



*External Power Interface*  
*TT8850TN001*

# **TT8850**

## **External Power Interface**

*Revision 1.20*

*03/14/2012*

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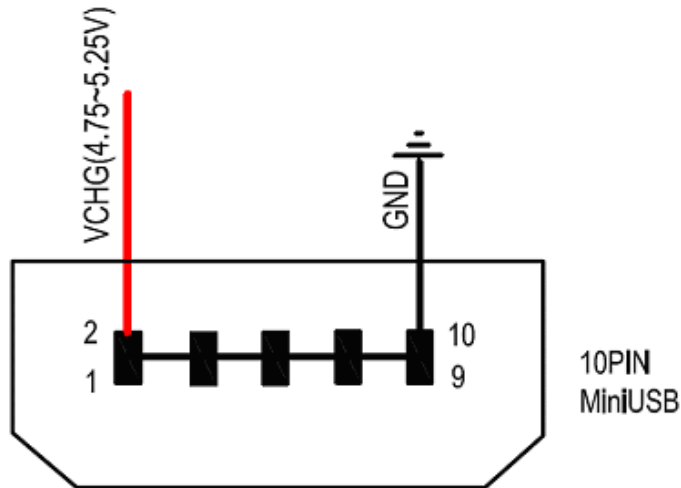
## 0. Revision history

Revision	Date	Author	Description of change
1.00	2011-04-19	Ramiro Sanchez	Initial
1.10	2011-12-02	Ramiro Sanchez	Change color coding
1.20	2012-03-14	Ramiro Sanchez	Include definition of the IO

## 1. External power Interface

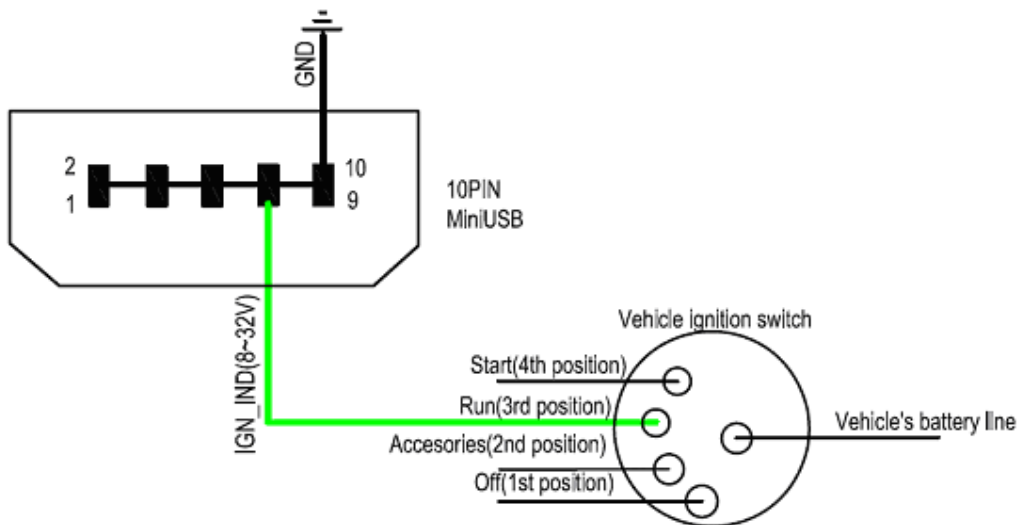
### 1.1. External DC Charger Interface

The Pin2 on Mini-USB connector are used for charging and named as VCHG pin, it can be connected to a 5V DC power supply to power TT8850 and charge the internal battery.



### 1.2. Ignition Detection

The Pin 7 on Mini-USB connector is for ignition detection when TT8850 is used in vehicle tracking application, It is named as IGN\_IND pin.

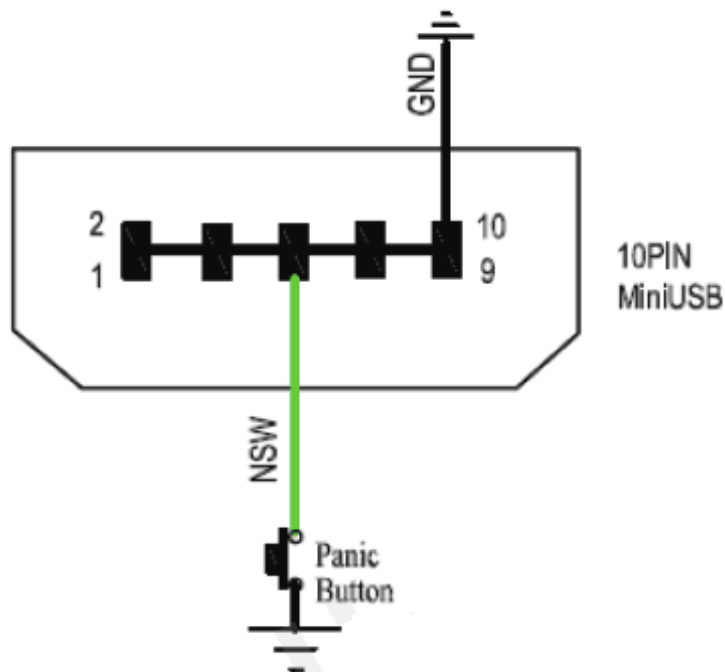


### 1.3. External input interface

The Pin 5 on Mini-USB connector is a negative trigger input in the T8850, it is named as NSW pin.

For negative trigger input the electrical conditions are:

Logical State	Electrical State
Active	0V to 0.8V
Inactive	1.7V to 32V or Open



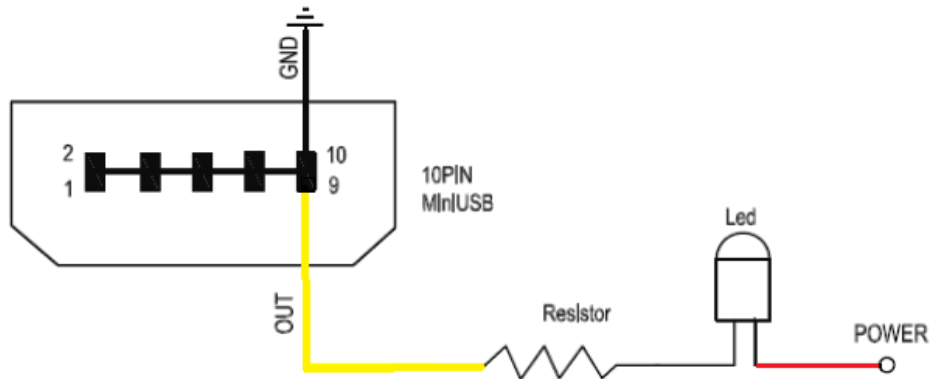
### 1.4. External output interface

The Pin 9 on Mini-USB connector is a negative trigger output in the T8850, it is named as OUT pin.

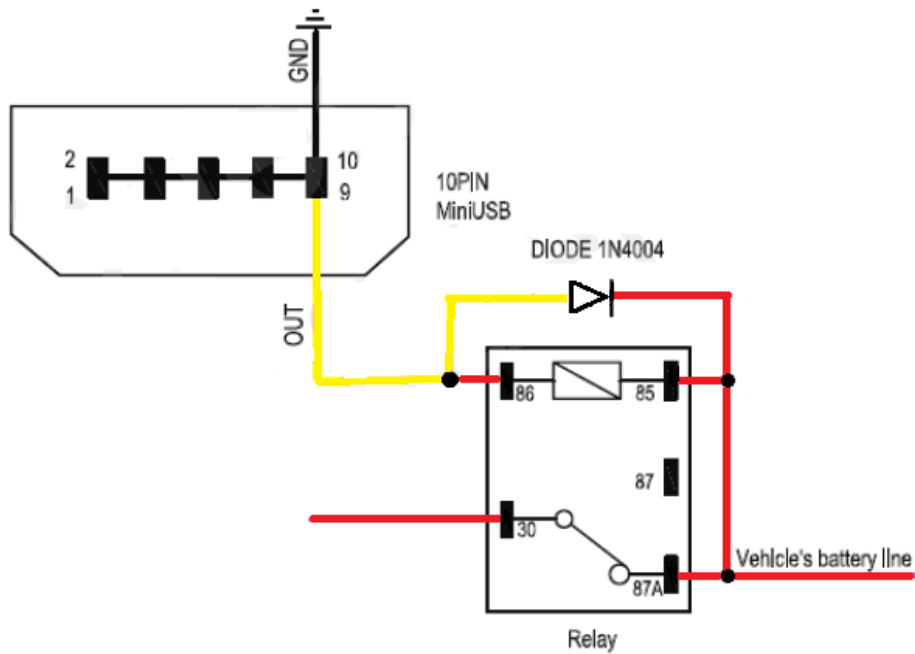
The output is Open-Drain type with no internal pull-up resistor which also can be used to control a relay. It means that the user has to connect a pull-up resistor or a relay coil between the Output pin and any positive voltage (32 V ma.) to generate a correct output. It can drive a maximum continuous current of 0.15 A

For negative trigger output the electrical conditions are:

Logical State	Electrical State
Enable	< 0.4V, max current is 0.15 A
Disable	Open or the pull-up voltage (max 32V)



Example of OUT pin drive a LED



Example of OUT pin drive a relay

### 1.5. TT8850 External Cable Interface

- TT8850 External Cable is a cable with a Mini USB connector and four wires which include the external power interface and ignition detect for TT8850. Please find the detail description in

## External Power

following table.

Color	Name	Remark
RED	External DC IN (5V)	Please refer to 1.1 for detail
Black	Ground	Please refer to 1.1 for detail
Green	Negative trigger digital input	Please refer to 1.3 for detail
White	Ignition Detect	Please refer to 1.2 for detail
Yellow	Negative trigger digital output	Please refer to 1.4 for detail

