

Smart Machine Smart Decision



SIM800C_SIM7020_Hardware Comparison_V1.00

2018.01.29



Difference in Functions

Functions	SIM800C	SIM7020
Audio	Support	Not support
Bluetooth	Support	Not support
VRTC	Support	Not support
Interrupt	Some GPIO support	All of GPIO support
Download	UART1 or USB	UART2
USB interface	Support	Not support
Debug interface	USB	UART2 or USB
RF_SYNC	Support	Not support
RESET	Not support	Support
PSM (power saving mode)	Not support	Support

**Note: Due to the different platforms.*



Difference in Pin Definitions

Pin #	SIM800C	SIM7020
9	MICP	VDD_3V3
10	MICN	GPIO0
11	SPKP	RTC_GPIO0
12	SPKN	RTC_EINT
20	BT_ANT	NC
28	VRTC	RESET
29	RF_SYNC	GPIO1

**Note: As shown above, These pins of the SIM800C are incompatible with the corresponding part of SIM7020 totally. When these pins are used, do not to replace the hardware directly, so as to avoid the short circuit caused by power supply mismatch.*



Difference in Electrical Characteristics

Electrical Characteristics	SIM800C	SIM7020
VBAT supply range	3.4~4.4V	2.1~3.6V
PWRKEY power domain	VBAT	VBAT
VRTC supply range	1.2~3.0V	Not support
VDD_EXT max load	50mA	50mA
PWRKEY VIL	<0.7V	< 0.3*VBAT
IO voltage domain	2.8V	1.8V
Digital interface VIH	2.1<VIH<3.1	1.4<VIH
Digital interface VIL	-0.3<VIL<0.7	VIL<0.45
Digital interface VOH	>2.4V	>1.53V
Digital interface VOL	<0.4V	<0.27V

**Note: Due to the different platforms.*



SIM800C vs. SIM7020

Note:

1. For details about the difference in hardware, please refer to “SIM800C_Hardware Design” and “SIM7020_Hardware Design”.
2. For details about the difference in software, please refer to “SIM800 Series_AT Command Manual” and “SIM7020_AT Command Manual”.