

FCC RF EXPOSURE REPORT

FCC ID: 2AXVUTWS-1

Project No. : 2012H026
Equipment : TWS Earphone
Brand Name : Grell
Test Model : Grell TWS-1
Series Model : N/A
Applicant : SX Innovation Limited
Address : Sunbeam Plaza, Unit 703, 1155 Canton Road, Mongkok, Kowloon, Hong Kong
Manufacturer : STRAX GmbH
Address : Belgische Allee 52+54, DE-53842 Troisdorf
Date of Receipt : Dec. 24, 2020
Date of Test : Dec. 24, 2020 ~ Jan. 14, 2021
Issued Date : Feb. 07, 2021
Report Version : R02
Test Sample : Engineering Sample No. : SH20201223118, SH20201223118-1
Standard(s) : FCC Guidelines for Human Exposure IEEE C95.1 & KDB447498 D01

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

Maker Qi

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REPORT ISSUED HISTORY

| Report Version | Description | Issued Date |
|----------------|---|---------------|
| R00 | Original Issue. | Jan. 29, 2021 |
| R01 | Revised report to address TCB's comments. | Feb. 04, 2021 |
| R02 | Revised report to address TCB's comments. | Feb. 07, 2021 |

1. TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No. 29, Jintang Road, Tangzhen Industry Park, Pudong New Area, Shanghai 201210, China
 BTL's Test Firm Registration Number for FCC: 476765
 BTL's Designation Number for FCC: CN1241

2. GENERAL CONCLUSION

According to FCC KDB447498 D01, Appendix A, SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR, where

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

| Appendix A - SAR Test Exclusion Thresholds for 100 MHz - 6 GHz and ≤ 50 mm | | | | | | | | | | | |
|--|----|----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------------------------|
| MHz | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | mm |
| 150 | 39 | 77 | 116 | 155 | 194 | 232 | 271 | 310 | 349 | 387 | SAR Test Exclusion Thresholds (mW) |
| 300 | 27 | 55 | 82 | 110 | 137 | 164 | 192 | 219 | 246 | 274 | |
| 450 | 22 | 45 | 67 | 89 | 112 | 134 | 157 | 179 | 201 | 224 | |
| 835 | 16 | 33 | 49 | 66 | 82 | 98 | 115 | 131 | 148 | 164 | |
| 900 | 16 | 32 | 47 | 63 | 79 | 95 | 111 | 126 | 142 | 158 | |
| 1500 | 12 | 24 | 37 | 49 | 61 | 73 | 86 | 98 | 110 | 122 | |
| 1900 | 11 | 22 | 33 | 44 | 54 | 65 | 76 | 87 | 98 | 109 | |
| 2450 | 10 | 19 | 29 | 38 | 48 | 57 | 67 | 77 | 86 | 96 | |
| 3600 | 8 | 16 | 24 | 32 | 40 | 47 | 55 | 63 | 71 | 79 | |
| 5200 | 7 | 13 | 20 | 26 | 33 | 39 | 46 | 53 | 59 | 66 | |
| 5400 | 6 | 13 | 19 | 26 | 32 | 39 | 45 | 52 | 58 | 65 | |
| 5800 | 6 | 12 | 19 | 25 | 31 | 37 | 44 | 50 | 56 | 62 | |

3. TABLE FOR FILED ANTENNA

For BT and BLE:

| Ant. | Brand | Model Name | Antenna Type | Connector | Gain (dBi) |
|------|-------|------------|--------------|-----------|------------|
| 1 | N/A | N/A | Mechanical | N/A | -2.3 |

Note:

The antenna gain is provided by the manufacturer.

4. TEST RESULTS

| Frequency (MHz) | Max Tune-up Power (dBm) | Max Tune-up Power (mW) | Result | Limit |
|-----------------|-------------------------|------------------------|--------|-------|
| 2441 | 9.50 | 8.91 | 2.78 | 3.0 |

Note:

- (1) Output power including tune up tolerance.
- (2) The maximum measured output average power of this EUT is 8.91mW, less than 10mW at 5mm distance.
Conclusion: No SAR evaluation required since transmitter power is below FCC threshold.
- (3) For the maximum output average power, the test procedure and setup please refer to chapter 9 of the test report (BTL-FCCP-2-2012H026), the test data please refer to Appendix I of the test report (BTL-FCCP-2-2012H026).

End of Test Report