



Customer Release Note

Android Q 10.0.7.0 ARM 64 RIL



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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Document History

Version	Date	Updates
1.0	Nov 29, 2019	Creation
1.1	Apr 24, 2020	Update for V10.0.2.0
1.2	May 29, 2020	Update for V10.0.3.0
1.3	Jun 26, 2020	Update for V10.0.4.0
1.4	Jul 31, 2020	Update for V10.0.5.0
1.5	Sep 16, 2020	Update for V10.0.6.0
1.5	Dec 11, 2020	Update for V10.0.7.0



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1. Introduction

1.1. Document Scope

This document describes the Sierra Wireless Android Q 10.0 ARM RIL release.

1.2. Supported Configurations and Modules

1.2.1. Supported Release Configuration

This release note is applicable to release configuration:

AndroidRIL_V10.0.7.0_ARM_64_bin

Android RIL version 10.0.7.0

ARM based processors for Android Q (10.0) 64-bit user space

Binary only release

1.2.2. Supported AirPrime Modules

The following table lists supported AirPrime modules and corresponding firmware versions.

Table 1. Supported AirPrime Modules and Firmware Versions

AirPrime Module	Firmware Version	RIL Type
EM7305	SWI9X15C_05.05.16 (or newer)	QMI
EM7330	SWI9X15C_05.05.22 (or newer)	QMI
EM8805	SWI9X15C_05.05.16 (or newer)	QMI
EM7565	SWI9X50C_00.06.00.00 (or newer)	QMI
HL7518	HL75xx.2.13 (or newer)	HL
HL7528	AHL7528.2.6.151000 (or newer)	HL
HL7538	AHL7538.1.0.152100 (or newer)	HL
HL7539	AHL7539.1.0.152101 (or newer)	HL
HL7548	HL75xx.A.2.13 (or newer)	HL
HL7549	BHL7549.1.3.15200 (or newer)	HL
HL7588	AHL75xx.A2.6.151600 (or newer)	HL
HL7618	RHL7618.4.2.151600.201607210015.x7120_1 (or newer)	HL
HL7648	AHL7648.A.1.3.161601.201608091650.x7120m_1 (or newer)	HL
HL7688	AHL75xx.A2.6.151600 (or newer)	HL
HL7690	AHL769x_TEST.0.0.154401 (or newer)	HL
HL7692	HL769x.2.24.173100.201709051100.x7120m_1(or newer)	HL
HL8518	AHL85xx.5.13.2.3 (or newer)	HL

AirPrime Module	Firmware Version	RIL Type
HL8528	AHL85xx.5.13.2.3 (or newer)	HL
HL8529	AHL85xx.5.13.2.3 (or newer)	HL
HL8548	RHL85xx.5.5.12.0 (or newer)	HL
HL8549	RHL85xx.5.5.12.0 (or newer)	HL
MC/EM7355	SWI9X15C_05.05.16 (or newer)	QMI
MC/EM7455	SWI9X30C_02.02.00.00 (or newer)	QMI
MC/EM7430	SWI9X30C_02.24.03.00 (or newer)	QMI
EM7430C	SWI9X30C_02.24.05.06 (or newer)	QMI
EM74x1	SWI9X50C_01.13.02.00 (or newer)	QMI
EM7511	SWI9X50C_01.06.01.00 (or newer)	QMI
MC7304	SWI9X15C_05.04.02 (or newer)	QMI
MC7354	SWI9X15C_05.04.02 (or newer)	QMI
MC7700	SWI9200X_03.05.16.01 (or newer)	QMI
MC7710	SWI9200X_03.05.16.01 (or newer)	QMI
MC7750	SWI9600M_03.05.10.05 (or newer)	QMI
MC8305 (G3K)	1580 and 3.3	QMI
MC8355 (G3K)	1580 and 3.3	QMI
SL8092	SWI6600P_02.00.01.01 (or newer)	AT
SL909x	331403 (or newer)	QMI
WP7504	SWI9X15Y_07.12.09.00 (or newer)	QMI
WP7603	SWI9X07Y_02.00.01.00(or newer)	QMI
WP7607	SWI9X07Y_02.21.01.00 (or newer)	QMI
WP7608	SWI9X07Y_02.00.01.00 (or newer)	QMI
WP7609	SWI9X07Y_02.00.01.00 (or newer)	QMI
WP7702	SWI9X06Y_02.12.01.00 (or newer)	QMI
RC7611	SWI9X07H_00.03.03.00 (or newer)	QMI
RC7620-1	SWI9X07H_00.04.01. 00 (or newer)	QMI

Note that:

- Some modules can be configured to operate in either “QMI mode” or “Direct-IP” mode; modules must be in “QMI mode” for the Android RIL to operate properly.
- Some Sierra modules supports multi-PDN by default; it must be switched back to single PDN to work with the Android RIL.

1.3. Terminology and Acronyms

Term/Acronym	Definition
API	Application Programming Interface
OEM	Original Equipment Manufacturer
QMI	Qualcomm Modem Interface; Qualcomm MSM Interface
RIL	Radio Interface Layer

1.4. Related document

- [AirPrime - Android RIL Integration Guide.pdf](#)



Change Summary

2.1. Version 10.0.7.0

- Fixed delete AGPS data can cause GPS session stop issue
- Added Roaming Protocol support for data call setup
- Improved current consumption by disabling SIM polling at airplane mode
- Fixed data drop issue found in speed test
- Fixed GPS tracking not accurate during device moving
- Added Band mask setup mechanism by Android property
- Improved current consumption by reducing modem signal strength indications
- Fixed all CTS/VTS/GTS related issues for Android 10 Google certification
- Fixed customer device may fail to restart due to GNSS service busy
- Fixed qcqmi interface may not enumerate issue
- Improved GNSS service to prevent service lockup
- Improved manual network selection with correct MCC/MNC format
- Improved Firmware download tool stability

2.2. Version 10.0.6.0

- Fixed GtsSimAppDialogTestCases failure issue
- Fixed RIL may cause high CPU usage when connected modem is EM74xx
- Fixed RIL may crash when test SIM was inserted
- Fixed all failure test cases found in CTS_R5 and VTS_R5
- Added GNSS measurement support in RIL
- Fixed QZSS info not displayed in App
- Fixed VZW class 3 APN test case failure
- Fixed data traffic routed to mobile interface while both WiFi and Mobile data is available
- Fixed IP not correctly assigned after user switched APN from IPV4 to IPV6

2.3. Version 10.0.5.0

- Fix VTS failed cases of VtsHalRadioV1_XTarget .
- Fix VTS failed cases of VtsTrebleSysProp.
- Fix VTS failed cases of VtsTrebleVendorVintfTest.
- Fix VTS failed cases of VtsHalGnssV2_0Target.
- Fix CTS failed cases of CtsLocationTestCases.
- Fix GNSS SV information are flashing on the application.
- Add support for radio.config.
- GobiNet Driver update to version s2.42n2.64RC2.

2.4. Version 10.0.4.0

- Add support Hal Radio1.4.
- Fix issue on Hal GNSS2.0.
- GobiNet Driver update to version s2.42n2.63.

2.5. Version 10.0.3.0

- Fix data dropped after cell redirection on HL RIL.
- Fix NMEA sentences update rate out of control in GNSS 1.0.
- Fix GNSS SV and location status stop to update after pressing power button.
- Fix RIL sometimes crash in WCDMA mode.
- Fix data connection delay infrequently.
- Improved modem reset operation.
- Improved SDK retry mechanism during suspend state.
- Add support Hal Radio1.1.
- Add support Hal GNSS2.0 (alpha version).

2.6. Version 10.0.2.0

- Fix VTS failure cases due to DHCP and properties.
- Add IP rule configuration in RIL for old kernel.
- Add support to RIL_VERSION 13.
- Add support to RC7611.

2.7. Version 10.0.1.0

- Add Sierra RIL supported on Hikey960 Android 10.0 ARM64 platform.
- Add support to IPv6/IPv4v6 on HL RIL.



3. Known Limitations

Known issues in the Android 10.0 RIL.

- TBD

4. Planned Future Enhancements

The following features are planned to be supported in a future release of the Android RIL: