

Service
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Service Manual

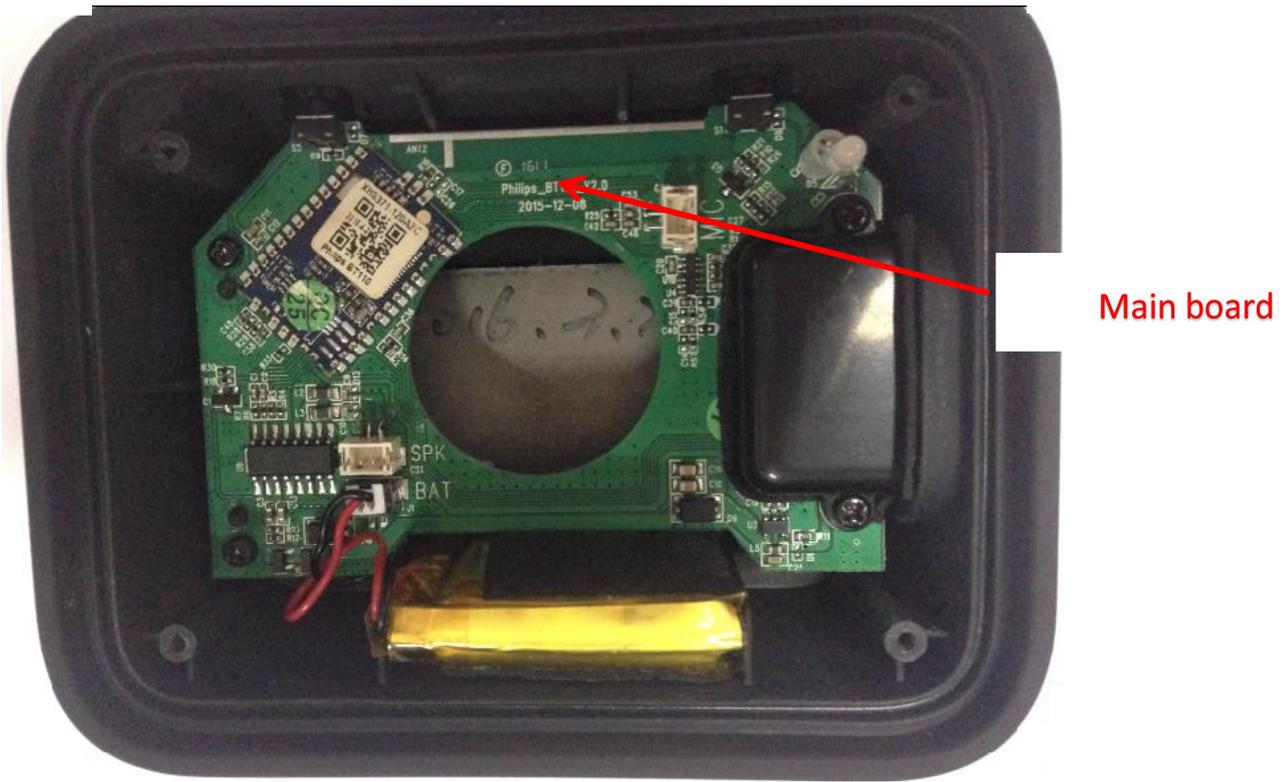
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Location of PCBA



Version Variation	BT110
Type/versions: Service policy	00
	APMEA
Board in used	
Main board	M+C

Attention: M=Module Level Repair
C=Components Level Repair

Technical Specification

Amplifier

Rated Output Power	4W RMS
Frequency Response	60-16000Hz,±3dB
Signal to Noise Ratio	>75dBA
Audio-in Input	600±100 mV Rin ≥20 kohm

Bluetooth

Bluetooth Version	V2.0
Supported Profiles	HFP,AD2P,AVRCP
Bluetooth Frequency Band	2.4GHz~
2.48GHz	
Bluetooth Range	10 m(Free space)

Battery

Capacity	800mAh
Rated Voltage	3.7V
Charge time	3h
Battery playback time	>8h

Speakers

Speaker Impedance	4ohm
Speaker Driver	1.5" full range
Sensitivity	>84dB/m/W

Accessory

USB cable	40cm
Battery	built-in
Quick guide	Yes
IFU	Yes

Safety instruction

Overview

- Lithium-Ion rechargeable batteries require routine maintenance and care in their use and handling .Read and follow the guidelines in this document to safely use Lithium-Ion batteries and achieve the maximum battery life span.
- Do not leave batteries unused for extended periods of time, either in the product or in storage. When a battery has been unused for 6 months, check the charge status and charge or dispose of the battery as appropriate.
- The typical estimated life of a Lithium-Ion battery is about two to three years or 300 to 500 charge cycles, whichever occurs first. One charge cycle is a period of use from fully charged , to fully discharged, and fully recharged again. Use a two to three year life expectancy for batteries that do not run through complete charge cycles.Rechargeable Lithium-Ion batteries have a limited life and will gradually lose their capacity to hold a charge.This loss of capacity (aging) is irreversible. As the battery loses capacity, the length of time it will power the product (run time) decreases.

Battery Maintenance

- Observe and note the run time that a new fully-charged battery provides for powering your product. Use this new battery run time as a basis to compare run times for older batteries. The run time of your battery will vary depending on the product 's configuration and the applications that you run.
 - Routinely check the battery 's charge status.
 - Carefully monitor batteries that are approaching the end of their estimated life.
 - Consider replacing the battery with a new one if you note either of the following conditions:
 - The battery run time drops below about 80% of the original run time.
 - The battery charge time increases significantly.

If a battery is stored or otherwise unused for an extended period, be sure to follow the storage instructions in this document. If you do not follow the instructions, and the battery has no charge remaining when you check it, consider it to be damaged. Do not attempt to recharge it or to use it. Replace it with a new battery.

Charging

- Always follow the charging instructions provided with your product. Refer to your product's user manual and/or online help for detailed information about charging its battery.

NOTE. When you troubleshoot battery issues for dual battery configurations, test one battery and one battery slot at a time. A defective battery can prevent the battery in the opposite slot from charging, leaving you with two uncharged batteries.

Battery Handling Guideline

Since the battery is packed in soft package, to ensure its good performance, it's very important to carefully handle the battery

1. Soft Aluminium foil

The soft aluminum packing foil is very easily damaged by sharp edge parts such as Ni-tabs, pins and needles.

- Don't strike battery with any sharp edge parts
- Trim your nail or wear glove before taking battery
- Clean worktable to make sure no any sharp particle



2. Sealed edge

Sealing edge is very flimsy

Don't bend or fold sealing edge



Folding edge

The folding edge is formed in battery process and has passed all hermetic tests.

- Don't open or deform folding edge



• Tabs

The battery tabs are not so rigid especially for aluminum tab.

- Don't bend tab



• Mechanical shock

- Don't fall, hit, bend battery body



• Short

Short terminals of battery is strictly prohibited, it may damage battery.

Caution: Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type.

The battery shall not be exposed to such as sunshine, fire or similar overheated environment.

Storage

Charge or discharge the battery to approximately 50% of capacity before storage.

Charge the battery to approximately 50% of capacity at least once every six months

Remove the battery and store it separately from the product.

Store the battery at temperatures between 5 °C and 20 °C (41 °F and 68 °F).

NOTE. The battery self-discharges during storage. Higher temperatures (above 20 °C or 68 °F) reduce the battery storage life.

Handling Precautions

Do not disassemble, crush, or puncture a battery.

Do not short the external contacts on a battery.

Do not dispose of a battery in fire or water.

Do not expose a battery to temperatures above 60 °C (140 °F).

Keep the battery away from children.

Avoid exposing the battery to excessive shock or vibration.

Do not use a damaged battery.

If a battery pack has leaking fluids, do not touch any fluids. Dispose of a leaking battery pack (see Disposal and Recycling in this document).

In case of eye contact with fluid, do not rub eyes. Immediately flush eyes thoroughly with water for at least 15 minutes, lifting upper and lower lids, until no evidence of the fluid remains. Seek medical attention.

Transportation

Always check all applicable local, national, and international regulations before transporting a Lithium-Ion battery.

Transporting an end-of-life, damaged, or recalled battery may, in certain cases, be specifically limited or prohibited.

Disposal and Recycling

Many countries prohibit the disposal of waste electronic equipment in standard waste receptacles.

Place only discharged batteries in a battery collection container. Use electrical tape or other approved covering over the battery connection points to prevent short circuits

Troubleshooting

Warning: Never remove the casing of this device.

To keep the warranty valid, never try to repair the system yourself. If you encounter problems when using this device, check the following points before requesting service. If the problem remains unsolved, go to the Philips Web page (www.philips.com/support). When you contact Philips, make sure that the device is nearby and the model number and serial number are available.

General

No sound or poor sound

- Adjust volume on the product.
- Adjust volume on the connected device.

No response from the speaker

Restart the speaker.

Cannot charge mobile devices

Make sure that AC power is connected properly.

Make sure that there is power at the AC outlet.

About Bluetooth device

The audio quality is poor after connection with a Bluetooth-enabled device.

The Bluetooth reception is poor. Move the device closer to this product or remove any obstacle between them.

Cannot connect with the device.

The Bluetooth function of the device is not enabled. Refer to the user manual of the device for how to enable the function.

This product is already connected with another Bluetooth-enabled device.

Disconnect that device and then try again, The paired device connects and disconnects constantly.

The Bluetooth reception is poor. Move the device closer to this product or remove any obstacle between them.

For some devices, Bluetooth connection may be deactivated automatically as a power-saving feature. This does not indicate any malfunction of this product.

Disassemble Instructions

Step 1: use straight screw driver to prize up the speaker grill.

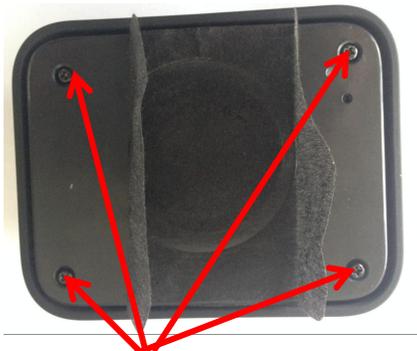


After remove the speaker grill

Step 2. Open the net cloth's quadrangle, Remove four rubber plugs and four screws on the front panel(screw is under the rubber



remove the rubber plugs

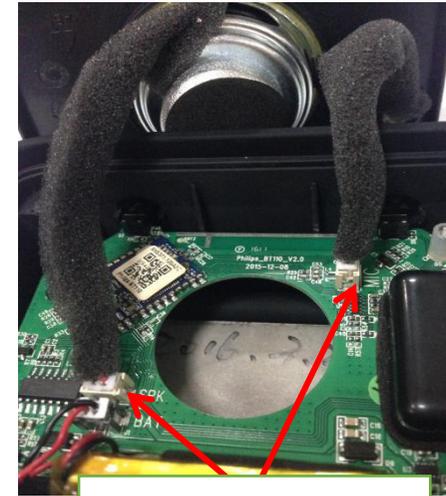
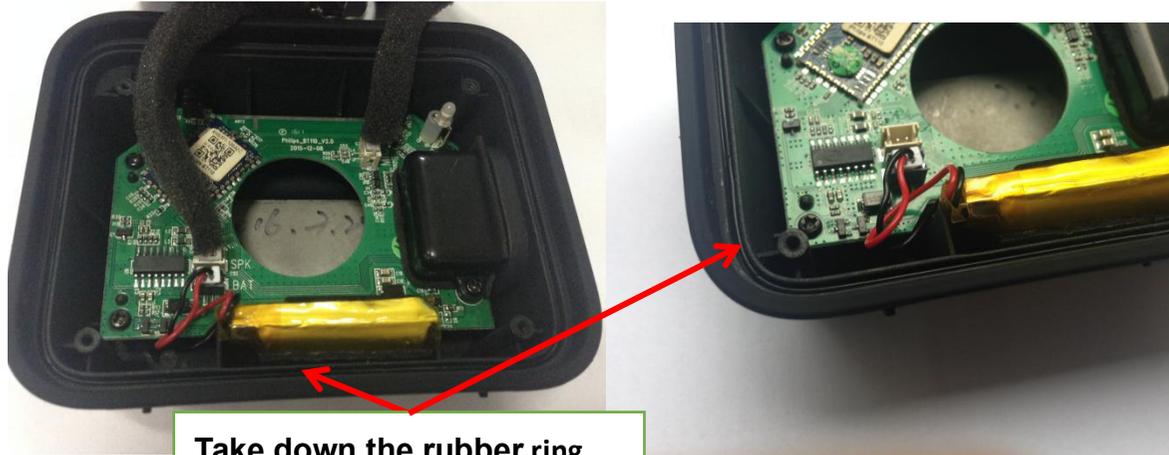


remove the screws



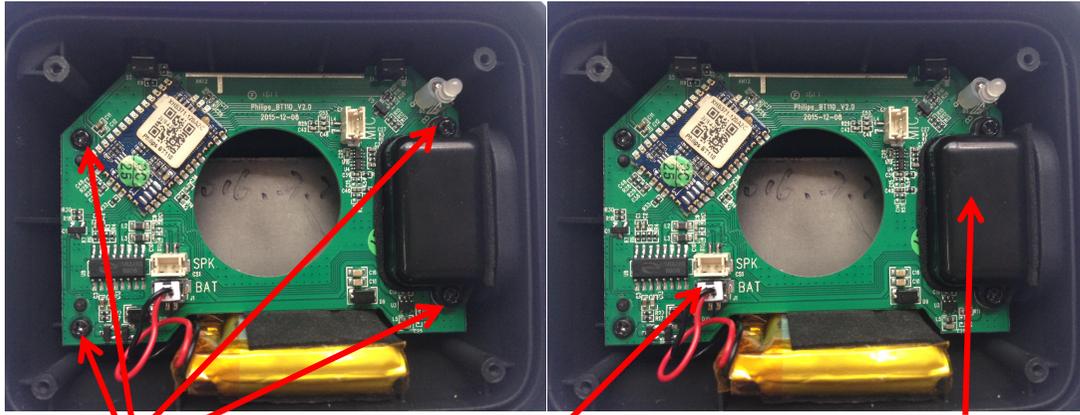
After remove the rubber plugs&screws on the front panel

Step 3. Take down the rubber ring&unplug two sockets



After take down the rubber ring&unplug two sockets

Step 4: Remove four screws& USB sealed box&unplug the sockets



Remove four screws

unplug the sockets&remove USB sealed box

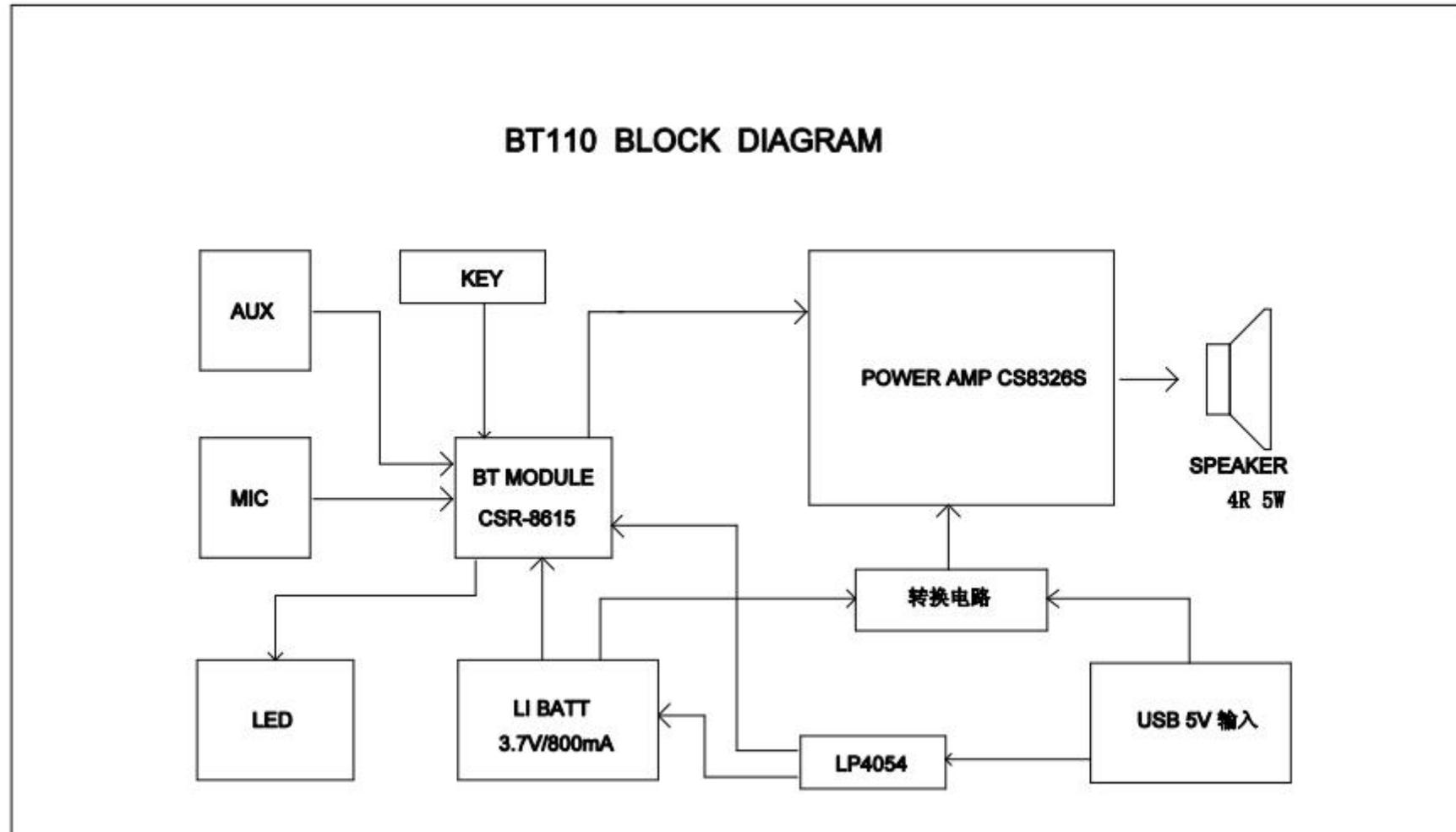


After remove four screws& USB sealed box&unplug the sockets

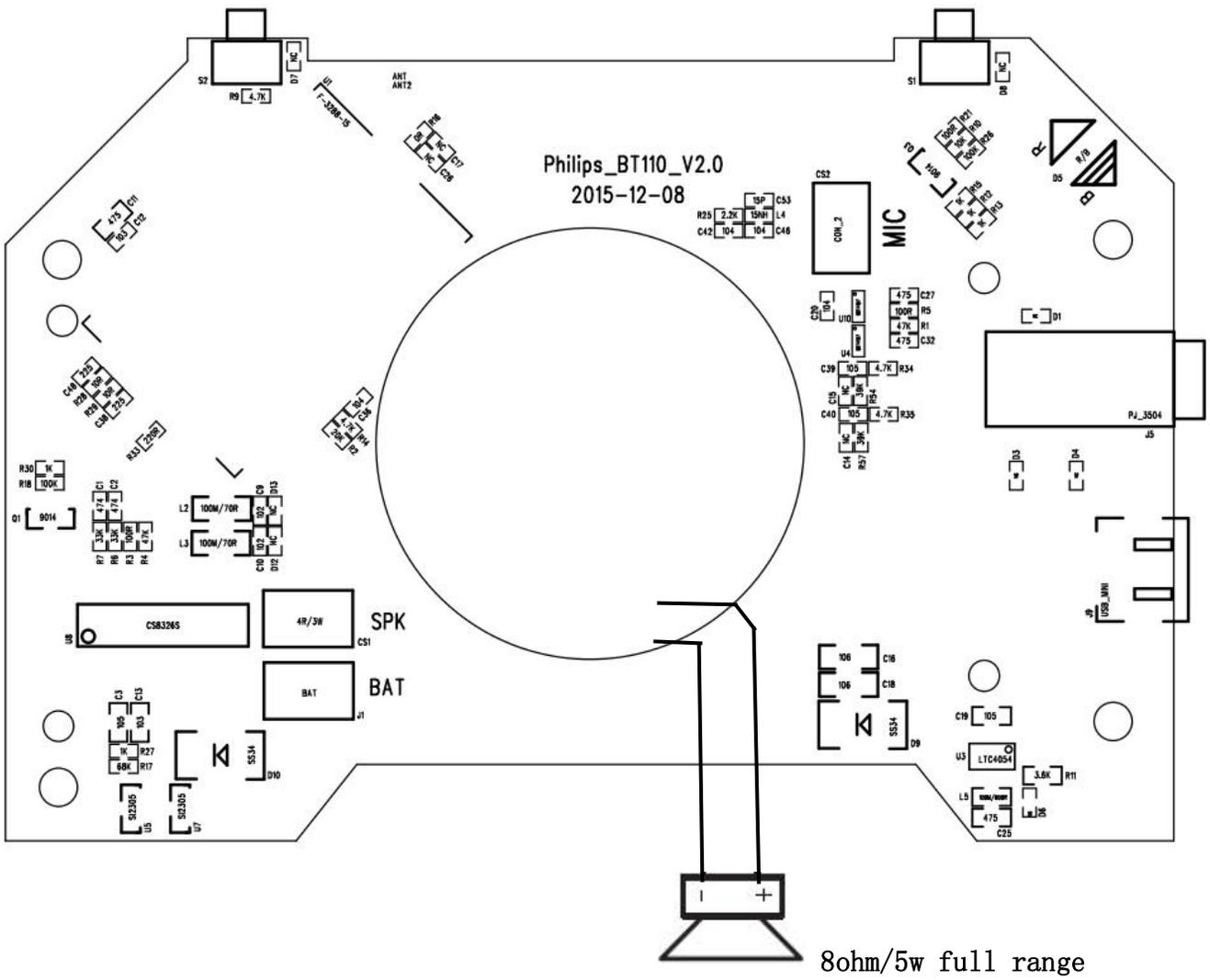
Step 5: take the battery&Snap joints seal box



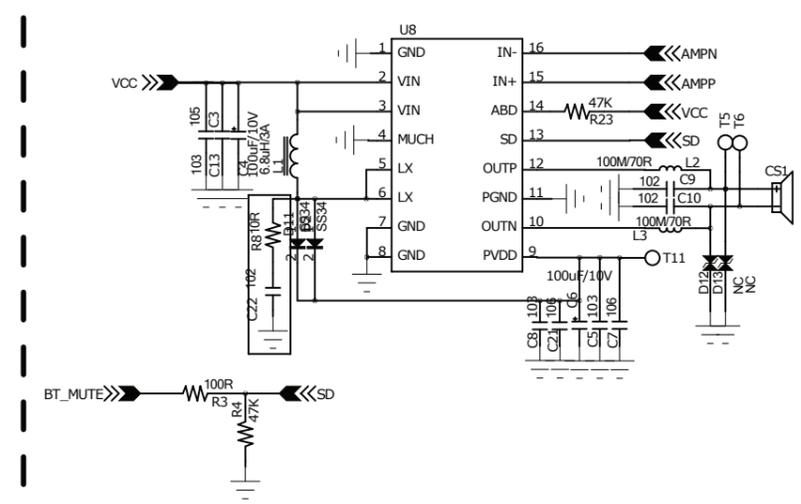
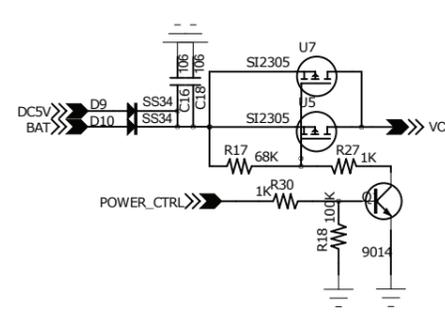
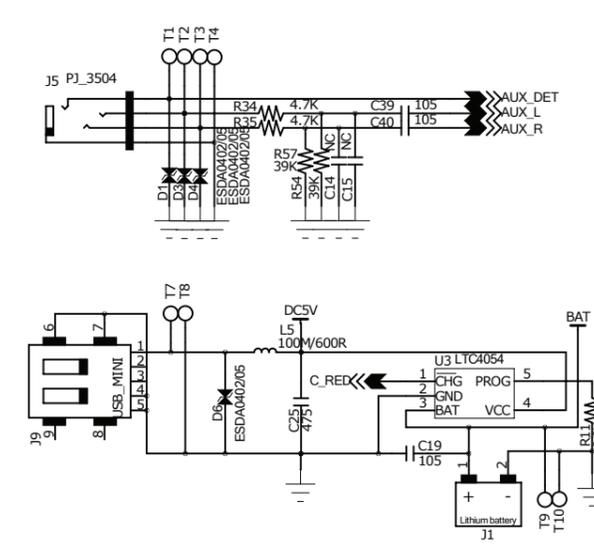
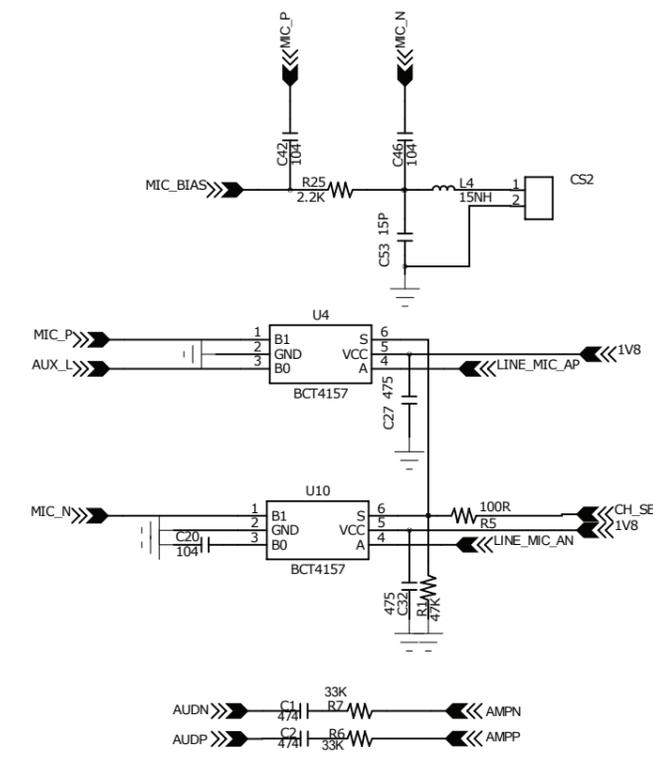
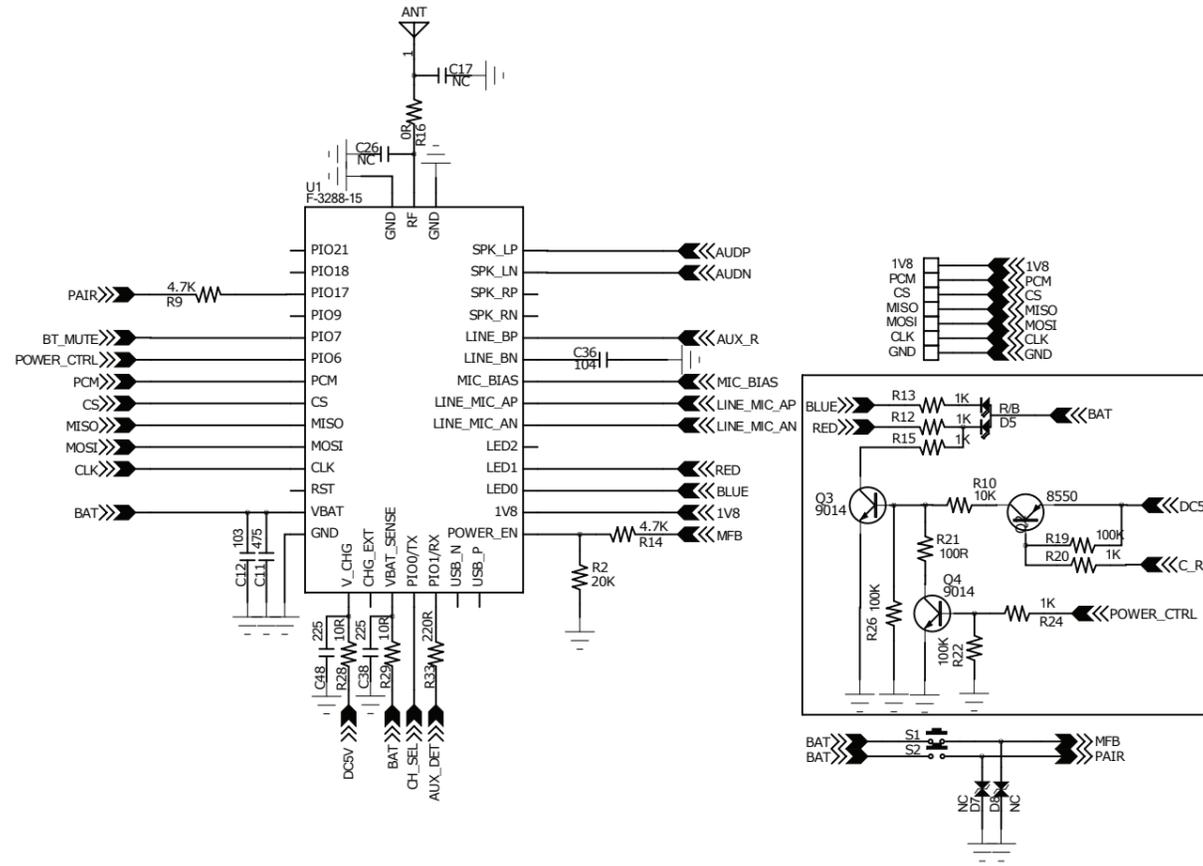
Block diagrams



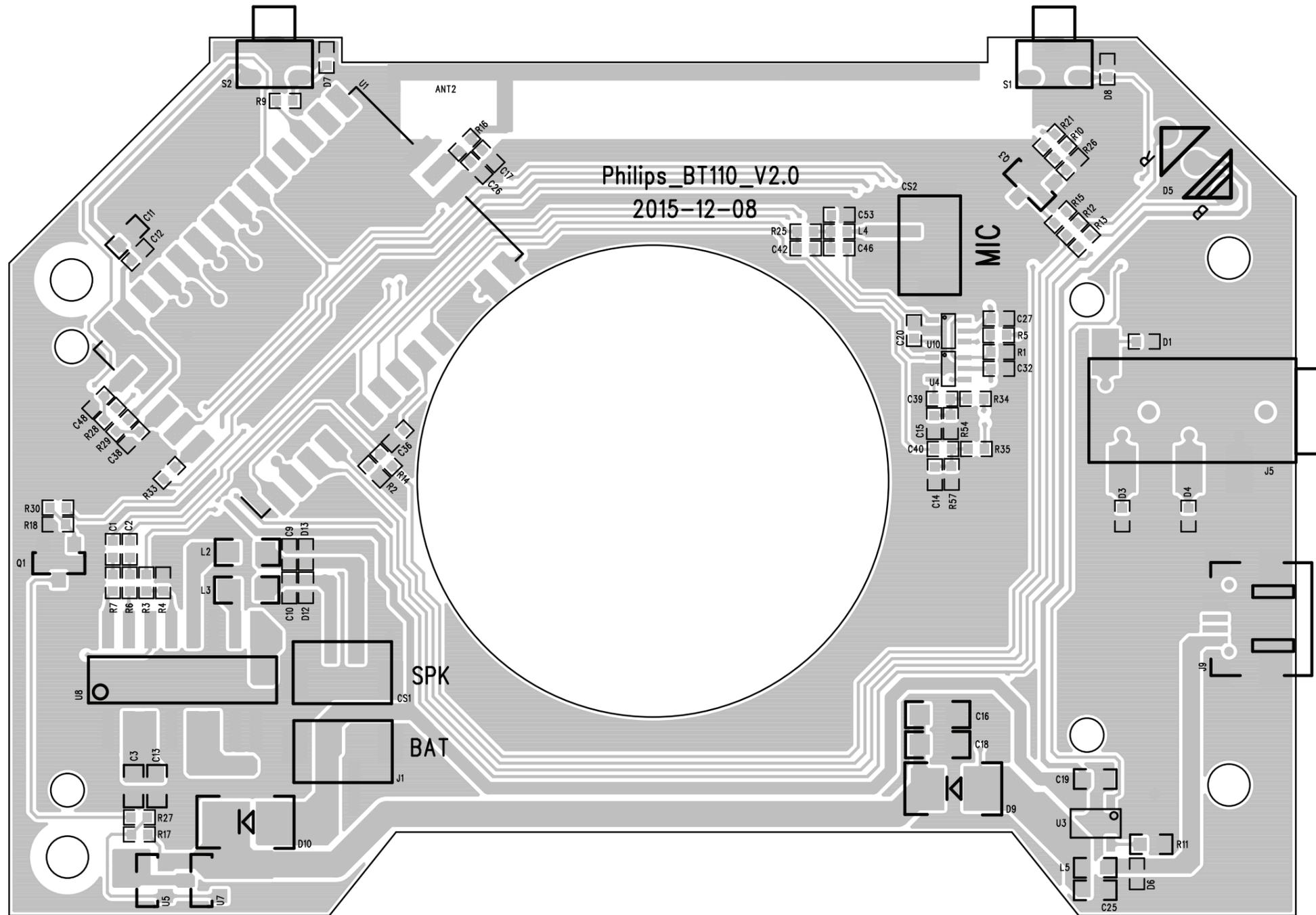
Wiring diagram



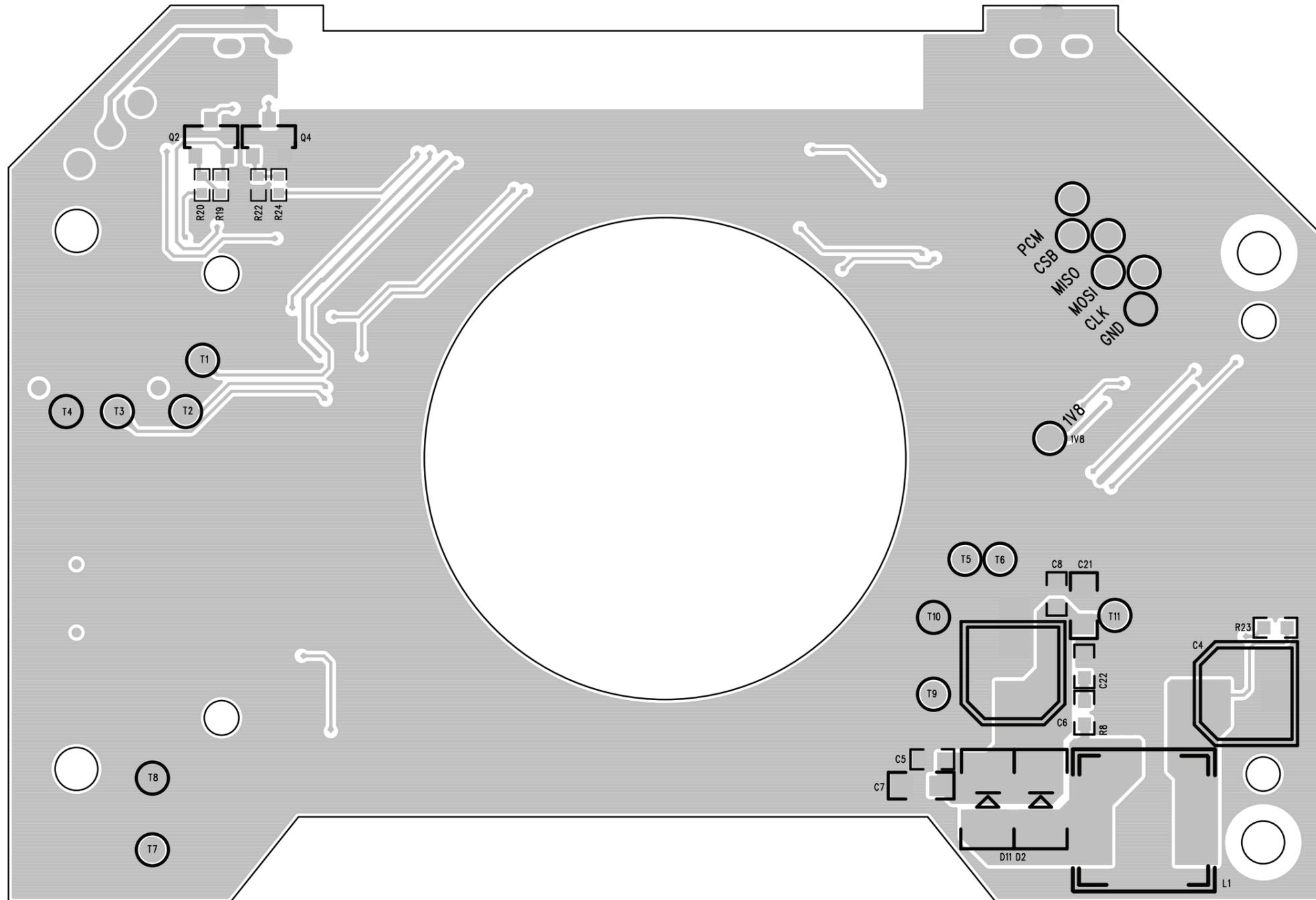
Circuit diagram



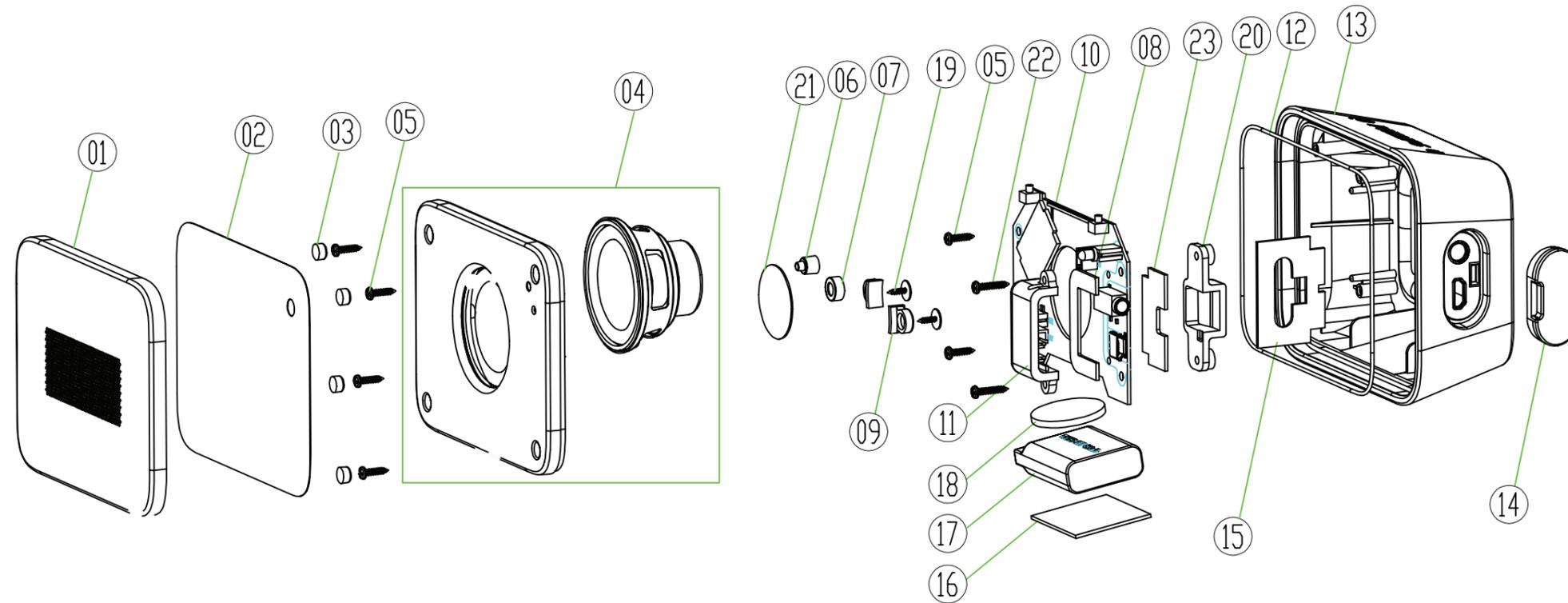
Main board Layout diagram Top



Main board Layout diagram Bottom



Machanical exploded view



Accessory

- 1: USB CHARGING CABLE
- 2: HANDING ROPE

Version Release

Version: v1.0 2016-06-22 internal release