

TEST REPORT

Product Name : ONN. BT SPORT
Brand Mark : onn.
Model No. : AABLK100074912
Extension Model : SMBT-10125A, AALAV100074912
FCC ID : 2ADZH-BWD021
Report Number : BLA-EMC-202208-A0603
Date of Sample Receipt : 2022/8/1
Date of Test : 2022/8/1 to 2022/8/11
Date of Issue : 2022/8/11
Test Standard : 47 CFR Part 15, Part1.1307
47 CFR Part 15, Part2.1093
KDB447498D04 General RF Exposure
Guidance v01
Test Result : Pass

Prepared for:

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Prepared by:

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Date:

2022/8/11



REPORT REVISE RECORD

| Version No. | Date | Description |
|--------------------|-------------|--------------------|
| 00 | 2022/8/11 | Original |

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1 TEST SUMMARY

| Test item | Test Requirement | Test Method | Class/Severity | Result |
|-------------|---|-----------------------|--------------------|--------|
| RF Exposure | 47 CFR Part 1.1307, Part 2.1093, KDB 447498 | CFR 47 Part 2.1093 | CFR 47 Part 2.1093 | PASS |

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2 GENERAL INFORMATION

| | |
|------------------------|---|
| Applicant | Dongguan Siyoto Electronics Co., Ltd. |
| Address | No.10 North 7th Street, Qiaodong road, Qiaotou town, Dongguan, Guangdong, China |
| Manufacturer | Dongguan Siyoto Electronics Co., Ltd. |
| Address | No.10 North 7th Street, Qiaodong road, Qiaotou town, Dongguan, Guangdong, China |
| Factory | Dongguan Siyoto Electronics Co., Ltd. |
| Address | No.10 North 7th Street, Qiaodong road, Qiaotou town, Dongguan, Guangdong, China |
| Product Name | ONN. BT SPORT |
| Test Model No. | AABLK100074912 |
| Extension Model | SMBT-10125A, AALAV100074912 |
| Remark | All above models are identical in the same PCB layout, interior structure and electrical circuits. The differences are model name for commercial purpose. |

3 GENERAL DESCRIPTION OF E.U.T.

| | |
|-----------------------------|-----------------------------------|
| Hardware Version | V2.2 |
| Software Version | V0.1 |
| Bluetooth version | V5.3 |
| Operation Frequency: | 2402MHz-2480MHz |
| Modulation Type: | GFSK, pi/4DQPSK |
| Channel Spacing: | 1MHz |
| Number of Channels: | 79 |
| Antenna Type: | Ceramic Antenna |
| Antenna Gain: | 5.54dBi(Provided by the customer) |

4 LABORATORY LOCATION

All tests were performed at:

BlueAsia of Technical Services(Shenzhen) Co., Ltd.

Building C, No. 107, Shihuan Road, Shiyuan Sub-District, Baoan District, Shenzhen, Guangdong Province, China

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No tests were sub-contracted.

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5 RF EXPOSURE COMPLIANCE REQUIREMENT

5.1 RF EXPOSURE COMPLIANCE REQUIREMENT

Standard Requirement

According to 447498 D04 Interim General RF Exposure Guidance v01

Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

Limits

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B.2})$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1).

Example values shown in Table B.2 are for illustration only.

Table B.2—Example Power Thresholds (mW)

| Frequency (MHz) | Distance (mm) | | | | | | | | | | |
|-----------------|---------------|----|----|-----|-----|-----|-----|-----|-----|-----|--|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | |
| 300 | 39 | 65 | 88 | 110 | 129 | 148 | 166 | 184 | 201 | 217 | |
| 450 | 22 | 44 | 67 | 89 | 112 | 135 | 158 | 180 | 203 | 226 | |
| 835 | 9 | 25 | 44 | 66 | 90 | 116 | 145 | 175 | 207 | 240 | |
| 1900 | 3 | 12 | 26 | 44 | 66 | 92 | 122 | 157 | 195 | 236 | |
| 2450 | 3 | 10 | 22 | 38 | 59 | 83 | 111 | 143 | 179 | 219 | |
| 3600 | 2 | 8 | 18 | 32 | 49 | 71 | 96 | 125 | 158 | 195 | |
| 5800 | 1 | 6 | 14 | 25 | 40 | 58 | 80 | 106 | 136 | 169 | |

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

$$EIRP = p_t \times g_t = (EXd)^2/30$$

where:

p_t = transmitter output power in watts,

g_t = numeric gain of the transmitting antenna (unitless),

E = electric field strength in V/m, --- $10((dBuV/m)/20)/106$

d = measurement distance in meters (m)---3m

$$S_{opt} = (EXd)^2/30 \times g_t$$

Ant gain = 5.54 dBi

Max Output power = -0.266dBm @ 2402MHz

$$ERP = -0.266dBm + 5.54dBi - 2.15 = 3.124dBm$$

So

ERP is worse case

$$10^{0.3124} = 2.05 \text{ mW} < 2.79 \text{ mW}$$

Then SAR evaluation is not required

----END OF REPORT----

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