# Anbotek Product Safety

## **RF EXPOSURE EVALUATION**

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency(RF) Radiation as specified in §1.1307(b)

### FCC ID: 2AOKB-A1754

## **EUT Specification**

| EUT nbol ek sootek A     | Anker SOLIX C800 PLUS Portable Power Station  |
|--------------------------|---|
| Frequency band           | ⊠ WLAN: 2.412GHz ~ 2.462GHz                   |
| (Operating)              | □ WLAN: 5.18GHz ~ 5.24GHz / 5.50GHz ~ 5.70GHz |
| stek onbotek Anbo        | □ WLAN: 5.745GHz ~ 5.825GHz                   |
| Anbo tek abotek Anbore   | ⊠ Others: 2.402GHz~2.480GHz                   |
| Device category          | □ Portable (<20cm separation)                 |
| k Anboten Anbo           | ⊠Mobile (>20cm separation)                    |
| tek pootek Anboi Ai      | Others  |
| Exposure classification  | Occupational/Controlled exposure              |
| nbotek Anto otek nnbotek | General Population/Uncontrolled exposure      |
| Antenna diversity        | ⊠Single antenna                               |
| anbotek Anboit All       | ☐ Multiple antennas                           |
| Ant hotek Anboten Anbo   | □ Tx diversity                                |
| And tek nbotek An        | □ Rx diversity                                |
| tek Anboi Ai hotek       | □ Tx/Rx diversity                             |
| Max. output power        | WIFI 2.4G: 21.38dBm (0.1374W);                |
| tek sphotek Anbu         | BLE: 4.54dBm (0.0028W)                        |
| Antenna gain (Max)       | BLE: 3.65dBi                                  |
| Anbore Ann niek anbore   | WiFi 2.4G: 3.65dBi                            |
| Evaluation applied       | MPE Evaluation                                |
| ek nbotek Anbor Air      | □ SAR Evaluation                              |

Limits for Maximum Permissible Exposure(MPE)

| Frequency<br>Range(MHz) | Electric Field<br>Strength(V/m) | Magnetic Field<br>Strength(A/m) | Power Density<br>(mW/cm <sup>2</sup> ) | Average Time |
|-------------------------|---------------------------------|---------------------------------|--|--------------|
| Anbor A.                | (A) Limits for (                | Occupational/Con                | trol Exposures                         | botek Anbore |
| 300-1500                | stek upotek                     | Anbo                            | F/300                                  | Anna atel6   |
| 1500-100000             | inbo                            | Anbort Am                       | atek 5 potek                           | And 6k       |
| wet whotek (B           | ) Limits for Gene               | ral Population/Ur               | ncontrol Exposur                       | es Anboin P  |
| 300-1500                | Anboten Anb                     | vek - abotek                    | F/1500                                 | 30           |
| 1500-100000             | t abatek A                      | notek                           | Anboren Anb                            | 30           |

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## Friis transmission formula: Pd=(Pout\*G)\(4\*pi\*R2)

#### Where

Pd= Power density in mW/cm<sup>2</sup> Pout=output power to antenna in Mw G= gain of antenna in linear scale Pi=3.1416

R= distance between observation point and center of the radiator in cm Pd the limit of MPE. If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

| Operating  | Measured<br>Power | Tune up<br>tolerance | Max. Tune<br>up Power | Antenna<br>Gain | Power density<br>at 20cm | Power density<br>Limits |
|------------|-------------------|----------------------|-----------------------|-----------------|--------------------------|-------------------------|
| Mode (dBm) | (dBm)             | (dBm)                | (dBi)                 | (mW/cm² )       | (mW/cm² )                |                         |
| WiFi 2.4G  | 21.38             | 21.38 ±1             | 22.38                 | 3.65            | 0.0797                   | Ant Lotely Ant          |
| BLE        | 4.54              | 4.54 ±1              | 5.54                  | 3.65            | 0.0017                   | Anna lek                |

### **Max Measurement Result**

### The WLAN 2.4G and BLE can transmit simultaneously:

S; Limit.i

=SWIFI2.4/Slimit-2.4+ SBLE/Slimit-BLE

=0.0797/1+0.0017/1

=0.0814 < 1.0

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