

# MAXIMUM PERMISSIBLE EXPOSURE

KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v06.

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: 2A6K7-NINJA200

# **EUT Specification**

| EUT Anbotek Anbo        | LED light And |
|-------------------------|---|
| Frequency band          | ⊠ BT: 2.402GHz ~ 2.480GH                          |
| (Operating)             | ⊠ WLAN: 2.412GHz ~ 2.462GHz                       |
|                         | RLAN: 5.180GHz ~ 5.240GHz                         |
|                         | RLAN: 5.260GHz ~ 5.320GHz                         |
|                         | 🗌 RLAN: 5.500GHz ~ 5.700GHz                       |
|                         | RLAN: 5.745GHz ~ 5.825GHz                         |
| nbotek Anbo. A. hotek   | Others:   |
| Device category         | □ Portable (<20cm separation)                     |
|                         | ⊠Mobile (>20cm separation)                        |
| And Lok shotek An       | Others  |
| Exposure classification | Occupational/Controlled exposure                  |
| otek Anboten Anbo       | General Population/Uncontrolled exposure          |
| Antenna diversity       | ⊠ Single antenna                                  |
|                         | Multiple antennas                                 |
|                         | □ Tx diversity                                    |
|                         | Rx diversity                                      |
| s abotek Anbors An      | □ Tx/Rx diversity                                 |
| Max. output power       | BLE: 2.77dBm (0.0019W)                            |
| oten And tek spotek     | WiFi 2.4G: 13.97dBm (0.0249W)                     |
| Antenna gain (Max)      | BLE: -1.52 dBi                                    |
| hotek Anbote, Anb       | WiFi 2.4G: -1.52 dBi                              |
| Evaluation applied      | ⊠ MPE Evaluation                                  |
| Anbo Anb                | SAR Evaluation                                    |

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Anbotek Product Safety

### Limits for Maximum Permissible Exposure(MPE)

| Frequency    | Electric Field     | Magnetic Field     | Power Density         | Average Time   |
|--------------|--------------------|--------------------|-----------------------|----------------|
| Range(MHz)   | Strength(V/m)      | Strength(A/m)      | (mW/cm <sup>2</sup> ) | Ant Lotek Anbo |
| ek Anboten I | (A) Limits for     | Occupational/Cont  | trol Exposures        | And            |
| 300-1500     | Anbor Ar           | lek Antore         | F/300                 | Anto G         |
| 1500-100000  | Anbore Ann         | otek -nbotek       | Anbo 5                | 1ex 6          |
| Anborto Ann  | (B) Limits for Gen | eral Population/Un | control Exposures     | otek Anbotek   |
| 300-1500     | Let obotek         | Anboit - An        | F/1500                | 30 sootek      |
| 1500-100000  | pro Ann wotek      | Anboten Anbo       | tek 1,botek           | 30             |

## 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.

## **Max Measurement Result**

| Operating Mode | Measured<br>Power | Tune up<br>tolerance | Max. Tune<br>up Power | Antenna<br>Gain | Power density<br>at 20cm | Power density<br>Limits |
|----------------|-------------------|----------------------|-----------------------|-----------------|--------------------------|-------------------------|
|                | (dBm)             | (dBm)                | (dBm)                 | (dBi)           | (mW/cm2)                 | (mW/cm2 )               |
| BLE            | 2.77              | 2.77 ±1              | 3.77                  | -1.52           | 0.0003                   | p. Brek                 |
| WiFi 2.4G      | 13.97             | 13.97 ±1             | 14.97                 | -1.52           | 0.0044                   | alt 1 botek             |

The BLE and WiFi 2.4G cannot simultaneous transmission.

Result: No Standalone SAR test is required

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