



# WISMO2C / WISMO2C-2 delta specification

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## Introduction

WISMO2C-2 is an evolution of WISMO2C, designed to offer GSM/GPRS Class2 capabilities.

The purpose of this document is to list the differences between WISMO2C and WISMO2C-2 (in terms of interfaces) in order to ease the migration from a version to another one.

## Delta List

The differences are listed in the table here below:

	WISMO2C	WISMO2C-2	Comments
Baseband chipset	OneC 1.1 (0.35µm)	OneC 1.2 (0.25µm)	
VCC-RTC (pin56)	Min: 2.0V / Max: 2.8V	Min: 2.25V / Max: 2.75V	To be left open if not used
ADC (pins33 and 38)	@25°C ADC ref accuracy: 0.5% Input signal range: 2.5V	@25°C ADC ref accuracy: 0.75% Input signal range: 2.8V	To be tied to GND if not used Transparent for applications based on AT commands
Digital I/Os Output currents	$I_{ol} / I_{oh} (1X)=1mA$ $I_{ol} / I_{oh} (2X)=2mA$ $I_{ol} / I_{oh} (3X)=3mA$	$I_{ol} / I_{oh} (1X)=0.5mA$ $I_{ol} / I_{oh} (2X)=1mA$ $I_{ol} / I_{oh} (3X)=2mA$	
Maximum speaker gains (depending on speaker impedance)	Limitation in the speaker gains (recommended):  AT+VGR=<spk gain>  If $51 \leq \text{spk imped} < 150\Omega$ : <b>16f spk gain £255</b>  If $33 \leq \text{spk imped} < 51\Omega$ : <b>32f spk gain £255</b>  If $\text{spk imped} < 33\Omega$ : <b>48f spk gain £255</b>	Limitation in the speaker gains (mandatory):  AT+VGR=<spk gain>  If $51 \leq \text{spk imped} < 150\Omega$ : <b>16f spk gain £255</b>  If $33 \leq \text{spk imped} < 51\Omega$ : <b>32f spk gain £255</b>  If $\text{spk imped} < 33\Omega$ : <b>48f spk gain £255</b>  AT+WTONE=x,1,x,<gain>,x AT+WDTMF=x,x,<gain>,x  If $51 \leq \text{spk imped} < 150\Omega$ : <b>4f gain £15</b>  If $33 \leq \text{spk imped} < 51\Omega$ : <b>6f gain £15</b>  If $\text{spk imped} < 33\Omega$ : <b>6f gain £15</b>	The applications using speaker <150Ω can't use the highest speaker gain levels. This is true for the speaker outputs only (not for the buzzer output)
Additional GPIO	Pin35 is reserved	Pin35 is GPIO5	
AT commands interface		Additional AT commands for GPRS operations	

In terms of peak current, WISMO2C-2 has the same requirements as WISMO2C.

In terms of average current consumption, this one might increase in particular in GPRS 2Rx mode (to be considered for the stand-by time in portable applications). This variation is not determined yet.

Preliminary notice:

In GPRS 2Tx mode (to be available on WISMO2C-10), the power supply in the application will have to dissipate more heat compared to WISMO2C-2.