



## Customer Release Notes

EM7455, EM7430, MC7430, MC7455

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Semtech Corporation acquired Sierra Wireless in January 2023. The Sierra Wireless brand is gradually being phased out. During the phase-out period, references to both “Semtech” and “Sierra Wireless” may appear in product documentation.

## Contact Information

Sales information and technical support, including warranty and returns	Web: <a href="http://sierrawireless.com/company/contact-us/">sierrawireless.com/company/contact-us/</a> Global toll-free number: 1-877-687-7795 6:00 am to 5:00 pm PST
Corporate and product information	Web: <a href="http://sierrawireless.com">sierrawireless.com</a>

## Revision History

Version	Date	Updates
1.00	March 12, 2015	Creation
1.01	April 10, 2015	Added Release 4
1.02	May 20, 2015	Added Release 5
1.03	June 19, 2015	Added Release 6
1.04	July 24, 2015	Added Release 7
1.05	August 14, 2015	Added Release 8
1.06	September 18, 2015	Added Release 8.1
1.07	September 15, 2015	Added Release 9
1.08	November 6, 2015	Added Release 10
1.09	December 4, 2015	Added Release 10.1
1.10	December 9, 2015	Added Release 10.2
1.11	January 15, 2016	Added Release 11
1.12	February 12, 2016	Added Release 12
1.13	March 4, 2016	Removed Pre-commercial releases
1.14	March 15, 2016	Added Release 13
1.15	April 1, 2016	Added Release 14
1.16	May 13, 2016	Added Release 15
1.17	May 27, 2016	Added Release 14.1
1.18	June 28, 2016	Added Release 16

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1.19	October 14, 2016	Added Release 16.1, 16.2
1.20	November 7, 2016	Added Release 17
1.21	January 25, 2017	Added Release 18
1.22	April 28, 2017	Added Release 18.1
1.23	May 9, 2017	Added Release 18.2
1.24	September 22, 2017	Added Release 19
1.25	November 24, 2017	Added Release 20
1.26	February 20, 2018	Added Release 21
1.27	May 1, 2018	Added Release 22
1.28	May 1, 2018	Fixed FW tag for Release 22
1.29	July 10, 2018	Added Release 23
1.30	August 7, 2018	Added Release 24
1.31	September 27, 2018	Added Release 24 known issue
1.32	October 9, 2018	Added Release 24/23 known issue (AirVantage)
1.33	March 8, 2019	Added Release 25
1.34	May 27, 2019	Added Release 26
1.35	August 28, 2019	Added Release 27
1.36	March 24, 2020	Added Release 23.1
1.37	January 21, 2021	Added Release 28
1.38	November 4, 2021	Updated "Firmware Package Build Version" descriptions to indicate support for second flash memory ID
1.39	April 29, 2022	Added Release 29
1.40	July 2024	Added Release 30

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# 1: Introduction

## 1.1 Document Scope

This document describes change in the SWI9X30C 2.0 line of firmware.

## 1.2 Document Audience

This release note may be distributed to all direct and indirect customers and will be posted on the corporate website under the Support/Private area.

## 1.3 Abbreviations and Definitions

Abbreviation/Acronym	Definitions
AT	Access Terminal, Attention
FLOG	Firmware Log
FOTA	Firmware Over The Air
FTM	Factory Test Mode
IMS	IP Multimedia Subsystem, Internet Multimedia System
IMSW	Image Switch
MBIM	Mobile Broadband Interface Model
OMA	Open Mobile Alliance
OMADM	OMA Device Management
OoS	Out of Service
PC	Power Control
PDN	Packet Data Network
QMI	Qualcomm MSM Interface, Qualcomm Modem Interface
SCTP	Stream Control Transmission Protocol
SMS	Short Message Service
WoWWAN	Wake on WWAN
UI	User Interface

## 1.4 Related Documentation

Ref. #	Doc. #	Document title
1	4117727	AirPrime EM74xx/MC74xx AT Command Reference
2	4116235	AirPrime EM7430 Product Technical Specification
3	4116236	AirPrime EM7455 Product Technical Specification
4	4116237	AirPrime MC7430 Product Technical Specification
5	4116238	AirPrime MC7455 Product Technical Specification

## 2: SWI9X30C 2.0 Release 30

Release 30 is regulation-approved by GCF and carrier-approved by GENERIC.

### 2.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.39.00.00
Application	SWI9X30C_02.39.00.00
Date of generation (UTC)	2024/07/03 16:39:00 UTC
Binary Size	62.2 MB (compressed binary)
IMEI SV	23
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010290-STD.PROD-1
Supported HW	EM7455, MC7455, EM7430, MC7430

### 2.2 Software Tools Version

S/W Tools Name	Version
Windows Driver Package	None
Firmware Download Tool (FDT)	FDT_R3.0.24
Linux QMI SDK	MBPL R38.0.24

### 2.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 5394

## 2.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
QT19X30-3060	Merge MDM9635M.LE.3.0-r000010290.1 to address MOLEMMC9X30-2334: EM7455 eUICC provisioning fails	System
QT19X30-3083	Update SVN to 23 - FW version SWI9X30C_02.39.00.00 for Release 30	GCF

## 2.5 Known Issues

ID	Description	Domain
MOLEMMC9X30-2371	AV FOTA fails to upgrade FW from 02.33.03.00 to 02.39.00.00	FOTA
QT19X30-2903	WAKE_ON_WWAN GPIO PIN cannot be pulled HIGH when modem starts a data connection	System
QT19X30-2916	The response of AT!USBCOMP=? does not match with the AT IFS	AT
QT19X30-2920	The response of AT!GPSFIX=? does not match with AT IFS	AT
QT19X30-2936	Incorrect LED status	System
QT19X30-2971	MODULE_RESET pin does not work	System
QT19X30-2972	The AT!GPSSTATUS? show incorrect GPS session status after clearing GPS assistant data	GPS
QT19X30-2973	Module still attach network with Disable Anti Theft Mode while the host into Sleep	System

## 3: SWI9X30C 2.0 Release 29

Release 29 is regulation approved by GCF. Carrier approved by DOCOMO on EM7430.

### 3.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.38.00.00
Application	SWI9X30C_02.38.00.00
Date of generation (UTC)	2022/01/13 05:16:00 UTC
Binary Size	61.5 MB (compressed binary)
IMEI SV	22
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010260-STD.PROD-3
Supported HW	EM7455, MC7455, EM7430, MC7430

### 3.2 Software Tools Version

S/W Tools Name	Version
Windows Driver Package	None
Skylight	B5217
Linux QMI SDK	SLQS04.00.27

### 3.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 5228

## 3.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
QT19X30-3044	SBA integration added checks to avoid scheduling the pre-scaling obj on the current sub frame.	Stability
QT19X30-3046	ANTSEL GPIO control would not work after handover	System
QT19X30-3051	Resolve Jenkins build failures by syncing NV config script with EM75xx	Environment
QT19X30-3047	Avoids download of FW that is not support in the new NAND flash	New Flash Memory ID
QT19X30-3059	Support New flash ID on 9x30	New Flash Memory ID

## 3.5 Known Issues

ID	Description	Domain
QT19X30-2903	WAKE_ON_WWAN GPIO PIN cannot be pulled HIGH when modem starts a data connection	System
QT19X30-2916	The response of AT!USBCOMP=? does not match with the AT IFS	AT
QT19X30-2920	The response of AT!GPSFIX=? does not match with AT IFS	AT
QT19X30-2936	Incorrect LED status	System
QT19X30-2970	Module cannot start GPS tracking via Skylight in MSB mode	System
QT19X30-2971	MODULE_RESET pin does not work	System
QT19X30-2972	The AT!GPSSTATUS? show incorrect GPS session status after clearing GPS assistant data	GPS
QT19X30-2973	Module still attach network with Disable Anti Theft Mode while the host into Sleep	System

## 4: SWI9X30C 2.0 Release 28

Release 28 is regulation approved by GCF, carrier approved by SoftBank, KDDI, and DOCOMO.

### 4.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.36.00.00
Application	SWI9X30C_02.36.00.00
Date of generation (UTC)	2020/10/28 06:33:51 UTC
Binary Size	61.5 MB (compressed binary)
IMEI SV	22
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010260-STD.PROD-3
Supported HW	EM7430, MC7430

### 4.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	None
Skylight	B5109
Linux QMI SDK	SLQS04.00.26.src

### 4.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 5187

## 4.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
QT19X30-2866	Merge QTI Service Task for fixing field crash and APN throttling	System
QT19X30-2796	Fix Sending SMS fail with +CMS ERROR: 350 in slot1	SMS
QT19X30-2821	Fix the issue that module doesn't indicate correct RAT and RF band from LTE to UMTS	System
QT19X30-2827	Fix when device set to at!band=07 (North America), does not camp on Sprint LTE bands (LTE B25 or B41)	System
QT19X30-2830	Fix AT!GSTATUS, AT+CSQ which returns RSCP value instead of RSSI	AT
QT19X30-2834	Fix sync-to-backup doesn't work for resizing NV	System
QT19X30-2835		
QT19X30-2837	Fix the issue that unable to delete file folder using NVUP via OPCODE 0x02	System
QT19X30-2817	Integrate Qualcomm Stack MDM9635M.LE.3.0.c2-000010236.1	System
QT19X30-2860		
QT19X30-2861		
QT19X30-2890	Integrate Qualcomm Stack MDM9635M.LE.3.0.c2-000010239.2	System
QT19X30-2891		
QT19X30-2908		
QT19X30-2948	Integrate Qualcomm Stack MDM9635M.LE.3.0.c2-000010260.3	System
QT19X30-2949		
QT19X30-2867		
QT19X30-2867	Implement a recovery when AT!RESET is sent then fails	Stability
QT19X30-2886	Fix the NMEA port issue wherein data does not stream when the PC starts	System
QT19X30-2900	Fix display issue for mobile numbers after unlocking the SIM PIN	SIM
QT19X30-2853	Fix !OSINFO issue wherein ERROR is not returned if parameters are more than 256 characters (maximum size)	AT
QT19X30-2858	Fix HostDevInfo issue of being larger than the maximum size (256)	AT
QT19X30-2864	Update TS.25 list to October 2019	GCF
QT19X30-2889	Fix AT!GPSXTRASTATUS? issue where it returns incorrect Xtra Status	AT
QT19X30-2892	Implement support for Dual SIM selection on Windows 10 VAN UI	SIM
QT19X30-2895	Fix OSName issue wherein AT!OSINFO command returns ERROR	AT
QT19X30-2918	Fix the issue that 'Xtra command sent successfully' string goes missing after injecting the GPS time	AT

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ID	Description	Domain
QT19X30-2943	Updated XTRA URL for Panasonic	GNSS
QT19X30-2947	Added AT command AT!GNSSLPPENABLE to enable or disable LPP	AT

## 4.5 Security Corrections or Improvements

ID	Description	
CVE-2018-5842	An Arbitrary Address Write and Improper Release of Memory Before Removing Last Reference in WLAN	
CVE-2018-5858	Buffer Copy without Checking Size of Input in Audio	
CVE-2019-10491		
CVE-2019-2341		
CVE-2019-2328	Buffer Copy Without Checking Size of Input in Audio Driver	
CVE-2018-5905	Buffer Copy Without Checking Size of Input in DIAG	
CVE-2020-3657	Buffer Copy Without Checking Size of Input in HLOS Data	
CVE-2019-2333	Buffer Copy Without Checking Size of Input in IPA driver	
CVE-2019-10607	Buffer Copy Without Checking Size of Input in Kernel	
CVE-2018-11919	Buffer Copy Without Checking Size of Input in Soc Infrastructure	
CVE-2018-11302	Buffer Copy Without Checking Size of Input in WLAN	
CVE-2018-11898		
CVE-2018-11980		
CVE-2018-3566		
CVE-2018-3567		
CVE-2018-3568		
CVE-2018-5824		
CVE-2019-10508		
CVE-2019-10595		
CVE-2020-11116		
CVE-2017-15815		Buffer Copy Without Checking Size of Input in WLAN HOST
CVE-2019-10542		
CVE-2019-10605		

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ID	Description
CVE-2020-11144	Buffer Over-read in Data Modem
CVE-2020-11166	
CVE-2020-11171	
CVE-2020-11172	
CVE-2020-11189	
CVE-2020-11191	
CVE-2020-11247	
CVE-2020-11251	
CVE-2019-2268	Buffer Over-read in WLAN
CVE-2019-2276	
CVE-2019-10505	
CVE-2017-17772	Buffer Over-read Issue in WLAN
CVE-2018-11955	CLD2.0: Buffer Over-read in WLAN
CVE-2018-11894	CLD2.0: Integer Overflow to Buffer Overflow in WLAN
CVE-2016-8440	CVE-2016-3867 Race Conditions in IPA Driver while handling IOCTL commands
CVE-2020-11145	Divide by Zero in Data Modem
CVE-2018-11918	Double free in Display
CVE-2018-11270	Double Free in Wired Connectivity
CVE-2016-8450	Double-free in function msm_cpe_lsm_ioctl_shared()
CVE-2017-8280	Heap overflow due to race conditions in WCNSS wlan driver function "wcNSS_wlan_write"
CVE-2020-11177	Improper Access Control in Modem RFA
CVE-2018-11266	Improper Input Validation in DIAG
CVE-2018-3574	Improper Input Validation in Kernel
CVE-2018-3597	Improper Input Validation in Multimedia
CVE-2018-3581	Improper Restriction of Operations within the Bounds of a Memory Buffer in WLAN
CVE-2018-5830	Improper Restriction of Operations within the Bounds of a Memory Buffer in WLAN
CVE-2019-10512	Improper Validation of Array Index in Audio
CVE-2019-2324	
CVE-2020-11226	Improper Validation of Array Index in Data Modem
CVE-2020-11227	

ID	Description
CVE-2018-3576	Improper Validation of Array Index in WLAN
CVE-2018-5851	
CVE-2019-10526	
CVE-2017-17768	Information Exposure in Boot
CVE-2017-8269	Information exposure vulnerability while processing IPA WAN IOCTL RMNET_IOCTL_ADD_MUX_CHANNEL
CVE-2019-2331	Integer Overflow or Wraparound Issue in Audio
CVE-2018-5820	Integer Overflow to Buffer Overflow in WLAN
CVE-2017-11043	Integer overflows in WiFi driver event handler functions
CVE-2018-11301	Integer Underflow in WLAN
CVE-2017-17772	Multiple potential OOB reads in dot11f.c
CVE-2018-11897	Out-of-Bounds read while processing diag event when ssid length is greater than max limit
CVE-2017-8270	Possible buffer overflow while collecting pktlog
CVE-2017-10998	Possible integer overflow due to unvalidated user input in audio_aio_ion_lookup_vaddr()
CVE-2017-14878	Possible Integer overflow in GetContainerLen
CVE-2018-11930	Possible integer truncation in ConvertWscOpaque
CVE-2016-5867	Possible kernel buffer overflow in MSM sound driver (qdsp6v2) at function msm_dolby_dap_param_to_set_control_put
CVE-2017-9714	Possible out of bounds read in limCheckRxRSNIeMatch
CVE-2017-9699	Possible use after free due to race condition in the audio driver
CVE-2014-9940	Possible use after free in regulator_ena_gpio_free
CVE-2017-14914	Possible use after free in rmt_storage
CVE-2017-11050	Potential buffer overflow vulnerability in pktlog
CVE-2017-14903	Potential buffer over-read when processing SENDACTIONFRAME IOCTL
CVE-2017-15844	Potential information disclosure in write_device_info_flash()
CVE-2017-14882	Potential out-of-bounds access in lim_process_action_vendor_specific()
CVE-2017-15834	Potential race condition in diag_dbgfs_read_dcistat()
CVE-2017-8266	Race Condition possibly leading to UAF in Pixel project
CVE-2017-14880	Race condition vulnerability in IPA WAN driver on accessing num_q6_rule
CVE-2017-9676	Race conditions on global list cl_list
CVE-2020-3651	Reachable Assertion in WLAN
CVE-2018-11904	Return of Stack Variable Address in WLAN

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ID	Description
CVE-2018-3580	Stack-based Buffer Overflow in WLAN
CVE-2019-2269	
CVE-2020-11233	Time of Check Time of Use Race Condition in Boot
CVE-2017-13218	Timer mitigations in Kernel
CVE-2018-5856	Use After Free in Audio
CVE-2018-3584	Use After Free in Core
CVE-2018-5825	Use After Free in Data
CVE-2018-11286	Use After Free in Video
CVE-2018-13900	Use After Free issue in HLOS Data
CVE-2018-13919	Use-After-Free issue in IPA Driver while Resetting the Routing Table

## 4.6 Known Issues

ID	Description	Domain
QT19X30-2931	Unable to query list of supported LTE CA pairs	AT
QT19X30-2969	The AT!OSINFO only accepts strings up to a maximum of 254 characters	AT
QT19X30-2745	Rare Yellow Bang observed in USB stress testing	MBIM

## 5: SWI9X30C 2.0 Release 27

This section describes changes since the previous major release.

### 5.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.33.03.00
Application	SWI9X30C_02.33.03.00
Date of generation (UTC)	2019/08/28 20:59:30 UTC
Binary Size	61.5 MB (compressed binary)
IMEI SV	20
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010234-STD.PROD-1
Supported HW	EM7455, MC7455, EM7430, MC7430

### 5.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	None
Skylight	4892
Linux QMI SDK	04.00.19

### 5.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 5187

## 5.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
QT19X30-2772	Merge Qualcomm Stack MDM9635M.LE.3.0.c2-000010234.1 - QT19X30-2781 AT&T Critical Security CRs	System
QT19X30-2746	Add Verizon OMA-DM FOTA support	OMA-DM
QT19X30-2768	Update ./DevDetail/SwV to report application processor version rather than the FwV node value	OMA-DM
QT19X30-2778	Allow OMA-DM sessions during AirVantage sessions	OMA-DM
QT19X30-2811	Prevent runtime suspend after wakeup event	USB
QT19X30-2798	Increment SVN to 20	PTCRB
QT19X30-2799	Update TS.25 list to May 2019	PTCRB
QT19X30-2775	AT!ANTSEL settings get reverted in some Carriage Aggregation combinations	AT
QT19X30-2658	AT port becomes unresponsive after AT!GPSXTRASTATUS?	AT
QT19X30-2662	AT!DASCHAN returns incorrect response	AT
QT19X30-2786	Incorrect failcode in AT!GPSSTATUS? after AT!GPSEND=0	AT
QT19X30-2790	Duplicate +WDSI:0 indication after AirVantage FOTA update	AT / AirVantage
QT19X30-2826	Incorrect response to AT+WDSI=4,0	AT / AirVantage
QT19X30-2803	Report an error if invalid dframe is provided in AT+CCHO	AT
QT19X30-2709	Accept quoted parameters in AT+CCHO, and return valid error codes if parameters contain invalid characters	AT

## 5.5 Security Corrections or Improvements

ID	Description
CVE-2019-10577	Buffer Over-read Issue in Modem Data
CVE-2019-10516	Buffer Over-read Issue in Multi Mode Call processor
CVE-2019-10487	
CVE-2019-10511	Improper Validation of Array Index in GSM EDGE Radio Access Network
CVE-2019-10500	Incorrect Calculation of Buffer Size in NAS
CVE-2019-2296	Integer Overflow to Buffer Overflow Issue in LTE
CVE-2019-10485	Loop With Unreachable Exit Condition in GSM EDGE Radio Access Network
CVE-2019-2335	Loop with Unreachable Exit Condition in NAS
CVE-2015-9054	NULL pointer dereference in GPS during GAL decoding
CVE-2019-10525	Stack-based Buffer Overflow in WCDMA
CVE-2019-10551	String Errors in Modem Data

## 5.6 Known Issues

ID	Description	Domain
QT19X30-2745	Rare Yellow Bang observed in USB stress testing	MBIM
QT19X30-2750	After upgrading to R27 AT&T, do not downgrade to R18.2 AT&T; otherwise, private APNs may not be persistence in some upgrade/downgrade scenarios	APN

## 6: SWI9X30C 2.0 Release 26

This section describes changes since the previous major release.

Release 26 improves USB stability with USB Selective Suspend enabled.

### 6.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.32.11.00
Application	SWI9X30C_02.32.11.00
Date of generation (UTC)	2019/05/15 21:52:20 UTC
Binary Size	61.5 MB (compressed binary)
IMEI SV	19
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010232-STD.PROD-1
Supported HW	EM7455, MC7455

### 6.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	None
Skylight	4892
Linux QMI SDK	04.00.19

### 6.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 5187

## 6.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
MOLEMMC9X30-1408	Fixed a module crash that occurs during USB Selective Suspend and improved USB stability	USB
MOLEMMC9X30-1477		
QT19X30-2534		
QT19X30-2712		
QT19X30-2735		
QT19X30-2783		
QT19X30-2767	Fixed issue causing AT&T FirstNet testcase LTE-BTR-1-8272 to fail with Linux SDK	AT&T/SDK
QT19X30-2765	Fixed an issue which may prevent Windows 10 from detecting an eUICC in Slot 2 as an eUICC	UICC
QT19X30-2774	Increment IMEI SV to 19 for PTCRB requirements	PTCRB

## 6.5 Known Issues

ID	Description	Domain
QT19X30-2745	Rare Yellow Bang observed in USB stress testing	MBIM
QT19X30-2750	After upgrading to R26 AT&T, do not downgrade to R18.2 AT&T; otherwise, private APNs may not be persistence in some upgrade/downgrade scenarios	APN

## 7: SWI9X30C 2.0 Release 25

This section describes changes since the previous major release.

The main fixes for Release 25 are:

- increase USB stability in suspend/resume and idle scenarios;
- Anatel IPv6 conformance;
- sub-PRI private APN.

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*Note: Release is only to be used without USB Selective Suspend due to module stability issues. See Known Issues.*

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Certification effort is planned for AT&T. After upgrading to R25 AT&T, do not downgrade to R18.2 AT&T; otherwise, private APNs may not be persistence in some upgrade/downgrade scenarios.

### 7.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.32.08.00
Application	SWI9X30C_02.32.08.00
Date of generation (UTC)	2019/03/14 00:24:55 UTC
Binary Size	61.5 MB (compressed binary)
IMEI SV	18
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010232-STD.PROD-1
Supported HW	EM7455, MC7455, EM7430, MC7430

### 7.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	None
Skylight	4892
Linux QMI SDK	04.00.19

### 7.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4873 (PRI packages exclude support for new memory flash ID)

## 7.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
QT19X30-2668	Merge Qualcomm Stack MDM9635M.LE.3.0.c2-000010222.1 to address multiple issues, including: <ul style="list-style-type: none"> <li>▪ QT19X30-2597: Fixes to address Anatel IPv6 conformance tests</li> <li>▪ QT19X30-2676 / QT19X30-2677: logmeasurementinfo contains incorrect data location information in rare conditions.</li> </ul>	System
QT19X30-2554		
QT19X30-2686	Fixed issue where Initial Activate Date was not in the correct UTC format	AT&T / ODIS
QT19X30-2728	Fixed issue when setting the heartbeat timer via AirVantage was not being applied correctly	AirVantage
QT19X30-2633	Fixed an occasional crash observed during FOTA update	AirVantage
QT19X30-2682		
QT19X30-2632	Package size is reported as 0 if the module is reset in the middle of a FOTA session	AirVantage
QT19X30-2629	Fixed an issue when a user agreement is accepted outside of a session to install or reset the module, the module does not reset.	AirVantage
QT19X30-2650	Fixed an issue where duplicate profiles are created, when an AirVantage session is started with a dedicated AirVantage APN, and the device contains a profile with exactly 15 characters. This may cause future AirVantage sessions to fail.	AirVantage
QT19X30-2617	Added a new notification QMI TLV for notifying QMI clients about a pending user agreement	AirVantage / QMI
QT19X30-2671	Added a fix to allow AT+CCLK to execute without a SIM present	AT
QT19X30-2681	Report GMM PS state in AT!GSTATUS	AT
QT19X30-2630	Fixed issue where subsequent DNS lookup would fail for internal clients if the DNS would never respond	Data / DNS
QT19X30-2680	Update TS.25 list to September 17, 2018	GCF
QT19X30-2750	Fixed private APN issue for AT&T PRI v002.049_004 and older. Added sub-PRI persistence feature with backwards compatibility	IMSW
QT19X30-1592		
QT19X30-2717	Apply sub-PRI settings without resetting the module	IMSW
QT19X30-2635	Increment IMEI SV to 18 for PTCRB requirements	PTCRB
QT19X30-2256	Added a QMI object to report the status of the GPS_DISABLE pin to the host.	QMI
QT19X30-2641	Fixed an issue where SMS Status Report cannot be read via AT commands	SMS / AT

ID	Description	Domain
QTI9X30-2725	Improved USB stability in suspend/resume, idle, and reset scenarios	USB
QTI9X30-2726		
QTI9X30-2747		
QTI9X30-2669		
QTI9X30-2711		
QTI9X30-2587		
QTI9X30-2670		

## 7.5 Security Corrections or Improvements

This section presents all security corrections or improvements integrated in this release.

ID	Description
CVE-2018-11279	Buffer Copy Without Checking Size of Input in 1x
CVE-2018-5916	Information Exposure in MODEM
CVE-2018-5915	Reachable Assertion in MODEM IP Stack
CVE-2018-11945	Buffer Copy Without Checking Size of Input in MMCP
CVE-2018-13886	Integer Overflow to Buffer Overflow in MODEM

## 7.6 Known Issues

ID	Description	Domain
MOLEMMC9X30-1408	USB stability issues due to USB Selective Suspend when device is connected to network	USB
MOLEMMC9X30-1477		
QTI9X30-2534		
QTI9X30-2712		
QTI9X30-2745		
QTI9X30-2751		
QTI9X30-2750	After upgrading to R25 AT&T, do not downgrade to R18.2 AT&T; otherwise, private APNs may not be persistence in some upgrade/downgrade scenarios	APN

## 8: SWI9X30C 2.0 Release 24

This section describes changes since the previous major release.

The main fix for Release 24 is increasing USB stability in suspend/resume scenarios. Certification efforts are planned for carriers outside of North America.

### 8.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.30.03.00
Application	SWI9X30C_02.30.03.00
Date of generation (UTC)	2018/07/25 01:10:04 UTC
Binary Size	61.4 MB (compressed binary)
IMEI SV	17
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010218-STD.PROD-1
Supported HW	EM7430, MC7430

### 8.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	4828
Skylight	4814
Linux QMI SDK	04.00.15

### 8.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 5187

## 8.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
QTI9X30-2594	Update AT+COPS? to consider display conditions set in the SPN SIM file when displaying the network name	AT
QTI9X30-2616	Increment IMEI SV to 17 for PTCRB requirements	PTCRB
QTI9X30-2598	Update QMI_NAS_GET_HOME_NETWORK to use OPL/PNN SIM files for network name when roaming, or detached	QMI
QTI9X30-2542	Improved USB stability in MBIM mode for host suspend/resume use cases	USB
QTI9X30-2538		

## 8.5 Known Issues

ID	Description	Domain
QTI9X50-1919	AT!CFUNPERSISTEN fails to keep CFUN state after power cycle	AT
QTI9X50-1725	Wrong response !SMSWAKE execute command with invalid value	AT
QTI9X50-1622	Windows 10 Messaging App cannot receive SMS	SMS
QTI9X50-1806	AT!GPSXTRASTATUS? returns incorrect GPS timestamp	AT
QTI9X50-1596	Module cannot start GPS tracking via Skylight in MSB mode	Skylight

## 9: SWI9X30C 2.0 Release 23.1

This section describes changes since the previous major release.

Release 23.1 updates the IMEISV for Verizon-ALO.

### 9.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.30.01.80
Application	SWI9X30C_02.30.01.80
Date of generation (UTC)	2019/09/13 20:27:03 UTC
Binary Size	61.4 MB (compressed binary)
IMEI SV	80
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010218-STD.PROD-1
Supported HW	EM7455, MC7455

### 9.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	None
Skylight	4814
Linux QMI SDK	04.00.15

### 9.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 5187

## 9.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
QT19X30-2856	Increment IMEI SV to 80 for PTCRB requirements	PTCRB

## 9.5 Known Issues

ID	Description	Domain
QT19X30-2650	Duplicate profiles are created, when an AirVantage session is started with a dedicated AirVantage APN, and the device contains a profile with exactly 15 characters. This may cause future AirVantage sessions to fail.	AirVantage
QT19X30-2655	Private APN is broken for AT&T PRI v002.043_000 and v002.049_002	Data

# 10: SWI9X30C 2.0 Release 23

This section describes changes since the previous major release.

Release 23 fixes a few issues related to AT&T and Sprint certification. Certification efforts are planned for North American carriers.

## 10.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.30.01.01
Application	SWI9X30C_02.30.01.01
Date of generation (UTC)	2018/07/13 02:24:52 UTC
Binary Size	61.4 MB (compressed binary)
IMEI SV	16
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010218-STD.PROD-1
Supported HW	EM7455, MC7455

## 10.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	None
Skylight	4184
Linux QMI SDK	04.00.15

## 10.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 5187

## 10.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
QT19X30-2547	Merge Qualcomm Stack MDM9635M.LE.3.0.c2-000010218.1 to address multiple issues, including: <ul style="list-style-type: none"> <li>MOLEMMC9X30-1117: Module crashing on Sprint network in certain locations when CA is activated</li> </ul>	System
QT19X30-2520	Improve device reset behavior on FW download	Stability
QT19X30-2593	Do not report roaming to the host on AT&T NW using an AT&T FirstNet SIM	AT&T
QT19X30-2603	Fixed issue where FOTA job remains "In Progress" until the second LWM2M session is activated by the module	AirVantage / FOTA
QT19X30-2430	Add support for +WDSC: 5 for user agreement before rebooting	AT / AirVantage
QT19X30-2545	Do not add parameter to +WDSI:5 notifications	AT / AirVantage
QT19X30-2548	Remove dBm/Hz string from VZWRSRP and VZWRSRQ AT commands	AT / VERIZON
QT19X30-2566	Cleanup internal Firmware Logging buffer that grows unbounded on older FW	FLOG
QT19X30-2577	Fixed issue where module continually resets if ICCID range is not provided in the PRI	IMSW
QT19X30-2544	Increment IMEI SV to 16 for PTCRB requirements	PTCRB
QT19X30-2600	Update TS.25 list to June 11, 2018	PTCRB
QT19X30-2585	Cannot delete Carrier PRI files from the module via QMI	QMI

## 10.5 Known Issues

ID	Description	Domain
QT19X30-2650	Duplicate profiles are created, when an AirVantage session is started with a dedicated AirVantage APN, and the device contains a profile with exactly 15 characters. This may cause future AirVantage sessions to fail.	AirVantage
QT19X30-2655	Private APN is broken for AT&T PRI v002.043_000 and v002.049_002	Data

# 11: SWI9X30C 2.0 Release 22

This section describes changes since the previous major release.

## 11.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.29.05.00
Application	SWI9X30C_02.29.05.00
Date of generation (UTC)	2018/04/25 20:24:47 UTC
Binary Size	61.4 MB (compressed binary)
IMEI SV	15
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010216-STD.PROD-4
Supported HW	EM7455, MC7455, EM7430, MC7430

## 11.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	None
Skylight	4803
Linux SDK	04.00.13

## 11.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4815 (PRI packages exclude support for new memory flash ID)

## 11.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
QT19X30-2495	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010216.4 Updated stack to address multiple issues, including: <ul style="list-style-type: none"> <li>AT&amp;T FirstNet CRs</li> <li>MOLEMMC9X30-709 - Unable to stop data session that is started after a SIM removal and insertion on Verizon network</li> <li>MOLEMMC9X30-952 - QMI_NAS_GET_TX_RX_INFO_RESP_MSG output does not match AT!GSTATUS or QMI_NAS_GET_SIGNAL_STRENGTH</li> </ul>	System
QT19X30-2412	Updated AT!GSTATUS to report correct Cell ID in WCDMA	AT
QT19X30-2528	Removed extra characters printed in AT\$QCRSRP, AT\$QCRSRQ	AT
QT19X30-2451	Remove extra LF for +CREG	AT
QT19X30-2533	Add support for AT+RSRP, AT+RSRQ, AT+RSCP and AT+ECNO	AT / AT&T
QT19X30-2477	After FOTA update, AT!IMAGE shows active FW slot as 255 instead of the correct slot	AT / FOTA
QT19X30-2510	In some scenarios, +WDSI: 18, 100 is missing after FOTA update	AV / FOTA
QT19X30-2516	FOTA update will not automatically start upon network de-registration/registration	AV / FOTA
QT19X30-2420	Fixed issue where QMI_SWI_M2M_AVMS_EVENT_IND does not report correct session_status	AV / QMI
QT19X30-2498	Updated AT!GPSEND to return OK if no GPS session is active.	GNSS / gpsOneXtra
QT19X30-2489	In a rare scenario, if the gpsOneXtra server cannot be reached, the module will crash.	GNSS / gpsOneXtra
QT19X30-2186	RAT selection is not preserved if the APN is changed and SINGLEAPN is enabled.	Network
QT19X30-2519	Fixed issue where low current wasn't achieved with Release 2.1	Power
QT19X30-2514	Update TS.25 list to Feb 19, 2018	PTCRB
QT19X30-2517	Increment IMEI SV to 15 for PTCRB requirements	PTCRB
QT19X30-2234	Added QMI command for Antenna Selection via GPIO	QMI / RF
QT19X30-2513	Added an AT command to control the antenna path for SCC on a CA call	RF
QT19X30-2434	SIMs operating at a slower baud rate may cause a FW crash	UICC
QT19X30-2527	FPLMN list is not updated in all scenarios	UICC
QT19X30-2463	Added AT command to set USB speed	USB
QT19X30-2102	Fixed issue where USB enumeration failed after unplugging/plug USB cable	USB

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## 11.5 Known Issues

ID	Description	Domain
MOLEMMC9X30-1117	Module is crashing in certain locations when CA is activated	Stability

# 12: SWI9X30C 2.0 Release 21

This section describes changes since the previous major release.

## 12.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.28.00.00
Application	SWI9X30C_02.28.00.00
Date of generation (UTC)	2018/02/02 23:38:13 UTC
Binary Size	62.9 MB (compressed binary)
IMEI SV	14
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010214-STD.PROD-1
Supported HW	EM7455, MC7455, EM7430, MC7430

## 12.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	Build 4802
Skylight	4670
Linux QMI SDK	04.00.12

## 12.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4805 (PRI packages exclude support for new memory flash ID)

## 12.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
QT19X30-2470	Updated stack to address multiple issues, including: <ul style="list-style-type: none"> <li>▪ QT19X30-2422 - Module returns SIM failure when executing AT+COPS=0 after AT+COPS=2</li> <li>▪ QT19X30-2323 - FPLMN list not updating when issuing at+cops=2</li> <li>▪ QT19X30-2339 - Fixed accuracy level reported in QMI_LOC_GET_FIX_CRITERIA</li> <li>▪ QT19X30-2467 - MBIM is not functional after several S3/resume cycle</li> </ul>	System
QT19X30-2439	Update AT+WDSO so APN can be cleared	AVMS / AT
QT19X30-2461	Do not reply to PING requests when there is no end-to-end data session	Data
QT19X30-2445	Fix FW package version string reported to AVMS. The issue prevents Release 20 to be used for FOTA	FOTA
QT19X30-2447	Added AT command to enable or disable Dynamic Power Optimization to improve GPS	GNSS / AT
QT19X30-2481	Add setting to disable the module from entering low current	Power
QT19X30-2444	Increment IMEI SV to 14 for PTCRB requirements	PTCRB
QT19X30-2452	Added support for eUICC	UICC
QT19X30-2487	Added a fix where MBIM is not responsive after several S3 / resume cycles	USB
QT19X30-2485	Fixed an issue where the device is not found in Device Manager after several S3/S4/CB tests	USB
QT19X30-2484		

## 12.5 Known Issues

ID	Description	Domain
QT19X30-2374	Able to ping device with public IP address	System

# 13: SWI9X30C 2.0 Release 20

This section describes changes since the previous major release.

## 13.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.27.01.00
Application	SWI9X30C_02.27.01.00
Date of generation (UTC)	2017/09/15 18:38:46 UTC
Binary Size	62.9 MB (compressed binary)
IMEI SV	13
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010210.1-STD.PROD-1
Supported HW	EM7455, MC7455, EM7430, MC7430

## 13.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	Build 4783
Skylight	4670
Linux QMI SDK	04.00.11

## 13.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4770 (PRI packages exclude support for new memory flash ID)

## 13.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
QT19X30-2368	Updated stack to address multiple issues also contained in this list <ul style="list-style-type: none"> <li>CR 1058112: QT19X30-2212 - Add support for +CCID</li> <li>CR 833912, CR 971372: QT19X1555-1154 - Modem crashes after 1 day with active GPS tracking session</li> <li>CR 838693: MOLEMMC9X30-775 - Module reset once CA (B2+B12) is assigned on Pioneer Cellular network</li> <li>CR 821118, 825838, 872900: MOLEMMC9X30-758 - AT+CRSM commands cause the SIM failure and module unable to register to the network</li> </ul>	System
QT19X30-2393	Required since last certification	System
QT19X30-2424	Task name now displayed in dump output	System
QT19X30-2181	Special files which are not part of the main carrier PRI were visible in AT commands and QMI objects	IMSW
QT19X30-2156	Added ability to set subnet mask	
QT19X30-2400	AT+WDSI was not returning result "13" when installing a package with an incorrect Public key	AT
QT19X30-2418	AVMS and IDS were passing the incorrect result code to DS task. This could result in a fatal error if messages were interrupted by inbound characters on the AT port	AT
QT19X30-2403	AT command output format differed from other products	AT
QT19X30-2001	Buffer pool could be exhausted by attempting to send entire log file at once	FLOG
QT19X30-2367	Race condition existed between appending of logs from bootloader vs. application	FLOG
QT19X30-2415	Severity was being set as 0. Valid values are: 0x01 – Mandatory, 0x02 – Optional	QMI
QT19X30-2267	Altitude now assumed to be 3D, with uncertainty provided in command output	GNSS
QT19X30-2343	GPS session timeout for AT sessions was reset to the default after the first fix in a tracking session	GNSS
QT19X30-2309		
QT19X30-2012	Insufficient storage used for polling interval	OMA-DM
QT19X30-2408	Service task to address multiple issues also contained in this list: <ul style="list-style-type: none"> <li>QT19X30-2396 - Modem disconnects with UIM events and commands</li> <li>QT19X30-2255 - MBIM failure when reading eUICC profiles</li> </ul>	eUICC
QT19X30-2410	APSS patch to address MBIM eUICC issues	eUICC

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ID	Description	Domain
QT19X30-2262	Added support for eUICC Connectivity Ready commands: AT+CCHO AT+CCHC AT+CCLA	eUICC
QT19X30-2405	Unsupported technology value reported to server	LWM2M
QT19X30-2407	Missing boundary check was causing out-of-range value to be returned	LWM2M
QT19X30-2320	LWM2M AVC DM session would fail if DM credentials are shorter than Bootstrap credentials	LWM2M
QT19X30-2275	Update reporting was only being attempted once, regardless of network availability	OMA-DM
QT19X30-2395	Incorrect path for configuration file was introduced to AT!CARRIERRESET	NV
QT19X30-2215	USB stability updates	USB

## 13.5 Known Issues

ID	Description	Domain
QT19X30-2374	Able to ping device with public IP address	System
QT19X30-2422	Logic change introduced in latest call stack causes sequence to result in an error. Module remains off-line	System

# 14: SWI9X30C 2.0 Release 19

This section describes changes since the previous major release.

## 14.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.26.01.00
Application	SWI9X30C_02.26.01.00
Date of generation (UTC)	2017/09/15 18:38:46 UTC
Binary Size	62.9 MB (compressed binary)
IMEI SV	11
Chipset vendor Stack Version	MDM9635M.LE.3.0.c2-000010202.1-STD.PROD-1
Supported HW	EM7455, MC7455, EM7430, MC7430

## 14.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	Build 4624
Skylight	4670
Linux SDK	04.00.04

## 14.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4761 (PRI packages exclude support for new memory flash ID)

## 14.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
QT19X30-2349	Updated stack to address multiple issues also contained in this list: <ul style="list-style-type: none"> <li>▪ CR 949258 - UIM to vote for sleep while powering down the inactive slot during notifying error (QT19X30-2254)</li> <li>▪ CR 923119 - FR#24808 - mbn update (MOLEMMC9X30-677)</li> <li>▪ CR 824256 - Remove deadlock timer for TTD_CFG_REQ (QT19X30-2344)</li> <li>▪ CR 1040559 - Lykan J02.0.1 DS is not responding back with cleanup resulting delayed STOP_MODE_REQ (MOLEMMC9X30-709)</li> <li>▪ CR 817752 - Avoid Meas Config validation when PCI lock feature is enabled (MOLEMMC9X30-690)</li> <li>▪ CR 2024048 - Mismatch between NV size causing default settings to be used (QT19X30-2233)</li> <li>▪ CR 2038259 - SSL handshake failure for TLS1.2 (QT19X30-2277)</li> <li>▪ CR 869531 - Use subfn-based action time for shared RF chain tuning msg flow</li> <li>▪ CR 883281 - UE crash seen with SRX and carrier aggregation</li> <li>▪ CR 877956 - New Message Handling type between ML1 and FW (MOLEMMC9X30-655)</li> <li>▪ CR 2053586 - Do not append the file path during the stream APDU select using file ID (MOLEMMC9X30-604)</li> </ul>	System
QT19X30-2266	Patches for modem firmware vulnerabilities CVE-2017-0460, CVE-2017-0525	System
QT19X30-2281	Patch for modem firmware vulnerability CVE-2017-7187	System
QT19X30-2303	Patch for modem firmware vulnerability CVE-2016-10229	System
QT19X30-2294	Increment SVN to 11	System
QT19X30-2334	GPS Asynchronous AT command handler improperly called for non-AT events	GNSS
QT19X30-2353	Formatting of AT!GPSXTRASTATUS? did not match other products	GNSS
QT19X30-2233	Galileo and Beidou are not used for first fix. Those satellites are only used after location is obtained and determined to be outside of USA (regardless of AT!GNSSCONFIG setting)	GNSS
QT19X30-2285	MBIM interface could not be re-opened if improperly closed - during PC shutdown	MBIM
QT19X30-2265	IPv6 data over Wi-Fi tethering not working with Windows 10	MBIM
QT19X30-2295	Error in QCT code was causing ICCIDs with hex characters to be truncated in VanUI	SIM
QT19X30-2279	Added support for hex characters in ICCID	SIM
QT19X30-2363	Initial eUICC MBIM support	eUICC

ID	Description	Domain
QT19X30-2277	CR 2038259: Error in Qualcomm TLS library was causing an SSL handshake failure for some cipher suites when using TLS 1.2. Updated to new library	SSL / TLS
QT19X30-2344	CR 824256 - Remove deadlock timer for TTD_CFG_REQ	RRC
QT19X30-2313	DM logs displaying PSK and PSKID when unlocked	DIAG
QT19X30-2297	Builds were using local time (PST or PDT)	TOOLS

## 14.5 Known Issues

ID	Description	Domain
QT19X30-2222	IP address displayed to AirVantage is one of the active addresses, but is not necessarily one used for AirVantage connectivity	LWM2M
QT19X30-2309	NMEA was added to auto-start on the 74XX. Check of NMEA_SESSION_ID now included in GNSS auto-start	GNSS
QT19X30-2343	User-configured timeout being overwritten by default after first fix	GNSS
QT19X30-2374	Able to ping device with public IP address	System

# 15: SWI9X30C 2.0 Release 18.2

This section describes changes since the previous minor release, 18.1.

## 15.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.24.05.06
Application	SWI9X30C_02.24.05.06
Date of generation (UTC)	2017/05/19 13:23:09 UTC
Binary Size	62.9 MB (compressed binary)
IMEI SV	12
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010189-STD.PROD-1
Supported HW	EM7455, MC7455, EM7430, MC7430

## 15.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	Build 4624
Skylight	4670
Linux QMI SDK	04.00.04

## 15.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 5187

## 15.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
QT19X30-2277	CR 2038259: Error in Qualcomm TLS library was causing an SSL handshake failure for some cipher suites when using TLS 1.2. Updated to new library	TLS
QT19X30-2308	In some rare cases, a small percentage of devices cannot connect to AirVantage	LWM2M
QT19X30-2303	Vulnerability in Linux kernel allowed code arbitrary code to be executed via UDP traffic <a href="https://nvd.nist.gov/vuln/detail/CVE-2016-10229">https://nvd.nist.gov/vuln/detail/CVE-2016-10229</a>	UDP
QT19X30-2298	Increment SVN to 12	System

## 15.5 Known Issues

ID	Description	Domain
QT19X30-2222	IP address displayed to AirVantage is one of the active addresses, but is not necessarily one used for AirVantage connectivity	LWM2M
QT19X30-2233	Galileo and Beidou are not used for first fix. Those satellites are only used after location is obtained and determined to be outside of USA (regardless of AT!GNSSCONFIG setting)	GNSS
QT19X30-2254	If UIM2 is enabled and a SIM is never inserted in SIM slot 2, the modem does not enter low-current state	SIM / SYSTEM

# 16: SWI9X30C 2.0 Release 18.1

This section describes changes since the previous major release, 18.

## 16.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.24.05.03
Application	SWI9X30C_02.24.05.03
Date of generation (UTC)	2017/04/28 20:24:22 UTC
Binary Size	62.9 MB (compressed binary)
IMEI SV	10
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010189-STD.PROD-1
Supported HW	EM7455, MC7455, EM7430, MC7430

## 16.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	Build 4624
Skylight	4670
Linux SDK	04.00.04

## 16.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4685 (PRI packages exclude support for new memory flash ID)

## 16.4 Validated Corrections/Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
QT19X30-2265	Devices connected to the Win 10 mobile hotspot feature were not receiving IPv6 address	RMNET
QT19X30-2279	Allow AT and QMI to read hex-digits in ICCID	AT/QMI
QT19X30-2239	Timing was causing host to not receive DHCP client indications	QMI
QT19X30-2285	MBIM interface could not be re-opened if it was improperly closed during host OS recovery	MBIM
QT19X30-2295	Error in QCT code was causing ICCIDs with hex characters to be truncated in VanUI	MBIM
QT19X30-2272	Local firmware or PRI update would not be reported if the device took more than 30s to attach after update completed	OMA-DM
QT19X30-2260	Sign error was occurring in UTC offset calculation for latitudes West of 0°	LWM2M
QT19X30-2293	Increment SVN to 10	System

## 16.5 Known Issues

ID	Description	Domain
QT19X30-2222	IP address displayed to AirVantage is one of the active addresses, but is not necessarily one used for AirVantage connectivity	LWM2M
QT19X30-2233	Galileo and Beidou are not used for first fix. Those satellites are only used after location is obtained and determined to be outside of USA (regardless of AT!GNSSCONFIG setting)	GNSS
QT19X30-2254	If UIM2 is enabled and a SIM is never inserted in SIM slot 2, the modem does not enter low-current state	SIM / SYSTEM
QT19X30-2277	Unable to connect to Motive server due to a bug in QCT TLS v1.2 library	TLS/SSL

# 17: SWI9X30C 2.0 Release 18

This section describes changes since the previous major release.

## 17.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.24.03.00
Application	SWI9X30C_02.24.03.00
Date of generation (UTC)	2017/03/02 21:36:45 UTC
Binary Size	62.9 MB (compressed binary)
IMEI SV	9
Chipset vendor Stack Version	MDM9635M.LE.3.0.c2-000010189-STD.PROD-1
Supported HW	EM7455, MC7455

## 17.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	Build 4624
Skylight	TBD
Linux SDK	04.00.04

## 17.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 5187

## 17.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
QT19X30-2190	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010189-STD.PROD-1	System
QT19X30-2174	<ul style="list-style-type: none"> <li>CR 846690, 846692: Added mutexing for Common Dec8 Allocation structure to fix a rare crash when 2 PDNs are active and idle</li> </ul>	
QT19X30-2209	Per new external release	System
QT19X30-2179	Added logic to recover from "Stuck in QDL" symptom by rebuilding images when YAFFS file system corrupted by sudden power removal	Flash
QT19X30-2183	Device provisioning could be lost if power removed while recovering from a file-system corruption	Flash
QT19X30-2180	AT&T: OMA-DM client was not handling concatenated SMS if out of sequence	OMA-DM
QT19X30-2184	Sprint: 1226 Alert String for HFA DC session was incorrect	OMA-DM
QT19X30-2189	Codec enabled for audio	Audio
QT19X30-2169	SAR default value could not be modified over QMI if the value on start-up was non-zero	QMI
QT19X30-2232	Added QMI objects to QMI_SWI_M2M_AVMS_GET/SET_SETTINGS	QMI / LWM2M
QT19X30-2196	Spurious interrupts caused by noise on unterminated USB3 lines would prevent device from entering low power state	USB
QT19X30-2199	Spurious suspend interrupt was causing USB controller to interpret this as USB suspended	USB
QT19X30-2214	QCT code provided to resolve QT19X30-2199 was preventing USB from suspending in USB 2.0 mode	USB
QT19X30-2206	GPS session would not re-start after toggling W_DISABLE2 with GPS auto-start enabled unless the GPSPM customization was enabled	GNSS
QT19X30-2228	Enable DiagLogger support	DIAG
QT19X30-2243	Public shared key and shared key ID were visible in QXDM logs	DIAG
QT19X30-2205	Sprint requirement GTR-ATCMD-60027	AT / SIM
QT19X30-2204	PFCRB requirement	PFCRB
QT19X30-2219	AVMS APN was not persistent	NV

## 17.5 Known Issues

ID	Description	Domain
QTI9X30-2222	IP address displayed to AirVantage is one of the active addresses, but is not necessarily one used for AirVantage connectivity	LWM2M
QTI9X30-2233	Those satellites are only used after location is obtained and determined to be outside of USA (regardless of AT!GNSSCONFIG setting)	GNSS
QTI9X30-2254	If UIM2 is enabled and a SIM is never inserted in SIM slot 2, the modem does not enter low-current state	SIM / SYSTEM

# 18: SWI9X30C 2.0 Release 17

## 18.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.23.00.00
Application	SWI9X30C_02.23.00.00
Date of generation (UTC)	2016/10/22 15:55:10 UTC
Binary Size	62.9 MB (compressed binary)
IMEI SV	8
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010179-STD.PROD-1
Supported HW	EM7455, MC7455, EM7430, MC7430

## 18.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	B4595
Skylight	B4527
Linux SDK	04.00.01

## 18.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4614 (PRI packages exclude support for new memory flash ID)

## 18.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
QT19X30-2144	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010179-STD.PROD-1	System
QT19X30-2083	<ul style="list-style-type: none"> <li>▪ 921808 Added support for SSL TLS V1.2 in crypto secapi software</li> </ul>	
QT19X30-2008	<ul style="list-style-type: none"> <li>▪ 1052946 Modem throws an error for PS_ATTACH request when mode preference is LTE only</li> <li>▪ 1046269 SSL handshake failure due to DSS AsyncSelect/De-select failure</li> </ul>	
QT19X30-2057	Per new external release	System
QT19X30-2023	Corrected AT!BAND to show newly added TDSCDMA only entries without UE reset	AT
QT19X30-2038	Reduced lock level to low	AT
QT19X30-2055	Added AT+CPINR with a reduced set of PIN/PUK categories	AT
QT19X30-1890	Added positive reporting of update status to avoid the false "unknown"	AT/QMI
QT19X30-1892	Stability - file system lock is now acquired when accessing other non-EFS partitions	Flash
QT19X30-1914	Verizon requirement - AT command added to set application ID and password to be included in SUPL start message for AGPS fixes	GNSS
QT19X30-2129	Sierra internal GPS session ID was also used as the "all clients" ID. Changed to avoid conflict	GNSS
QT19X30-2126	Added tracking of switching progress to allow proper recovery if interrupted by power removal or device reset	IMSW
QT19X30-2024	Sync-ed AirVantage client with the latest round of updates	LWM2M
QT19X30-2147	Update Sierra sockets to use TLS 1.2	LWM2M
QT19X30-2154	Change in AVMS to prevent an empty payload from being sent	LWM2M
QT19X30-2032	Stability – handle occasional MBIM control packets dropped during USB suspend	MBIM
QT19X30-2153	Fixed problem where encoding was not taken into account in determining network name length	QMI
QT19X30-1855	Added QMI_NAS_SWI_GET_LTE_SCC_RX_INFO object to query Secondary Cell RSSI in LTE CA	QMI
QT19X30-1987	QMI_NAS_SWI_NETWORK_TIMERS_IND to report T3396 value when assigned by network	QMI
QT19X30-1836	Final stage of support for QMI_WDS_SWI_GET_DHCPV4_CLIENT_CONFIG_REQ	QMI
QT19X30-2145	Applied Qualcomm patch to clear data port after a failed resume	USB

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## 18.5 Known Issues

ID	Description	Domain
QTI9X30-2219	APN set in WDSS is lost on upgrade because global persistence attribute is not set	LWM2M
QTI9X30-2222	IP address displayed to AirVantage is one of the active addresses, but is not necessarily one used for AirVantage connectivity	LWM2M

# 19: SWI9X30C 2.0 Release 16.2

This section describes changes since the previous major release.

## 19.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.20.03.22
Application	SWI9X30C_02.20.03.22
Date of generation (UTC)	2016/10/11 16:03:14
Binary Size	62.9 MB (compressed binary)
IMEI SV	6
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010157.1.72754.1-STD.PROD-1
Supported HW	EM7455, MC7455, EM7430, MC7430

## 19.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	B4539
Skylight	B4527
Linux QMI SDK	04.00.02

## 19.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4604 (PRI packages exclude support for new memory flash ID)

## 19.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
QTI9X30-2129	Sierra internal session ID to end all GPS sessions was also used by Qualcomm, causing sessions to be unexpectedly ended	GPS
QTI9X30-2096	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010157.1.72754.1 <ul style="list-style-type: none"> <li>▪ CR 878564: Deep sleep between gaps occasionally causes RSRP overestimation</li> </ul>	LTE
QTI9X30-2126	Power removal at a key point during switching could prevent persistent settings from being properly restored after the image switch completes	IMSW

## 19.5 Known Issues

ID	Description	Domain
QTI9X30-2219	APN set in WDSS is lost on upgrade because global persistence attribute is not set	LWM2M
QTI9X30-2222	IP address displayed to AirVantage is one of the active addresses, but is not necessarily one used for AirVantage connectivity	LWM2M

## 20: SWI9X30C 2.0 Release 16.1

This section describes changes since the previous major release.

### 20.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.20.03.21
Application	SWI9X30C_02.20.03.21
Date of generation (UTC)	2016/10/03 16:07:57
Binary Size	62.9 MB (compressed binary)
IMEI SV	6
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010157-STD.PROD-
Supported H/W	EM7455, MC7455, EM7430, MC7430

### 20.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	B4539
Skylight	B4527
Linux QMI SDK	04.00.02

### 20.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4604 (PRI packages exclude support for new memory flash ID)

## 20.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
QT19X30-2066	Qualcomm patch to fix incorrect handling of overflow byte in NAS UL count <ul style="list-style-type: none"> <li>▪ CR 1067871: NAS is reading wrong overflow value from SIM</li> </ul>	NAS

## 20.5 Known Issues

ID	Description	Domain
QT19X30-2219	APN set in WDSS is lost on upgrade because global persistence attribute is not set	LWM2M
QT19X30-2222	IP address displayed to AirVantage is one of the active addresses, but is not necessarily one used for AirVantage connectivity	LWM2M

# 21: SWI9X30C 2.0 Release 16

## 21.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.20.03.00
Application	SWI9X30C_02.20.03.00
Date of generation (UTC)	2016/06/30 10:54:05
Binary Size	61.3MB (compressed binary)
IMEI SV	6
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010157-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

## 21.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	B4539
Skylight	B4527
Linux QMI SDK	03.03.17

## 21.3 Released Files and Download Processes

Download Option	Files
Windows	B4539 Driver Installer
CWE/NVU files	Firmware Package Build 5187

## 21.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
QTI9X30-1960	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010157-STD.PROD-1: <ul style="list-style-type: none"> <li>▪ CR 1021920: Incorrect SV IDs in GPGSA &amp; GNGSA</li> <li>▪ CR 878306: UE not sending measurement reports on B29 in some cases.</li> <li>▪ CR 852452: TLS 1.1 failing on some sites</li> <li>▪ CR 1017623: Unresponsive AT port after FW upgrade stress test</li> <li>▪ CR 988901: AT!GSTATUS reports TX power out of range during Live Network Connection</li> </ul>	System
QTI9X30-1919		
QTI9X30-1927		
QTI9X30-1826		
QTI9X30-1601		
QTI9X30-1847	Updated AT!GSTATUS to report last cached WCDMA RSSI. Otherwise, 0 would be reported in IDLE state	AT
QTI9X30-1912	Do not initiate SINGLEAPNSWITCH if nothing was modified on a profile update	Data
QTI9X30-1864	Improved recovery from corrupt APPS image	Flash
QTI9X30-1907	If the NMEA port is not opened, and a GNSS session is started via AT commands or AUTOSTART on Power up; the module will crash after 1 hour	GNSS
QTI9X30-1879	In some cases, the modem failed to reset when changing SIMs	IMSW
QTI9X30-1885	Image Switch was failing if W_DISABLE was asserted	IMSW
QTI9X30-1228	In some cases, UE was not starting an AVMS session on reset	LWM2M
QTI9X30-1908	Update LWM2M and OMADM to use TLS 1.1	LWM2M / OMADM
QTI9X30-1964	GetHomePLMN does not return MCC and MNC immediately after bootup	QMI
QTI9X30-1887	UE should not open a channel with the SIM if HFA fails	SIM
QTI9X30-1258	Fixed memory leak for QMI indications that was causing the AT port to become unresponsive	USB
QTI9X30-95	Added feature to force the module to use USB 2.0	USB
QTI9X30-1054	Improved USB stability in long term stress tests	USB
QTI9X30-1939		

## 21.5 Known Issues

ID	Description	Domain
QTI9X30-2219	APN set in WDSS is lost on upgrade because global persistence attribute is not set	LWM2M
QTI9X30-2222	IP address displayed to AirVantage is one of the active addresses, but is not necessarily one used for AirVantage connectivity	LWM2M

## 22: SWI9X30C 2.0 Release 15

This section describes changes since the previous major release.

### 22.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.18.02.00
Application	SWI9X30C_02.18.02.00
Date of generation (UTC)	2016/05/18 15:55:46
Binary Size	61.3 MB (compressed binary)
IMEI SV	6
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010149-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

### 22.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	B4518
Skylight	B4507
Linux QMI SDK	03.03.16

### 22.3 Released Files and Download Processes

Download Option	Files
Windows	B4518 Driver Installer
CWE/NVU files	Firmware Package Build 4517 (PRI packages exclude support for new memory flash ID)

## 22.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
91276	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010149-STD.PROD-1 <ul style="list-style-type: none"> <li>▪ CR932678 / 944577: Improved device stability in long term testing.</li> <li>▪ CR1003876: Fixed crash in QIM_LOC_GET_AVAILABLE_WWAN_POSITION</li> <li>▪ CR874564: FW crash due to serving cell measurement request received/processed late</li> <li>▪ CR746175: Random Crashes were observed when Profile operations were carried out</li> <li>▪ CR988699: Don't allow to perform Ephemeris/Almanac deletion in EFS when SV bit mask is empty</li> <li>▪ CR996227: MSB E911 Sessions may be delayed when initiated during an on-going GNSS Aptracking Session (ME part) - CR958163: Device can only track fewer than expected Glonass measurements in hot start testing</li> </ul>	System
90093	Added support for AT+CESQ	AT
84905	Added AT command to get Thermal Mitigation status	AT
90921	Updated AT!GSTATUS to report correct SCell Diversity RSRP value	AT
89771	AT^SYSINFO shows roaming when no SIM is installed	AT
90676	Added support for SCTP filtering	Data
89235	Added QMI_WDS_SWI_GET_DHCPV4_CLIENT_CONFIG, AT!SCDHCPHWCONFIG, and AT!SCDHCPOPTIONS	DHCP / QMI / AT
89722	Update TS.25 list in FW to April 18th, 2016	GCF / PTCRB
91255	Fixed modem crash if gpsOneXTRA is enabled and server is inaccessible. Seen on test equipment not connected to the internet.	GNSS
90496	Removed Null characters in NMEA stream	GNSS
89376	Add support for Galileo NMEA sentences	GNSS
90244	Enabled OTDOA by default	GNSS
90677	Fixed issue where HFA is run multiple times with an unpaired SIM	OMADM
88314	Fixed crash during FOTA over OMADM	OMADM
91659	On EM modules, if the Power Loss SMS/Detach feature is enabled, the Full_Card_Power_Off PIN is ignored	PC
89621	Temperature level is being reported as critical warning instead of normal	QM

## 23: SWI9X30C 2.0 Release 14.1

### 23.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.14.03.02
Application	SWI9X30C_02.14.03.02
Date of generation (UTC)	2016/04/27 11:42:07
Binary Size	61.3 MB (compressed binary)
IMEI SV	6
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010130-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

### 23.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	B4518
Skylight	B4477
Linux QMI SDK	03.03.15

### 23.3 Released Files and Download Processes

Download Option	Files
Windows	B4518 Driver Installer
CWE/NVU files	Firmware Package Build 4517 (PRI packages exclude support for new memory flash ID)

## 23.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
90677	Fixed issue where HFA is run multiple times with an unpaired SIM	OMADM
90294	Added support to call Reset Applet on SIM during RTN	SIM

## 24: SWI9X30C 2.0 Release 14

This section describes changes since the previous major release.

### 24.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.14.03.00
Application	SWI9X30C_02.14.03.00
Date of generation (UTC)	2016/03/28 14:34:14
Binary Size	61.3 MB (compressed binary)
IMEI SV	6
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010130-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

### 24.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	B4492
Skylight	B4477
Linux QMI SDK	03.03.15

### 24.3 Released Files and Download Processes

Download Option	Files
Windows	B4492 Driver Installer
CWE/NVU files	Firmware Package Build 4490 (PRI packages exclude support for new memory flash ID)

## 24.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
89985	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010130-STD.PROD-1: <ul style="list-style-type: none"> <li>CR 848684, 859452: Cannot activate LTE-CA in certain scenarios</li> <li>CR 916525: UE fails reselection when serving cell is not provided with a dedicated priority</li> <li>CR 826809: BIP doesn't work in a DUAL SIM device set to single standby</li> </ul>	System
89903	Module crashes after repeatedly issuing: AT+CPBR=1	AT
89557	Changing "IP TYPE" via Windows 10 UI does not take effect with SINGLEAPN	Data
89666	Fixed issue when switching images for carriers that span multiple countries	IMSW
90095	Fixed LED blink pattern glitches	LED
89725	LED not working with Roaming SIM, and coming out of AT+CFUN=0	LED
90089	Fixed FOTA update for Sprint	LWM2M / FOTA
87674	Added support for Embedded Device type for MBIM	MBIM
88840	Add Sprint SPA OMADM Nodes	OMADM
89948	Increased IMEI SV to 6	PTCRB
85036	Add ability to configure TDSCDMA SAR via AT and QMI commands	RF
89611	Add support for TX ON status via GPIO	RF
89812	Fixed external antenna selection lines for MC	RF
89808	Wake on WWAN PIN was turning on for longer than configured value.	WoWWAN

## 25: SWI9X30C 2.0 Release 13

### 25.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.13.01.00
Application	SWI9X30C_02.13.01.00
Date of generation (UTC)	2016/03/07 21:28:34
Binary Size	61.3 MB (compressed binary)
IMEI SV	5
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010127-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

### 25.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	B4473
Skylight	B4477
Linux QMI SDK	03.03.15

### 25.3 Released Files and Download Processes

Download Option	Files
Windows	B4473 Driver Installer
CWE/NVU files	Firmware Package Build 4481 (PRI packages exclude support for new memory flash ID)

## 25.4 Various Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
89474	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010127-STD.PROD-1: <ul style="list-style-type: none"> <li>▪ CR 881101: Restoring LTE band values back to defaults if RRC message does not contain band info</li> <li>▪ CR 842022: Added support for BCS-1 for 7+28 CA combo</li> <li>▪ CR 843496: Fixed crash during MO OTDOA positioning</li> </ul>	System
89025	Update AT!SELRAT and AT!BAND for TDSCDMA	AT
88669	Add support for DHCPv4 Client Configuration and Lease Status	DHCP / QMI
85533	In USB 3.0, fixed an issue where NMEA sentences would not be reported if the output rate was set to more than 5 seconds	GNSS
87475	End all GPS sessions if AT!GPSCOLDSTART is entered	GNSS
88357	FW SIM based image switching not working for PIN locked SIMs	IMSW
87187	[Sprint] Add support for AT+LED	LED / AT
89137	Add support for LED Configurability	LED
85666	Added support for AirVantage LWM2M Reset Counters	LWM2M
87452	Add Sprint OMADM features	OMADM
87453		
88716	Added support for OMADM FOTA	OMADM
89233	Improvements to Power Loss SMS and Detach feature	PC
88363		
85798	Added QMI_DMS_SWI_GET_RESET_INFO	QMI
88674	Improved USB Stability over long term reset test	USB
86639	Improve USB Enumeration time by 2 seconds	USB

## 25.5 Known Issues

ID	Description	Domain
89812	External Antenna Selection lines not working for MC products	RF

## 26: SWI9X30C 2.0 Release 12

This section describes changes since the previous major release.

### 26.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.11.03.00
Application	SWI9X30C_02.11.03.00
Date of generation (UTC)	2016/02/09 13:51:57
Binary Size	61.2 MB (compressed binary)
IMEI SV	5
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010120-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

### 26.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	B4452
Skylight	B4432
Linux SDK	03.03.14

### 26.3 Released Files and Download Processes

Download Option	Files
Windows	B4452 Driver Installer
CWE/NVU files	Firmware Packages Build 4455 (PRI packages exclude support for new memory flash ID)

## 26.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
88366	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010120-STD.PROD-1: <ul style="list-style-type: none"> <li>▪ CR 955594: Fixed data transfer issue when using 2 RMNET interfaces.</li> <li>▪ CR 938261: [GCF] Fix for LTE-RRM case 8.3.3</li> <li>▪ CR 902412: SIM is being powered down when upon receiving an invalid APDU in ICC mode for SELECT command</li> <li>▪ CR 951450: In certain scenarios fixed AT and NMEA indications when USB is suspended</li> </ul>	System
87891	Improve reliability of reset sequence observed during long term testing	System
88123		
88000	Increased IMEI SV to 5	PTCRB
86959	Modem crash after AT&V command	AT
87189	Add support for Sprint AT commands	AT
83539		
87188		
87191		
87186		
84394	Add TDSCDMA support for AT!SELRAT	AT
87584	AT!GPSLBSAPN was not taking affect	AT
85577	Add support for FTM TX power configuration in WCDMA and LTE	FTM
85477	Update gpsOneXTRA HTTP header to comply with Qualcomm's guidance	GNSS
82401	If NMEA port is open, restart GPS Session when transitioning from LPM to ONLINE	GNSS
83612	Add support to carriers that span multiple countries	IMSW
85718	Modem resets twice when upgrading FW+PRI and the target firmware is already available in the modem	IMSW
88079	Add support for LED blink patterns	LED
87738		
79089		
88310	Update revision string to include Carrier PRI for AirVantage LWM2M	LWM2M
86584	Add support for AirVantage LWM2M QMI messages	LWM2M

ID	Description	Domain
87670	Fixed FOTA update via LWM2M	LWM2M / FOTA
87263		
88001	Add TargetRef field to SyncML message for Verizon	OMADM
85125	Add support for Sprint OMADM	OMADM
87802	Add support for OMA polling	OMADM
85610	Add support to send an SMS when power failure is reported by host through W_DISABLE Pin	PC
88362	On a Windows platform, the UE releases the existing PDP Context when going OoS within 30 seconds	PDN
88407	Bands 28, 29, 30 and 32 are not correctly reported in QMI_NAS_GET_LTE_CPHY_CA_INFO	QMI
87283	LTE band 28 is incorrectly reported in QMI_NAS_SWI_MODEM_STATUS as 45	QMI
87725	Observed attach failures in low signal environment for LTE B41	RF
87403	Improved signal strength reporting to the host	UI

## 27: SWI9X30C 2.0 Release 11

This section describes changes since the previous major release.

### 27.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.08.02.00
Application	SWI9X30C_02.08.02.00
Date of generation (UTC)	2016/01/06 20:38:53
Binary Size	61.2 MB (compressed binary)
IMEI SV	4
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010114-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

### 27.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	B4437
Skylight	B4429
Linux QMI SDK	03.03.13

### 27.3 Released Files and Download Processes

Download Option	Files
Windows	B4437 Driver Installer
CWE/NVU files	Firmware Packages Build 4440 (PRI packages exclude support for new memory flash ID)

## 27.4 Validated Corrections or Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Domain
87356	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010114-STD.PROD-1: <ul style="list-style-type: none"> <li>▪ CR 949351 / 949619: USB Stability fixes</li> <li>▪ CR 791775, 922988, 929557, 823043, 860163: Critical AT&amp;T CRs</li> <li>▪ CR 834408, 809321: [GCF] LTE-RRM case 4.2.2</li> <li>▪ CR 946862: Verizon OMADM issue</li> <li>▪ CR 837757: Improved device stability in very long term power cycle stress testing.</li> <li>▪ CR 806781: Fixed crash if AT commands are entered immediately after power up.</li> </ul>	System
86579	Increased IMEI SV to 4	PTCRB
84544	Added support for Sierra Wireless SINGLEAPN feature	Data
85663	Added support for various AirVantage LWM2M Objects	LWM2M
85664		
85665		
85662		
85616	Unable to send MO SMS if Dual SIM is enabled	SMS
84112	Add support to report Cell Tower Reference Location if a location is not available via satellites	GNSS
82659	Add support for the GPS_DISABLE PIN (W_DISABLE#2) to stop GPS sessions started over QMI	GNSS
82070	Update AT!GPSSATINFO to include Beidou and Galileo	GNSS / AT
85931	Update AT!GSTATUS to correctly report status of Carrier Aggregation when SCC is configured but not active	AT
85533	Fixed issue where unsolicited notifications would sometimes not be delivered over the AT or NMEA port for USB 2.0, if the port was idle for greater than 5 seconds	AT / NMEA
86397		
86674	Update TS.25 list in FW to 2015/11/30	GCF / PTCRB
84520	Added the ability to configure the Device Type in the MBIM_CID_DEVICE_CAPS response	MBIM
82166	Update QMI_NAS_NETWORK_REJECT_IND to report reject cause: ESM Failure	QMI
84187	Fixed packet and TX packet drop counters	QMI
86541	If USB 2.0 is detected, USB 3.0 support will not be included in the USB Descriptor	USB

## 27.5 Known Issues

ID	Description	Domain
85533	NMEA output rate greater than 5 seconds is not supported on USB 3.0	GNSS
85718	The Linux SDK will report an image switch failure when only the Carrier PRI needs to be downloaded. The image switch is successful	Linux SDK

## 28: SWI9X30C 2.0 Release 10.2

This section describes changes since the previous major release.

### 28.1 Release Identification

Component	Version
Boot loader	SWI9X30C_02.05.07.00
Application	SWI9X30C_02.05.07.00
Date of generation (UTC)	2015/12/04 22:23:15
Binary Size	61.2 MB (compressed binary)
IMEI SV	3
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010108-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

### 28.2 Software Tools Versions

S/W Tools Name	Version
Windows Driver Package	B4427
Skylight	B4405
Linux QMI SDK	03.03.12

### 28.3 Released Files and Download Processes

Download Option	Files
Windows	B4427 Driver Installer
CWE/NVU files	Firmware Packages Build 4426 (PRI packages exclude support for new memory flash ID)

### 28.4 Validated Corrections or Improvements

None (initial commercial release)

## 28.5 Known Issues

ID	Description	Domain
83752	In rare instances, module may disappear from Windows Device Manager after long term testing on some platforms.	USB
83753		
83754		
85533	NMEA output rate greater than 5 seconds is not supported	GNSS

# A: Appendix

## Troubleshooting

Contact customer service for support and debugging information.