

Prüfbericht-Nr.: <i>Test report no.:</i>	CN256Z0K 003	Auftrags-Nr.: <i>Order no.:</i>	168512858	Seite 1 von 25 Page 1 of 25
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	2024-11-11	
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>	DJI DOCK 3			
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	DOCK-03 (Trademark: DJI)			
Auftrags-Inhalt: <i>Order content:</i>	Test Report			
Prüfgrundlage: <i>Test specification:</i>	CFR Title 47 FCC Part 15: Subpart E Section 15.407 CFR Title 47 FCC Part 15: Subpart C Section 15.207 CFR Title 47 FCC Part 15: Subpart C Section 15.209			
Wareneingangsdatum: <i>Date of sample receipt:</i>	2024-12-13	Please refer to Photo Document		
Prüfmuster-Nr.: <i>Test sample no.:</i>	A003882058-003~005 A003882058-014~022 A003884502-002			
Prüfzeitraum: <i>Testing period:</i>	2025-01-13 - 2025-01-21			
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>	<u>X Bell Hu</u>	genehmigt von: <i>authorized by:</i>	<u>X Jonathan Li</u>	
Datum: <i>Date:</i> 2025-02-12	Signed by: Bell Hu	Ausstellungsdatum: <i>Issue date:</i> 2025-02-12	Signed by: Jonathan Li	
Stellung / Position:	Sachverständige(r)/Expert	Stellung / Position:	Sachverständige(r)/Expert	
Sonstiges / <i>Other:</i>	FCC ID: SS3-DOCK032411 This report is for 5.2GHz SDR and 5.8GHz SDR.			
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
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. <i>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.</i>				

Prüfbericht-Nr.: CN256Z0K 003
Test report no.:

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Anmerkungen
Remarks

- | | |
|---|--|
| 1 | <p>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.
Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</p> <p><i>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.</i></p> |
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| 3 | <p>Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben.
Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.</p> <p><i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report.
Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i></p> |
| 4 | <p>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.</p> <p><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></p> |

Test Summary

5.1.1 ANTENNA REQUIREMENT

RESULT: Pass

5.1.2 MAXIMUM OUTPUT POWER

RESULT: Pass

5.1.3 CONDUCTED POWER SPECTRAL DENSITY

RESULT: Pass

5.1.4 FREQUENCY STABILITY

RESULT: Pass

5.1.5 6dB BANDWIDTH

RESULT: Pass

5.1.6 26dB BANDWIDTH

RESULT: Pass

5.1.7 99% BANDWIDTH

RESULT: Pass

5.1.8 RADIATED SPURIOUS EMISSION

RESULT: Pass

5.1.9 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 5.2GHz SDR

Appendix B: Test Results of 5.8GHz 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

ISED wireless device testing laboratory: 25069

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	Schwarzbeck	VULB 9162	193	2024-09-28	2025-09-27

(30 MHz - 7 GHz)					
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	102428	2025-07-22
Artificial Mains Network	R&S	ENV432	101546	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

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 DJI DOCK 3 which supports Wireless charging (ISM), Bluetooth low energy, 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	DJI DOCK 3
Type Designation	DOCK-03
Trademark	DJI
FCC ID	SS3-DOCK032411
Operating Voltage	100-240VAC, 50/60Hz
Testing Voltage	AC 120V, 60Hz
Extreme Temperature Range	-25°C ~ +50°C
Radiofrequency operating mode	1) Bluetooth: operating within 2400-2483.5MHz, Bluetooth BLE (1Mbps&2Mbps) 2) 2.4GHz SDR: operating within 2400-2483.5MHz, supports 1.4MHz/3MHz/5MHz/10MHz/20MHz/40MHz/60MHz Bandwidth 3) 5.2GHz SDR: operating within 5150-5250MHz, supports 1.4MHz/3MHz/5MHz/10MHz/20MHz/40MHz/60MHz/80MHz Bandwidth 4) 5.8GHz SDR: operating within 5725-5850MHz, supports 1.4MHz/3MHz/5MHz/10MHz/20MHz/40MHz/60MHz/80MHz Bandwidth 5) GNSS (receiver) 6) Wireless charging: 80-90KHz (Energy transmission only, incapable of transmitting any form of intelligent communication wirelessly)
Technical Specification of 5.2GHz SDR	
Operating Frequency	5154-5248MHz for 1.4MHz Bandwidth 5154-5247MHz for 3MHz Bandwidth 5155-5246.24MHz for 5MHz Bandwidth 5157-5245MHz for 10MHz Bandwidth 5161-5240MHz for 20MHz Bandwidth 5170-5230MHz for 40MHz Bandwidth 5180-5220MHz for 60MHz Bandwidth 5190-5210MHz for 80MHz Bandwidth
Type of Modulation	OFDM (QPSK, 16QAM, 64QAM)
Channel Number	110 channels for 1.4MHz Bandwidth 68 channels for 3MHz Bandwidth

	189 channels for 5MHz Bandwidth 247 channels for 10MHz Bandwidth 202 channels for 20MHz Bandwidth 103 channels for 40MHz Bandwidth 41 channels for 60MHz Bandwidth 21 channels for 80MHz Bandwidth
Antenna Type	Integral Antenna
Antenna Number	1Tx4Rx for SISO mode (ANT0 or ANT1 or ANT2 or ANT3 or ANT4 or ANT5 or ANT6 or ANT7 or ANT8) 2Tx4Rx for MIMO mode (ANT0+ANT1, or ANT0+ANT3, or ANT0+ANT5, or ANT0+ANT7, or ANT2+ANT1, or ANT2+ANT3, or ANT2+ANT5, or ANT2+ANT7, or ANT4+ANT1, or ANT4+ANT3, or ANT4+ANT5, or ANT4+ANT7, or ANT6+ANT1, or ANT6+ANT3, or ANT6+ANT5, or ANT6+ANT7, or ANT8+ANT1, or ANT8+ANT3, or ANT8+ANT5, or ANT8+ANT7)
Antenna Gain	2.3 dBi for ANT0/ANT1, 3.3 dBi for ANT2/ANT3 1.8 dBi for ANT4/ANT5, 2.8 dBi for ANT5/ANT7 0.5 dBi for ANT8 (Provided by the Client)
The type of wideband data transmission equipment	DTS
Technical Specification of 5.8GHz SDR	
Operating Frequency	5728.5-5846.12MHz for 1.4MHz Bandwidth 5727.5-5847.2MHz for 3MHz Bandwidth 5732.5-5842.5MHz for 5MHz Bandwidth 5730.5-5844.5MHz for 10MHz Bandwidth 5735.5-5839.5MHz for 20MHz Bandwidth 5745.5-5829.5MHz for 40MHz Bandwidth 5755.5-5819.5MHz for 60MHz Bandwidth 5765.5-5809.5MHz for 80MHz Bandwidth
Type of Modulation	OFDM (QPSK, 16QAM, 64QAM)
Channel Number	194 channels for 1.4MHz Bandwidth 126 channels for 3MHz Bandwidth 229 channels for 5MHz Bandwidth 317 channels for 10MHz Bandwidth 259 channels for 20MHz Bandwidth 147 channels for 40MHz Bandwidth 65 channels for 60MHz Bandwidth 45 channels for 80MHz Bandwidth
Antenna Type	Integral Antenna
Antenna Number	1Tx4Rx for SISO mode (ANT0 or ANT1 or ANT2 or ANT3 or ANT4 or ANT5 or ANT6 or ANT7 or ANT8) 2Tx4Rx for MIMO mode (ANT0+ANT1, or ANT0+ANT3, or ANT0+ANT5, or ANT0+ANT7, or ANT2+ANT1, or ANT2+ANT3, or ANT2+ANT5, or ANT2+ANT7, or ANT4+ANT1, or ANT4+ANT3, or ANT4+ANT5, or ANT4+ANT7, or ANT6+ANT1, or ANT6+ANT3, or ANT6+ANT5, or ANT6+ANT7, or ANT8+ANT1, or ANT8+ANT3, or ANT8+ANT5, or ANT8+ANT7)
Antenna Gain	2.2 dBi for ANT0/ANT1/ANT2/ANT3 1.9 dBi for ANT4/ANT5, 1.7 dBi for ANT5/ANT7 -1.2 dBi for ANT8 (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.

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, 5.2GHz SDR wireless transmitting mode
 - 1) Low Channel
 - 2) Middle Channel
 - 3) High Channel
- B. On, 5.8GHz SDR wireless transmitting mode
 - 1) Low Channel
 - 2) Middle Channel
 - 3) High Channel
- C. 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 *DOCK-03* in this report.

4.3 Special Accessories and Auxiliary Equipment

Table 4: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N	Rating
Laptop	Lenovo	T480	PF-16A6N8	/
DC power Supply	Topward	3303D	809332	0-30 Volts, 0-3 Amps
Portable Laptop	Lenovo	ThinkPad T480	10Q67059	/
DJI Matrice 4TD	DJI	M4TD	1581F8HGD249P001 0165	/
D-RTK 3 Relay POE	DJI	R600BSPOE	/	/

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)

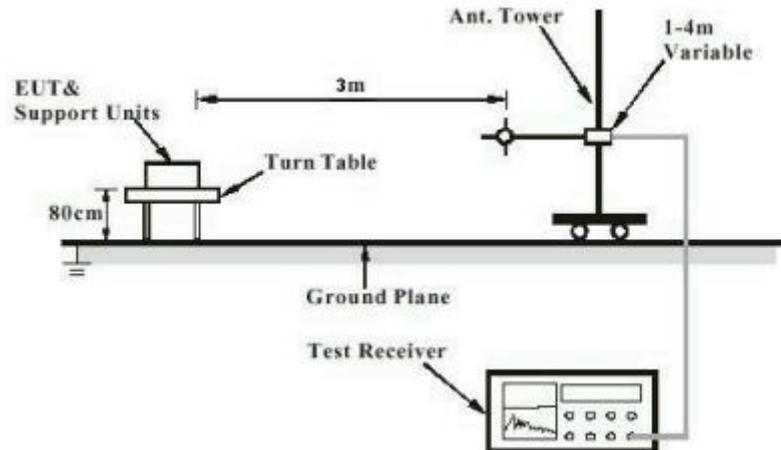


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

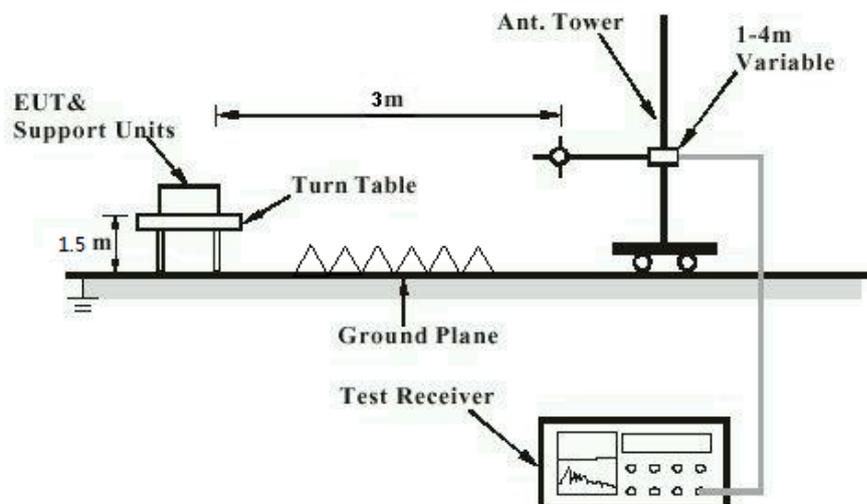


Diagram of Measurement Configuration for Mains Conduction Measurement

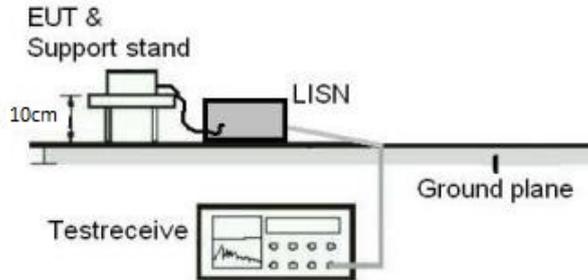
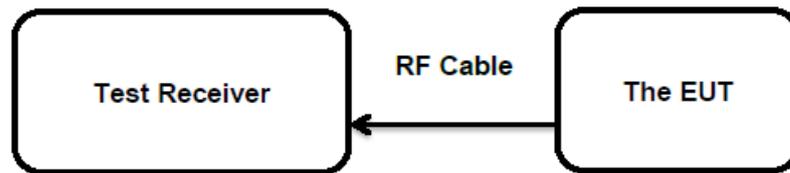


Diagram of Measurement Configuration for Conducted Transmitter Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT: **Pass**

Test Specification

Test standard : FCC Part 15.203

Limit : the use of antennas with directional gains that do not exceed 6 dBi

According to the manufacturer declared, the EUT have nine Integral Antennas, the max. uncorrelated antenna gain is 3.3dBi for 5.2GHz SDR and 2.2dBi for 5.8GHz SDR, 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 Output Power

RESULT:
Pass
Test Specification

Test standard : FCC Part 15.407 (a)
 Basic standard : ANSI C63.10: 2013
 Limits : <250mW (24dBm) (5150-5250MHz)
 <1W (30dBm) (5725-5850MHz)
 Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-01-16 to 2025-01-18
 Input voltage : AC 120V, 60Hz
 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 5: Test Result of Maximum Conducted Output Power, 5.2GHz SDR

Worst case: MIMO mode (ANT 2+3)

Test Mode	Test Channel (MHz)	Measured Average Power		Limit (W)
		(dBm)	(W)	
1.4MHz BW	5154	0.31	0.0011	< 0.25
	5166	6.66	0.0046	
	5200	9.49	0.0089	
	5248	9.77	0.0095	
3MHz BW	5154	-0.81	0.0008	
	5166	10.15	0.0104	
	5199	12.26	0.0168	
	5247	12.37	0.0173	
5MHz BW	5155	1.67	0.0015	
	5165	12.60	0.0182	
	5170	15.83	0.0383	
	5200	16.14	0.0411	
	5245	15.86	0.0385	
10MHz BW	5157	4.61	0.0029	
	5168	12.79	0.0190	
	5169	13.78	0.0239	
	5200	16.33	0.0430	
	5245	15.92	0.0391	
20MHz BW	5161	4.44	0.0028	
	5169	13.41	0.0219	
	5200	16.24	0.0421	
	5240	16.24	0.0421	
40MHz BW	5170	7.90	0.0062	
	5186	13.74	0.0237	
	5200	16.29	0.0426	

	5230	16.20	0.0417	
60MHz BW	5180	9.38	0.0087	
	5191	12.79	0.0190	
	5192	12.77	0.0189	
	5193	14.21	0.0264	
	5200	16.42	0.0439	
	5220	16.06	0.0404	
80MHz BW	5190	11.43	0.0139	
	5191	11.85	0.0153	
	5200	14.91	0.0310	
	5210	16.00	0.0398	
Maximum Measured Value		16.42	0.0439	

Max. e.i.r.p.=16.42dBm+3.3dBi=19.72dBm, which is less than 36dBm=4W.

Table 6: Test Result of Maximum Conducted Output Power, 5.8GHz SDR

Worst case: MIMO mode (ANT 2+3)

Test Mode	Test Channel (MHz)	Measured Average Power		Limit (W)
		(dBm)	(W)	
1.4MHz BW	5728.5	27.87	0.6124	< 1.0
	5786.5	27.86	0.6109	
	5846.12	27.84	0.6081	
3MHz BW	5727.5	27.87	0.6124	
	5784.5	27.84	0.6081	
	5847.2	27.84	0.6081	
5MHz BW	5732.5	27.86	0.6109	
	5787.5	27.84	0.6081	
	5842.5	27.84	0.6081	
10MHz BW	5730.5	27.87	0.6124	
	5787.5	27.85	0.6095	
	5844.5	27.83	0.6067	
20MHz BW	5735.5	27.86	0.6109	
	5787.5	27.85	0.6095	
	5839.5	27.85	0.6095	
40MHz BW	5745.5	23.91	0.2460	
	5750.5	25.28	0.3373	
	5787.5	27.86	0.6109	
	5820.5	25.30	0.3388	
	5829.5	23.21	0.2094	
60MHz BW	5755.5	24.74	0.2979	
	5787.5	24.41	0.2761	
	5819.5	24.38	0.2742	
80MHz BW	5765.5	24.84	0.3048	
	5787.5	24.83	0.3041	
	5809.5	24.83	0.3041	
Maximum Measured Value		27.87	0.6124	

Max. e.i.r.p.=27.87dBm+2.2dBi=30.07dBm, which is less than 36dBm=4W.

Note:

- 1) The cable loss is taken into account in results, e.i.r.p.= $P_{(\text{Peak power})} + G$
- 2) Antenna gain(G) of 5.2GHz SDR: 3.3dBi for MIMO mode(Ant 2+3) (uncorrelated antenna gain)
 Antenna gain(G) of 5.8GHz SDR: 2.2dBi for MIMO mode(Ant 2+3) (uncorrelated antenna gain)

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5.1.3 Conducted Power Spectral Density

RESULT:**Pass****Test Specification**

Test standard : FCC Part 15.407 (a)
Basic standard : ANSI C63.10: 2013
Limits : <11dBm/MHz (5150-5250MHz)
<30dBm/500kHz (5725-5850MHz)
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-01-16 to 2025-01-18
Input voltage : AC 120V, 60Hz
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 Frequency Stability

RESULT:**Pass****Test Specification**

Test standard : FCC Part 15.407 (g)
Basic standard : ANSI C63.10: 2013
Limits : Within assigned bands
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-01-16 to 2025-01-18
Input voltage : AC 120V, 60Hz
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 6dB Bandwidth

RESULT:**Pass****Test Specification**

Test standard : FCC Part 15.407 (e)
Basic standard : ANSI C63.10: 2013
Limits : At least 500kHz (5725-5850MHz)
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-01-16 to 2025-01-18
Input voltage : AC 120V, 60Hz
Operation mode : 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 B.

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5.1.6 26dB Bandwidth

RESULT:**Pass****Test Specification**

Test standard : FCC Part 15.407
Basic standard : ANSI C63.10: 2013
Limits : N/A
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-01-16 to 2025-01-18
Input voltage : AC 120V, 60Hz
Operation mode : A
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.

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5.1.7 99% Bandwidth

RESULT:**Pass****Test Specification**

Test standard : FCC Part 15.407
Basic standard : ANSI C63.10: 2013
Limits : N/A
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-01-16 to 2025-01-18
Input voltage : AC 120V, 60Hz
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.

5.1.8 Radiated Spurious Emission

RESULT:**Pass****Test Specification**

Test standard : FCC Part 15.407(b) & FCC Part 15.205 & FCC Part 15.209
Basic standard : ANSI C63.10: 2013

Limits :

- For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
- Restricted Bands meet the requirement of 15.209 limit

Kind of test site : 3m Semi-anechoic Chamber

Test Setup

Date of testing : 2025-01-20 to 2025-01-21
Input voltage : AC 120V, 60Hz
Operation mode : A, B
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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5.1.9 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 A
Limits : FCC Part 15.207(a)
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-01-13
Input voltage : AC 120V, 60Hz
Operation mode : A, B
Earthing : Not connected
Ambient temperature : 23.2 °C
Relative humidity : 49.1 %
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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