



Customer Release Note

Android Pie 9.0.10.0 ARM 64 RIL



SIERRA
WIRELESS®

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Document History

Version	Date	Updates
1.0	Oct 19, 2018	Creation
1.1	Nov 30, 2018	Update for V9.0.2.0
1.2	Jan 31, 2019	Update for V9.0.3.0
1.3	Feb 22, 2019	Update for V9.0.4.0
1.4	Aug 28, 2019	Update for V9.0.6.0
1.5	Oct 31, 2019	Update for V9.0.7.0
1.6	Dec 13, 2019	Update for V9.0.8.0
1.7	Jan 23, 2020	Update for V9.0.9.0
1.8	Mar 12, 2020	Update for V9.0.10.0



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1. Introduction

1.1. Document Scope

This document describes the Sierra Wireless Android Pie 9.0 ARM RIL release.

1.2. Supported Configurations and Modules

1.2.1. Supported Release Configuration

This release note is applicable to release configuration:

AndroidRIL_V9.0.10.0_ARM_64_bin

Android RIL version 9.0.10.0

ARM based processors for Android Pie (9.0) 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
AR7552	SWI9X15A_07.10.08.00 r32399 (or newer)	AR
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

AirPrime Module	Firmware Version	RIL Type
HL8518	AHL85xx.5.13.2.3 (or newer)	HL
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
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_00.01.28.00 (or newer)	QMI

Note that:

- MC7700 and MC7710 modules can be configured to operate in either “QMI mode” or “Direct-IP” mode; the MC7700 and MC7710 modules must be in “QMI mode” for the Android RIL to operate properly.
- MC73xx, MC7750, MC8305, MC8355 and SL909x modules only support QMI mode and so will work by default.
- MC73xx 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 9.0.10.0

- Fixed USB sometimes disconnect during long time idle.
- Fixed GobiNet driver suspend issues.
- Fixed SMS receive failure on Verizon network.
- Fixed incorrect signal strength of neighbor cell.
- Fixed SIM unlock failed on HL RIL.
- Improved SDK retry mechanism during suspend state.
- Improved SierraFwDI7xxx stability of firmware download.
- Add support to get carrier ID from OEMHookString.

2.2. Version 9.0.9.0

- Fixed SierraFwDI7xxx firmware download timeout issue.
- Fixed operator name duplicated for some carrier.
- Fixed abnormal CPU usage issue.
- Fixed CTS-ON-GSI test case failure.
- Improved performance of mobile data recovery.
- Add support to RC7611 module.

2.3. Version 9.0.8.0

- Fixed 3G signal strength issue for Android 9.0
- Fixed data session reset issue after updated to the same APN profile for Android 9.0
- Fixed network scan return not support issue in Verizon network
- Fixed modem may not able to recover data connection after USB connection reset
- Fixed SMS notification may loss during modem in selective suspend
- Improved modem watchdog thread in RIL
- Enhanced data call failure reasons return from RIL.

2.4. Version 9.0.7.0

- Added support to Android Treble
- Added support to open/close/read SIM through logical channel
- Fixed VTS/CTS failure test cases reported by customer for Google certification
- Fixed IP data always route to WWAN interface issue
- Fixed multi-app SIM cannot detected by RIL issue
- Fixed RIL cannot switch to RAT_LTE_WCDMA on EM7511 issue
- Added work around in RIL to handle 9x30 misses SIM removal event during selective suspend issue
- Fixed RIL_REQUEST_GET_CELL_INFO_LIST cannot show neighbor cells issue.

2.5. Version 9.0.6.0

- Port Sierra RIL to Hikey960 platform.
- Add support to switch modem from MBIM to QMI mode during first enumeration.
- Add new API to switch SIM slot.
- Fix potential issue in GNSS library.
- Fix slqssdk execution path in SierraFwDI7xxx tool.
- Improvement GobiNet USB driver.

2.6. Version 9.0.4.0

- Fix SELinux issue of data session on HL RIL.
- Resolved compile warning in RIL.

2.7. Version 9.0.3.0

- Add support to ARM 32 Hikey platform

2.8. Version 9.0.2.0

- Fix data connection auto disconnect on HL RIL.
- Resolved compile warning in swigps, swirl and swirlat.
- Complete carrier test on China Unicom network.

2.9. Version 9.0.1.0

- Add Sierra USB driver supported on Hikey Android 9.0 ARM64 platform.
- Add Sierra RIL supported on Hikey Android 9.0 ARM64 platform.



3. Changes since previous release

3.1. SierraFwDI7xxx

- Update to version 1.4.5.0.

3.2. GobiNet Driver

- Update to new version of GobiNet Driver.

4. Known Limitations

Known issues in the Android 9.0 RIL.

None

5. Planned Future Enhancements

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

- Upgrade the RIL Version to 13.