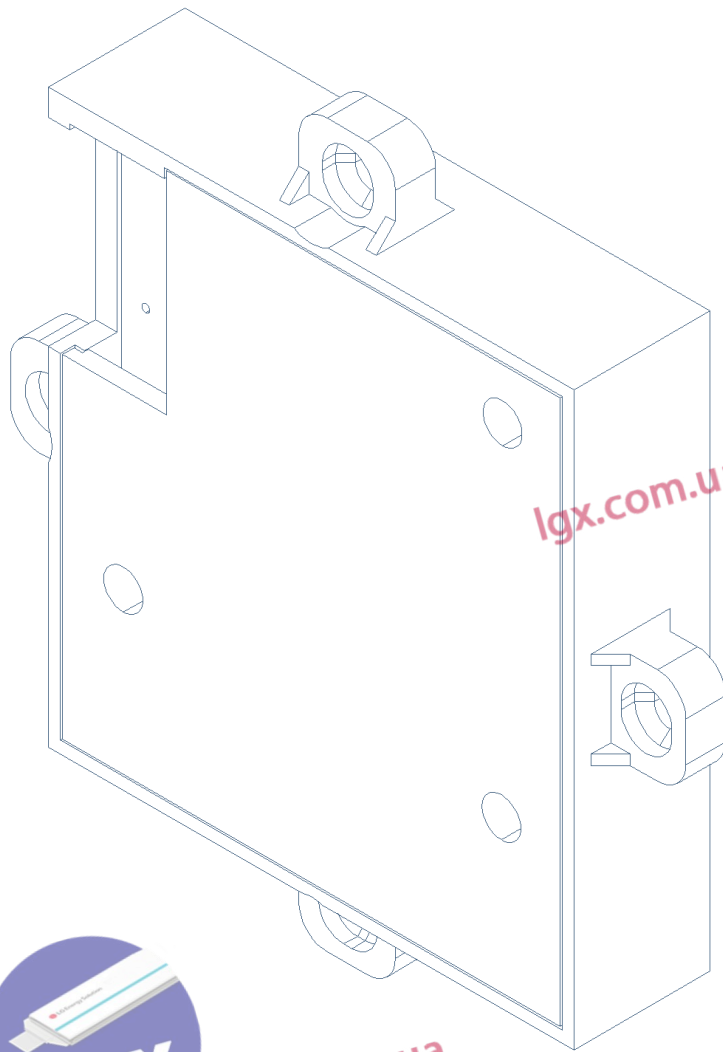# Product Specification

Part Number：ANT-GPRS-4G

Edition： V1.0
Date: 2020-12-20

1. Product overview

ANT-GPRS-4G is a 4G LTE cat 1 DTU with GPS positioning and BLE functions. The battery status can be viewed remotely, and the battery can be upgraded to OTA / set parameters / power off remotely.

★ The 4G band is 900 / 1800MHz；

★ GPS positioning supports BDS / GPS / GLONASS multi system joint positioning and single system independent positioning；

★ BLE support Wechat applet and IOS/ Android APP；

★ The backstage adopts two display modes: Web page and wechat applet；

★ GPS positioning information and battery status information are uploaded to the server every 30s, and the server circularly saves 30 days of historical data.

The product is applicable to all BMS products of our company and can be freely combined with BMS.

1.1 technical parameter：

Index	Parameter	Detail	Remark
1	Total supply voltage	Battery pack self powered, 30-150v DC input	Power controlled by BMS
2	Working state power consumption	＜ 10mA（72V）	
3	Sleep state power consumption	＜ 5mA（72V）	wake up automatically
4	Working temperature	-40 ~ 85 ℃	
5	Storage temperature	-40 ~ 95 ℃	
6	Working humidity	5% ~ 95%	Conformal Coating
7	Installation of SIM card	SIM-Plus / SIM card slot	Default SIM-Plus
8	Interface	TTL	PH2.0*6 Provide connection line with BMS
9	Positioning accuracy	<10m	
10	Speed measurement accuracy	<1m/s	
11	Antenna interface	built-in	The iron box needs to be slotted
12	Number of servers that can be connected	2	Default connection to ANT server Another can connect to the client server
13	Upload cycle	30s	Settable
14	Size	70 x 75x 11 mm	
15	Weight	50g	

1.2 Description of LED working indicator：（DTU is equipped with a red light and a blue light）

LED flashing takes a cycle of flashing times to represent different meanings. There are two cycles, 5 seconds each.

Refer to the table below for details

	GPS not located	GPS located	Red light –Slow flash
BLE connected	1	2	On for 250ms, off for 250ms
BLE unconnected	3	4	5 seconds per cycle
	BMS unconnected	BMS connected	Red light-quick flash
	1	2	On for 10ms,off for 490ms
			5 seconds per cycle
	master server unconnected	master server connected	Blue light-Slow flash
Customer server unconnected	1	2	On for 250ms, off for 250ms
Customer server connected	3	4	5 seconds per cycle
	PDP not active	PDP activated	Blue light –quick flash
	1	2	On for 10ms, off for 490ms
			5 seconds per cycle
Remark：1，2，3，4 Represents the number of flashes in 5S			

```
Examples：
Bluetooth  unconnected，GPS located，BMS connected
The red light flashes twice in the first 5S（Slow flash）
The red light flashes twice in the next 5S（quick flash）


Customer server connected，master server connected，PDP activated
The blue light  flashes four times in the first 5S（Slow flash）
The blue light  flashes twice in the next 5S（quick flash）
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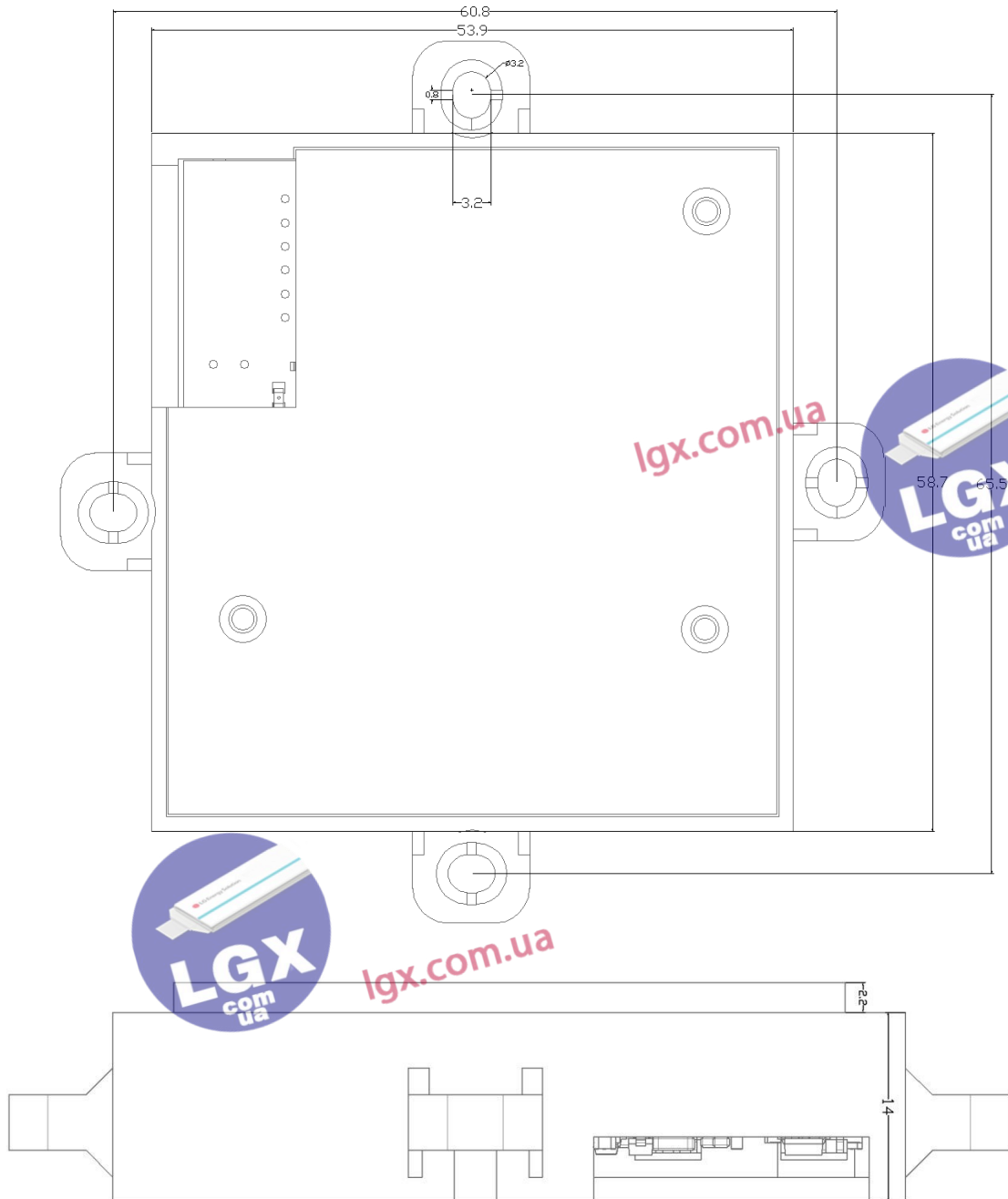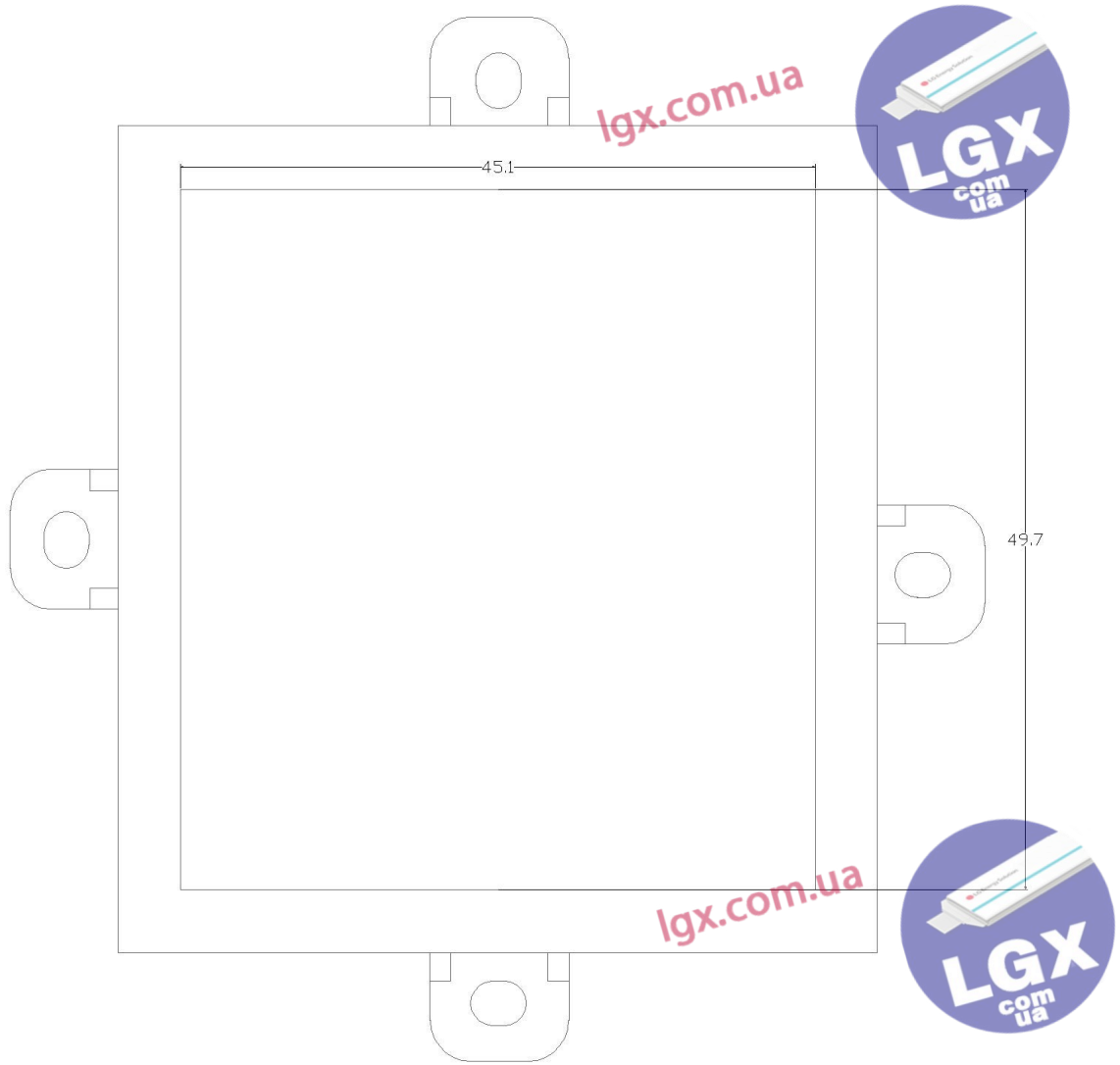
2. Install

2D drawing of installation dimension

45.1

49.7

The iron box needs to be slotted. Refer to the drawing for the specific size. The height of rivet of iron box is 6mm away from the inner layer of iron box plane。
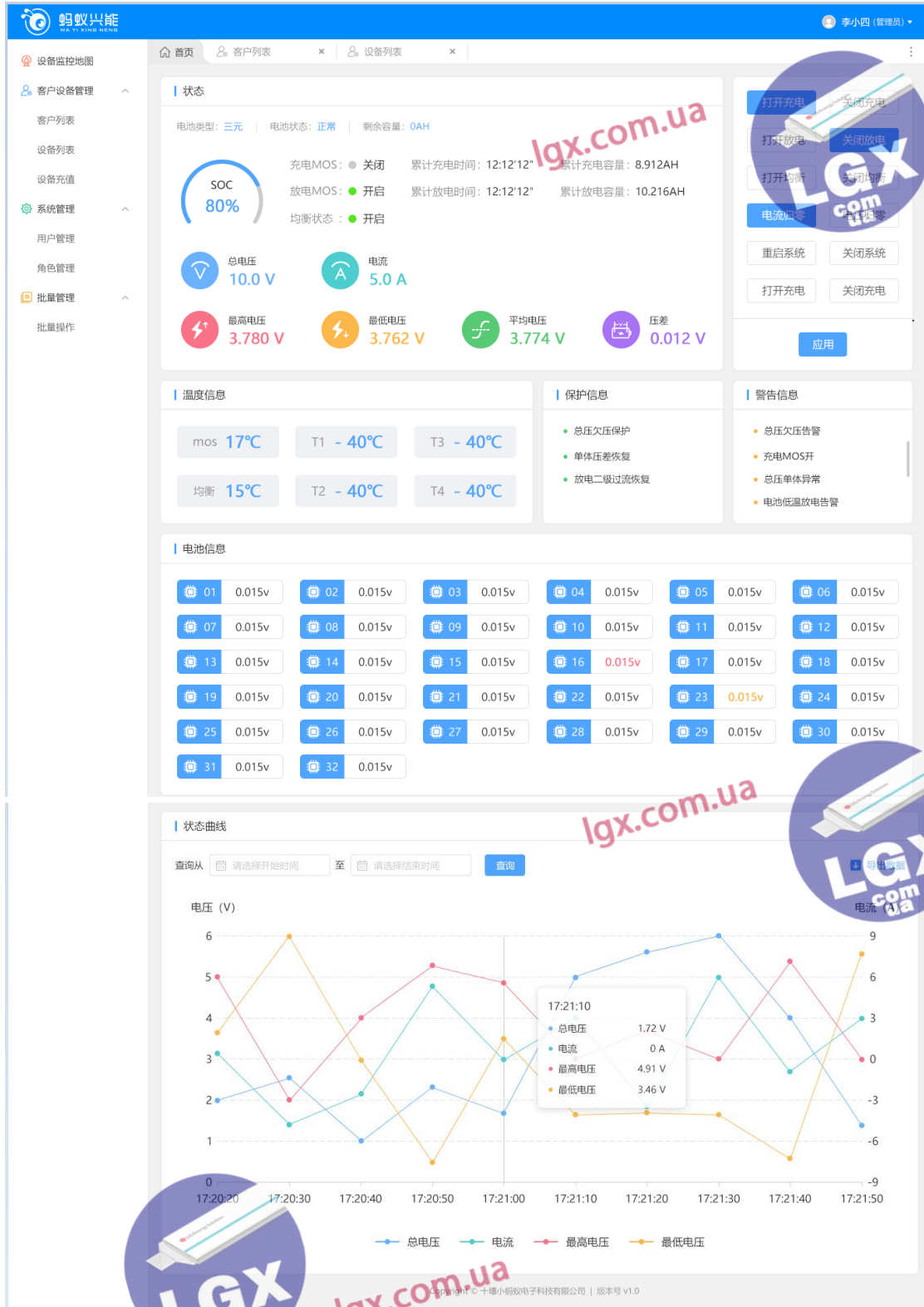
3. Web server page

home page

Equipment monitoring map

蚂蚁兴能　　MA YI XING NENG

蚂蚁兴能　MA YI XING NENG　　　　　　　　　　　　　　　　李小四（管理员）▼

设备监控地图

客户设备管理 ∧
　客户列表
　设备列表
　设备充值
系统管理 ∧
　用户管理
　角色管理
批量管理 ∧
　批量操作

⌂ 首页　　客户列表 ×　　设备列表 ×

状态

电池类型：三元　|　电池状态：正常　|　剩余容量：0AH

充电MOS：● 关闭　　累计充电时间：12:12'12"　　累计充电容量：8.912AH
放电MOS：● 开启　　累计放电时间：12:12'12"　　累计放电容量：10.216AH
均衡状态：● 开启

SOC 80%

总电压 10.0 V　　电流 5.0 A

最高电压 3.780 V　　最低电压 3.762 V　　平均电压 3.774 V　　压差 0.012 V

打开充电　关闭充电
打开放电　关闭放电
打开均衡　关闭均衡
电流归零　计数清零
重启系统　关闭系统
打开充电　关闭充电

应用

温度信息

mos 17℃　　T1 - 40℃　　T3 - 40℃
均衡 15℃　　T2 - 40℃　　T4 - 40℃

保护信息

● 总压欠压保护
● 单体压差恢复
● 放电二级过流恢复

警告信息

● 总压欠压告警
● 充电MOS开
● 总压单体异常
● 电池低温放电告警

电池信息

01 0.015v	02 0.015v	03 0.015v	04 0.015v	05 0.015v	06 0.015v
07 0.015v	08 0.015v	09 0.015v	10 0.015v	11 0.015v	12 0.015v
13 0.015v	14 0.015v	15 0.015v	16 0.015v	17 0.015v	18 0.015v
19 0.015v	20 0.015v	21 0.015v	22 0.015v	23 0.015v	24 0.015v
25 0.015v	26 0.015v	27 0.015v	28 0.015v	29 0.015v	30 0.015v
31 0.015v	32 0.015v				

状态曲线

查询从 请选择开始时间　至 请选择结束时间　查询

电压（V）

17:21:10
● 总电压　　1.72 V
● 电流　　　0 A
● 最高电压　4.91 V
● 最低电压　3.46 V

17:20:20　17:20:30　17:20:40　17:20:50　17:21:00　17:21:10　17:21:20　17:21:30　17:21:40　17:21:50

—— 总电压　—— 电流　—— 最高电压　—— 最低电压

Battery details

Parameter setting