LE910T-4G

Hardware User Guide

Rev01 - 30.05.2016

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Contents

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1 Description

The LE910T-4G terminal is a complete encased modem solution which combines the access to digital communication services in LTE,UMTS, HSPA, GSM, GPRS and EDGE networks.

The LE910 V2 introduces the next generation of LTE modules. An LTE 3GPP Release 9 module delivering data rates of 150 Mbps downlink and 50 Mbps uplink. The LE910 V2 is a series with LTE modules featuring 3G/2G fallback and single-mode LTE variants, with no fallback to 3G and 2G networks (the perfect optimized solution for regions with high 4G penetration levels).

LE910T-4G offers extended operating temperature, integrated TCP/IP stack, direct control by standard serial RS-232 interface or USB 2.0 interface, and with a broad supply voltage range (5-32 V DC), the LE910T-4G terminal is a complete stand alonesolution for m2m applications that require high speed data exchange.

LE910T-4G is provided with Windows and Linux drivers that signifcantly ease the integration in existing applications.

LE910T-4G, supports Over-the-Air firmware update by means Premium FOTA Management. By embedding RedBend's vCurrent® agent, a proven and battle-tested technology powering hundreds of millions of cellular handsets world-wide is able to updateits products by transmitting only a delta file, which represents the difference between one firmware version and another.

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2 General Features

*** Supported bands**

- 4G Bands:
B3(1800), B7(2600), B20(800), B1(2100), B8(900)
- 3G Bands:
B1(2100), B8(900)
- 2G Bands:
B3(1800), B8(900)

*** Embedded Python Version 2.7.2 and GCC Appzone Platform,**

*** USB Interface (Mini-B Receptacle Connector),**

*** RS232 ınterface (DB9-Female),**

*** Analog Audio Support (2.5mm jack, Embedded Analog-to-Digital Codec, Optional)**

*** 2 Digital Inputs, 2 Digital Outputs and 1 ADC Connections on GPIO socket,**

*** Dimensions: 85 x 70 x 33 mm,**

*** Weight: 140 grams,**

*** Cellular 4G Antenna Connector (SMA female, 50 Ohm RF connector),**

*** Optional GPS Antenna Connector (SMA female, 50 Ohm RF connector),**

*** Power Socket (PWR, GND, RST),**

*** On board SIM card holder(Push-Push Type).**

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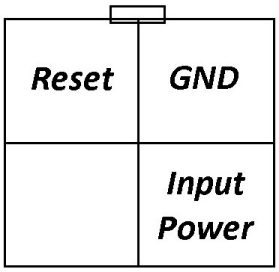
3 Power

Front View



Power Connector

Pin Descriptions:

* GND: Ground Reference
* Input Power: 7-32V @ 1.2A min.
* Reset: Active when Pulls Down to GND

4 Serial Port

The RS-232 port is available through D-TYPE 9 pin connector

The main characteristics are:
* Baud rate from 300 to 115,200 bits/s
* Autobauding (300 to 38,400 bits/s)
* Short circuit (to Ground) protection on all outputs.
* Input voltage range : -12V to +12V

To connect to a PC a pin to pin, 9 pin cable needed with D type connectors (male & female) on both sides.

Pin out (refers to DTE side):
Pin 1 = DCD Output
Pin 2 = RX Output
Pin 3 = TX Input
Pin 4 = DTR Input
Pin 5 = Ground
Pin 6 = DSR Output
Pin 7 = RTS Input
Pin 8 = CTS Output
Pin 9 = RI Output

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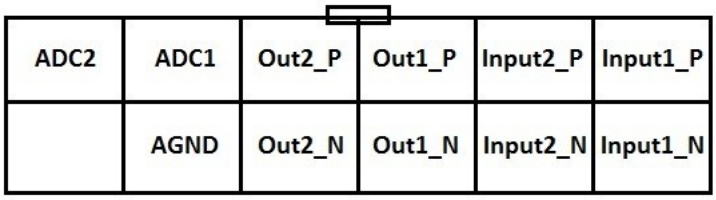
5 Digital I/O & ADC

Front View



I/O Connector

The I/O port is available through 2x6 pin connector

The Main Characteristics are:
* 2 Digital Inputs (0-220VDC),
* 2 Digital Open-Collector Outputs,
* 2 ADC Inputs (0-2V)

Input1—>GPIO7 **Output1**—>GPIO8
Input2 —>GPIO10 **Output2**—>GPIO9

6 Cellular Antenna

Note:
The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

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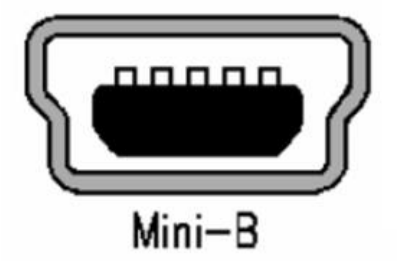
7 GPS Antenna—Optional

The active GPS antenna should fulfill the following requirements:

Frequency range	1575.42 MHz(GPS L1 band)
Bandwidth	+/- 2 MHz

The supply voltage to the active GPS antenna is provided by the

8 USB

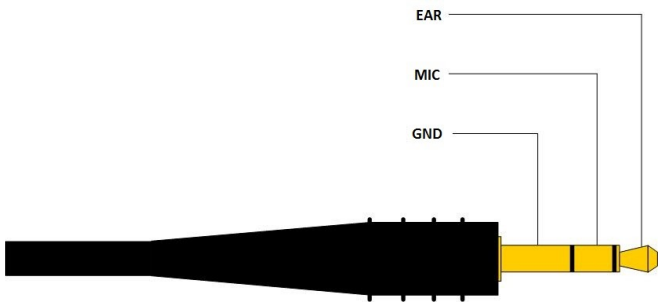


Connector type is Mini-USB type B.

This port is compliant with the USB 2.0 HS only. The USB 1.1 is not supported.

Note: Terminal can be supplied over USB socket with a USB Mini-B cable.

9 Analog Audio



2.5mm Audio Connector

The Main Characteristics are:
* Headset Connection including MIC and EAR,
* Compatible with 2.5mm 3 channel receptacle headset jack

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Document Change Log

Revision	Date	Changes

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