

Smart Machine Smart Decision



SIM800F_SIM900 _Hardware Comparison_V1.01

2015.08.19



Difference in Pin Definitions

Pin #	SIM800F	SIM900
2	GND	NC
23	KPLED	NC
24	VBUS	NC
27	USB_DP	DBG_TXD
28	USB_DM	DBG_RXD
53 ^①	ANT_BT	GND

Note ①: Don't use command AT+BTPOWER=1 to power on SIM800F BT part, when replacing the old SIM900 design (Pin 53 has connected to GND).



Difference in Functions

Functions	SIM800F	SIM900
Bluetooth	Support	Not support
PCM/SPI interface	Support	Only support SPI
Interrupt	Some GPIO support	All of GPIO support
USB interface	Support	Not support
Debug interface	USB	DEBUG_TXD/RXD
RF_SYNC	Support	Not support

****Note: Due to the different platforms.***



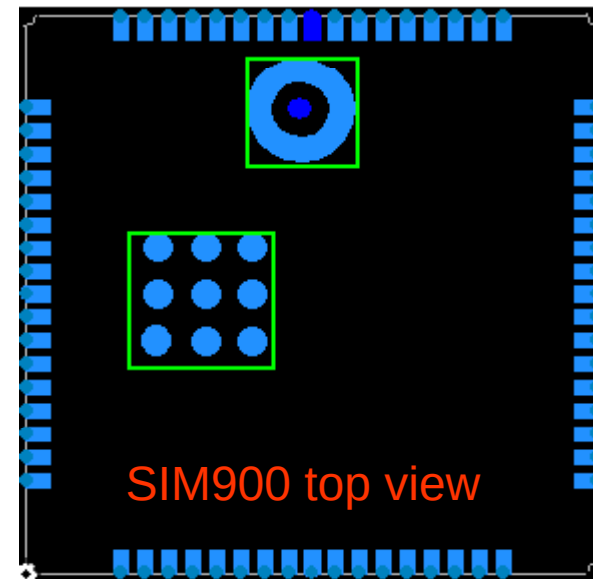
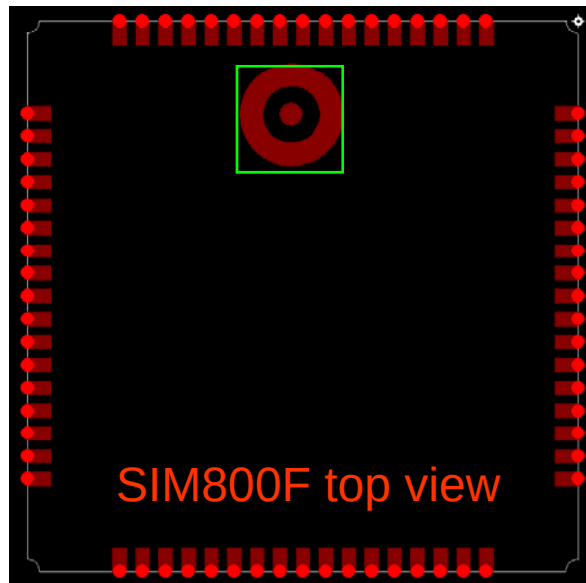
Difference in Electrical Characteristics

Electrical Characteristics	SIM800F	SIM900
VBAT supply range	3.4~4.4V	3.2~4.8V
PWRKEY power domain	VBAT	3V
VRTC supply range	1.2~3.0V	2~3.15V
VDD_EXT max load	50mA	10mA
KPLED	Support	Not Support
PWRKEY VIL	<0.7V	<0.42V
RESET valid pull down time	>105mS	>20uS
Digital interface VIH	2.1<VIH<3.1	2.4<VIH
Digital interface VIL	-0.3<VIL<0.7	VIL<0.4
Digital interface VOH	>2.4V	>2.7V
Digital interface VOL	<0.4V	<0.1V

****Note: Due to the different platforms.***



Difference in PCB Keep Out Area



As shown above, the test points area on bottom side are different, which should be keep out on user's PCB.



SIM800F vs. SIM900

- In conclusion, SIM800F is compatible with SIM900.

Note:

1. For details about the difference in hardware, please refer to “SIM800F_Hardware Design” and “SIM900_Hardware Design”.
2. For details about the difference in software, please refer to “SIM800 Series_AT Command Manual ” and “SIM900_AT Command Manual”.

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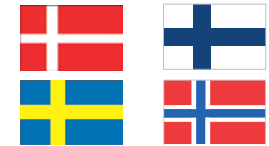
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