| | | | | |
|---|---|---|---|---|
| **Prüfbericht-Nr.:** *Test report no.*: | **CN24W6UQ 001** | **Auftrags-Nr.:** *Order no.*: | 168492000 | Seite 1 von 24 *Page 1 of 24* |
| **Kunden-Referenz-Nr.:** *Client reference no.*: | N/A | **Auftragsdatum:** *Order date:* | 2024-07-01 | |
| **Auftraggeber:** *Client*: | SZ DJI TECHNOLOGY CO., LTD<br>Lobby of T2, DJI Sky City, No. 53 Xianyuan Road, Xili Community, Xili Street, Nanshan District, Shenzhen, China. | | | |
| **Prüfgegenstand:** *Test item*: | D-RTK 3 Multifunctional Station, D-RTK 3 AG | | | |
| **Bezeichnung / Typ-Nr.:** *Identification / Type no.*: | R600BS, R600_AG<br>(Trademark: DJI) | | | |
| **Auftrags-Inhalt:** *Order content*: | Test Report | | | |
| **Prüfgrundlage:** *Test specification*: | CFR47 FCC Part 15: Subpart C Section 15.247 | | | |

| | | |
|---|---|---|
| **Wareneingangsdatum:** *Date of sample receipt*: | 2024-07-01 | Please refer to Photo Document |
| **Prüfmuster-Nr.:** *Test sample no:* | A003757365-001<br>A003757344-003, 005<br>A003834149-006~015 | |
| **Prüfzeitraum:** *Testing period*: | 2024-07-05 - 2024-11-07 | |
| **Ort der Prüfung:** *Place of testing*: | TÜV Rheinland (Shenzhen) Co., Ltd. | |
| **Prüflaboratorium:** *Testing laboratory:* | TÜV Rheinland (Shenzhen) Co., Ltd. | |
| **Prüfergebnis*:** *Test result**: | Pass | |

| | | | |
|---|---|---|---|
| **geprüft von:** tested by: | x Bell Hu<br>Signed by: Bell Hu | **genehmigt von:** *authorized by*: | X Hardy Suo<br>Signed by: Hardy Suo |
| **Datum:** *Date:* 2024-12-31 | | **Ausstellungsdatum:** *Issue date:* 2024-12-31 | |
| **Stellung** / Position: | Sachverständige(r)/Expert | **Stellung** / Position: | Sachverständige(r)/Expert |

| | |
|---|---|
| **Sonstiges /** *Other*: | FCC ID: SS3-R600BS2024<br>This report is for Bluetooth LE and 2.4GHz SDR. |
| **Zustand des Prüfgegenstandes bei Anlieferung:** *Condition of the test item at delivery*: | Prüfmuster vollständig und unbeschädigt<br>*Test item complete and undamaged* |

| | | | | |
|---|---|---|---|---|
| * Legende: | P(ass) = entspricht o.g. Prüfgrundlage(n) | F(ail) = entspricht nicht o.g. Prüfgrundlage(n) | N/A = nicht anwendbar | N/T = nicht getestet |
| * *Legend:* | *P(ass) = passed a.m. test specification(s)* | *F(ail) = failed a.m. test specification(s)* | *N/A = not applicable* | *N/T = not tested* |

**Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.**
*This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.*

## Anmerkungen
*Remarks*

| | |
|---|---|
| **1** | Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben.<br>Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.<br><br>*The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.* |
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| **3** | Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben.<br>Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.<br><br>*Test clauses with remark of * are subcontracted to qualified subcontractors and descripted under the respective test clause in the report.*<br>*Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.* |
| **4** | Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnisen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezueglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.<br><br>*The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.* |

# *Test Summary*

**5.1.1 ANTENNA REQUIREMENT**
*RESULT: Pass*

**5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER**
*RESULT: Pass*

**5.1.3 CONDUCTED POWER SPECTRAL DENSITY**
*RESULT: Pass*

**5.1.4 6DB BANDWIDTH**
*RESULT: Pass*

**5.1.5 99% BANDWIDTH**
*RESULT: Pass*

**5.1.6 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHZ BANDWIDTH**
*RESULT: Pass*

**5.1.7 RADIATED SPURIOUS EMISSION**
*RESULT: Pass*

**5.1.8 CONDUCTED EMISSION ON AC MAINS**
*RESULT: Pass*

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# 1 General Remarks

## 1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Test Results of Bluetooth Low Energy

Appendix B: Test Results of 2.4GHz SDR

Appendix C: Photographs of the Test Set-up.

# 2 Test Sites

## 2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.

No. 362 Huanguan Road Middle, Longhua District, 518110, Shenzhen, P. R. China.

FCC Accreditation Designation No.: 694916

## 2.2 List of Test and Measurement Instruments

**Table 1: List of Test and Measurement Equipment**

| **Radio Spectrum Testing (SRD-Tonscend)** | | | | | |
|---|---|---|---|---|---|
| **Equipment** | **Manufacturer** | **Model** | **Serial No.** | **Cal. Date** | **Cal. until** |
| EXA Signal Analyzer, Multi-touch | Keysight | N9010B | MY60241175 | 2024-09-26 | 2025-09-25 |
| MXG X-Series RF Vector Signal Generator | Keysight | N5182B | MY61250137 | 2024-09-26 | 2025-09-25 |
| EXG X-Series Microwave Analog Signal Generator | Keysight | N5173B | MY61250141 | 2024-09-26 | 2025-09-25 |
| DC power supply | Keysight | E3642A | MY61276100 | 2024-09-26 | 2025-09-25 |
| Power Control Unit | Tonscend | JS0806-4ADC | N/A | 2024-09-26 | 2025-09-25 |
| Automation Control Unit | Tonscend | JS0806-2 | 21C8060396 | 2024-09-26 | 2025-09-25 |
| Test Software | Tonscend | JS1120-3 | N/A | N/A | N/A |
| Control PC | Lenovo | TianYi510S-071MB | YLX23JMF | N/A | N/A |
| Shielding Room | Albatross | SR1 | APC17151-SR1 | 2024-09-14 | 2027-09-13 |
| **Unwanted Emission Testing (TS9975)** | | | | | |
| **Equipment** | **Manufacturer** | **Model** | **Serial No.** | **Cal. Date** | **Cal. until** |
| EMI Test Receiver | R&S | ESR 7 | 102021 | 2024-09-29 | 2025-09-28 |
| Signal Analyzer | R&S | FSV 40 | 101439 | 2024-09-29 | 2025-09-28 |
| System Controller Interface | R&S | SCI-100 | S10010038 | N/A | N/A |
| Filterbank | R&S | Wlan | 100759 | 2024-09-29 | 2025-09-28 |
| OSP | R&S | OSP 120 | 102040 | N/A | N/A |
| Pre-amplifier | R&S | SCU08F1 | 08320031 | 2024-09-29 | 2025-09-28 |
| Amplifier | R&S | SCU-18F | 180070 | 2024-09-29 | 2025-09-28 |
| Amplifier | R&S | SCU40A | 100475 | 2024-09-29 | 2025-09-28 |
| Trilog Broadband Antenna (30 MHz - 7 GHz) | Schwarzbeck | VULB 9162 | 193 | 2024-09-28 | 2025-09-27 |

| | | | | | |
|---|---|---|---|---|---|
| Double-Ridged Antenna (1 -18 GHz) | ETS-LINDGREN | 3117 | 00218717 | 2024-09-28 | 2025-09-27 |
| Wideband Ridged Horn Antenna (18-40 GHz) | Steatite | QMS-00880 | 19067 | 2024-09-28 | 2025-09-27 |
| Active Loop Antenna | Schwarzbeck | FMZB 1513 | 302 | 2024-09-28 | 2025-09-27 |
| Test software | R&S | EMC32 (V10.60.10) | N/A | N/A | N/A |
| Control PC | Dell | OptiPlex 7050 | 36NV9P2 | N/A | N/A |
| 3m Semi-Anechoic Chamber | Albatross | SAC-3m | APC17151-SAC | 2024-09-14 | 2027-09-13 |

| **Conducted Emission** | | | | |
|---|---|---|---|---|
| **Equipment** | **Manufacturer** | **Model No.** | **Serial No.** | **Cal. Until** |
| EMI Test Receiver | R&S | ESR3 | 102680 | 2025-02-22 |
| Artificial Mains Network | R&S | ENV216 | 101445 | 2025-02-22 |
| EMC32 test software | R&S | EMC32(Ver.10.50.00) | N/A | N/A |

## 2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

## 2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basics using in house standards or comparisons.

## 2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

**Table 2: Measurement Uncertainty**

| Parameter | Uncertainty (k=2) |
|---|---|
| RF output power, conducted | ± 0.99 dB |
| Occupied Channel Bandwidth | ± 2.08 % |
| RF power density, conducted | ± 0.99 dB |
| Unwanted Emissions, conducted | ± 0.89 dB |
| All emissions, radiated | ±4.17 dB |
| Conducted Emission, (9kHz to 150kHz)/(150kHz to 30MHz) | ± 3.70 dB / ± 3.30 dB |

## 2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B & C of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

## 2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at No. 362 Huanguan Road Middle, Longhua District, 518110, Shenzhen, P. R. China. is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

# 3 General Product Information

## 3.1 Product Function and Intended Use

The Product is D-RTK 3 Multifunctional Station which supports Bluetooth, 2.4GHz SDR, 5.2GHz SDR, 5.8GHz SDR and GNSS functions.
*remark: SDR means specific defined radio, and cannot changes radio specification via software/firmware by end-users.

For details refer to the User Manual, Technical Description and Circuit Diagram.

## 3.2 Ratings and System Details

**Table 3: Technical Specification of EUT**

| **General Information of EUT** | **Value** |
|---|---|
| Kind of Equipment | D-RTK 3 Multifunctional Station, D-RTK 3 AG |
| Type Designation | R600BS, R600_AG<br>(Two models are identical except for model name and product name.) |
| Trademark | DJI |
| FCC ID | SS3-R600BS2024 |
| Operating Voltage | Powered by battery(7.2Vdc) or DC 9V-15V by USB-C port for charging |
| Testing Voltage | Fully charged battery |
| Extreme Temperature Range | -30ºC to +55ºC |
| Radiofrequency operating mode | 1) Bluetooth: operating within 2400-2483.5MHz, Bluetooth BLE (1Mbps&2Mbps)<br>2) 2.4GHz SDR: operating within 2400-2483.5MHz, supports 1.4MHz/3MHz/5MHz/10MHz/20MHz/40MHz/60MHz Bandwidth<br>3) 5.2GHz SDR: operating within 5150-5250MHz, supports 1.4MHz/3MHz/5MHz/10MHz/20MHz/40MHz60MHz/80MHz Bandwidth<br>4) 5.8GHz SDR: operating within 5725-5850MHz, supports 1.4MHz/3MHz/5MHz/10MHz/20MHz/40MHz/60MHz/80MHz Bandwidth<br>5) GPS & BDS & Galileo & Glonass (receiver): operating within 1559-1610MHz |
| **Technical Specification of Bluetooth** | |
| Operating Frequency | 2402-2480MHz |
| Type of Modulation | GFSK |
| Data Rate | 1Mbps, 2Mbps |
| Channel Number | 40 channels |
| Channel Separation | 2MHz |
| Antenna Type | Integral Antenna |
| Antenna Number | 1 |
| Antenna Gain | 1 dBi (Provided by the Client) |
| The type of wideband data transmission equipment | DTS |

| **Technical Specification of 2.4GHz SDR** | |
|---|---|
| Operating Frequency | 2403.5-2469.12MHz for 1.4MHz Bandwidth<br>2405.5-2468.2MHz for 3MHz Bandwidth<br>2404.5-2469.5MHz for 5MHz Bandwidth<br>2407.5-2467.5MHz for 10MHz Bandwidth<br>2412.5-2462.5MHz for 20MHz Bandwidth<br>2422.5-2452.5MHz for 40MHz Bandwidth<br>2432.5-2442.5MHz for 60MHz Bandwidth |
| Type of Modulation | OFDM (QPSK, 16QAM, 64QAM) |
| Channel Number | 108 channels for 1.4MHz Bandwidth<br>64 channels for 3MHz Bandwidth<br>130 channels for 5MHz Bandwidth<br>155 channels for 10MHz Bandwidth<br>97 channels for 20MHz Bandwidth<br>31 channels for 40MHz Bandwidth<br>11 channels for 60MHz Bandwidth |
| Antenna Type | Integral Antenna |
| Antenna Number | 1Tx4Rx for SISO mode (ANT0 or ANT1 or ANT2 or ANT3)<br>2Tx4Rx for MIMO mode (ANT0+ANT1, or ANT0+ANT2, or ANT0+ANT3, or ANT2+ANT1, or ANT1+ANT3, or ANT2+ANT3) |
| Antenna Gain | 3 dBi for ANT0/ANT1/ANT2/ANT3 (Provided by the Client) |
| The type of wideband data transmission equipment | DTS |

Note: The correctness of all data provided by customer in the test report is ensured and responsible of the customer. Any misjudgment of the test results caused by the use of incorrect data provided by customer shall be borne by the customer.

**Table 4: RF Channel and Frequency of Bluetooth LE**

| RF Channel | Frequency (MHz) | RF Channel | Frequency (MHz) | RF Channel | Frequency (MHz) | RF Channel | Frequency (MHz) |
|---|---|---|---|---|---|---|---|
| 0 | 2402 | 10 | 2422 | 20 | 2442 | 30 | 2462 |
| 1 | 2404 | 11 | 2424 | 21 | 2444 | 31 | 2464 |
| 2 | 2406 | 12 | 2426 | 22 | 2446 | 32 | 2466 |
| 3 | 2408 | 13 | 2428 | 23 | 2448 | 33 | 2468 |
| 4 | 2410 | 14 | 2430 | 24 | 2450 | 34 | 2470 |
| 5 | 2412 | 15 | 2432 | 25 | 2452 | 35 | 2472 |
| 6 | 2414 | 16 | 2434 | 26 | 2454 | 36 | 2474 |
| 7 | 2416 | 17 | 2436 | 27 | 2456 | 37 | 2476 |
| 8 | 2418 | 18 | 2438 | 28 | 2458 | 38 | 2478 |
| 9 | 2420 | 19 | 2440 | 29 | 2460 | 39 | 2480 |

## 3.3 Independent Operation Modes

The basic operation modes are:

A. On, Bluetooth wireless transmitting mode
   1) Low Channel
   2) Middle Channel
   3) High Channel

B. On, 2.4GHz SDR wireless transmitting mode
   1) Low Channel
   2) Middle Channel
   3) High Channel

C. On, Bluetooth with SDR co-location mode

D. Off

## 3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

## 3.5 Submitted Documents

- Application Form
- ID Label and Location Info
- User Manual
- Operation Description

# 4 Test Set-up and Operation Modes

## 4.1 Principle of Configuration Selection

**Radio Spectrum:** The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

**Emission:** The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

## 4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.10: 2013.

According to clause 3.1, all tests were performed on model R600BS in this report.

## 4.3 Special Accessories and Auxiliary Equipment

**Table 5: List of Accessories and Auxiliary Equipment**

| Description | Manufacturer | Model | Remark |
|---|---|---|---|
| Laptop | Lenovo | T480 | S/N: PF-16A6N8 |
| Repeater | DJI | EA600 | N/A |
| Adapter | TP-LINK | T535081-2A1 | DC 53.5V, 0.81A |
| POE Adapter | TP-LINK | TL-POE170S | DC 53.5V, 0.81A |
| D-RTK 3 PoE Module | DJI | R600BSPOE | DC 53.5V |

## 4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

# 4.5 Test Setup Diagram

**Diagram of Measurement Configuration for Radiation Test (Below 1GHz)**

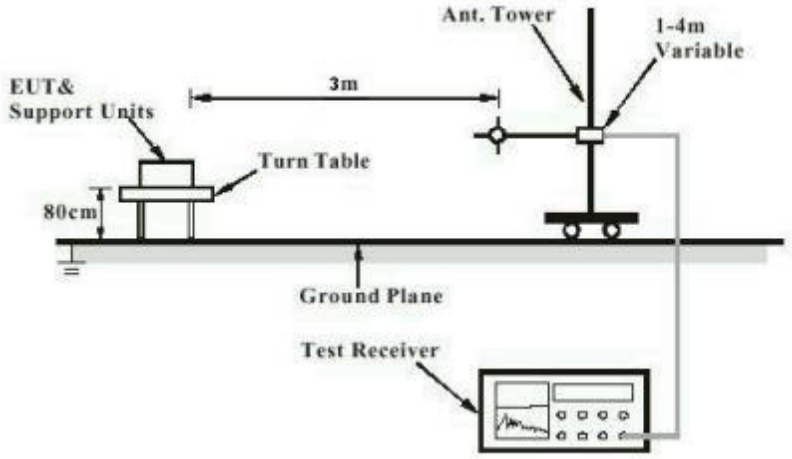



**Diagram of Measurement Configuration for Radiation Test (Above 1GHz)**

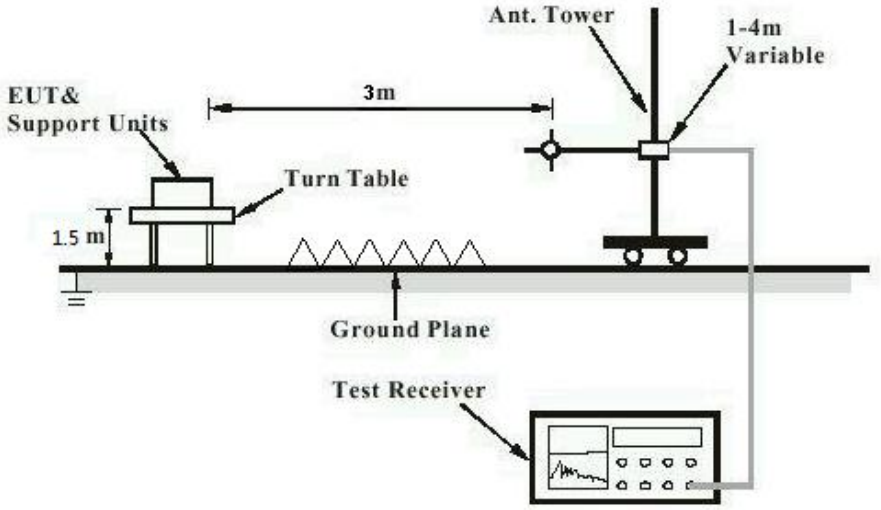


**Diagram of Measurement Configuration for Mains Conduction Measurement**

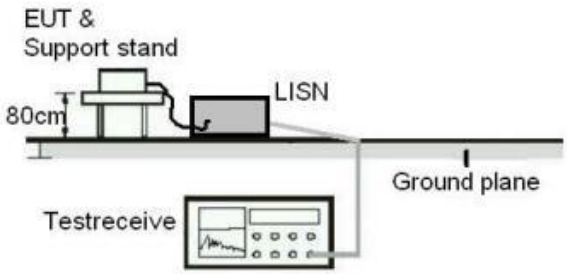
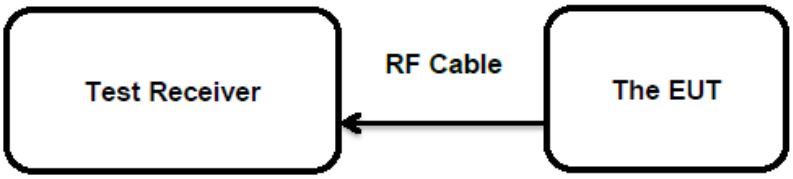



**Diagram of Measurement Configuration for Conducted Transmitter Measurement**



# 5 Test Results

## 5.1 Transmitter Requirement & Test Suites

### 5.1.1 Antenna Requirement

**RESULT:** **Pass**

**Test Specification**

| | | |
|---|---|---|
| Test standard | : | FCC Part 15.247(b)(4) and Part 15.203 |
| Limit | : | the use of antennas with directional gains that do not exceed 6 dBi |

According to the manufacturer declared, the EUT has four Integral Antennas, the max. uncorrelated antenna gain is 3dBi for 2.4GHz SDR and 1dBi for BLE, permanent attachment and no consideration of replacement.

Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

## 5.1.2 Maximum Peak Conducted Output Power

**RESULT:** **Pass**

**Test Specification**

| | | |
|---|---|---|
| Test standard | : | FCC Part 15.247(b)(3) |
| Basic standard | : | ANSI C63.10: 2013 |
| Limits | : | < 1 W (Maximum Conducted Peak Power) |
| Kind of test site | : | Shielded Room |

**Test Setup**

| | | |
|---|---|---|
| Date of testing | : | 2024-10-22 to 2024-10-30 |
| Input voltage | : | Fully charged battery |
| Operation mode | : | A, B |
| Test channel | : | Low / Middle / High |
| Ambient temperature | : | 25 ℃ |
| Relative humidity | : | 45 % |
| Atmospheric pressure | : | 101 kPa |

For details refer to following test result.

**Table 6: Test Result of Maximum Conducted Output Power, Bluetooth LE**

| Test Mode | Data Rate | Test Channel (MHz) | Measured Peak Power | | Limit (W) |
|---|---|---|---|---|---|
| | | | (dBm) | (W) | |
| Bluetooth LE | 1 Mbps | 2402 | 3.03 | 0.0020 | < 1.0 |
| | | 2440 | 3.07 | 0.0020 | |
| | | 2480 | 2.78 | 0.0019 | |
| | 2 Mbps | 2402 | 3.14 | 0.0021 | |
| | | 2440 | 3.16 | 0.0021 | |
| | | 2480 | 2.83 | 0.0019 | |
| **Maximum Measured Value** | | | **3.16** | **0.0021** | |

**Table 7: Test Result of Maximum Conducted Output Power, 2.4GHz SDR**

Worst case: SISO mode (ANT 3)

| Test Mode | Test Channel (MHz) | Measured Average Power | | Limit (W) |
|---|---|---|---|---|
| | | (dBm) | (W) | |
| 1.4MHz BW | 2403.5 | 24.34 | 0.2716 | < 1.0 |
| | 2435.5 | 24.41 | 0.2761 | |
| | 2469.12 | 24.57 | 0.2864 | |
| 3MHz BW | 2405.5 | 26.64 | 0.4613 | |
| | 2435.5 | 26.89 | 0.4887 | |
| | 2468.2 | 27.08 | 0.5105 | |
| 5MHz BW | 2404.5 | 22.08 | 0.1614 | |
| | 2409.5 | 25.13 | 0.3258 | |
| | 2434.5 | 26.94 | 0.4943 | |
| | 2469.5 | 27.14 | 0.5176 | |
| 10MHz BW | 2407.5 | 19.86 | 0.0968 | |
| | 2410.5 | 25.60 | 0.3631 | |
| | 2437.5 | 26.63 | 0.4603 | |
| | 2467.5 | 26.24 | 0.4207 | |

| | | | | |
|---|---|---|---|---|
| 20MHz BW | 2412.5 | 21.30 | 0.1349 | |
| | 2414.5 | 24.98 | 0.3148 | |
| | 2437.5 | 26.40 | 0.4365 | |
| | 2462.5 | 26.63 | 0.4603 | |
| 40MHz BW | 2422.5 | 20.21 | 0.1050 | |
| | 2437.5 | 24.10 | 0.2570 | |
| | 2452.5 | 24.70 | 0.2951 | |
| 60MHz BW | 2432.5 | 21.12 | 0.1294 | |
| | 2437.5 | 21.69 | 0.1476 | |
| | 2442.5 | 23.33 | 0.2153 | |
| **Maximum Measured Value** | | **27.14** | **0.5176** | |

Worst case: MIMO mode (ANT 0+2)

| Test Mode | Test Channel (MHz) | Measured Average Power | | Limit (W) |
|---|---|---|---|---|
| | | (dBm) | (W) | |
| 1.4MHz BW | 2403.5 | 24.50 | 0.2818 | |
| | 2435.5 | 24.35 | 0.2723 | |
| | 2469.12 | 24.49 | 0.2812 | |
| 3MHz BW | 2405.5 | 27.01 | 0.5023 | |
| | 2435.5 | 26.83 | 0.4819 | |
| | 2468.2 | 26.81 | 0.4797 | |
| 5MHz BW | 2404.5 | 21.70 | 0.1479 | |
| | 2409.5 | 25.91 | 0.3899 | |
| | 2434.5 | 26.72 | 0.4699 | |
| | 2469.5 | 26.63 | 0.4603 | |
| 10MHz BW | 2407.5 | 19.99 | 0.0998 | |
| | 2410.5 | 25.21 | 0.3319 | |
| | 2437.5 | 26.21 | 0.4178 | < 1.0 |
| | 2467.5 | 26.61 | 0.4581 | |
| 20MHz BW | 2412.5 | 21.13 | 0.1297 | |
| | 2414.5 | 24.81 | 0.3027 | |
| | 2437.5 | 26.45 | 0.4416 | |
| | 2462.5 | 26.15 | 0.4121 | |
| 40MHz BW | 2422.5 | 20.55 | 0.1135 | |
| | 2437.5 | 23.68 | 0.2333 | |
| | 2452.5 | 24.72 | 0.2965 | |
| 60MHz BW | 2432.5 | 21.36 | 0.1368 | |
| | 2437.5 | 22.02 | 0.1592 | |
| | 2442.5 | 23.07 | 0.2028 | |
| **Maximum Measured Value** | | **27.01** | **0.5023** | |

Note:
1) The cable loss is taken into account in results,
2) Antenna gain(G) of Bluetooth: 3dBi
   Antenna gain(G) of 2.4GHz SDR: 3dBi (uncorrelated antenna gain)

## 5.1.3 Conducted Power Spectral Density

**RESULT:** **Pass**

**Test Specification**

| | | |
|---|---|---|
| Test standard | : | FCC Part 15.247(e) |
| Basic standard | : | ANSI C63.10: 2013 |
| Limits | : | 8 dBm / 3kHz |
| Kind of test site | : | Shielded Room |

**Test Setup**

| | | |
|---|---|---|
| Date of testing | : | 2024-10-22 to 2024-10-30 |
| Input voltage | : | Fully charged battery |
| Operation mode | : | A, B |
| Test channel | : | Low / Middle / High |
| Ambient temperature | : | 25 ℃ |
| Relative humidity | : | 45 % |
| Atmospheric pressure | : | 101 kPa |

For the measurement records, refer to the appendix A, B.

## 5.1.4 6dB Bandwidth

**RESULT:** **Pass**

**Test Specification**

| | | |
|---|---|---|
| Test standard | : | FCC Part 15.247(a)(2) |
| Basic standard | : | ANSI C63.10: 2013 |
| Limits | : | > 500 kHz |
| Kind of test site | : | Shielded Room |

**Test Setup**

| | | |
|---|---|---|
| Date of testing | : | 2024-10-22 to 2024-10-30 |
| Input voltage | : | Fully charged battery |
| Operation mode | : | A, B |
| Test channel | : | Low / Middle / High |
| Ambient temperature | : | 25 ℃ |
| Relative humidity | : | 45 % |
| Atmospheric pressure | : | 101 kPa |

For the measurement records, refer to the appendix A, B.

## 5.1.5 99% Bandwidth

**RESULT:** **Pass**

**Test Specification**

| | | |
|---|---|---|
| Test standard | : | FCC Part 15.247(a) |
| Basic standard | : | ANSI C63.10: 2013 |
| Kind of test site | : | Shielded Room |

**Test Setup**

| | | |
|---|---|---|
| Date of testing | : | 2024-10-22 to 2024-10-30 |
| Input voltage | : | Fully charged battery |
| Operation mode | : | A, B |
| Test channel | : | Low / Middle / High |
| Ambient temperature | : | 25 ℃ |
| Relative humidity | : | 45 % |
| Atmospheric pressure | : | 101 kPa |

For the measurement records, refer to the appendix A, B.

## 5.1.6 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

**RESULT:** **Pass**

**Test Specification**

| | | |
|---|---|---|
| Test standard | : | FCC Part 15.247(d) |
| Basic standard | : | ANSI C63.10: 2013 |
| Limits | : | 20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power);<br>In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a) |
| Kind of test site | : | Shielded Room |

**Test Setup**

| | | |
|---|---|---|
| Date of testing | : | 2024-10-22 to 2024-10-30 |
| Input voltage | : | Fully charged battery |
| Operation mode | : | A, B |
| Test channel | : | Low / Middle / High |
| Ambient temperature | : | 25 ℃ |
| Relative humidity | : | 45 % |
| Atmospheric pressure | : | 101 kPa |

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to test plots, and compliance is achieved as well.

For the measurement records, refer to the appendix A, B.

## 5.1.7 Radiated Spurious Emission

**RESULT:** **Pass**

**Test Specification**

| | | |
|---|---|---|
| Test standard | : | FCC Part 15.247(d) & FCC Part 15.205 |
| Basic standard | : | ANSI C63.10: 2013 |
| Limits | : | Refer to 15.209(a) of FCC part 15.247(d) |
| Kind of test site | : | 3m Semi-anechoic Chamber |

**Test Setup**

| | | |
|---|---|---|
| Date of testing | : | 2024-10-29 to 2024-11-07 |
| Input voltage | : | Fully charged battery |
| Operation mode | : | A, B, C |
| Test channel | : | Low / Middle / High |
| Ambient temperature | : | Refer to test result |
| Relative humidity | : | Refer to test result |
| Atmospheric pressure | : | 101 kPa |

Remark:
Testing was carried out within frequency range 9kHz to the tenth harmonics. Only the worst case spurious emissions configuration of the each mode were reported.

For the measurement records, refer to the appendix A, B.

## 5.1.8 Conducted Emission on AC Mains

**RESULT:** **Pass**

**Test Specification**

| | | |
|---|---|---|
| Test standard | : | FCC Part 15.207(a) |
| Basic standard | : | ANSI C63.10: 2013 |
| Frequency range | : | 0.15 – 30MHz |
| Classification | : | Class B |
| Limits | : | FCC Part 15.207(a) |
| Kind of test site | : | Shielded Room |

**Test Setup**

| | | |
|---|---|---|
| Date of testing | : | 2024-07-05 |
| Input voltage | : | AC 120V, 60Hz |
| Operation mode | : | A, B |
| Earthing | : | Not connected |
| Ambient temperature | : | 23.4 ℃ |
| Relative humidity | : | 51.2 % |
| Atmospheric pressure | : | 101 kPa |

For the measurement records, refer to the appendix A, B.

# 6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix C.

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========== END OF REPORT ==========