

# GTW410-L SPEC

## Advanced Professional Indoor Gateway



## Overview

Geniatech's GTW410-L features Qualcomm Snapdragon 410 processor, a Quadcore ARM® Cortex™ A53 at up to 1.2GHz clock speed per core, capable of 32-bit and 64-bit operation. It supports Linux for LoRa Gateway and offers advanced processing power, WLAN, Bluetooth, GPS, and popular RF modules. Through this Industrial LoRa Gateway, anything will be easy to be indexed, searched and traded as any other online product. And the LoRa Gateway is widely used in Smart metering, Smart lighting control, Smart building system, Security and remote sensing, Agricultural monitoring, M2M applications, etc.

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## 1 Specifications

### Processor

Snapdragon 410 quad core ARM® Cortex® A53 (64bit, 1.2GHz)

Qualcomm® Adreno™ 306 GPU

### Memory/Storage

1GB or 2GB LPDDR3 533MHz

8GB or 16 GB eMMC 5.0

SD 3.0 (UHS-I)

### LoRa Module Specification

#### General Radio

- Semtech Radios SX1301 and SX1257 (x2)
- LoRaWAN Compliant
- Support Public and Private LoRa network deployments

#### RF Characteristics

- Frequency Range 863 to 870 MHz or 902 to 928MHz ISM Bands
- RX sensitivity Up to -140 dBm
- Max RF Output Power Up to +26 dBm

#### Power Consumption

- TX (max) – 440 mA
- RX (all channels) – 340 mA

#### Software

- LoRaWAN 1.0 and 1.1 Compliant

#### Regulatory

- CE / FCC / IC Certified

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## Connectivity

1x 10/100M Ethernet

2x USB 2.0 type A (host mode only)

2x dry contact output controllable by application

RS485 or RS232 Modbus protocol

4x GPIOs contact input controllable by Peripheral

WLAN 802.11 b/g/n 2.4GHz

Bluetooth 4.0

GPS with External antenna

External BT and WLAN antenna

HDMI Output

## Expansion (Internal)

1x 40 pin Low Speed (LS) expansion connector

- UART, SPI, I2S, I2C x2, GPIO x12, DC power

1x 60 pin High Speed (HS) expansion connector

- 4L-MIPI DSI, USB, I2C x2, 2L+4LMIPI CSI
- WTD And RTC

## User Interface

8 LED indicators

- 4 - user controllable
- 4 - for Power, BT, WLAN and Ethernet activity

## OS-support

Linux based on Debian

## Power, Mechanical and Environmental

Power: +6.5V to +18V

Dimensions: 160\*144.5\*38mm

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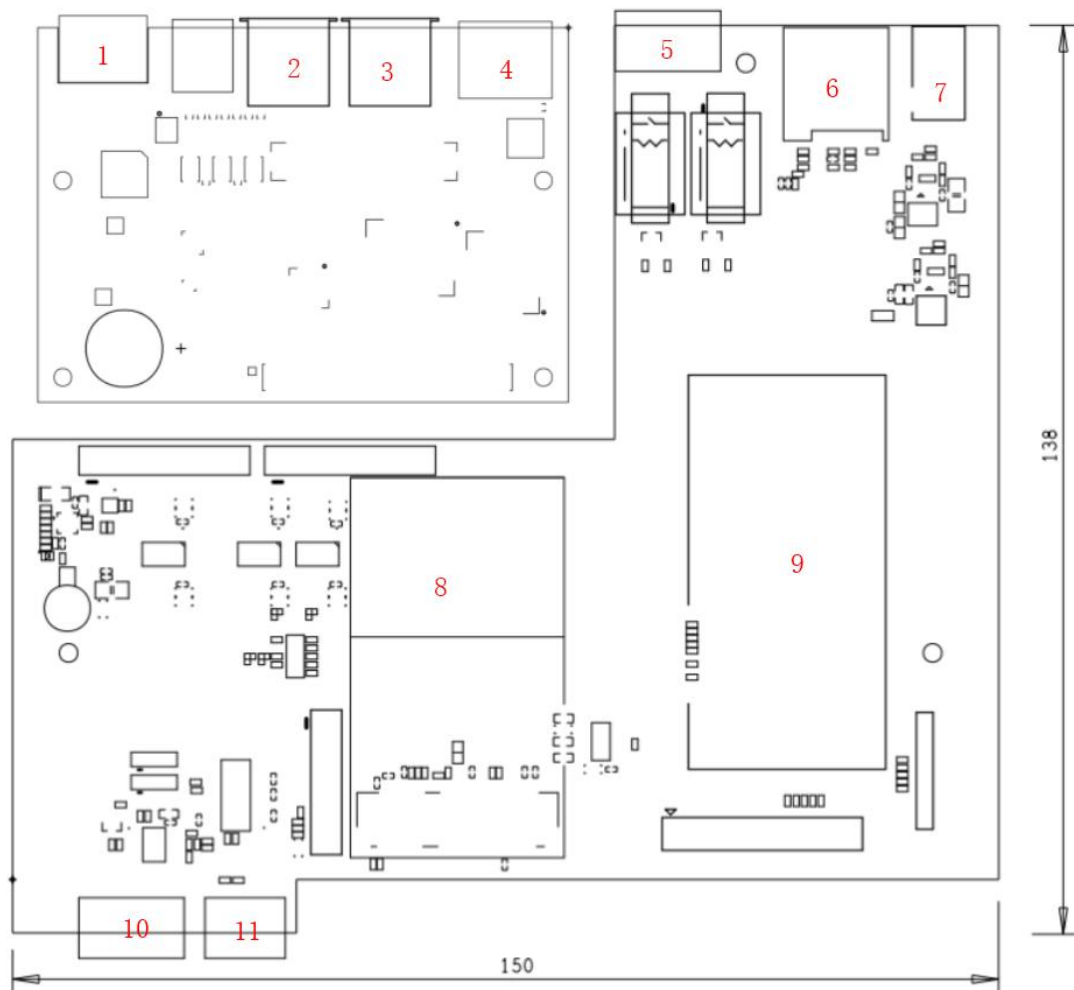
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High-Tech District, Hefei, Anhui, China

Operating Temp: -10°C to +85°C

RoHS and Reach compliant

## 2 Board View(Internal)



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1.	100M Ethernet	7.	Power Slot
2.	USB-A 2.0	8.	LTE Module Replaceable
3.	USB-A 2.0	9.	LoRaWAN Module-1301
4.	HDMI Out	10.	GPIOs * 4
5.	Relay * 2	11.	RS485/ RS232
6.	SIM Card Slot	12.	

### 3 Aluminum Case View



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**Geniatech Anhui LLC**

TEL: +86-551-65553836 **Seeing is believing**  
FAX: +86-551-65553836

Room 906, F5 Building, Innovative Industrial Park, 2800 Innovation Avenue,  
High-Tech District, Hefei, Anhui, China



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## **4 Software Specifications**

### **Embedded System**

Open source embedded Linux Debian Based

Tool chain for creating custom images

Built-in LoRa network server & packet forwarder

Cellular PPP, DHCP client & server

Full root console access via SSH and serial debug port

Out of the box support for C, C#, C++, Java, Perl, Python, Javascript, Node.js,

package feed

8 configurable LEDs

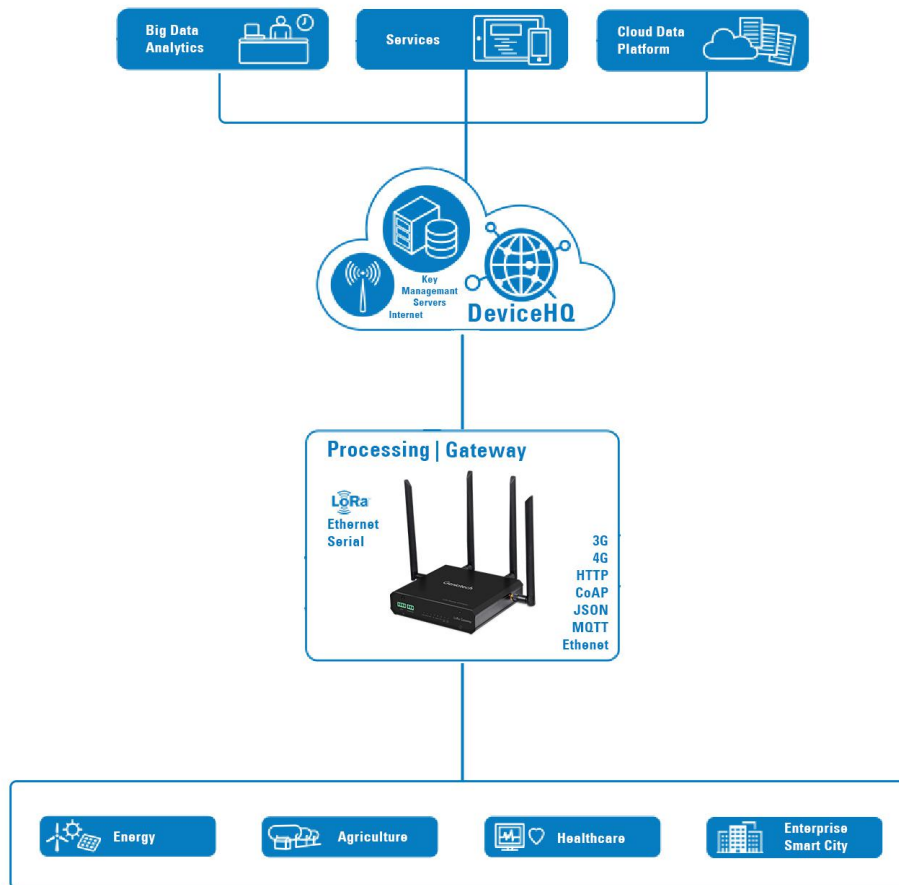
Remote Access

Node-RED integration

### **Application diagram**

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## 6 Accessory Kit

- Industrial Power Adapter: DC12V-2A
- External LoRa Antenna: 3.0 dB additional gain
- External LTE Antenna: 2.15 dB additional gain
- External WiFi Antenna
- External GPS Antenna
- HDMI Cable
- HDMI Cable
- Outdoor LoRa IP67-FRP Antenna - “N” type with 6.0 dB additional gain (Optional)

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