

Prüfbericht-Nr.: <i>Test report no.:</i>	CN24ZS14 003	Auftrags-Nr.: <i>Order no.:</i>	168484696	Seite 1 von 25 <i>Page 1 of 25</i>
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	2024-05-20	
Auftraggeber: <i>Client:</i>	SZ DJI TECHNOLOGY CO., LTD Lobby of T2, DJI Sky City, No. 53 Xianyuan Road, Xili Community, Xili Street, Nanshan District, Shenzhen, China.			
Prüfgegenstand: <i>Test item:</i>	Controller			
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	RC520 (Trademark: DJI)			
Auftrags-Inhalt: <i>Order content:</i>	Test Report			
Prüfgrundlage: <i>Test specification:</i>	CFR47 FCC Part 15: Subpart C Section 15.247			
Wareneingangsdatum: <i>Date of sample receipt:</i>	2024-06-17	Please refer to Photo Document		
Prüfmuster-Nr.: <i>Test sample no.:</i>	A003743309-001~004			
Prüfzeitraum: <i>Testing period:</i>	2024-06-24 - 2024-07-14			
Ort der Prüfung: <i>Place of testing:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von: <i>tested by:</i>			genehmigt von: <i>authorized by:</i>	
Datum: <i>Date:</i>	2024-11-04 Signed by: Bell Hu	Ausstellungsdatum: <i>Issue date:</i>	2024-11-04 Signed by: Jonathan Li	
Stellung / Position:	Sachverständige(r)/Expert		Stellung / Position:	Sachverständige(r)/Expert
Sonstiges / <i>Other:</i>	FCC ID: SS3-RC5202410 This report is for 2.4GHz SDR and 2.4GHz Wi-Fi.			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>		
* 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				
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Anmerkungen
Remarks

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4	Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen 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 bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019. <i>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.</i>

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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 2.4GHz SDR

Appendix B: Test Results of 2.4GHz Wi-Fi

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	2023-09-22	2024-09-21
MXG X-Series RF Vector Signal Generator	Keysight	N5182B	MY61250137	2023-09-22	2024-09-21
EXG X-Series Microwave Analog Signal Generator	Keysight	N5173B	MY61250141	2023-09-22	2024-09-21
DC power supply	Keysight	E3642A	MY61276100	2023-09-22	2024-09-21
Power Control Unit	Tonscend	JS0806-4ADC	N/A	2023-09-22	2024-09-21
Automation Control Unit	Tonscend	JS0806-2	21C8060396	2023-09-22	2024-09-21
Test Software	Tonscend	JS1120-3	N/A	N/A	N/A
Control PC	Lenovo	TianYi510S-071MB	YLX23JMF	N/A	N/A
Shielding Room 8#	Albatross	SR8	APC17151-SR8	2024-06-21	2025-06-20
Unwanted Emission Testing (TS9975)					
Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. until
EMI Test Receiver	R&S	ESR 7	102021	2023-07-26	2024-07-25
Signal Analyzer	R&S	FSV 40	101439	2023-07-26	2024-07-25
System Controller Interface	R&S	SCI-100	S10010038	N/A	N/A
Filterbank	R&S	Wlan	100759	2023-07-26	2024-07-25
OSP	R&S	OSP 120	102040	N/A	N/A
Pre-amplifier	R&S	SCU08F1	08320031	2023-07-26	2024-07-25
Amplifier	R&S	SCU-18F	180070	2023-07-26	2024-07-25
Amplifier	R&S	SCU40A	100475	2023-07-26	2024-07-25
Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	193	2022-08-07	2024-08-06
Double-Ridged Antenna (1 -18	ETS-LINDGREN	3117	00218717	2022-08-07	2024-08-06

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GHz)					
Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	2022-08-28	2024-08-27
Active Loop Antenna	Schwarzbeck	FMZB 1513	302	2022-08-07	2024-08-06
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	2024-06-21	2025-06-20

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 basis 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

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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 Controller which supports Bluetooth dual mode, 2.4GHz SDR, 2.4GHz Wi-Fi, 5.2/5.8GHz Wi-Fi and 5.2/5.8GHz SDR 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:	Controller
Type Designation:	RC520
Trademark:	DJI
FCC ID:	SS3-RC5202410
Operating Voltage:	7.6V DC by built-in battery or AC 100-240V via AC/DC adapter
Testing Voltage:	Fully charged battery
Extreme Temperature Range:	-10°C to +40°C
Radiofrequency operating mode:	1) Bluetooth: operating within 2400-2483.5MHz, Classic Bluetooth (BR&EDR), Bluetooth BLE (1Mbps&2Mbps) 2) 2.4GHz SDR: operating within 2400-2483.5MHz, supports 1.4MHz/3MHz/5MHz/10MHz/20MHz/40MHz/60MHz Bandwidth 3) 2.4GHz Wi-Fi: operating within 2400-2483.5MHz, supports 20MHz/40MHz Bandwidth and IEEE 802.11 b/g/n20/n40/ax20/ax40 4) 5.2GHz SDR: operating within 5150-5250MHz, supports 10MHz/20MHz/40MHz/60MHz/80MHz Bandwidth 5) 5.2GHz Wi-Fi: operating with 5150-5250MHz, supports 20MHz/40MHz/80MHz Bandwidth and IEEE 802.11 a/n20/n40/ac20/ac40/ac80/ax20/ax40/ax80 6) 5.8GHz SDR: operating within 5725-5850MHz, supports 1.4MHz/3MHz/5MHz/10MHz/20MHz/40MHz/60MHz/80MHz Bandwidth 7) 5.8GHz Wi-Fi: operating within 5725-5850MHz, supports 20MHz/40MHz/80MHz Bandwidth and IEEE 802.11 a/n20/n40/ac20/ac40/ac80/ax20/ax40/ax80
Technical Specification of 2.4GHz SDR	
Operating Frequency:	2403.5-2469.12MHz for 1.4MHz Bandwidth 2405.5-2468.2MHz for 3MHz Bandwidth 2404.5-2469.5MHz for 5MHz Bandwidth 2407.5-2467.5MHz for 10MHz Bandwidth 2412.5-2462.5MHz for 20MHz Bandwidth 2422.5-2452.5MHz for 40MHz Bandwidth 2432.5-2442.5MHz for 60MHz Bandwidth
Type of Modulation:	OFDM (QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)

Channel Number:	108 channels for 1.4MHz Bandwidth 64 channels for 3MHz Bandwidth 130 channels for 5MHz Bandwidth 155 channels for 10MHz Bandwidth 51 channels for 20MHz Bandwidth 31 channels for 40MHz Bandwidth 11 channels for 60MHz Bandwidth
Antenna Type:	Integral Antennas
Antenna Number:	1Tx for SISO mode (ANT0 or ANT1 or ANT4 or ANT5 or ANT6) 2Tx for MIMO mode (ANT0+1 or ANT0+5 or ANT4+1 or ANT4+5 or ANT6+1 or ANT6+5)
Antenna Gain:	1.5 dBi Max (Provided by the Client)
The type of wideband data transmission equipment:	DTS
Technical Specification of 2.4GHz Wi-Fi	
Operating Frequency:	2412 - 2462 MHz for 802.11b/g/n(HT20)/ax(HE20) 2422 - 2452 MHz for 802.11n(HT40)/ax(HE40)
Type of Modulation:	DSSS(DBPSK/DQPSK/CCK) OFDM(BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM)
Data Rate:	1/2/5.5/11 Mbps for 802.11b 6/9/12/18/24/36/48/54 Mbps for 802.11g MCS0 ~ MCS7 for 802.11n MCS0 ~ MCS11 for 802.11ax* *Only Full RU mode supported for 802.11ax.
Channel Number:	11 channels for 802.11b/g/n(HT20)/ax(HE20) 7 channels for 802.11n(HT40)/ax(HE40)
Channel Separation:	5 MHz
Antenna Type:	Integral Antenna
Antenna Number:	1Tx1Rx for SISO mode (ANT0 or ANT1) 2Tx2Rx for MIMO mode (ANT0+ANT1)
Antenna Gain:	1.5 dBi Max (Provided by the Client)
The type of wideband data transmission equipment:	DTS

Table 4: RF Channel and Frequency of 2.4GHz Wi-Fi

RF Channel	802.11 b/g/n(HT20)/ax(HE20)	802.11 n(HT40)/ax(HE40)
	Frequency (MHz)	Frequency (MHz)
01	2412	/
02	2417	/
03	2422	2422
04	2427	2427
05	2432	2432
06	2437	2437
07	2442	2442
08	2447	2447
09	2452	2452
10	2457	/
11	2462	/

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, 2.4GHz SDR wireless transmitting mode
 - 1) Low Channel
 - 2) Middle Channel
 - 3) High Channel
- B. On, 2.4GHz Wi-Fi wireless transmitting mode
 - 1) Low Channel
 - 2) Middle Channel
 - 3) High Channel
- C. On, 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
- User Manual
- ID Label and Location Info
- 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 RC520 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	PF-16A6N8
Portable Laptop	Lenovo	ThinkPad T480	10Q67059
AC/DC Adapter	DJI	PD-65CN	Input: 100-240V, 50/60Hz, 2.0A Output (USB-C): 5V/5A or 9V/5A or 12V/5A or 15V/4.5A or 20V/3.25A or 5-20V/3.25A Output (USB-A): 5V/2A Output (USB-A+USB-C): 65W Max

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)

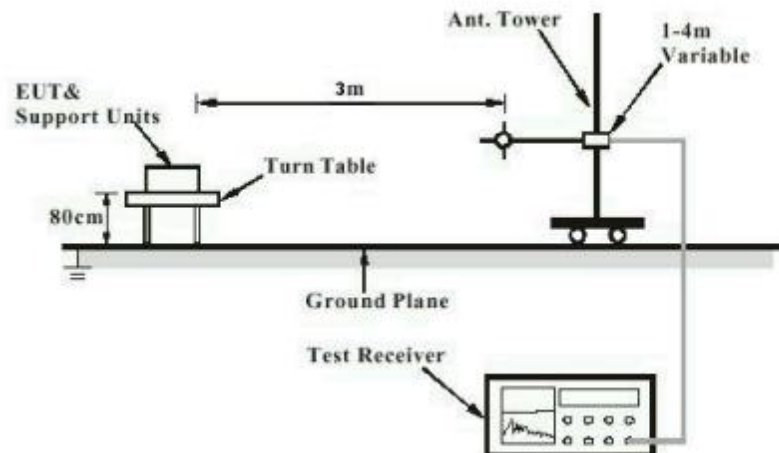


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

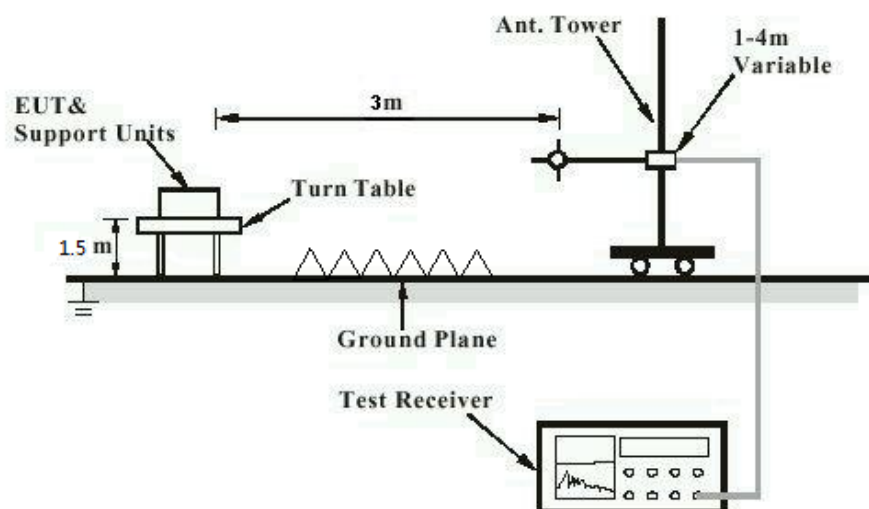


Diagram of Measurement Configuration for Mains Conduction Measurement

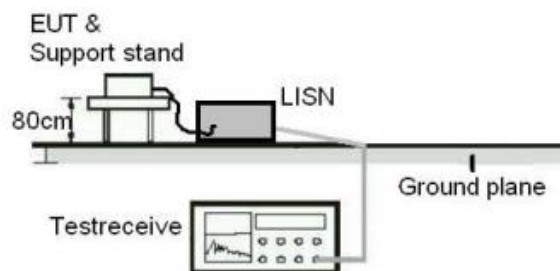
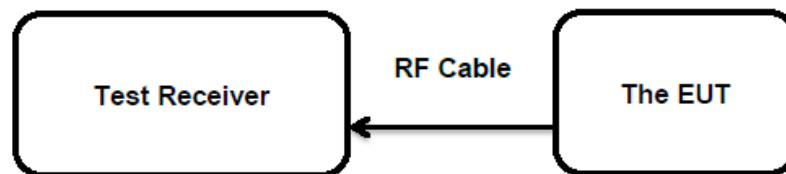


Diagram of Measurement Configuration for Conducted Transmitter Measurement



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 have Integral Antennas, the max. uncorrelated antenna gain is 1.5dBi for 2.4GHz SDR and 1.5dBi for 2.4GHz Wi-Fi, 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 : 2024-07-04 to 2024-07-09
Input voltage : Fully charged battery
Operation mode : A, B
Test channel : Low / Middle / High
Ambient temperature : 25 °C
Relative humidity : 45 %
Atmospheric pressure : 101 kPa

For details refer to following test result.

Table 6: Test Result of Maximum Conducted Output Power, 2.4GHz Wi-Fi

Worst case: SISO mode (ANT 0)

Test Mode	Data Rate	Frequency (MHz)	Measured Peak Power		Limit (W)
			(dBm)	(W)	
802.11b	1 Mbps	2412	18.39	0.0690	< 1.0
		2437	18.40	0.0692	
		2462	18.54	0.0714	
802.11g	6 Mbps	2412	23.06	0.2023	
		2437	23.01	0.2000	
		2462	23.07	0.2028	
802.11n (HT20)	MCS0	2412	23.21	0.2094	
		2437	23.15	0.2065	
		2462	22.59	0.1816	
802.11n (HT40)	MCS0	2422	23.20	0.2089	
		2437	23.80	0.2399	
		2452	23.20	0.2089	
802.11ax (HE20)	MCS0	2412	24.20	0.2630	
		2437	24.58	0.2871	
		2462	24.11	0.2576	
802.11ax (HE40)	MCS0	2422	24.48	0.2805	
		2437	24.44	0.2780	
		2452	24.04	0.2535	
Maximum Measured Value			24.58	0.2871	

MIMO mode

Test Mode	Data Rate	Frequency (MHz)	Measured Peak Power		Limit (W)
			(dBm)	(W)	
802.11n (HT20)	MCS0	2412	24.36	0.2729	< 1.0
		2437	24.48	0.2805	
		2462	24.19	0.2624	

802.11n (HT40)	MCS0	2422	24.51	0.2825	
		2437	24.01	0.2518	
		2452	24.22	0.2642	
802.11ax (HE20)	MCS0	2412	25.00	0.3162	
		2437	24.67	0.2931	
		2462	24.34	0.2716	
802.11ax (HE40)	MCS0	2422	24.69	0.2944	
		2437	24.68	0.2938	
		2452	24.48	0.2805	
Maximum Measured Value			25.00	0.3162	

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

Worst case: MIMO mode (ANT 3+6)

TestMode	Antenna	Frequency (MHz)	Result[dBm]	Result[W]	Limit[W]	Verdict
1.4MHz	Ant3	2403.5	23.03	0.2009	< 1.0	PASS
	Ant6	2403.5	19.35	0.0861	< 1.0	PASS
	total	2403.5	24.58	0.2871	< 1.0	PASS
	Ant3	2435.5	22.84	0.1923	< 1.0	PASS
	Ant6	2435.5	20.08	0.1019	< 1.0	PASS
	total	2435.5	24.69	0.2944	< 1.0	PASS
	Ant3	2469.12	23.29	0.2133	< 1.0	PASS
	Ant6	2469.12	19.31	0.0853	< 1.0	PASS
	total	2469.12	24.75	0.2985	< 1.0	PASS
3MHz	Ant3	2405.5	25.63	0.3656	< 1.0	PASS
	Ant6	2405.5	21.98	0.1578	< 1.0	PASS
	total	2405.5	27.19	0.5236	< 1.0	PASS
	Ant3	2435.5	25.56	0.3597	< 1.0	PASS
	Ant6	2435.5	22.95	0.1972	< 1.0	PASS
	total	2435.5	27.46	0.5572	< 1.0	PASS
	Ant3	2468.2	25.82	0.3819	< 1.0	PASS
	Ant6	2468.2	22.53	0.1791	< 1.0	PASS
	total	2468.2	27.49	0.5610	< 1.0	PASS
5MHz	Ant3	2404.5	25.51	0.3556	< 1.0	PASS
	Ant6	2404.5	22.36	0.1722	< 1.0	PASS
	total	2404.5	27.22	0.5272	< 1.0	PASS
	Ant3	2434.5	25.29	0.3381	< 1.0	PASS
	Ant6	2434.5	22.54	0.1795	< 1.0	PASS
	total	2434.5	27.14	0.5176	< 1.0	PASS
	Ant3	2469.5	25.47	0.3524	< 1.0	PASS
	Ant6	2469.5	22.37	0.1726	< 1.0	PASS
	total	2469.5	27.20	0.5248	< 1.0	PASS
10MHz	Ant3	2407.5	24.77	0.2999	< 1.0	PASS
	Ant6	2407.5	21.42	0.1387	< 1.0	PASS
	total	2407.5	26.42	0.4385	< 1.0	PASS
	Ant3	2437.5	25.46	0.3516	< 1.0	PASS
	Ant6	2437.5	22.15	0.1641	< 1.0	PASS
	total	2437.5	27.12	0.5152	< 1.0	PASS
	Ant3	2467.5	23.53	0.2254	< 1.0	PASS
	Ant6	2467.5	19.67	0.0927	< 1.0	PASS
	total	2467.5	25.03	0.3184	< 1.0	PASS
20MHz	Ant3	2412.5	24.58	0.2871	< 1.0	PASS
	Ant6	2412.5	21.80	0.1514	< 1.0	PASS
	total	2412.5	26.42	0.4385	< 1.0	PASS
	Ant3	2437.5	25.63	0.3656	< 1.0	PASS

	Ant6	2437.5	22.32	0.1706	< 1.0	PASS
	total	2437.5	27.29	0.5358	< 1.0	PASS
	Ant3	2462.5	24.96	0.3133	< 1.0	PASS
	Ant6	2462.5	22.09	0.1618	< 1.0	PASS
	total	2462.5	26.77	0.4753	< 1.0	PASS
40MHz	Ant3	2422.5	22.01	0.1589	< 1.0	PASS
	Ant6	2422.5	19.33	0.0857	< 1.0	PASS
	total	2422.5	23.88	0.2443	< 1.0	PASS
	Ant3	2437.5	25.62	0.3648	< 1.0	PASS
	Ant6	2437.5	22.59	0.1816	< 1.0	PASS
	total	2437.5	27.37	0.5458	< 1.0	PASS
	Ant3	2452.5	22.93	0.1963	< 1.0	PASS
	Ant6	2452.5	20.65	0.1161	< 1.0	PASS
60MHz	total	2452.5	24.95	0.3126	< 1.0	PASS
	Ant3	2432.5	21.09	0.1285	< 1.0	PASS
	Ant6	2432.5	18.09	0.0644	< 1.0	PASS
	total	2432.5	22.85	0.1928	< 1.0	PASS
	Ant3	2437.5	23.63	0.2307	< 1.0	PASS
	Ant6	2437.5	20.09	0.1021	< 1.0	PASS
	total	2437.5	25.22	0.3327	< 1.0	PASS
	Ant3	2442.5	23.66	0.2323	< 1.0	PASS
	Ant6	2442.5	20.58	0.1143	< 1.0	PASS
	total	2442.5	25.40	0.3467	< 1.0	PASS

Note:

- 1) The cable loss is taken into account in results, $e.i.r.p. = P_{(Peak\ power)} + G$
- 2) Antenna gain(G) of 2.4GHz Wi-Fi: 1.5dBi
Antenna gain(G) of 2.4GHz SDR: 2.5dBi (uncorrelated antenna gain)

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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 : 2024-07-04 to 2024-07-09
Input voltage : Fully charged battery
Operation mode : A, B
Test channel : Low / Middle / High
Ambient temperature : 25 °C
Relative humidity : 45 %
Atmospheric pressure : 101 kPa

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

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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 : 2024-07-04 to 2024-07-09
Input voltage : Fully charged battery
Operation mode : A, B
Test channel : Low / Middle / High
Ambient temperature : 25 °C
Relative humidity : 45 %
Atmospheric pressure : 101 kPa

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

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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 : 2024-07-04 to 2024-07-09
Input voltage : Fully charged battery
Operation mode : A, B
Test channel : Low / Middle / High
Ambient temperature : 25 °C
Relative humidity : 45 %
Atmospheric pressure : 101 kPa

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

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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); 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	: 2024-07-04 to 2024-07-09
Input voltage	: Fully charged battery
Operation mode	: A, B
Test channel	: Low / Middle / High
Ambient temperature	: 25 °C
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.

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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	: 2024-06-24 to 2024-07-14
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.

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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	: 2024-07-02
Input voltage	: AC 120V, 60Hz
Operation mode	: A, B
Earthing	: Not connected
Ambient temperature	: 23.4 °C
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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