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Report Template Version: V03  
Report Template Revision Date: Mar.1st, 2017

# RF Exposure Evaluation Report

**Report No. :** CQASZ20200200089E-03  
**Applicant:** MOKO TECHNOLOGY LIMITED  
**Address of Applicant:** 2F, Building1, No.37 Xiaxintang Xintang village, Fucheng Street, Longhua District, Shenzhen, Guangdong Province, China  
**Manufacturer:** MOKO TECHNOLOGY LIMITED  
**Address of Manufacturer:** 2F, Building1, No.37 Xiaxintang Xintang village, Fucheng Street, Longhua District, Shenzhen, Guangdong Province, China  
**Factory:** MOKO TECHNOLOGY LIMITED  
**Address of Factory:** 2F, Building1, No.37 Xiaxintang Xintang village, Fucheng Street, Longhua District, Shenzhen, Guangdong Province, China

### Equipment Under Test (EUT):

**Product:** Bluetooth Gateway Plug Mini  
**Model No.:** MK110  
**Brand Name:** N/A  
**FCC ID:** 2AO94-MK110  
**Standards:** 47 CFR Part 1.1307  
47 CFR Part 1.1310  
KDB447498D01 General RF Exposure Guidance v06  
**Date of Test:** 2020-02-17 to 2020-02-28  
**Date of Issue:** 2020-03-02  
**Test Result :** PASS\*

**Tested By:**

*Tom Chen*

(Tom chen)

**Reviewed By:**

*Aaron Ma*

(Aaron Ma)

**Approved By:**

*Jack Ai*  
(Jack Ai)



\* In the configuration tested, the EUT complied with the standards specified above.

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CQA, this report can't be reproduced except in full.

## 1 Version

### Revision History Of Report

| Report No.           | Version | Description    | Issue Date |
|----------------------|---------|----------------|------------|
| CQASZ20200200089E-03 | Rev.01  | Initial report | 2020-03-02 |

## 2 Contents

|                                              | Page |
|----------------------------------------------|------|
| 1 VERSION .....                              | 2    |
| 2 CONTENTS .....                             | 3    |
| 3 GENERAL INFORMATION.....                   | 4    |
| 3.1 CLIENT INFORMATION.....                  | 4    |
| 3.2 GENERAL DESCRIPTION OF EUT .....         | 4    |
| 4 SAR EVALUATION .....                       | 6    |
| 4.1 RF EXPOSURE COMPLIANCE REQUIREMENT ..... | 6    |
| 4.1.1 Limits .....                           | 6    |
| 4.1.2 Test Procedure.....                    | 6    |
| 4.1.3 EUT RF Exposure.....                   | 7    |

### 3 General Information

#### 3.1 Client Information

|                          |                                                                                                                       |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Applicant:               | MOKO TECHNOLOGY LIMITED                                                                                               |
| Address of Applicant:    | 2F, Building1,No.37 Xiaxintang Xintang village, Fucheng Street, Longhua District , Shenzhen,Guangdong Province, China |
| Manufacturer:            | MOKO TECHNOLOGY LIMITED                                                                                               |
| Address of Manufacturer: | 2F, Building1,No.37 Xiaxintang Xintang village, Fucheng Street, Longhua District , Shenzhen,Guangdong Province, China |

#### 3.2 General Description of EUT

|                      |                                                                                                                                                                                                                                 |                 |         |                 |         |                 |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------|-----------------|---------|-----------------|
| Product Name:        | Bluetooth Gateway Plug Mini                                                                                                                                                                                                     |                 |         |                 |         |                 |
| Model No.:           | MK110                                                                                                                                                                                                                           |                 |         |                 |         |                 |
| Trade Mark:          | N/A                                                                                                                                                                                                                             |                 |         |                 |         |                 |
| Type of Modulation:  | IEEE 802.11b mode: DSSS(CCK,QPSK, BPSK)<br>IEEE 802.11g mode: OFDM (BPSK/QPSK/16QAM/64QAM)<br>IEEE 802.11n HT20 MHz mode: OFDM (BPSK/QPSK/16QAM/64QAM)<br>IEEE 802.11n HT40 MHz mode: OFDM (BPSK/QPSK/16QAM/64QAM)<br>BLE(GFSK) |                 |         |                 |         |                 |
| Channel Spacing:     | IEEE 802.11b/g/n(HT20):20MHz<br>IEEE 802.11n(HT40):40MHz<br>BLE:2MHz                                                                                                                                                            |                 |         |                 |         |                 |
| Operation Frequency: | IEEE 802.11b;IEEE 802.11g;IEEE 802.11n HT20                                                                                                                                                                                     |                 |         |                 |         |                 |
|                      | Channel                                                                                                                                                                                                                         | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
|                      | 1                                                                                                                                                                                                                               | 2412            | 6       | 2437            | 11      | 2462            |
|                      | 2                                                                                                                                                                                                                               | 2417            | 7       | 2442            |         |                 |
|                      | 3                                                                                                                                                                                                                               | 2422            | 8       | 2447            |         |                 |
|                      | 4                                                                                                                                                                                                                               | 2427            | 9       | 2452            |         |                 |
|                      | 5                                                                                                                                                                                                                               | 2432            | 10      | 2457            |         |                 |
|                      | IEEE 802.11n HT40                                                                                                                                                                                                               |                 |         |                 |         |                 |
|                      | Channel                                                                                                                                                                                                                         | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
|                      | 1                                                                                                                                                                                                                               | 2422            | 4       | 2437            | 7       | 2452            |
|                      | 2                                                                                                                                                                                                                               | 2427            | 5       | 2442            |         |                 |
|                      | 3                                                                                                                                                                                                                               | 2432            | 6       | 2447            |         |                 |
|                      | BLE                                                                                                                                                                                                                             |                 |         |                 |         |                 |

|               | <table><tr><th>Channel No.</th><th>Frequency (MHz)</th><th>Channel No.</th><th>Frequency (MHz)</th></tr><tr><td>1</td><td>2402</td><td>2</td><td>2404</td></tr><tr><td>3</td><td>2406</td><td>4</td><td>2408</td></tr><tr><td>5</td><td>2410</td><td>6</td><td>2412</td></tr><tr><td>7</td><td>2414</td><td>8</td><td>2416</td></tr><tr><td>9</td><td>2418</td><td>10</td><td>2420</td></tr><tr><td>11</td><td>2422</td><td>12</td><td>2424</td></tr><tr><td>13</td><td>2426</td><td>14</td><td>2428</td></tr><tr><td>15</td><td>2430</td><td>16</td><td>2432</td></tr><tr><td>17</td><td>2434</td><td>18</td><td>2436</td></tr><tr><td>19</td><td>2438</td><td>20</td><td>2440</td></tr><tr><td>21</td><td>2442</td><td>22</td><td>2444</td></tr><tr><td>23</td><td>2446</td><td>24</td><td>2448</td></tr><tr><td>25</td><td>2450</td><td>26</td><td>2452</td></tr><tr><td>27</td><td>2454</td><td>28</td><td>2456</td></tr><tr><td>29</td><td>2458</td><td>30</td><td>2460</td></tr><tr><td>31</td><td>2462</td><td>32</td><td>2464</td></tr><tr><td>33</td><td>2466</td><td>34</td><td>2468</td></tr><tr><td>35</td><td>2470</td><td>36</td><td>2472</td></tr><tr><td>37</td><td>2474</td><td>38</td><td>2476</td></tr><tr><td>39</td><td>2478</td><td>40</td><td>2480</td></tr></table> | Channel No.     | Frequency (MHz) | Channel No.     | Frequency (MHz) | 1 | 2402 | 2 | 2404 | 3 | 2406 | 4 | 2408 | 5 | 2410 | 6 | 2412 | 7 | 2414 | 8 | 2416 | 9 | 2418 | 10 | 2420 | 11 | 2422 | 12 | 2424 | 13 | 2426 | 14 | 2428 | 15 | 2430 | 16 | 2432 | 17 | 2434 | 18 | 2436 | 19 | 2438 | 20 | 2440 | 21 | 2442 | 22 | 2444 | 23 | 2446 | 24 | 2448 | 25 | 2450 | 26 | 2452 | 27 | 2454 | 28 | 2456 | 29 | 2458 | 30 | 2460 | 31 | 2462 | 32 | 2464 | 33 | 2466 | 34 | 2468 | 35 | 2470 | 36 | 2472 | 37 | 2474 | 38 | 2476 | 39 | 2478 | 40 | 2480 |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|-----------------|-----------------|---|------|---|------|---|------|---|------|---|------|---|------|---|------|---|------|---|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|
|               | Channel No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Frequency (MHz) | Channel No.     | Frequency (MHz) |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
|               | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2402            | 2               | 2404            |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
|               | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2406            | 4               | 2408            |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
|               | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2410            | 6               | 2412            |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
|               | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2414            | 8               | 2416            |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
|               | 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2418            | 10              | 2420            |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
|               | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2422            | 12              | 2424            |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
|               | 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2426            | 14              | 2428            |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
|               | 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2430            | 16              | 2432            |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
|               | 17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2434            | 18              | 2436            |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
|               | 19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2438            | 20              | 2440            |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
|               | 21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2442            | 22              | 2444            |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
|               | 23                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2446            | 24              | 2448            |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
|               | 25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2450            | 26              | 2452            |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
|               | 27                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2454            | 28              | 2456            |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
|               | 29                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2458            | 30              | 2460            |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
|               | 31                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2462            | 32              | 2464            |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
|               | 33                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2466            | 34              | 2468            |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
|               | 35                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2470            | 36              | 2472            |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
| 37            | 2474                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 38              | 2476            |                 |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
| 39            | 2478                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 40              | 2480            |                 |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
| Antenna Type: | PCB antenna                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |                 |                 |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
| Antenna:      | 0 dBi gain                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |                 |                 |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |
| Power Supply: | AC 120V/60Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |                 |                 |                 |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |

## 4 SAR Evaluation

### 4.1 RF Exposure Compliance Requirement

#### 4.1.1 Limits

According to FCC Part1.1310: 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 part1.1307(b)

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| Frequency range<br>(MHz)                                       | Electric field<br>strength<br>(V/m) | Magnetic field<br>strength<br>(A/m) | Power density<br>(mW/cm <sup>2</sup> ) | Averaging time<br>(minutes) |
|----------------------------------------------------------------|-------------------------------------|-------------------------------------|----------------------------------------|-----------------------------|
| <b>(A) Limits for Occupational/Controlled Exposures</b>        |                                     |                                     |                                        |                             |
| 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>(B) Limits for General Population/Uncontrolled Exposure</b> |                                     |                                     |                                        |                             |
| 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 Formula

Friis transmission formula:  $P_d = (P_{out} * G) / (4 * \pi * R^2)$

Where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = 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

$P_d$  is the limit of MPE, 1 mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

#### 4.1.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

#### 4.1.3 EUT RF Exposure

##### 1) For BLE

##### Measurement Data

| GFSK mode        |                            |                            |                       |       |
|------------------|----------------------------|----------------------------|-----------------------|-------|
| Test channel     | Peak Output Power<br>(dBm) | Tune up tolerance<br>(dBm) | Maximum tune-up Power |       |
|                  |                            |                            | (dBm)                 | (mW)  |
| Lowest(2402MHz)  | 2.04                       | 2.0±1                      | 3                     | 1.995 |
| Middle(2440MHz)  | 3.01                       | 3.0±1                      | 4                     | 2.512 |
| Highest(2480MHz) | 4.52                       | 4.0±1                      | 5                     | 3.162 |

The worst case:

| Maximum tune-up Power<br>(mW) | Antenna Gain<br>(dBi) | Power Density<br>at R = 20 cm<br>(mW/cm²) | Limit | Result |
|-------------------------------|-----------------------|-------------------------------------------|-------|--------|
| 3.162                         | 0                     | 0.00063                                   | 1.0   | PASS   |

Remark: The Max Conducted Peak Output Power data refer to report Report No.: CQASZ20200200089E-02

## 2) For WIFI

### Measurement Data

| IEEE for 802.11b mode       |                               |                            |                       |        |
|-----------------------------|-------------------------------|----------------------------|-----------------------|--------|
| Test channel                | Average Output Power<br>(dBm) | Tune up tolerance<br>(dBm) | Maximum tune-up Power |        |
|                             |                               |                            | (dBm)                 | (mW)   |
| Lowest(2412MHz)             | 13.72                         | 13.5±1                     | 14.5                  | 28.184 |
| Middle(2437MHz)             | 13.85                         | 13.5±1                     | 14.5                  | 28.184 |
| Highest(2462MHz)            | 13.16                         | 13.5±1                     | 14.5                  | 28.184 |
| IEEE for 802.11g mode       |                               |                            |                       |        |
| Test channel                | Average Output Power<br>(dBm) | Tune up tolerance<br>(dBm) | Maximum tune-up Power |        |
|                             |                               |                            | (dBm)                 | (mW)   |
| Lowest(2412MHz)             | 10.81                         | 10.5±1                     | 11.5                  | 14.125 |
| Middle(2437MHz)             | 10.12                         | 10.5±1                     | 11.5                  | 14.125 |
| Highest(2462MHz)            | 10.46                         | 10.5±1                     | 11.5                  | 14.125 |
| IEEE for 802.11n(HT20) mode |                               |                            |                       |        |
| Test channel                | Average Output Power<br>(dBm) | Tune up tolerance<br>(dBm) | Maximum tune-up Power |        |
|                             |                               |                            | (dBm)                 | (mW)   |
| Lowest(2412MHz)             | 9.63                          | 10.0±1                     | 11                    | 12.589 |
| Middle(2437MHz)             | 9.83                          | 10.0±1                     | 11                    | 12.589 |
| Highest(2462MHz)            | 9.76                          | 10.0±1                     | 11                    | 12.589 |
| IEEE for 802.11n(HT40) mode |                               |                            |                       |        |
| Test channel                | Average Output Power<br>(dBm) | Tune up tolerance<br>(dBm) | Maximum tune-up Power |        |
|                             |                               |                            | (dBm)                 | (mW)   |
| Lowest(2422MHz)             | 6.71                          | 7.0±1                      | 8                     | 6.310  |
| Middle(2437MHz)             | 7.42                          | 7.0±1                      | 8                     | 6.310  |
| Highest(2452MHz)            | 7.60                          | 7.0±1                      | 8                     | 6.310  |

The worst case:

| Maximum tune-up Power<br>(mW) | Antenna Gain<br>(dBi) | Power Density<br>at R = 20 cm<br>(mW/cm <sup>2</sup> ) | Limit | Result |
|-------------------------------|-----------------------|--------------------------------------------------------|-------|--------|
| 28.184                        | 0                     | 0.006                                                  | 1.0   | PASS   |

Remark: The Max Conducted Average Output Power data refer to report Report No.: CQASZ20200200089E-01

WIFI and BLE can not simultaneous transmitting at same time.