

APPLICABILITY TABLE

	SW Versions
GC Family (Compact)	10.00.xx7
GC864-QUAD	
GC864-QUAD V2	
GC864-DUAL V2	
GE/GL Family (Embedded)	
GE864-QUAD	
GE864-QUAD V2	
GE864-QUAD Automotive V2	
GE864-QUAD ATEX	
GE864-DUAL V2	
GE864-GPS	
GE865-QUAD	
GL865-DUAL	13.00.xx3
GL865-QUAD	16.00.xx2
GL868-DUAL	16.00.xx2
GL868-DUAL V3	10.00.xx7
GT Family (Terminal)	
GT863-PY	
GT864-QUAD	
GT864-PY	upcoming 12.00.xx4
HE910 Family	
HE910 ¹	
HE910-GA	
HE910-D	
HE910-EUR / HE910-EUD	
HE910-EUG / HE910-NAG	
HE910-NAR / HE910-NAD	

Note: the present document covers the SW versions shown in the Applicability Table and may mention features which are not present or behave differently in previous SW versions.

¹ HE910 is the “type name” of the products marketed as HE910-G & HE910-DG.



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1. Introduction

1.1. Scope

Scope of the document is to give to the reader a guideline to configure the EVENT MONITOR Service provided by the Telit's modules.

1.2. Audience

The present note is intended for people that need to develop applications based on the recognition of events provided by the EVENT MONITOR Service.

1.3. Contact Information, Support

For general contact, technical support, to report documentation errors and to order manuals, contact Telit Technical Support Center (TTSC) at:

TS-EMEA@telit.com
TS-NORTHAMERICA@telit.com
TS-LATINAMERICA@telit.com
TS-APAC@telit.com

Alternatively, use:

<http://www.telit.com/en/products/technical-support-center/contact.php>

For detailed information about where you can buy the Telit modules or for recommendations on accessories and components visit:

<http://www.telit.com>

To register for product news and announcements or for product questions contact Telit Technical Support Center (TTSC).

Our aim is to make this guide as helpful as possible. Keep us informed of your comments and suggestions for improvements.

Telit appreciates feedback from the users of our information.

1.4. Text Conventions



Danger – This information MUST be followed or catastrophic equipment failure or bodily injury may occur.



Caution or Warning – Alerts the user to important points about integrating the module, if these points are not followed, the module and end user equipment may fail or malfunction.





Tip or Information – Provides advice and suggestions that may be useful when integrating the module.

All dates are in ISO 8601 format, i.e. YYYY-MM-DD.

1.5. Related Documents

- [1] AT Commands Reference Guide, Telit document: 80000ST10025a
- [2] HE910 AT Commands Reference Guide, Telit document: 80378ST10091A
- [3] Virtual Serial Device, Application Note, Telit document: 80000NT10045A
- [4] HE910 Family Ports Arrangements, User Guide, Telit document 1v0300971
- [5] Telit Modules Software User Guide, Telit document: 1v0300784

1.6. Document History

Revision	Date	Changes
ISSUE#0	2009-08-28	Release First ISSUE# 0
ISSUE #1	2010-05-07	Added note on alerts section Added note regarding STARTUP event on alerts section
ISSUE#2	2010-10-04	Added GL865-DUAL to the applicability table
ISSUE#3	2012-10-08	General review of the document in accordance with the addition of the products: HE910, GE910.
ISSUE#4	2013-02-15	Updated Applicability Table, removed: GM862-GPS, GE863-GPS, and GE863-PRO; added: GL865-DUAL V3, GL868-DUAL V3 Added chapter: DTMF String Monitoring, and Abbreviation and acronyms. Removed chapter: Requirements. Reorganized the entire document.
ISSUE#5	2013-04-16	Updated Applicability Table: software version 12.00.xx3 → 12.00.xx4, and added GL868-DUAL V3.



2.1.7. Network Registration

Before setting the monitoring of the specific REGISTERED event, it is good practice to configure the EVENT MONITOR service as previously stated in chapter 2.1, if it has not been done before:

AT#ENAEVMONICFG=3,1,2 ← Example of configuration
AT#ENAEVMONI=1 ← Enabling the service



Note: it is not mandatory to configure the EVENT MONITOR service before the setting of one of the specific event listed in Tab. 1.

Use AT#EVMONI command with “REGISTERED” <label> to configure the “Network Registration” as the specific event to monitor. An example of setting is shown below:

- Write the text of the SMS (e.g. Module registered) that will be sent to the recipient subscriber when the module has been registered to home network or in roaming after the start-up. In the body of the following AT#EVMONI command is used the extended commands syntax to send both commands (+CMGF and #CMGS) on the instance configured via AT#ENAEVMONICFG command. The AT+CMGF command selects the Text Mode for the SMS message.
AT#EVMONI="REGISTERED",0,0,"AT+CMGF=1;#CMGS=+39346XXXXX,\22Module registered\22"

The monitoring of the specific REGISTERED event is enabled issuing the following command:

AT#EVMONI="REGISTERED",1

In alternative, the event monitoring can be activated setting to 1 the second parameters of the AT#EVMONI command that include the sending of the SMS message.

After the module is powered OFF/ON and the “REGISTERED” event is occurred, on the DTE is displayed the following URC:

#EVMONI: AT+CMGF=1;#CMGS=+39346XXXXX,"Module registered"

At the same time, the SMS message is sent to the recipient subscriber. No responses commands are shown on the DTE because they are executed on the instance previously configured via AT#ENAEVMONICFG command.



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- Step 2: set the voltage threshold equal to 1500 mV.
AT#EVMONI="ADCH1",0,2,1500

- Step 3: set the time interval equal to 10 sec. If the voltage value remains higher than the threshold for a time interval greater than 10 sec, the AT command(s) included in the AT#EVMONI command of step 4 is executed.
AT#EVMONI="ADCH1",0,3,10

- Step 4: write the text of the SMS (e.g. *ADC pin 2 high*) that will be sent to the recipient subscriber when the condition described in step 3 is verified. In the body of the following AT#EVMONI command is used the extended commands syntax to send both commands (+CMGF and #CMGS) on the instance configured via AT#ENAEVMONICFG command. The AT+CMGF command selects the Text Mode for the SMS message.
AT#EVMONI="ADCH1",0,0,"AT+CMGF=1;#CMGS=+39346XXXXX,\22ADC pin 2 high\22"

The monitoring of the specific ADCH1 is enabled issuing the following command:

AT#EVMONI="ADCH1",1

In alternative, the event monitoring can be activated setting to 1 the second parameters of any AT command included in the step sequence. It is suggested to use the last AT commands that closes the step sequence configuration.



Note: the sequence of the steps previously shown is not mandatory, it may be changed.

When the "ADCH1" event is occurred, on the DTE is displayed the following URC:

#EVMONI: AT+CMGF=1;#CMGS=+39346XXXXX,"ADC pin 2 high"

At the same time, the SMS message is sent to the recipient subscriber. No responses commands are shown on the DTE because they are executed on the instance previously configured via AT#ENAEVMONICFG command.

2.1.10. ADC Pin Drops Below Voltage Threshold

Before setting the monitoring of the specific ADCL1 event, it is good practice to configure the EVENT MONITOR service as previously stated in chapter 2.1, if it has not been done before:



When the “ADCL1” event is occurred, on the DTE is displayed the following URC:

```
#EVMONI: AT+CMGF=1;#CMGS=+39346XXXXX,"ADC pin 2 low"
```

At the same time, the SMS message is sent to the recipient subscriber. No responses commands are shown on the DTE because they are executed on the instance previously configured via AT#ENAEVMONICFG command.

2.1.11. DTMF String Monitoring

Before setting the monitoring of the specific DTMFx event, it is required to configure the EVENT MONITOR service as previously stated in chapter 2, if it has not been done before:

```
AT#ENAEVMONICFG=3,1,2    ← Example of configuration
AT#ENAEVMONI=1           ← Enabling the service
```

In addition, in this case, DTMF decoder must be enabled:
AT#DTMF=1

AT#EVMONI provides the capability to monitor up to a maximum of four different events associated with the reception of DTMF tones. The four different events are identified by four labels: DTMF1, DTMF2, DTMF3, and DTMF4 used as first parameter of #EVMONI command. An example of setting is shown by the following steps:

- Step 1: assign “DTMF1” label to the DTFM tones string 123 received via the audio channel from a remote sender subscriber.
AT#EVMONI="DTMF1",0,1,"123"
- Step 2: define a time interval of 5 seconds (5000 msec). It is the maximum time interval between to consecutive DTMF tones belonging to the same string.
AT#EVMONI="DTMF1",0,2,5000
- Step 3: when the DTMF tones string is received, the module sends to the recipient subscriber the SMS: *DTMF tones string is received*. In the body of the following AT#EVMONI command is used the extended commands syntax to send both commands (+CMGF and #CMGS) on the instance configured via AT#ENAEVMONICFG command. The AT+CMGF command selects the Text Mode for the SMS message.
AT#EVMONI="DTMF1",0,0,"AT+CMGF=1;#CMGS=+39346XXXXX,\22DTMF tones string is received\22"



3. Abbreviation and acronyms

ADC	Analog Digital Converter
DTE	Data Terminal Equipment
DTMF	Dual Tone Multiple Frequency
DTR	Data Terminal Ready
FOTA	Firmware Over The Air
GPIO	General Purpose Input/Output
NVM	Non Volatile Memory
URC	Unsolicited Result Code
URC	Unsolicited Result Code

