

# BC66 QuecOpen SDK

## Release Notes

**NB\_IoT Module Series**

Rev. BC66\_QuecOpen\_NB1\_SDK\_Release\_Notes\_V1.7

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## 1. Preamble

This document provides the Release Notes for BC66 QuecOpen SDK version **V1.7**. It describes major changes compared to BC66 QuecOpen SDK version **V1.6**. For a detailed listing of all changes, refer to the BC66 QuecOpen User Guide..

## 2. Matters Needing Attention

SN	Brief Description
[1]	In TCP/UDP scenarios where the link needs to be reopened frequently, it is recommended to set <local_port> to 0.

## 3. New Features

Item /Category	Brief description	Since
<b>SOCKET</b>	Optimized the behavior to obtain receiving format in TCP/UDP.	V1.2
<b>RIL</b>	Modified the buffer length of the RIL interface to 1400 bytes.	V1.2
<b>OTHERS</b>	Update Functional Documents and AT Documents.	V1.3
<b>ADC</b>	Unrestricted the time interval limitation of ADC sampling. The minimum time interval can be configured as 10ms.	V1.3
<b>OTHERS</b>	Modified the implementation of QI_OS_GetMessage for dedicated scenarios – ADC/Normal EINT/Normal TIMER. This function will not return after the callback is called. It will go to the message receive code again internally to fetch the next message.	V1.3
<b>OTHERS</b>	Updated the RTC and LWM2M example.	V1.3
<b>GPIO</b>	Added the GPIO pins (GPIO0, USB_MODE, GPIO6~GPIO8).	V1.4
<b>TIMER</b>	Added timer API for microsecond counting.	V1.4
<b>TIMER</b>	Added QI_Timer_Delete API to delete current timer ID.	V1.4
<b>OTHERS</b>	Added QI_Delay_us API to microsecond delay.	V1.4
<b>UART</b>	Added QI_UART_GetOption API to query UART parameters.	V1.4
<b>OTHERS</b>	Added QI_OS_GetCurrentTaskLeftStackSize API for querying remaining stack size for dedicated task.	V1.4

<b>ADC</b>	Added QI_ADC_Read API to single read ADC values.	V1.4
<b>OTHERS</b>	Added QI_OS_GetTaskTickCount and QI_OS_GetTaskTickCountFromISR API to count of ticks.	V1.4
<b>SYSTEM</b>	Updated the return value of event and mutex interfaces.	V1.4
<b>GPIO</b>	Enable GPIO1/GPIO2/GPIO3/GPIO5 support EINT function.	V1.5
<b>ADC</b>	Enable GPIO7 and GPIO8 to support ADC function.	V1.5
<b>SYSTEM</b>	Added the interfaces of Flash that support the specified address to write and read.	V1.5
<b>SYSTEM</b>	Added QI_GetWakeUpReason API to get the reason of the module wakeup from deepsleep.	V1.5
<b>SYSTEM</b>	Added QI_PowerDown API to power down the module.	V1.5
<b>SYSTEM</b>	Added QI_GetPowerVol API to obtain the module power supply voltage.	V1.5
<b>SYSTEM</b>	Added the example_psm_eint.c to demonstrate the use of PSM_EINT interrupt.	V1.5
<b>SYSTEM</b>	Added QI_DeepSleep_Register API to indicate the module enter deepsleep.	V1.5
<b>RIL</b>	Added the RIL interfaces of the AT command that related to the SIM card: AT+CPIN、AT+CIMI、AT+QCCID	V1.5
<b>RIL</b>	Added the ril interfaces of some common AT commands: AT+CGMR, AT+CFUN, AT+CPSMS, AT+CSQ、AT+CSCON、AT+QENG、AT+QNBIOTRAI.	V1.5
<b>SOCKET</b>	Added the API interfaces of socket and examples of TCP/UDP function.	V1.5
<b>OTHERS</b>	Added standard library interface: QI_vsprintf and QI_vsnprintf.	V1.5
<b>OTHERS</b>	Added freertos system APIs.	V1.5
<b>OTHERS</b>	Added the structure ST_AppVerCfg for APP version number.	V1.5
<b>TIME</b>	Added QI_GetRealLocalTime API to obtain the RTC time.	V1.6
<b>SYSTEM</b>	Added boot reasons of QI_GetPowerOnReason.	V1.6
<b>SYSTEM</b>	Added forced power down and reset function of QI_PowerDown.	V1.6
<b>SSL</b>	Added the SSL RIL APIs and example.	V1.6
<b>MQTTS</b>	Added the MQTTS RIL APIs and example.	V1.6
<b>LwM2M</b>	Added an URC API to handle +QLWNOTIFY URC.	V1.6
<b>OTHERS</b>	Add querying the IP address action in the protocol examples.	V1.6

RIL	Add the URC of "URC_SSL_CONFIG".	V1.7
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## 4. Improved Features

Item/Category	Brief description	Since
RIL	Fixed the bug that change the RIL interface of network protocol to solve the problem of memory leakage.	V1.2
SOCKET	Fixed the bug that json data cannot be processed in TCP/UDP	V1.2
OTHERS	Fixed the bug that the module will crash when frequent using AT+QRST=1.	V1.2
RIL	Fixed the bug that -4(RIL_AT_INVALID_PARAM) is returned when calling QI_RIL_SendATCmd() to send non AT commands.	V1.2
GPIO	Fixed the bug that some GPIOs will hop during power on phase.	V1.3
UART	Fixed the bug that UART will be stuck when receive 1400 more bytes in one time.	V1.4
TIME	Fixed the bug that the time reading result is wrong when set a time-zone not equal to 32 using QI_SetLocalTime API.	V1.4
SOCKET	Updated the RIL interfaces and example of TCP/UDP.	V1.5
MQTT	Updated the RIL interfaces and example of MQTT.	V1.5
RIL	Fixed the bug that the module stuck when using AT command of "AT+CGATT=1".	V1.5
ADC	Fixed the bug that ADC sampling is not accurate.	V1.5
TIMER	Optimized timer interfaces QI_Timer_Start 、 QI_Timer_Stop 、 QI_Timer_Delete which can be called in different tasks.	V1.5
DOC	Updated the related documents.	V1.6
TOOL	Updated the download tool to QFlash V4.18.	V1.6
RIL	Updated the RIL interfaces of RIL_NW_GetCSQ.	V1.7
RIL	Updated the RIL interfaces of RIL_SIM_GetSimState.	V1.7

## 5. Known Issues

Item/Category	Brief Description
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**NTP**

AT+QNTTP does not support use the IPV6 NTP server to synchronize time currently.

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## 6. Functions

### Basic API

UART	GPIO	EINT	PWM	ADC	IIC	SPI	SYSTEM	TIME
Y	Y	Y	Y	Y	Y	Y	Y	Y
TIMER	RTC	POWER	MEMORY	TRACE	STDLIB			
Y	Y	Y	Y	Y	Y			

### RIL API

AT	Secure Data	SOCKET	DFOTA	MQTT	LwM2M
Y	Y	Y	Y	Y	Y

### NOTES

1. Y means the SDK supports this function.
2. N means the SDK does not support this function.