



# RF Exposure Report

**Report No.** SST240923018EF07

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**Product Name:** Android Tablet

**Trade Mark:** /

**FCC ID:** 2ABC5-E0075

**Test Report Form No:** SST-RD-7.5-02-E01(A/0)

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in FCC KDB 447498 D04. Test results reported herein relate only to the item(s) tested.

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### 3 RF EXPOSURE EVALUATION MAXIMUM PERMISSIBLE EXPOSURE (MPE)

#### 3.1 Introduction

This document is prepared to show compliance with the RF Exposure requirements as required in §1.1307 of the FCC Rules and Regulations and RSS-102 of Industry Canada.

The limit for maximum permissible exposure(MPE), specific in §1.1307of the FCC Rules and KDB 447498 D04 were list in below

- The available maximum time-averaged power is no more than 1 mW, regardless of separation distance.
- the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold  $P_{th}$  (mW) described in the following formula.

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

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

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). The 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 |

- For multiple RF sources

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure Limit_k} \leq 1$$

The limit for maximum permissible exposure(MPE), specific in §1.1310of the FCC Rules list in below

| Frequency range (MHz)                            | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm <sup>2</sup> ) | Averaging time (minutes) |
|--------------------------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| (A) Limits for Occupational/Controlled Exposures |                               |                               |                                     |                          |
| 0.3–3.0                                          | 614                           | 1.63                          | *(100)                              | 6                        |
| 3.0–30                                           | 1842/f                        | 4.89/f                        | *(900/f <sup>2</sup> )              | 6                        |
| 30–300                                           | 61.4                          | 0.163                         | 1.0                                 | 6                        |
| 300–1500                                         |                               |                               | f/300                               | 6                        |
| 1500–100,000                                     |                               |                               | 5                                   | 6                        |

| (B) Limits for General Population/Uncontrolled Exposure |       |        |                        |    |
|---------------------------------------------------------|-------|--------|------------------------|----|
| 0.3–1.34                                                | 614   | 1.63   | *(100)                 | 30 |
| 1.34–30                                                 | 824/f | 2.19/f | *(180/f <sup>2</sup> ) | 30 |
| 30–300                                                  | 27.5  | 0.073  | 0.2                    | 30 |
| 300–1500                                                |       |        | f/1500                 | 30 |
| 1500–100,000                                            |       |        | 1.0                    | 30 |

f = frequency in MHz

Friis transmission formula:  $Pd = (Pout \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

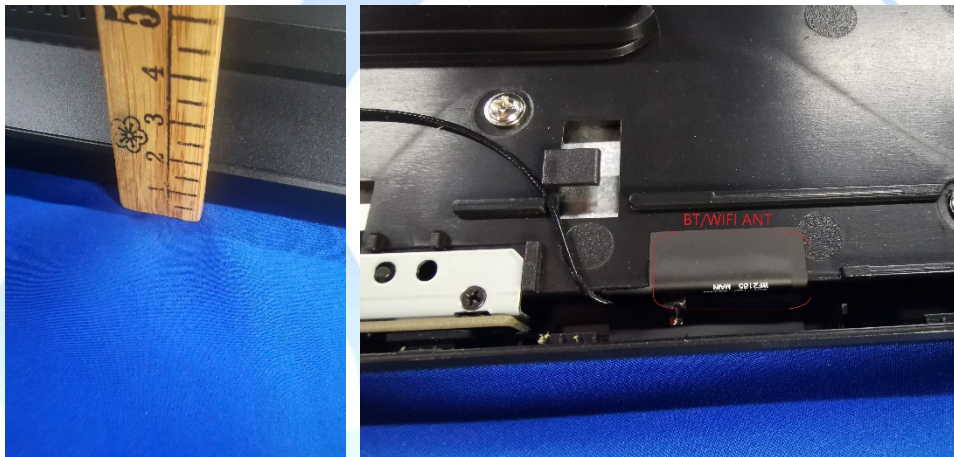
**Pd** = power density in mW/cm<sup>2</sup>, **Pout** = output power to antenna in mW;

**G** = gain of antenna in linear scale, **Pi** = 3.1416;

**R** = distance between observation point and center of the radiator in cm

### 3.2 MPE Calculation

| Type      | Frequency (MHz) | Antenna Gain (dBi) | Output power (dBm) | ERP (dBm) | ERP (mW) | Limit (mW, d=2cm) | Ratio (%) | Result |
|-----------|-----------------|--------------------|--------------------|-----------|----------|-------------------|-----------|--------|
| BT        | 2480            | 3.44               | 5.93               | 7.22      | 5.27     | 38.1              | 13.84     | PASS   |
| BLE       | 2480            | 3.44               | 2.51               | 3.8       | 2.4      | 38.1              | 6.3       | PASS   |
| WIFI 2.4G | 2437            | 3.44               | 12.43              | 13.72     | 23.55    | 38.4              | 61.27     | PASS   |
| WIFI 5G   | 5200            | 3.72               | 6.6                | 8.17      | 6.56     | 26.3              | 24.94     | PASS   |
| WIFI 5.8G | 5825            | 2.99               | 2.83               | 3.67      | 2.33     | 24.9              | 9.36      | PASS   |



| Type | Frequency (MHz) | Electric field strength(dBuV/m) | Electric field strength(V/m) | Limit(V/m) | Ratio (%) | Verdict |
|------|-----------------|---------------------------------|------------------------------|------------|-----------|---------|
| NFC  | 13.56           | 55.32                           | 0.000463                     | 60.77      | 0.000763  | PASS    |

Remark: the distance calculated is the antenna installation location to touch screen, simultaneous transmission not support

## 4 Conclusion

The device meets the mobile RF exposure limit at a minimum separation distance as specified in §2.1093 of the FCC Rules and Regulations and Health Canada Safety Code 6. An appropriate RF exposure compliance statement will be placed in the user's manual.

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