SIMCom
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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

Note①：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

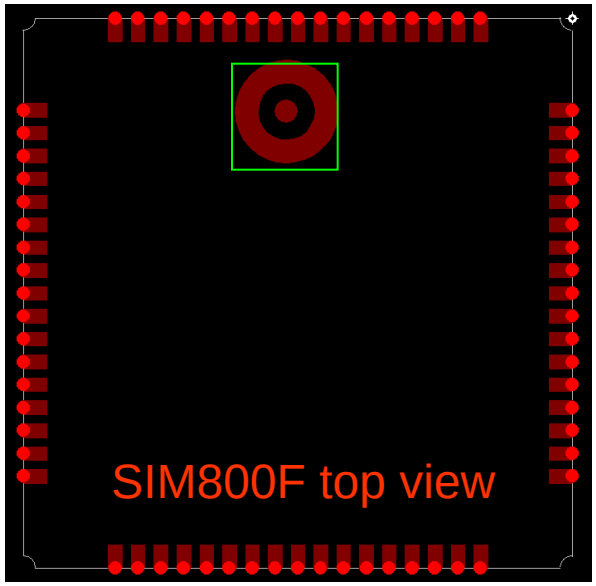
****Note: Due to the different platforms.***

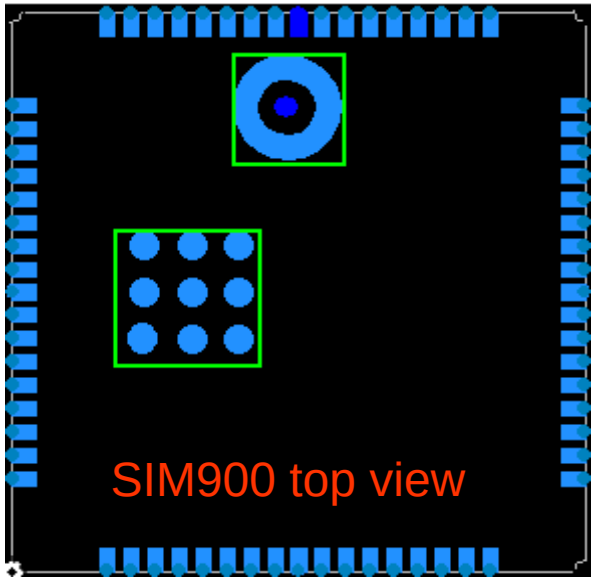
Difference in Electrical Characteristics

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".