



WP76xx R13.0.1

Customer Release Notes



SIERRA
WIRELESS®

41114344
Rev. 1.0

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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 product are used in a normal manner with a well-constructed network, the Sierra Wireless product 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 product, or for failure of the Sierra Wireless product to transmit or receive such data.

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Revision History

Revision number	Release date	Changes
1.0	November 2021	Creation

>> Contents

Introduction	5
Compatibility	6
Hardware Compatibility	6
SWI9X07Y Release 13.0.1	7
Software Release Description	7
Release Identification	7
Software Tools Version	8
Released Files	9
Software Changes Description	10
Known Issues	11
Appendix	13
List of Abbreviations	13
List of References	13

>> 1: Introduction

This document describes WP76xx firmware releases. These release notes may be distributed to all direct and indirect customers.

Compatibility

Hardware Compatibility

Product compatibility list
WP7601 - LTE Cat-4, LTE bands 4/13
WP7601-1 - LTE Cat-1, LTE bands 4/13
WP7603 - LTE Cat-4, LTE bands 2/4/5/12, WCDMA bands 2/4/5
WP7603-1 - LTE Cat-1, LTE bands 2/4/5/12, WCDMA bands 2/4/5
WP7605 – LTE Cat-4, LTE bands 1/3/8/11/18/19/21, WCDMA bands 1,6,19
WP7605-1 – LTE Cat-1, LTE bands 1/3/8/11/18/19/21, WCDMA bands 1,6,19
WP7607 - LTE Cat-4, LTE bands 1/3/7/8/20/28, WCDMA bands 1/8, GSM900/1800
WP7607-1 - LTE Cat-1, LTE bands 1/3/7/8/20/28, WCDMA bands 1/8, GSM900/1800
WP7608 - LTE Cat-4, LTE bands 1/3/5/8/40/41(partial) WCDMA bands 1/8, GSM900/1800
WP7608-1 - LTE Cat-1, LTE bands 1/3/5/8/40/41(partial) WCDMA bands 1/8, GSM900/1800
WP7609 - LTE Cat-4, LTE bands 1/3/5/7/8/28, WCDMA bands 1/5/8, GSM900/1800
WP7610 - LTE Cat-4, LTE bands 2/4/5/12/13/14/17/66, WCDMA bands 2/4/5
WP7611 – LTE Cat-4 LTE bands 2/4/5/12/13/14/25/26/66/71, WCDMA bands 2/4/5
WP7611-1 – LTE Cat-1, LTE bands 2/4/5/12/13/14/25/26/66/71, WCDMA bands 2/4/5

>> 2: SWI9X07Y Release 13.0.1

Release 13.0.1 is a point release to Release 13 with minor updates of alternate memory drivers for:

- WP7603 / WP7603-1
- WP7610

Software Release Description

Release Identification

Component	Revision
Modem Firmware	SWI9X07Y_02.28.03.01 000000 jenkins 2019/04/17 03:08:11
Linux Firmware	SWI9X07Y_02.28.07.01 2021-09-16_11:13:42
MCU Firmware	002.011 (embedded as a binary in the Linux image, not distributed as a separate component)
Legato Application Framework	19.02.0_4cb954265427b8c2c668a010ff5be274
Binary Size	61MB (compressed one-click .exe file)
IMEI SV	6
Qualcomm Stack Version	MDM9607.LE.2.0-00161-STD.PROD-1
Linux Kernel Version	Linux version 3.18.131 (oe-user@oe-host) (gcc version 7.3.0 (GCC)) #1 PREEMPT Thu Sep 16 11:04:49 UTC 2021
Supported H/W	WP7603 / WP7603-1 WP7610

Software Tools Version

S/W Tools Name	Version
Windows Driver Package	B4836
Windows SDK	None
Skylight	None
Linux Drivers	S2.36N2.57
Linux SDK	SLQS04.00.20

*Available in <https://source.sierrawireless.com>

Released Files

File	Carrier	Modem Firmware	Config	Linux Distribution	Base Legato System	Comment
WP7603/WP7603-1 Approved						
WP76xx_Release-13.0.1_GENERIC_PTCRB.exe	GENERIC (PTCRB)	SWI9X07Y_02.28.03.01	002.064_003	SWI9X07Y_02.28.07.01	19.02.0	PTCRB Approved
WP76xx_Release-13.0.1_ATT.exe	ATT	SWI9X07Y_02.28.03.01	002.071_007	SWI9X07Y_02.28.07.01	19.02.0	AT&T Approved
WP7610 Approved						
WP76xx_Release-13.0.1_GENERIC_PTCRB.exe	GENERIC (PTCRB)	SWI9X07Y_02.28.03.01	002.064_003	SWI9X07Y_02.28.07.01	19.02.0	PTCRB Approved
WP76xx_Release-13.0.1_ATT.exe	ATT	SWI9X07Y_02.28.03.01	002.071_007	SWI9X07Y_02.28.07.01	19.02.0	AT&T Approved

Function	Files
Firmware components	9999999_9907152_SWI9X07Y_02.28.03.01_00_GENERIC_002.064_003.spk (PTCRB) 9999999_9907256_SWI9X07Y_02.28.03.01_00_ATT_002.071_007.spk (ATT) linux-SWI9X07Y_02.28.07.01.cwe legato-19.02.0.cwe
Available in https://source.sierrawireless.com .	

Software Changes Description

The second memory source changes are included in Release 13.0.1, built from Release 13.

Table 2-1: Software Changes Description for WP76xx Release 13.0.1

ID	Description	Impacted Domain
QT19X07-5444	Add the IDs of these alternate memory sources: New Micron/ESMT/JSC	System
QT19X07-5464	Exclude the legato.cwe from ant-rollback fw download	
QT19X07-5524	Implement the anti-rollback mechanism to prevent from downgrading to the firmwares in which alternate memory sources (New Micron/ ESMT/JSC) are not supported	

Known Issues

The following table presents the known issues in this release.

Table 2-2: Known Issues for WP76xx Release 13.0.1

ID	Description	Impacted Domain
QT19X07-3451	On some occasion, modules fail to make an LTE-only data connection using an external Sierra Wireless SIM.	AVMS
QT19X07-3464	Cannot bootstrap to the LWM2M server if DMDEBUB is turned off.	LWM2M
QT19X07-3434	GPIO interrupts unable to wake the module from suspend.	GPIO
QT19X07-3139	I2C bus would get blocked when communicating using /dev/i2c interface and simultaneously communicating with MCU.	I2C
QT19X07-3407	Preamble transmission power failed to meet the specification at -30C.	RF
QT19X07-3381	AT!GPSLOC? does not return the last known location if the command is requested in a less than 1 second interval.	GPS
QT19X07-3371	Sometimes I2C control to MCU is lost when reading the ADC2 from MCU and ULPM mode is requested at the same time.	I2C
QT19X07-3367	As the temperature approaches its high critical limit, modules enter LPM when making a voice call.	Thermal
QT19X07-3348	Create a Legato AT command handler and then start the AT server. No response returned when closing the AT server by le_atServer_Close().	Legato
QT19X07-3347	If the GPS simulator set the latitude to 0 and longitude to -90 exactly, modules are unable to find a location fix.	GPS
QT19X07-3308	AT!GPSCLRRASSIST=1,0,0,0,0 can't clear GPS assistance data. FAILCODE = 9 is returned	GPS
QT19X07-3281	The WiFi-LTE coexistence feature does not seem to work and it would impact the performance when using some RF bands.	Wi-Fi
QT19X07-3200	The WiFi-LTE coexistence feature does not seem to work and it would impact the performance when using some RF bands.	SFS
QT19X07-3199	Truncated SecStore writes without the Legato API reporting an error.	SFS
QT19X07-3134	Unable to mount a USB flash memory device onto the module.	Linux

Table 2-2: Known Issues for WP76xx Release 13.0.1 (Continued)

ID	Description	Impacted Domain
QT19X07-2988	SIM PIN has to be re-entered after being woken up from PSM.	PSM
QT19X07-2950	Without fixing and restoring the PSM/ULPM Fallback mode, the mode is just in ULPM mode.	ULPM
QT19X07-2706	RF sensitivity for products using LTE B1/B4/B7 is degraded when GPS is active.	GPS
QT19X07-2387	With Legato, fails to establish a data session with authentication enabled	Legato
QT19X07-2272	Periodic high current draw when testing EDRX/DRX with HSIC enabled	PSM
QT19X07-2195	Unlike the WPx5, the WP76 SNTP client must open a new connection, which is more visible and could have undesirable consequences. Therefore, for WP76, the feature is turned off by default. The user would need to enable it via QMI/Legato, but because it is an AT!CUSTOM feature, it requires a level 2 password.	Linux
QT19X07-2186	With the SINGLEAPNSWITCH feature enabled, Legato cm data connect always fails on LTE with Legato 18.05.1 or older	Legato
QT19X07-2106	Periodic high current spike, every 20s, is disabled when using EDRX and HSIC.	PSM
QT19X07-1928	eth0 address is erased when Wi-Fi chip is inserted after reboot	Driver
QT19X07-1653	At temperature below -20, units in sleep mode may lose LTE network synchronization. A workaround that inhibits sleep mode at low temperature has been placed (QT19X07-2478) to mitigate this problem.	Protocol

>> A: Appendix

List of Abbreviations

Abbreviation /Acronym	Definitions
AT	Access Terminal, Attention
CS	Circuit Switched
EDL	Emergency Download
FDT	Firmware Download Tool
GCF	Global Certification Forum
LK	Little Kernel Linux bootloader
MCU	Microcontroller Unit – An onboard MCU enables Ultra Low Power modes of operation
MR	Maintenance Release
PSM	Power Saving Mode
QMI	Qualcomm Messaging Interface
SDP	Software Download Protocol
ULPM	Ultra Low Power Mode

List of References

1. WP76xx - Product Technical Specification
Reference number: 4119652
2. WPx5xx-76xx-77xx AT Command Reference
Reference number: 4118047
3. WP Series - Preparing Your Devices for Deployment
Reference number: 41110380
4. WPX5-76-77 Scalability Guide
Reference number: 41110866
5. WP Series - Secure Boot
Reference number: 41112164