Application Note
GSM0000AN013

Enabler- G Sleep Mode Configuration and Use

Revision 1.00

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Objective: The intent of this document is to provide appropriate configuration settings for the Enabler®-G modem when different sleep modes are desired. The Enabler-G platform is able to drop into different modes of sleep, thus reducing the amount of power consumption.

Overview: The Enabler-G ships with the SLEEP parameter configured for nominal power consumption while in sleep mode. The platform has the ability to go into a deeper sleep mode for more power conservation or it can be configured to not sleep at all. The configuration used will be based on the final design requirements.

When the Enabler-G is configured for sleep operation, the module begins to sleep several seconds after no data activity is encountered over the serial signaling lines. The module will then periodically "wake up" and listen for any traffic bound for it based on the network configuration and GSM/GPRS protocol. If there is no traffic, the module goes back into sleep mode and this cycle is repeated.

The following is the format of the sleep command:

AT%SLEEP=**<mode>**

<mode>		
	0	No Sleep
	1	Small
	2	Big
	3	Big + Deep
	4	Small + Big + Deep

The following table provides power consumption related to the various sleep states.

AT Command	Mode	Power Consumption
AT%SLEEP=0	Sleep OFF	Depends on module operation*
AT%SLEEP=2	Big sleep	Approx. 25mA
AT%SLEEP=4	Deep sleep	Approx. 5mA

* See section *5.3 Operating Power* in the *GSM0107IG001 – Enabler IIG Integration Guide* for operational details.

NOTE – DEEP SLEEP OPERATION

When the Enabler-G is in Deep sleep, the UART (serial interface processor) is powered off. Upon receipt of the first data character, the UART will wake up and begin to pass the serial data. Thus, the first character sent will be lost. All remaining data will then be processed. It is recommended that serial applications be designed to send an initial "dummy" character prior to actual data being transmitted if the Deep sleep mode is being used.

Revision History

Date	Rev	Author	Description
1/17/03	Draft	Matt Glover	Initial Draft.