Averia Flashlight product description

Bluetooth LE accessory for an
Averia Collar device

The device leverage Bluetooth LE technology and works as a flashlight for Averia Collar device

1. “Averia Flashlight” design

Averia Flashlight is designed using high quality materials and electronic components. The appearance of the device is given in Figure 1.1.

Figure 1.1. Assembled appearance of Averia Flashlight (red silicone is an option, other colors are also possible).

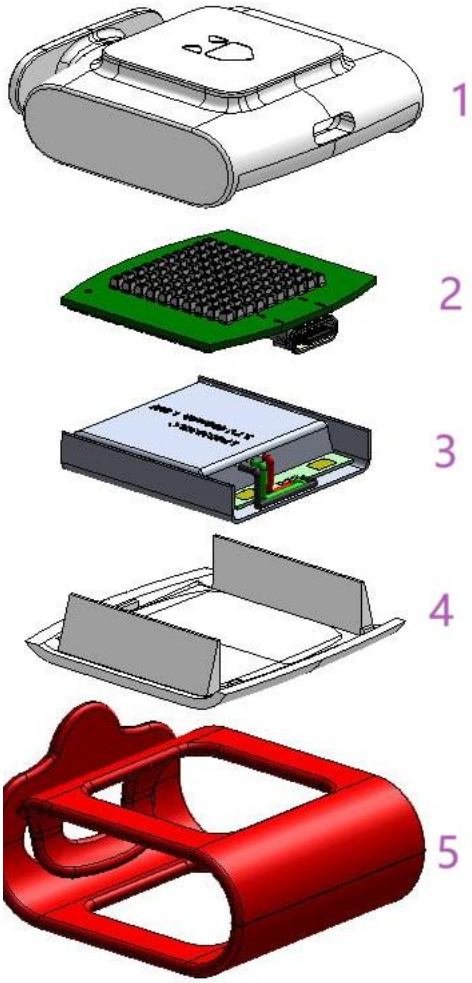

Figure 1.2. The explode schema of the Averia Flashlight (1- Top case (PC), 2 – PCBA with a LED matrix and USB Type-C, 3 - Li-Pol battery, 4 – Bottom case (PC), 5 – silicone strap).

Averia Flashlight consists of the following components (Figure 1.2):

- Polycarbonate (PC) case with PCBA inside;
- Li-Pol battery;
- Colored silicone strap to fasten on a belt;

The assembled device will comply with the IP54 protection level.

The PCBA consists of the following components:

- a Bluetooth Low Energy radio module for communication with an Averia Collar and an internal PCB antenna;
- LED matrix with 127 RGB LEDs which is located onto the PCBA;
- Accelerometer;
- Li-Pol charger.

2. Primary Application

Averia Flashlight can be used as follows:

- It helps to find a dog faster at night;
- It’s a beautiful device which attracts other people;

3. Technical Specifications of the device

Technical specifications of Averia Flashlight are presented in Table 3.1.

Table 3.1. Technical specifications of Averia Flashlight.

Radio module (Bluetooth Low Energy):	DA14683-00000A92 (Renesas) /2.4 GHz *Complies to Bluetooth v5.0, ETSI EN 300 328 and EN 300 440 Class 2 (Europe), FCC CFR47 Part 15 (US) and ARIB STD-T66 (Japan)*
Temperature sensors	YES, integrated on the PCBA
Dimensions	42mm * 47.5mm * 14.7mm
Device weight	~25g.
Battery	Li-Pol, 3.7B, 550 mAh
Moisture protection	IP54
Battery charge voltage	External USB Type-C charger, 5V/500mAh
Operating temperature	-30 … +45 ºC
Storage temperature	+20 … +30 ºC
AC/DC adaptor	Not acceptable
LED indicator	yes, LED matrix, 127 RGB LEDs

3.1 Bluetooth LE module

Bluetooth Low Energy (BLE) chip: DA14683
Manufacturer: Renesas (Dialog Semiconductor)
FCC compliance: (FCC CFR47 Part 15)

BLE complies with specification: 5.0.
Maximum output power: 1.0dBm (class 2).
Antennas type: custom internal PCB antenna.

Delivery set

Device factory package includes:

- Averia Flashlight – 1 pcs + silicone strap 1pcs;
- Type-C – Type-C charging cable;
- User manual (QSG);
- Regulatory.

FCC Warnning:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection againstharmful interference in a residential installation. This equipment generates, uses and can radiateradio frequency energy and, if not installed and used in accordance with the instructions, maycause harmful interference to radio communications. However, there is no guarantee thatinterference will not occur in a particular installation. If this equipment does cause harmfulinterference to radio or television reception, which can be determined by turning the equipmentoff and on, the user is encouraged to try to correct the interference by one or more of thefollowing measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1)This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 0cm between the radiator and your body.