

Smart Machine

Smart Decision



# **SIM900D\_SIM300D/340D \_Comparison\_Hardware Design\_V1.03**

Sep 16, 2010



# SIM900D VS SIM300D/340D

- Compared to the SIM300D/340D, the signals added on SIM900D are:
  - An additional PWM for driving the buzzer and the backlight;
  - The sim card detection function, which is switched on by AT+CSDT=1, and multiplexed with GPIO on pin no.10;
- Pin function differences between SIM900D and SIM300D/340D are summarized as following:

PIN NO.	SIM300D/340D	SIM900D
10	GPIO (be used to wake up SIM3XXD, as the same to DTR )	GPIO/SIM_PRE
40	GPIO/Buzzer	GPIO
47	NC	PWM



# SIM900D VS SIM300D/340D Difference

Difference	SIM300D/340D	SIM900D
POWER SUPPLY:	3.4~4.5V	3.2~4.8V
POWER ON TIME	$T_{on} > 2S$	$T_{on} > 1S$
POWER OFF TIME	$0.5S < T_{off} < 1S$	$T_{off} > 1S$
UNDER-VOLTAGE WARNNING	$VBAT \leq 3.5V$	$VBAT \leq 3.3V$
UNDER-VOLTAGE POWER DOWN	$VBAT \leq 3.4V$	$VBAT \leq 3.2V$
OVER-VOLTAGE WARNNING	$VBAT \geq 4.5V$	$VBAT \geq 4.7V$
OVER-VOLTAGE POWER DOWN	$VBAT \geq 4.6V$	$VBAT \geq 4.8V$
BAND	For SIM300D: 900/1800/1900 SIM340D:850/900/1800/1900	850/900/1800/1900



Difference	SIM300D/340D	SIM900D
<b>VRTC *</b>	1.8V	3V
<b>PWRKEY *</b>	PULLED UP TO VBAT	PULLED UP TO 3V
<b>TYPICAL GPIO VOLTAGE *</b>	$V_{IO} = 2.93V$ (typical)	$V_{IO} = 2.8V$ (typical)
<b>VOLTAGE AT DIGIT PINS *</b> (absolute maximum rating )	$V_{min} = -0.3V$ $V_{max} = 3.3V$	$V_{min} = -0.3V$ $V_{max} = 3.1V$
<b>ADC0 *</b>	0~2.4V/12bit	0~2.8V/10bit
<b>AUTOBAUDING *</b>	1200~115200bps	1200~57600bps
<b>DEBUG PORT *</b>	used for debugging	used for debugging and firmware upgrading

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



# SIM900D VS SIM300D/340D

- The SIM900D is pin to pin compatible with the SIM300D/340D.

About the detailed difference in their software design, please refer to "SIM900\_SIM300\_ATC\_Comparison\_V1.01" and "SIM900\_ATC\_V1.02".