FCC RADIO TEST REPORT

APPLICANT	:	OnePlus Technology (Shenzhen) Co., Ltd.
EQUIPMENT	:	Mobile Phone
BRAND NAME	:	ONEPLUS,
MODEL NAME	:	CPH2655
FCC ID	:	2ABZ2-OP23895
STANDARD	:	FCC Part 15 Subpart E §15.407
TEST DATE(S)	:	Sep. 25, 2024

We, Sporton International Inc. (Shenzhen), would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Shenzhen), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia

Sporton International Inc. (ShenZhen)

1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055

People's Republic of China

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History of this test report

Report No.	Version	Description	Issue Date
FR461101I	01	Initial issue of report	Sep. 27, 2024

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
2.1	15.407 KDB 987594 D02 Section II. L.	Standard Client Proper Power Adjustment Measurement	Pass	-
2.2	15.407 KDB 987594 D02 Section II. K.	Dual Client Test, Demonstration of Proper Power Adjustment based on Associated AP	Pass	-

Conformity Assessment Condition:
The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
Disclaimer:
The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

1 General Description

1.1 Applicant

OnePlus Technology (Shenzhen) Co., Ltd.
18C02, 18C03, 18C04, and 18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen, Guangdong, P.R. China.

1.2 Manufacturer

OnePlus Technology (Shenzhen) Co., Ltd.
18C02, 18C03, 18C04, and 18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen, Guangdong, P.R. China.

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Phone
Brand Name	ONEPLUS,
Model Name	CPH2655
FCC ID	2ABZ2-OP23895
IMEI	866493070031877
HW Version	11
SW Version	OxygenOS V15.0
EUT Stage	Production Unit

Remark: The EUT's information above is declared by manufacturer.

1.4 Product Specification of Equipment Under Test

Product Specification is subject to this standard	
Tx/Rx Channel Frequency Range	5925 MHz ~ 6425 MHz 6525 MHz ~ 6875 MHz
Antenna Type / Gain	**<5925 MHz ~ 6425 MHz >** <Ant. 14> : IFA Antenna with gain -1.5 dBi <Ant. 15> : IFA Antenna with gain 0.5 dBi **<6525 MHz ~ 6875 MHz >** <Ant. 14> : IFA Antenna with gain -4.0 dBi <Ant. 15> : IFA Antenna with gain -1.0 dBi
Type of Modulation	802.11a: OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ax: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM / 1024QAM) 802.11be: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM / 1024QAM / 4096QAM)

Remark: The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.

1.5 Modification of EUT

No modifications made to the EUT during the testing.

1.6 Testing Location

Sporton International Inc. (ShenZhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	DFS01-SZ	CN1256	421272

1.7 Applicable Standards

According to the specifications declared by the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- FCC KDB 987594 D02 U-NII 6 GHz EMC Measurement v02r01
- ANSI C63.10-2013

Remark:

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.

2 Test Result

2.1 Standard Client Proper Power Adjustment Measurement

2.1.1 Limit of Standard Client Proper Power Adjustment

15.407 KDB 987594 D02 Section II. L. Power limits for standard client devices

c) The maximum power limits shall remain at least 6 dB below the power levels authorized for the associated standard-power access point

2.1.2 Test Procedures of Standard Client Proper Power Adjustment

The testing follows FCC KDB 987594 D02 U-NII 6 GHz EMC Measurement v02r01.

Section L. Proper Power Adjustment

2.1.3 Proper Power Adjustment, Client Devices Connected to a Standard Power Access Point

A client device that connects to a Standard Power AP must limit its power to a minimum of 6 dB lower than its associated Standard Power access point's authorized transmit power. The term "authorized" means the AFC-approved power level for the AP to use on a particular channel.

Test procedure to show that the client device can lower its power accordingly.

2.1.4 Test Procedure:

1. Connect equipment as shown in Figure 7 below.
2. Adjust Atten 1 to Std Power AP so as to facilitate error free communication with the Client but protect the Client receiver from overload or damage.
3. Configure the Client and AP so that they associate and start sending data (stream data). The AP should be configured such that its registered power is 36 dBm EIRP.
4. Verify transmission between Client and Std Power AP. Additional attenuators may be required to protect measurement equipment. Measure the Client RF power using any of the methods in C63.10 for NII devices.
5. Use this power, along with its antenna gain, to calculate the Client EIRP.
6. The Client EIRP should be minimally 6 dB lower than that of the AP.
7. Repeat Steps 2 through 5 at two other selected measurement points – the first at the midpoint and the second at the lowest rated power of the client as declared by the manufacturer.

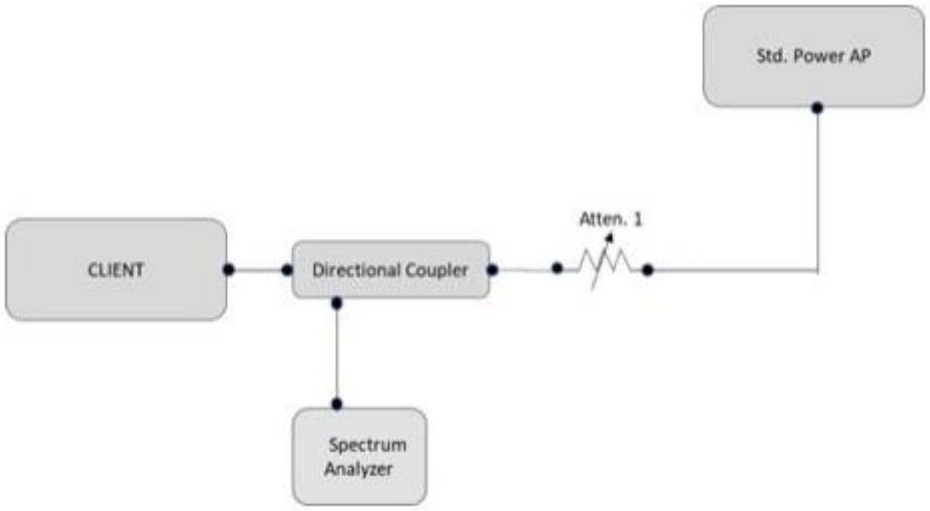


Figure 7. Test setup for conducted testing

2.1.5 Test Result Summary

Companion Standard Power AP: Brand name: TP-link, Mode name: Archer BE800

802.11be 20MHz bandwidth

Test channel 85

	Client MIMO Conducted Power (dBm)	Client MIMO EIRP (dBm)	AP EIRP (dBm)	AP to client EIRP Delta (dB)
Maximum EIRP	2.16	2.66	34.62	31.96
Mid-point EIRP	1.95	2.45	29.98	27.53
Lowest EIRP	1.86	2.36	22.50	20.14
Requirement				At least 6dB
Result				Pass

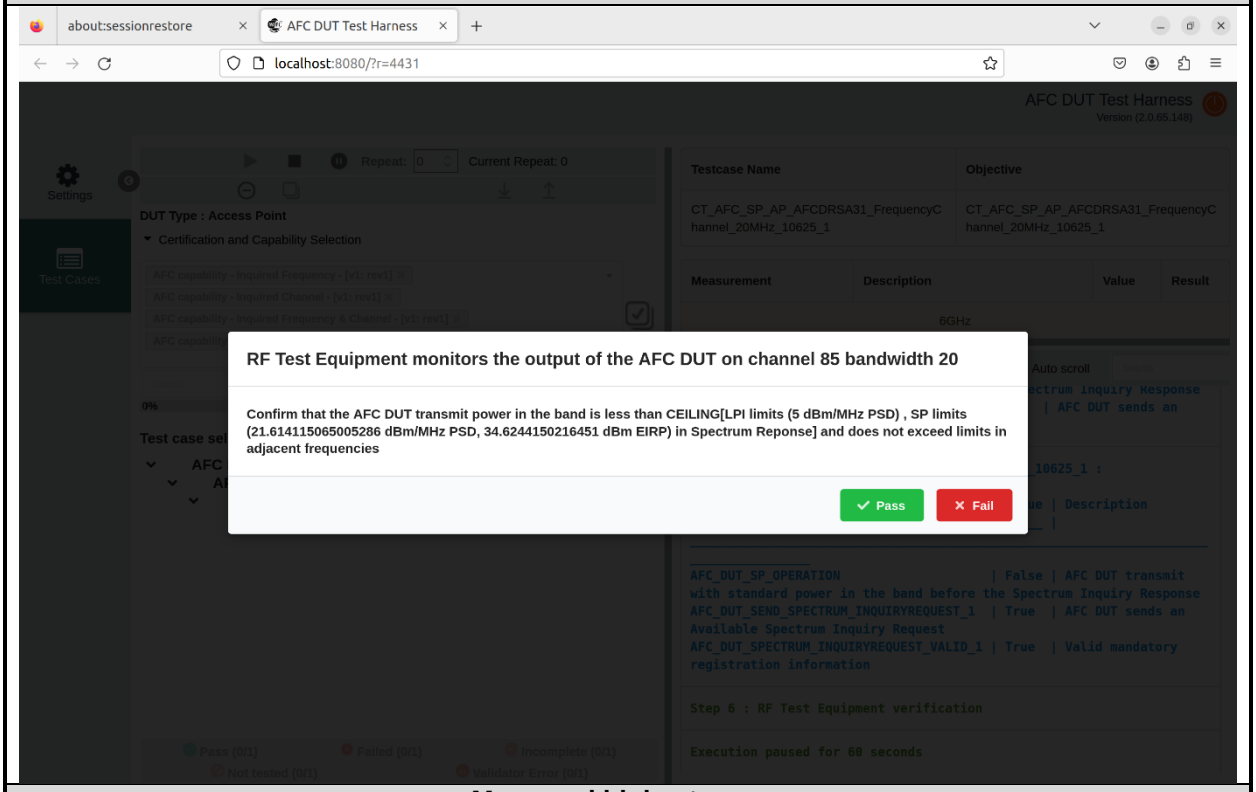
Note:

1. Client EIRP = Client MIMO conducted power + antenna gain 0.5dBi

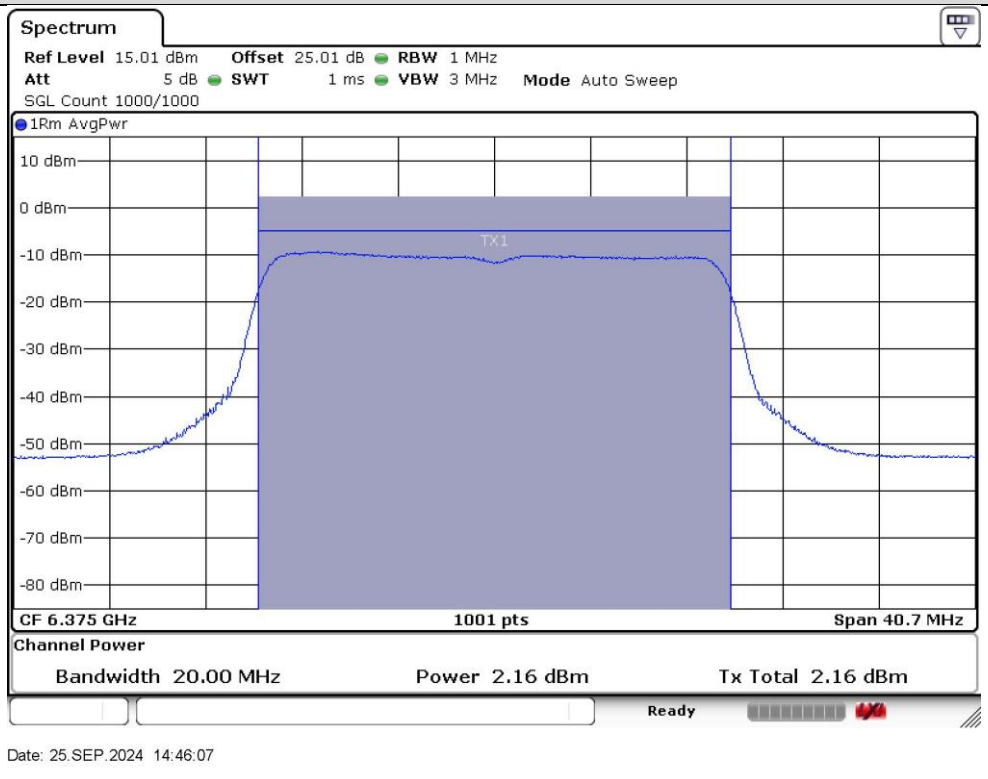
2. MIMO Power =Max ANT Power (SISO) + 10logN（N=2)

2.1.6 Test Result Plot

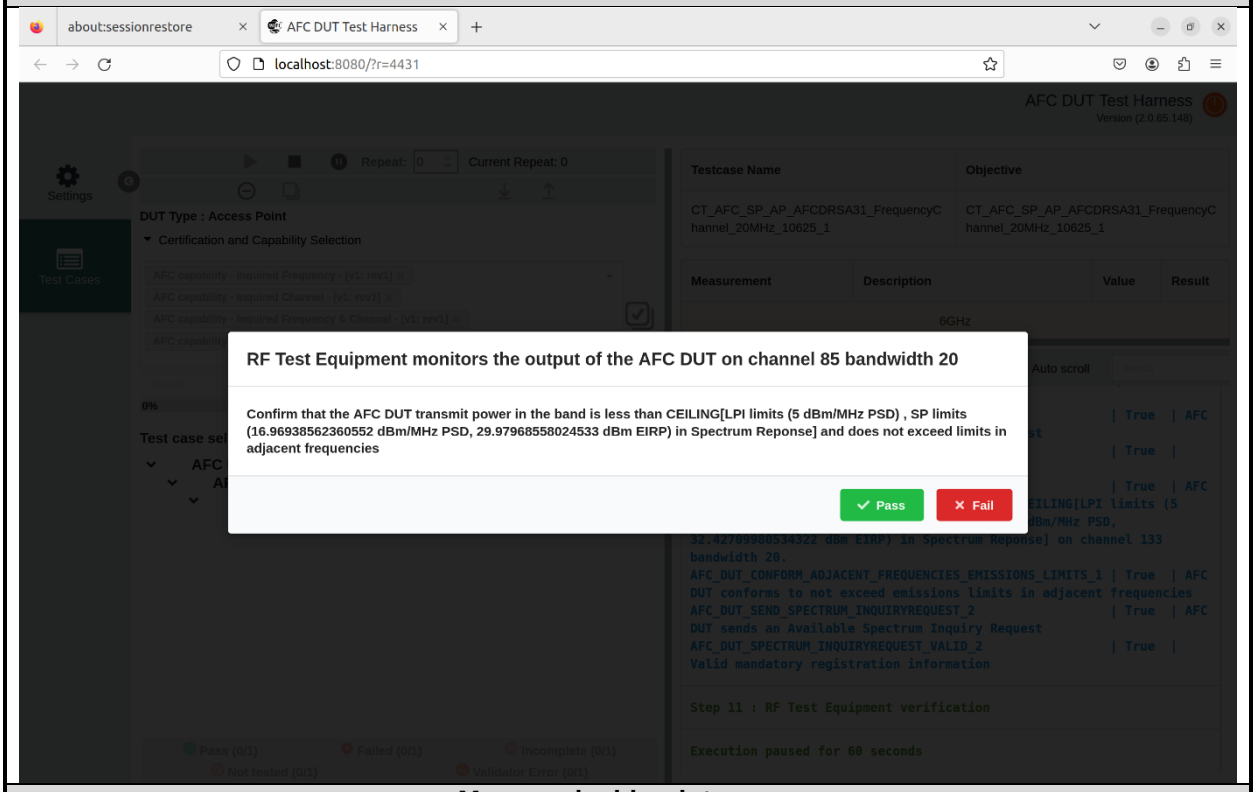
AP EIRP 34.62dBm



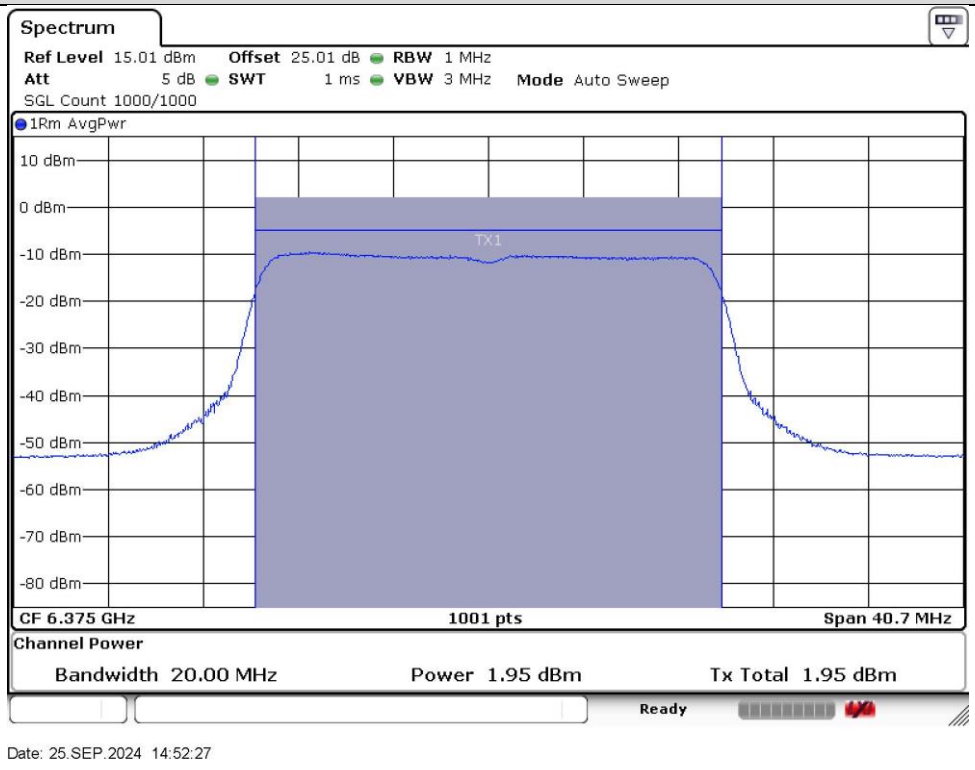
Measured highest power
Client MIMO conducted power 2.16dBm



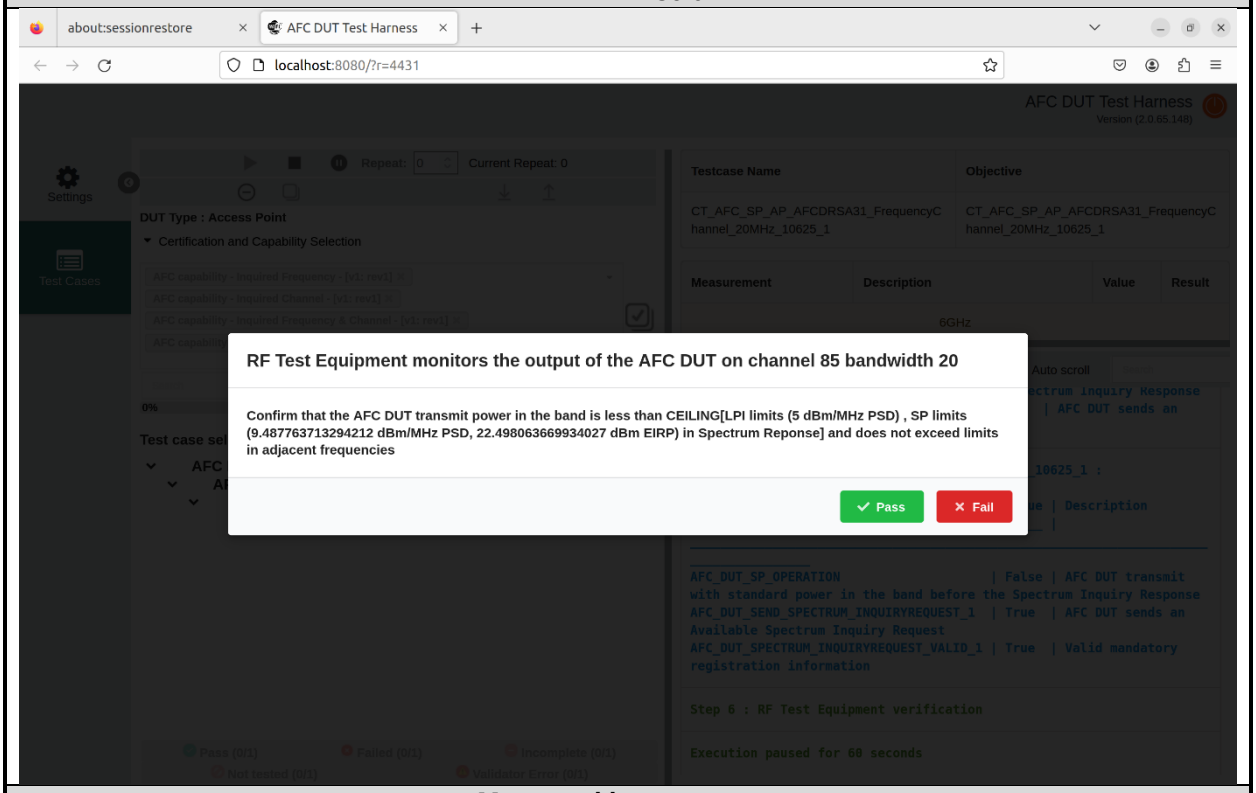
AP EIRP 29.98dBm



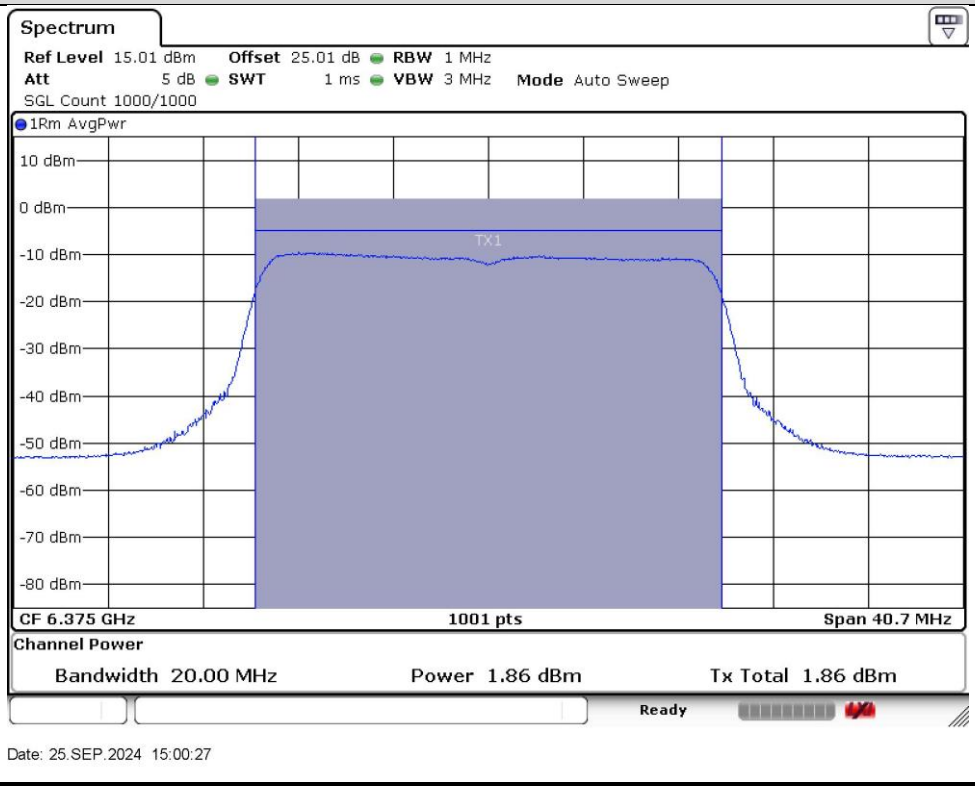
Measured mid-point power
Client MIMO conducted power 1.95 dBm



AP EIRP 22.50 dBm



Measured lowest power
Client MIMO conducted power 1.86 dBm



2.2 Dual Client Test, Demonstration of Proper Power Adjustment based on Associated AP

2.2.1 Limit of Proper Power Adjustment

15.407 KDB 987594 D02 Section II. K. Power limits for standard client devices

A client device may connect to a Standard Power AP with a maximum power level of 30 dBm EIRP. A client may also connect to a Low Power indoor AP, but the power level is limited to a maximum of 24 dBm EIRP.

2.2.2 Test Procedures of Standard Client Proper Power Adjustment

The testing follows FCC KDB 987594 D02 U-NII 6 GHz EMC Measurement v02r01.

Section K. Dual Client Test, Demonstration of Proper Power Adjustment based on Associated AP

2.2.3 Test Procedure:

1. Connect equipment as shown in Figure 6 below.
2. Adjust Atten 2 to Std Power AP so as to facilitate error free communication with the Client (Atten 1 should be set to High on the RF path to the Low Power AP)
3. Configure the Client and APs so that they associate and start sending data (stream data). It is important that the client is configured to transmit at its highest power level. Initially, because the attenuation on Atten 1 is set high, the Client will only associate with the Std Power AP.
4. Verify transmission between Client and Std Power AP. Additional attenuators may be required to protect measurement equipment. Measure the Client RF power using any of the methods in C63.10 for NII devices.
5. Gradually increase Atten 2 while at the same time decreasing Atten 1. This simulates the Client moving from outdoors to indoors. At some level of attenuation the Client should associate with the Low Power indor AP.
6. Verify transmission between Client and Low Power AP.
7. Measure the RF power of the Client device using the same method as in step 4. Verify the power is no more than 24 dBm EIRP

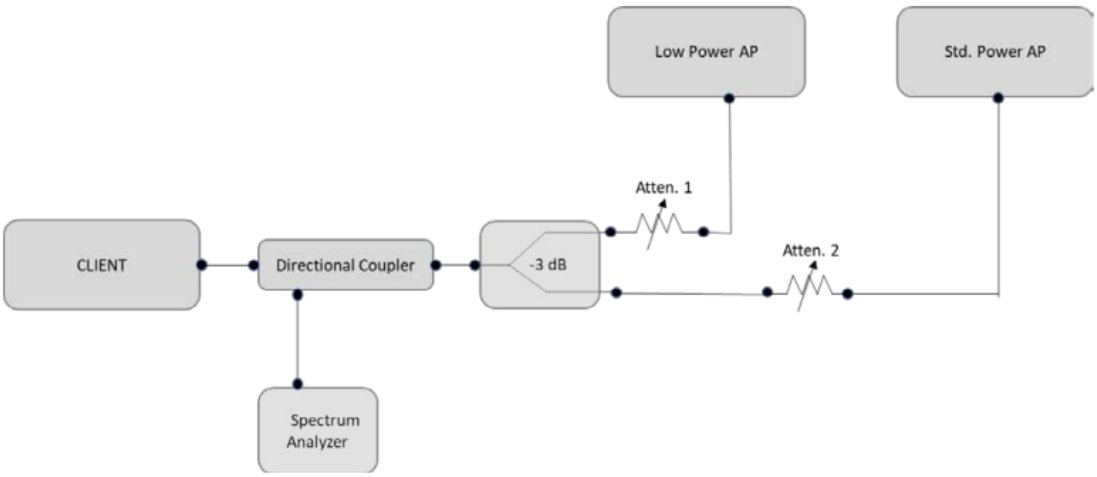


Figure 6. Test setup for conducted testing

2.2.4 Test Result Summary

Companion Standard Power AP: Brand name: TP-link, Mode name: Archer BE800

Companion Indoor Power AP: Brand name: TP-link, Mode name: Archer BE800

802.11be 20MHz bandwidth

Test channel 85

	Client MIMO Conducted Power (dBm)	Client MIMO EIRP (dBm)	Limit EIRP (dBm)	Result
Indoor EIRP	-1.20	-0.70	24	Pass
Standard EIRP	2.26	2.76	30	Pass

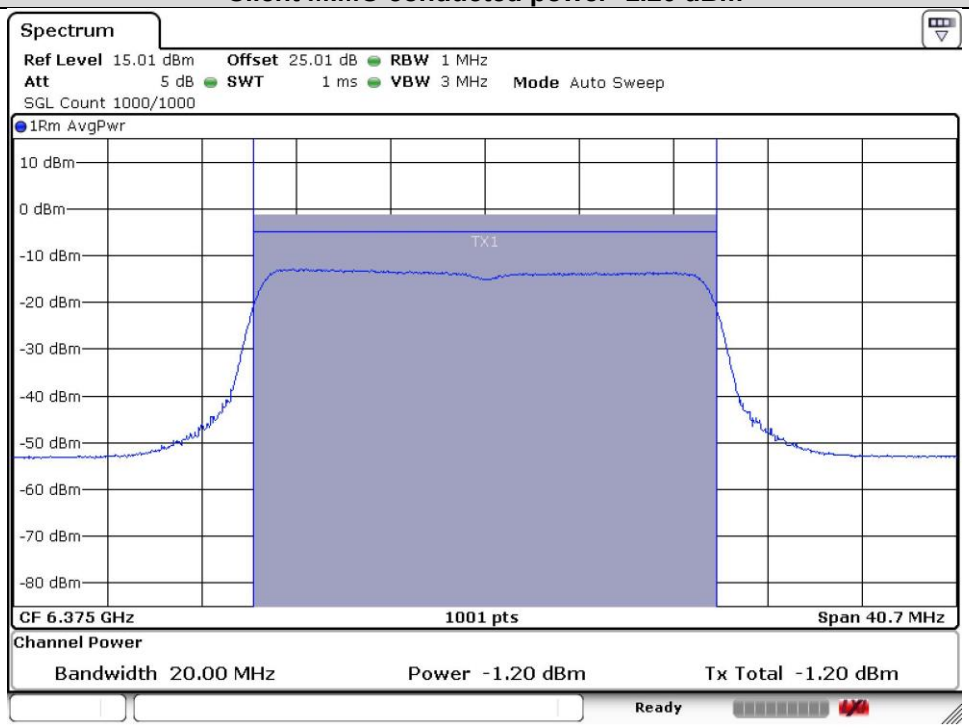
Note:

1. Client EIRP = Client MIMO conducted power + antenna gain 0.5dBi

2. MIMO Power =Max ANT Power (SISO) + 10logN（N=2)

2.2.5 Test Result Plot

Measured Indoor power
Client MIMO conducted power -1.20 dBm



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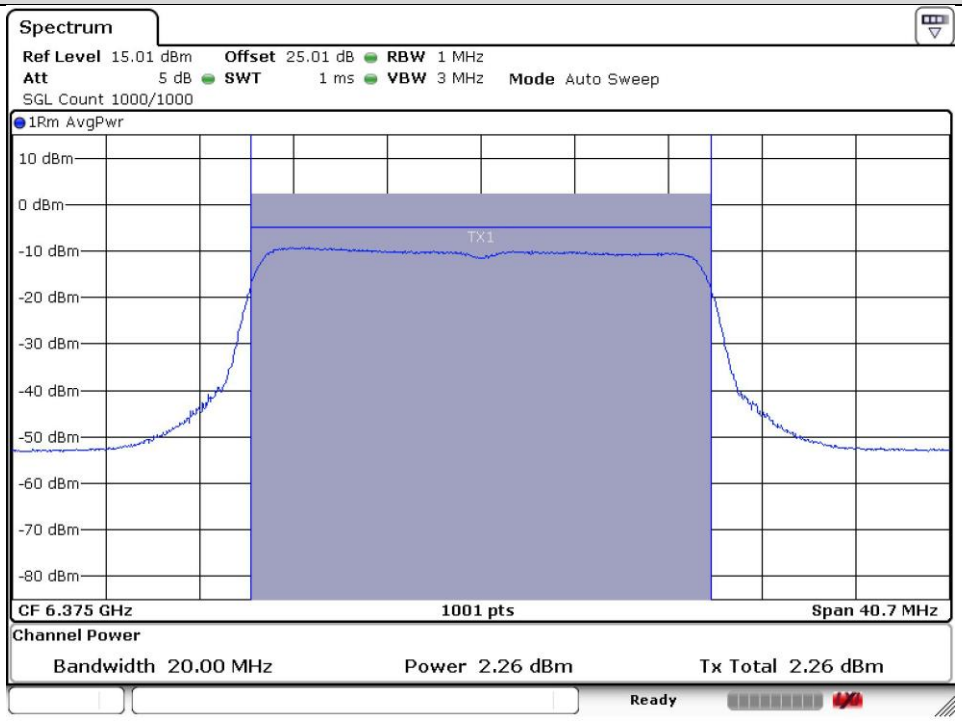
Measured Standard power
Client MIMO conducted power 2.26 dBm



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3 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Signal Analyzer	R&S	FSV7	101473	10Hz~7GHz	Dec. 28, 2023	Sep. 25, 2024	Dec. 27, 2024	Conducted (DFS01-SZ)

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