT commands
GPIO	12 GPIO interfaces and related control AT commands
Cell information/monitoring	Cell information/monitoring AT commands
Band	Band RAT configurations AT commands
RF test	RF TX and RX test AT commands
AVMS	AirVantage FOTA
Temperature Monitor	Temperature Monitor AT command
Delta Firmware update	Download with 1K X-modem/FOTA, delta Firmware format supported
DSSS / Fast SIM switch	Dual SIM Single Standby with fast SIM switch capability
Audio PCM	Audio PCM bus and related control audio/voice AT commands
Voice over LTE	Voice over LTE capability



2. Abbreviations and Definitions

Table 2. Abbreviations and Definitions

Abbreviation/Acronym	Definitions
ADC	Analog Digital Converter
DV1	Development verification build #1
GPIO	General Purpose Input Output
PCM	Pulse Code Modulation
PWM	Pulse Width Modulation
SIM	Subscriber Identity Module
UART	Universal Asynchronous Receiver Transmitter
UICC	Universal Integrated Circuit Card
USB	Universal Serial Bus
PRI	Product Release Instructions
BP	Build Package
DR	Data Reliability



3. Related Documentation

- [1] AirPrime HL7648 Product Technical Specification
Reference number: 4119069
- [2] AirPrime HL76xx AT Commands Interface Guide
Reference number: 4118395



4. Compatibility

This firmware is compatible with DV1 or newer versions of the AirPrime HL7648.



5. Software Release Description

5.1. Release Identification

Table 3. Firmware Release Information

Modem Firmware Identification (ATI3)	SWIMCB71XX-AIM1.04.02.A19.164804.201904041422.02
Full Firmware Identification (ATI10)	Modem-Firmware: SWIMCB71XX-AIM1.04.02.A19.164804.201904041422.02 Primary-Boot: SWIMCB71XX.04.02.A19.0309180918.201904041422.02 Secondary-Boot: SWIMCB71XX.04.02.A19.0309180918.201904041422.02 Update-Agent: SWIMCB71XX.04.02.A19.0303180918.201904041422.02 4G-Firmware: 7160.S3.561.46.4.906.06.16224.18265 3G-Firmware: 202.999.883.43-54.35
ALL-IN-ONE Firmware FLS Image	Filename: SWIMCB71XX-AIM1.04.02.A19.164804.201904041422.02_signed.flis Size: 22753507 CRC32: 0x02C497AA MD5: D323D0D5E68A6C6564F08E0EC5B68F22
ALL-IN-ONE Firmware Image, Windows one-click Downloader	Filename: SWIMCB71XX-AIM1.04.02.A19.164804.201904041422.02_signed.exe Size: 9638582 CRC32: 0x361AC189 MD5: C7721F9D3A50CCEFEFC767E5D00A52965
Date of Generation	2019-04-04 14:40 GMT+8
IMEI SV	12
Baseline Version	XMM71XX_MAINT_HL7648_1906.00

5.2. Software Tools Versions

Table 4. Software Tools Versions

Software Tools Name	Version	
FlashTool	v.4.140.3.66	DLL: v.4.140,0.0
Command Line FlashTool (DownloadTool.exe, dll)	v.1.37	DLL: v.4.140,0.0
USB Host Driver version	4.19	

5.3. Released Files

Table 5. Released Files

Download Option	Files
All in one download executable	SWIMCB71XX-AIM1.04.02.A19.164804.201904041422.02_signed.exe
All in one FLS file	SWIMCB71XX-AIM1.04.02.A19.164804.201904041422.02_signed.flis

6. Software Changes

This section lists all validated corrections or improvements integrated in Firmware A19. Changes were based on Firmware A14.

Table 6. Validated Corrections/Improvements

ID	Description	Impacted Functionality / Sub-Functionality
INT71XXMCBL-2364	DTMF was feedback to the remote if it was sent via VoLTE.	AT/AUDIO
INT71XXMCBL-2350	Audio gain of VIP 23 was unexpectedly high.	AT/AUDIO
INT71XXMCBL-2368	AT+VTS would return ERROR and did not generate DTMF tone.	AT/Call
INT71XXMCBL-2456	The default APN would set as VZWIMS on AT&T firmware and restrict the module proceed IMS registration with using test SIM	AT/Data
INT71XXMCBL-2374	The module could incorrectly return CME Error when trying to set band among one of the supported bands.	AT/LTE
INT71XXMCBL-2325	On VoLTE Call, sending a DTMF tone from the MT could lead to termination of audio on the module.	AT/Other
INT71XXMCBL-2057	+WMTXPOWER command might cause the module reset.	AT/RF
INT71XXMCBL-2362	In some cases, SIM could not be read after SIM switching.	AT/SIM
INT71XXMCBL-2355	Module could not attach to LTE network after performing a SIM switch with the +KSIMSEL command.	AT/SIM
INT71XXMCBL-2326	The module might not attach to LTE network after performing a SIM switch with the +KSIMSEL command.	AT/SIM
INT71XXMCBL-2476	Sometimes while closing TCP socket on the module, the socket might not get closed and remain in closing state.	AT/TCP
INT71XXMCBL-2413	Module might reset when received a MT DTMF in an audio call.	Audio
INT71XXMCBL-2354	Device did not receive any MT DTMFs during a VoLTE call.	DTMF, IMS/VOLTE
INT71XXMCBL-2347	DTMF tone might not be heard when VoLTE call is made on the module.	DTMF
INT71XXMCBL-2473	ODIS feature might not work on the module and OMADM session would return ERROR.	OMADM/ATT
INT71XXMCBL-2488	In very rare circumstances, the module might not boot after many power cycles.	OTHER/Other
INT71XXMCBL-2494	The module might not be able to create an SSL connection with servers that expect Signature Algorithm TLS extension in the client hello.	TLS1.2/Other
INT71XXMCBL-2419	Sometimes the module might return KTCP_NOTIF:1,5 when making repetitive KTCPSTART requests.	TLS1.2/Other
INT71XXMCBL-2493	The module restart could happen in rare cases while performing data transfer on UART 4 wire.	UART/Driver
INT71XXMCBL-2366	In VOLTE call, DTMF tone might not end in some cases after ATH is executed.	Voice/Audio

7. Restrictions and Known Issues

This section lists out important known issues.

Table 7. Restrictions and Known Issues

ID	Description
INT71XXMCBL-2502	AT+CCHC write command may not report an error when no session is opened and could return OK instead.
INT71XXMCBL-2548	In some cases, call might get dropped during call hold.



8. Troubleshooting

Please contact Sierra Wireless customer service for support and debugging information.

9. Certification

This firmware has passed certifications for the following:

- NAPRD.03 (Version: 5.38)
- AT&T