NFC TEST REPORT

No.23T04Z80206-01

for

OnePlus Technology (Shenzhen) Co., Ltd.

Mobile Phone

CPH2611

FCC ID: 2ABZ2-AA560

with

Hardware Version: 11

Software Version: OxygenOS V14.0

Issued Date: 2023-11-20

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S.Government.

Test Laboratory:

CTTL-Telecommunication Technology Labs, CAICT

No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China 100191.

Tel:+86(0)10-62304633-2512, Fax:+86(0)10-62304633-2504

Email: cttl_terminals@caict.ac.cn, website: www.caict.ac.cn

©Copyright. All rights reserved by CTTL.

REPORT HISTORY

Report Number	Revision	Description	Issue Date
23T04Z80206-01	Rev.0	1st edition	2023-11-20

Note: the latest revision of the test report supersedes all previous version.

©Copyright. All rights reserved by CTTL.

CONTENTS

1. TEST LABORATORY 4
1.1. INTRODUCTION & ACCREDITATION 4
1.2. TESTING LOCATION 4
1.3. TESTING ENVIRONMENT 5
1.4. PROJECT DATA 5
1.5. SIGNATURE 5
2. CLIENT INFORMATION 6
2.1. APPLICANT INFORMATION 6
2.2. MANUFACTURER INFORMATION 6
3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE) 7
3.1. ABOUT EUT 7
3.2. INTERNAL IDENTIFICATION OF EUT 7
3.3. INTERNAL IDENTIFICATION OF AE 7
3.4. EUT SET-UPS 8
4. REFERENCE DOCUMENTS 9
4.1. DOCUMENTS SUPPLIED BY APPLICANT 9
4.2. REFERENCE DOCUMENTS FOR TESTING 9
5. TEST RESULTS 10
5.1. SUMMARY OF TEST RESULTS 10
5.2. STATEMENTS 10
6. TEST FACILITIES UTILIZED 11
7. MEASUREMENT UNCERTAINTY 12
ANNEX A: EUT PARAMETERS 13
ANNEX B: DETAILED TEST RESULTS 14
ANNEX C: PERSONS INVOLVED IN THIS TESTING 26
ANNEX D: ACCREDITATION CERTIFICATE 27

©Copyright. All rights reserved by CTTL.

1. Test Laboratory

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2017 accredited test laboratory under American Association for Laboratory Accreditation (A2LA) with lab code 7049.01, and is also an FCC accredited test laboratory (CN1349), and ISED accredited test laboratory (CAB identifier:CN0066). The detail accreditation scope can be found on A2LA website.

1.2. Testing Location

Location: CTTL(huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China 100191

©Copyright. All rights reserved by CTTL.

1.3. Testing Environment

Normal Temperature:	15-35℃
Extreme Temperature:	-20/+50℃
Normal Relative Humidity:	20-75%
Normal Air Pressure	86Kpa-106Kpa

1.4. Project data

Testing Start Date:	2023-10-25
Testing End Date:	2023-11-06

1.5. Signature

苗青华

Miao Qinghua

(Prepared this test report)

周斌

Zhou Bin

(Reviewed this test report)

庞帅

Pang Shuai

(Approved this test report)

©Copyright. All rights reserved by CTTL.

2. Client Information

2.1. Applicant Information

Company Name:	OnePlus Technology (Shenzhen) Co., Ltd.
Address:	18C02, 18C03, 18C04, and 18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen, Guangdong, P.R. China.
Contact:	Ariel Cheng
Telephone:	(86)75561882366
Email:	chenglijun1@oppo.com

2.2. Manufacturer Information

Company Name:	OnePlus Technology (Shenzhen) Co., Ltd.
Address:	18C02, 18C03, 18C04, and 18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen, Guangdong, P.R. China.
Contact:	Ariel Cheng
Telephone:	(86)75561882366
Email:	chenglijun1@oppo.com

©Copyright. All rights reserved by CTTL.

3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	Mobile Phone
Model Name	CPH2611
FCC ID	2ABZ2-AA560
GSM Frequency bands	850/900/1800/1900
WCDMA Frequency bands	B1/2/4/5/8
LTE Frequency bands	FDD 1/2/3/4/5/7/8/12/13/17/18/19/20/25/26/28/30/66/71 TDD 38/39/40/41/48
NR FR1 Frequency bands	NSA n1/n2/n3/n5/n7/n8/n20/n25/n28/n38/n40/n41/n66/n71/n77/n78
Operating temperature	0/+35℃
Extreme low voltage	6.6V
Normal voltage	7.82V
Extreme high voltage	9V

3.2. Internal Identification of EUT

EUT ID*	SN or IMEI	HW Version	SW Version
UT14a	869135060029018/ 869135060029000	11	OxygenOS V14.0
UT34a	869135060029414/ 869135060029406	11	OxygenOS V14.0

*EUT ID: is used to identify the test sample in the lab internally.

3.3. Internal Identification of AE

AE ID*	Description	SN	Remarks
AE1	Battery	/	/
AE2	Charger	/	/
AE3	USB Cable	/	/

AE1

Model	BLPA33
Manufacturer	Sunwoda Electronic Co., Ltd.
Capacity	2680mAh
Nominal Voltage	/

AE2

Model	VCBAHBUH
Manufacturer	Shenzhen Huntkey Electric Co.,Ltd
Length of cable	/

AE3

Model	DL129
Manufacturer	Changzhou Duwei Electronics Co., Ltd.

©Copyright. All rights reserved by CTTL.

Length of cable /

*AE ID: is used to identify the ancillary equipment in the lab internally.

3.4. EUT Set-ups

EUT set-up No.	Combination of EUT and AE	Remarks
Set.NFC01	UT34a + AE1 + AE2 + AE3 + NFC Card	Charge
Set.NFC02	UT34a + AE1+ NFC card	NFC
Set.NFC03	UT14a	---

The Transmit State of NFC: the NFC function is on. The EUT will transmit the NFC data and command continuously during the test.

The Transmit state without modulation: The EUT will transmit the CW signal at the operating frequency.

©Copyright. All rights reserved by CTTL.

4. Reference Documents

4.1. Documents supplied by applicant

EUT parameters, referring to Annex A for detailed information, are supplied by the client or manufacturer, which are the bases of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
CFR 47 Part 2	Part 2 — Frequency Allocations and Radio Treaty Matters; General Rules and Regulations.	2019
CFR 47 Part 15	Part 15 — Radio Frequency Devices. Subpart C — Intentional Radiators. § 15.35 Measurement detector functions and bandwidths. § 15.207 Conducted limits. § 15.209 Radiated emission limits, general requirements. § 15.215 Additional provisions to the general radiated emission limitations. § 15.225 Operation within the band 13.110–14.010 MHz.	2019
ANSI C63.10	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	2013

©Copyright. All rights reserved by CTTL.

5. Test Results

5.1. Summary of Test Results

No	Test Cases	Clause in Regulation	Section in This Report	Verdict
1	Electric Field Strength of Fundamental Emissions	CFR 47 § 15.225(a)	B.1	P(Set. NFC02)
2	Electric Field Strength of Outside the Allocated Bands	CFR 47 § 15.225(b) CFR 47 § 15.225(c)		P(Set. NFC02)
3	Electric Field Radiated Emissions	CFR 47 § 15.209 CFR 47 § 15.225(d)	B.2	P(Set. NFC01)
			B.3	P(Set. NFC01)
4	Frequency Tolerance	CFR 47 § 15.225(e)	B.4	P(Set. NFC03)
5	20dB Bandwidth	CFR 47 § 15.215(c)	B.5	P(Set. NFC03)
6	Conducted Emissions	CFR 47 § 15.207	B.6	P(Set. NFC01)
The measurement is carried out according to ANSI C63.10. See **ANNEX B** for details.				

Test Conditions:

For this report, all the test cases listed above were tested under normal Temperature, Voltage, humidity and Air Pressure except the Frequency Tolerance test case. The specific conditions of Frequency Tolerance test case are listed in section B.4.3

See Table 3 for terms for result verdict:

Table 1 Terms for result verdict

P	Pass, The EUT complies with the essential requirements in the standard.
NP	Not Perform, The test was not performed by CTTL
NA	Not Applicable, The test was not applicable
F	Fail, The EUT does not comply with the essential requirements in the standard

5.2. Statements

The test cases listed in Section 5.1 of this report for the EUT specified in Section 3 were performed by CTTL according to the reference documents in Section 4.

The EUT meets all applicable requirements of the regulations and standards in Section 4.2.

©Copyright. All rights reserved by CTTL.

6. Test Facilities Utilized

NO.	NAME	TYPE	SERIES NUMBER	PRODUCER	CAL. DUE DATE	CAL. INTERVAL
1.	Spectrum Analyzer	N9030A	MY49432143	Keysight Technologies	2023-12-17	1 Year
2.	Climatic chamber	WK3-340/70	58226117510010	WEISS	2024-10-12	1 Year
3.	Test Receiver	ESW44	103023	R&S	2024-07-08	1 Year
4.	H-field Antenna	HFH2-Z2	829324/007	R&S	2024-12-23	2 Years
5.	EMI Antenna	VULB 9163	01222	SCHWARZBECK	2024-02-28	2 Years
6.	Test Receiver	ESCI	100344	R&S	2024-02-21	1 Year
7.	LISN	ENV216	101200	R&S	2024-06-05	1 Year

©Copyright. All rights reserved by CTTL.

7. Measurement Uncertainty

Item	Uncertainty
Frequency Tolerance	*U =74 Hz, k=2*
20dB Bandwidth	*U* =74 Hz, k=2
Radiated Emissions(9kHz-30MHz)	*U* =4.92 dB, k=2
Radiated Emissions (30MHz-1GHz)	*U* =4.72 dB, k=2
Radiated Emissions (1GHz-18GHz)	*U* =4.84 dB, k=2
Conducted emission	*U* = 3.08 dB, k=2

©Copyright. All rights reserved by CTTL.

ANNEX A: EUT parameters

/

©Copyright. All rights reserved by CTTL.

ANNEX B: Detailed Test Results

B.1. Electric Field Strength of Fundamental and Outside the Allocated bands

B.1.1. Reference

See Clause 4, Clause 5 of ANSI C63.10-2013 generally.

B.1.2. Measurement Methods

The transmitter carrier output levels (E-Field) from the EUT are measured in a semi-anechoic chamber. The EUT is placed on a non-conductive stand of 80cm high, and at a measurement distance of 3m from the receiving antenna. The center of the receiving loop antenna is 1.0 meter above the ground. The E-field is measured with a shielded loop antenna connected to a measurement receiver. Detected E-field was maximized by rotating the EUT through 360° and adjusting the receiving antenna polarizations. The maximization processes were repeated with the EUT positioned respectively in its three orthogonal axes. The measurements were performed with the peak detector and if required, the quasi-peak detector.

The measurement bandwidth is:

Table B-1: Measurement bandwidth

Frequency of Emission (MHz)	RBW/VBW
12.56-14.56	10/30 kHz

The E-field measured at 3m is calculated as:

E-field (dBμV/m) = Rx (dBμV) + Cable Loss (dB) + AF@3m (dB/m)

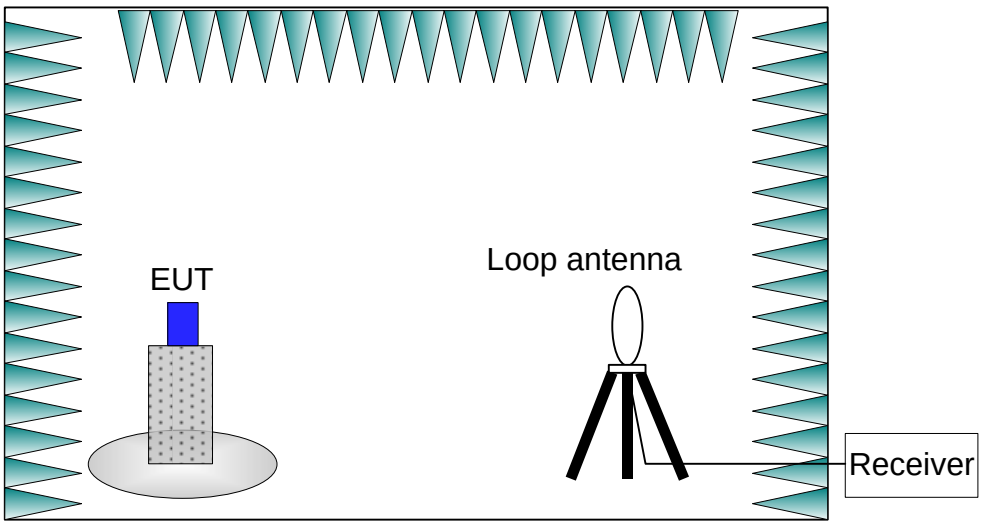

Figure B-1: Measurement Setup

B.1.3. EUT Operating Mode and Test Conditions

The measurement of EUT is carried out under the transmit state of NFC(See 3.4).

The EUT is powered by a travel adapter.

During the measurements, the ambient temperature of the electromagnetic anechoic chamber is in the range of 15 ~ 25 ℃.

©Copyright. All rights reserved by CTTL.

B.1.4. Limits

Table B-2: Limits

Frequency Range (MHz)	E-field Strength Limit @ 30 m (μV/m)	E-field Strength Limit @ 3 m (dBμV/m)
13.560 ± 0.007	+15,848	124
13.410 to 13.553 13.567 to 13.710	+334	90
13.110 to 13.410 13.710 to 14.010	+106	81
Note: Where the limits have been defined at one distance, and a signal level measured at another, the limits have been extrapolated using the following formula: $\text{Extrapolation(dB)} = 40\log_{10}(\text{Measurement Distance}/\text{Specification Distance})$		

B.1.5. Measurement Results

Measurement results of normal conditions see Figure B-2 for different set-ups of EUT. The results displayed take into account applicable antenna factors and cable losses.

Conclusions: Set.NFC02, **PASS**.

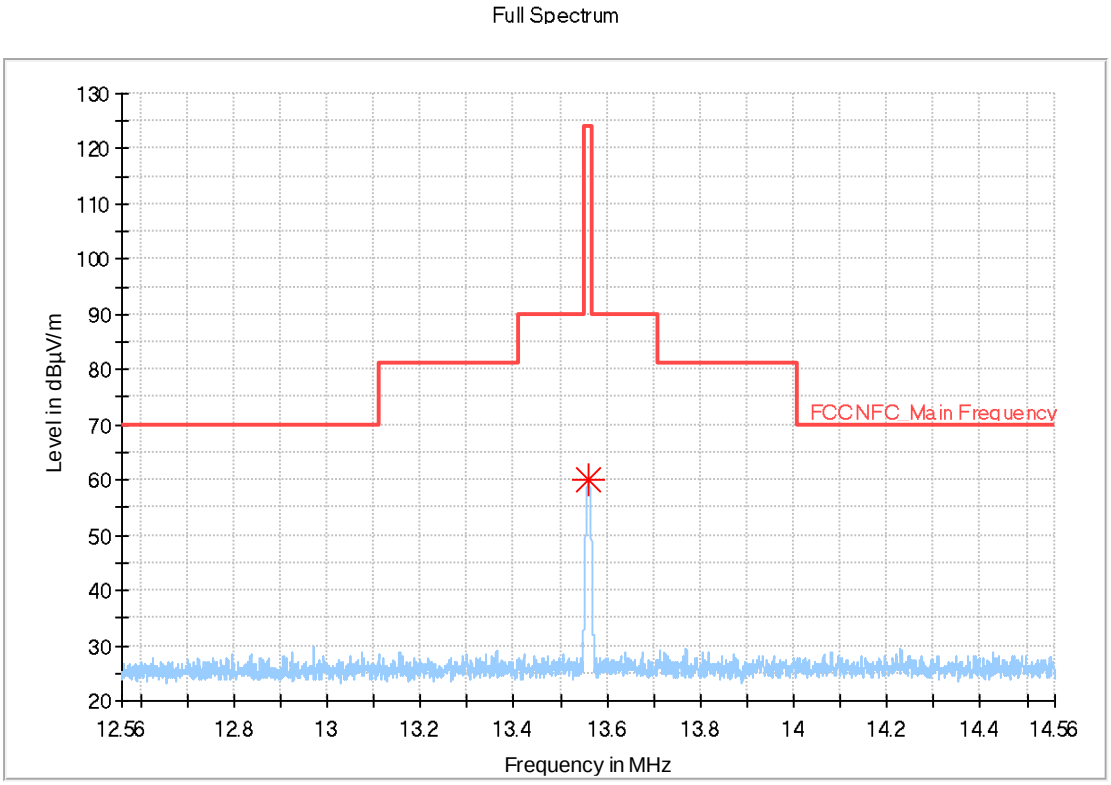

Figure B-2: Measurement results for Electric Field Strength of Fundamental and Outside the Allocated bands

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Corr. (dB/m)
13.559750	60.12	124.00	63.88	---	---	V	213.0	17.9

©Copyright. All rights reserved by CTTL.

B.2. Electric Field Radiated Emissions (< 30MHz)

B.2.1. Reference

See Clause 6.4 of ANSI C63.10-2013 specifically.
See Clause 4 and Clause 5 of ANSI C63.10-2013 generally.

B.2.2. Measurement Methods

The transmitter carrier output levels (E-Field) from the EUT are measured in a semi-anechoic chamber. The EUT is placed on a non-conductive stand of 80cm high, and at a measurement distance of 3m from the receiving antenna. The center of the receiving loop antenna is 1.0 meter above the ground. The E-field is measured with a shielded loop antenna connected to a measurement receiver. Detected E-field was maximized by rotating the EUT through 360° and adjusting the receiving antenna polarizations. The maximization processes were repeated with the EUT positioned respectively in its three orthogonal axes. The measurements were performed with the peak detector and if required, the quasi-peak detector.

The measurement bandwidth is:

Frequency of Emission (MHz)	RBW/VBW
0.009-0.15	100/300 Hz
0.15-30	10/30 kHz

The E-field measured at 3m is calculated as:
E-field (dBμV/m) = Rx (dBμV) + Cable Loss (dB) + AF@3m (dB/m)

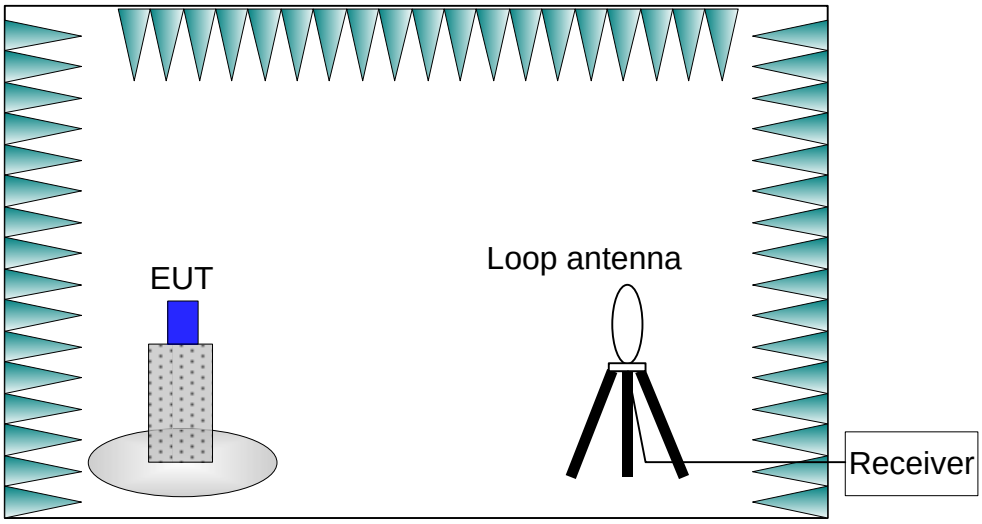

Figure B-3: Measurement Setup

B.2.3. EUT Operating Mode and Test Conditions

The measurement of EUT is carried out under the transmit state of NFC(See 3.4).
The EUT is powered by a travel adapter.

©Copyright. All rights reserved by CTTL.

During the measurements, the ambient temperature of the electromagnetic anechoic chamber is in the range of 15 ~ 25 ℃.

B.2.4. Limits

Frequency Range (MHz)	E-field Strength Limit @ 30m (mV/m)	E-field Strength Limit @ 3m (dBμV/m)
0.009-0.490	2400/F(kHz)	129-94
0.490-1.705	24000/F(kHz)	74-63
1.705-30	30	70
Note: Where the limits have been defined at one distance, and a signal level measured at another, the limits have been extrapolated using the following formula: $\text{Extrapolation(dB)} = 40\log_{10}(\text{Measurement Distance}/\text{Specification Distance})$		

B.2.5. Measurement Results

Measurement results of normal conditions see Figure B-4 for different set-ups of EUT. The results displayed take into account applicable antenna factors and cable losses.

Conclusions: Set.NFC01, **PASS**.

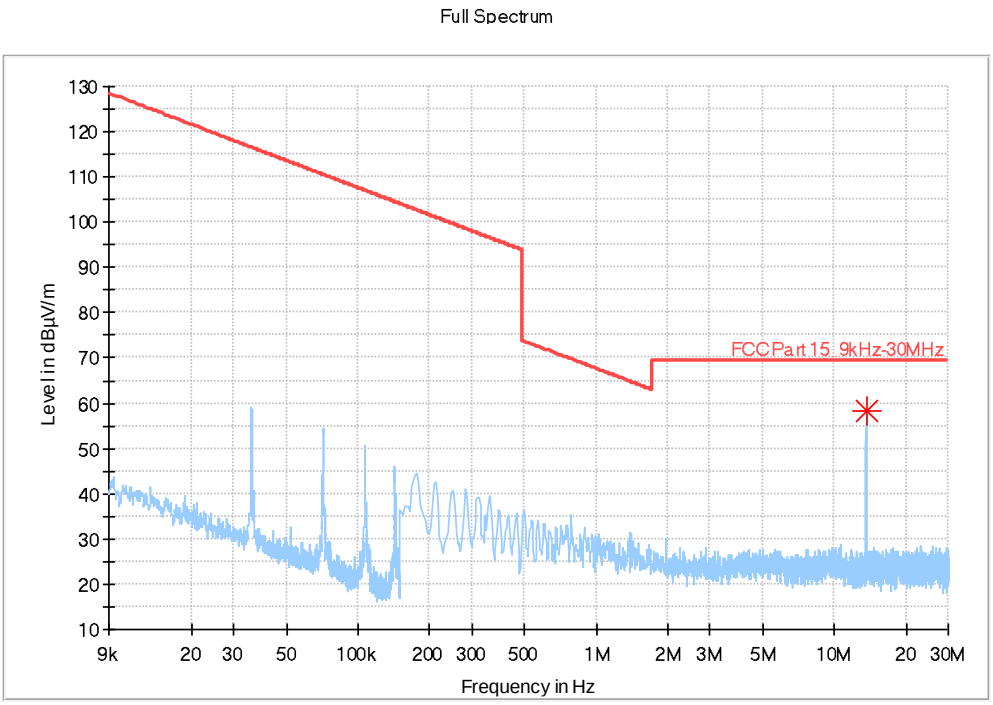

Figure B-4: Measurement results for Electric Field Radiated Emissions (< 30MHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Corr. (dB/m)
13.560113	58.16	69.50	11.34	---	---	V	180.0	17.9

©Copyright. All rights reserved by CTTL.

B.3. Electric Field Radiated Emissions (≥30MHz)

B.3.1. Reference

See Clause 6.5 of ANSI C63.10-2013 specifically.

See Clause 4 and Clause 5 of ANSI C63.10-2013 generally.

B.3.2. Measurement Methods

The electric field radiated emissions from the EUT are measured in a semi-anechoic chamber. The EUT is placed on a non-conductive stand of 80cm high, and at a measurement distance of 10m from the receiving antenna. The receiving antennas connected to a measurement receiver. In order to search for maximum field strength emitted from the EUT, the receiving antenna can be moved between the height of 1.0 m to 4.0 m. Detected E-field was maximized at each frequency by rotating the EUT through 360° and adjusting the receiving antenna positions for both vertical and horizontal antenna polarizations. The maximization processes were repeated with the EUT positioned respectively in its three orthogonal axes. The measurements were performed with the peak detector and if required, the quasi-peak detector.

The measurement bandwidth is:

Frequency of Emission (MHz)	RBW/VBW
30-1000	120kHz

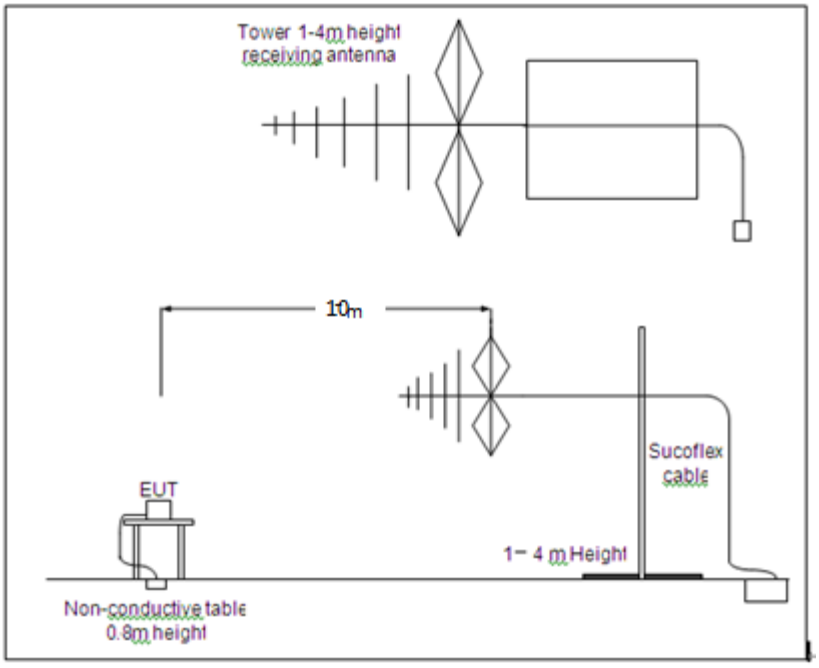

Figure B-5: Measurement Setup

B.3.3. EUT Operating Mode and Test Conditions

The measurement of EUT is carried out under the transmit state of NFC(See 3.4).

The EUT had been connected to a travel adapter.

During the measurements, the ambient temperature of the electromagnetic anechoic chamber is

©Copyright. All rights reserved by CTTL.

in the range of 15 ~ 25 ℃.

B.3.4. Limits

Frequency Range (MHz)	E-field Strength Limit @ 3m (mV/m)	E-field Strength Limit @ 3m (dBμV/m)	E-field Strength Limit @ 10m (dBμV/m)
30-88	100	40	30
88-216	150	43.5	33.5
216-960	200	46	36
960-1000	500	54	44

B.3.5. Measurement Results

Measurement results of normal conditions see Figure B-6 for different set-ups of EUT. The results displayed take into account applicable antenna factors and cable losses.

Conclusions: Set.NFC01, **PASS**.

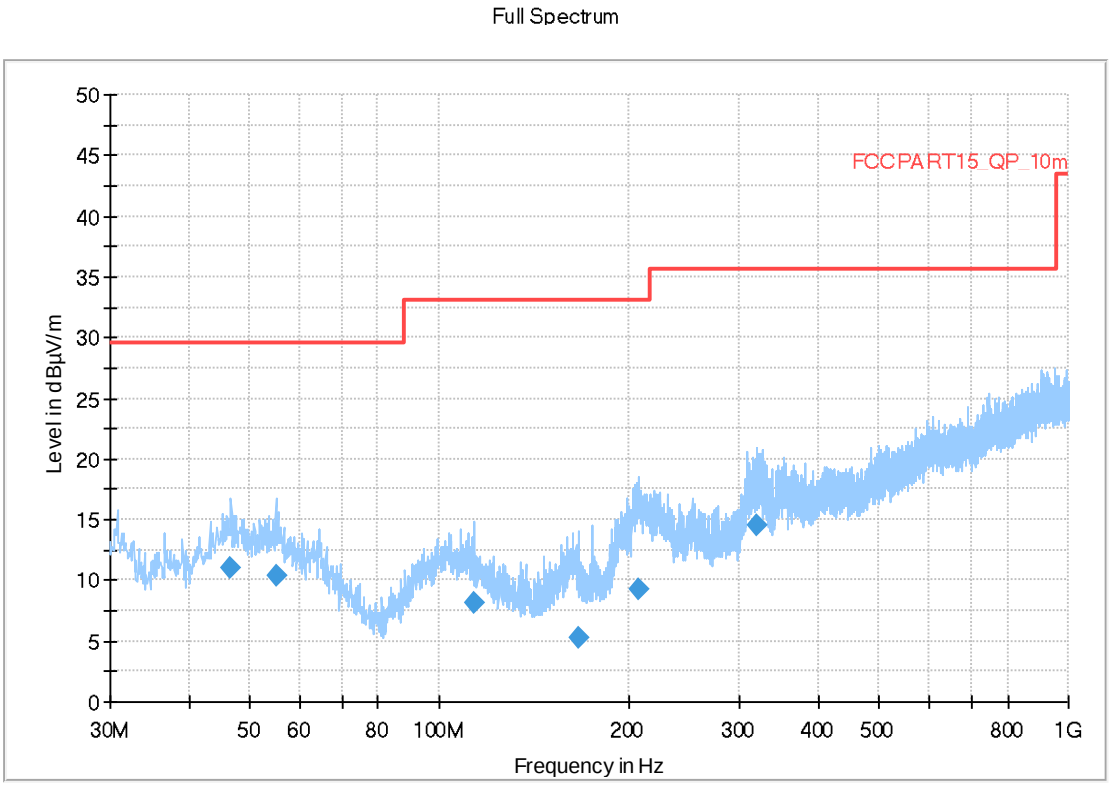

Figure B-6: Measurement results for Electric Field Radiated Emissions (≥30MHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
46.684000	10.96	29.54	18.58	120.000	225.0	V	-45.0	-10.6
55.026000	10.34	29.54	19.20	120.000	275.0	H	45.0	-11.0
113.614000	8.11	33.06	24.95	120.000	108.0	V	-6.0	-13.2
166.188000	5.25	33.06	27.81	120.000	282.0	V	-14.0	-14.6
207.413000	9.21	33.06	23.85	120.000	125.0	V	98.0	-12.3
319.254000	14.54	35.56	21.02	120.000	118.0	V	84.0	-8.2

©Copyright. All rights reserved by CTTL.

B.4. Frequency Tolerance

B.4.1. Reference

See Clause 6.8 of ANSI C63.10-2013 specifically.
See Clause 4 and Clause 5 of ANSI C63.10-2013 generally.

B.4.2. Measurement Methods

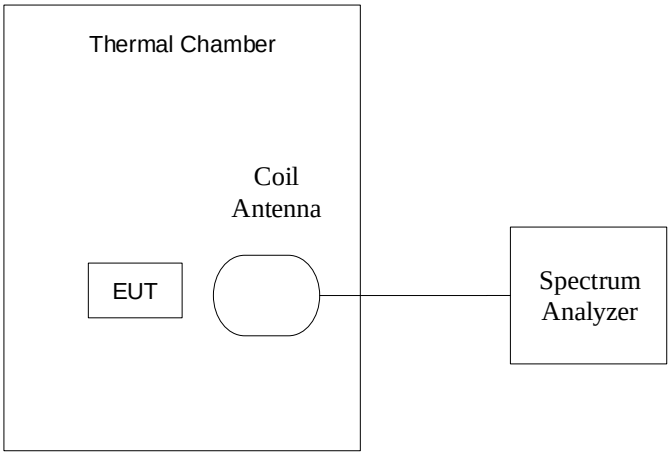

Figure B-7: Measurement Setup

The transmitter output signal was picked up by coil antenna connected to the spectrum analyzer. The center frequency was measured with 30Hz RBW and 1kHz span.
During the test, the EUT was placed in a thermal chamber until thermal balance and lasting appropriate time.

B.4.3. EUT Operating Mode and Test Conditions

The measurement of EUT was carried out under the transmit state of without modulation(See 3.4). EUT had not been connected to a travel adapter. The frequency stability was measured with the different voltage and temperature combinations:

a) The nominal voltage 7.82V(See 3.1)was used and the temperature was varied from -20℃ to +50℃ in 10℃ increments using an environmental chamber.
b) The 20℃ was used and the voltages were 6.6V, 7.82V and 8.99V (The extreme low voltage ,the normal voltage defined in section 3.1 and 115% of the normal voltage).

The details were as following:

Table B-3: Combinations of Voltage andTemperature

Test items	Voltage	Temperature
Frequency stability with respect to ambient temperature	7.82V	-20℃
		-10℃
		0℃
		10℃
		20℃
		30℃
		40℃

©Copyright. All rights reserved by CTTL.

		50℃
Frequency stability when varying supply voltage	6.6 V	20℃
	7.82V	
	8.99V	

B.4.4. Test Layouts

See B.4.2.

B.4.5. Limits

The frequency tolerance of the carrier signal shall be maintained within +/- 0.01% of the operating frequency.

B.4.6. Measurement Results

Measurement results see Table B-4 for different test conditions.

Conclusions: Set.NFC03, **PASS**.

Table B-4: Measurement results for Frequency Tolerance

Temperature	Voltage	Frequency (MHz)			
		Startup	2 Min Later	5 Min Later	10 Min Later
-20℃	7.82V	13.559739000	13.559739000	13.559744000	13.559744000
-10℃	7.82V	13.559721000	13.559730000	13.559736000	13.559739000
0℃	7.82V	13.559685000	13.559694000	13.559703000	13.559712000
10℃	7.82V	13.559595000	13.559613000	13.559667000	13.559667000
20℃	7.82V	13.559964000	13.559982000	13.559984000	13.559984000
30℃	7.82V	13.559946000	13.559946000	13.559952000	13.559952000
40℃	7.82V	13.559946000	13.559928000	13.559928000	13.559916000
50℃	7.82V	13.559559000	13.559552000	13.559541000	13.559541000
20℃	6.6V	13.559631000	13.559632000	13.559632000	13.559216000
20℃	8.99V	13.559712000	13.559667000	13.559658000	13.559649000

Temperature	Voltage	Frequency Error (%)			
		Startup	2 Min Later	5 Min Later	10 Min Later
-20℃	7.82V	-0.002	-0.002	-0.002	-0.002
-10℃	7.82V	-0.002	-0.002	-0.002	-0.002
0℃	7.82V	-0.002	-0.002	-0.002	-0.002
10℃	7.82V	-0.003	-0.003	-0.002	-0.002
20℃	7.82V	0.000	0.000	0.000	0.000
30℃	7.82V	0.000	0.000	0.000	0.000
40℃	7.82V	0.000	-0.001	-0.001	-0.001
50℃	7.82V	-0.003	-0.003	-0.003	-0.003
20℃	6.6V	-0.003	-0.003	-0.003	-0.006
20℃	8.99V	-0.002	-0.002	-0.003	-0.003

©Copyright. All rights reserved by CTTL.

B.4.7. Measurement Uncertainty

Measurement uncertainty: *U =74 Hz, k=2*

B.5. 20dB Bandwidth

B.5.1. Reference

See Clause 6.9 of ANSI C63.10-2013 specifically.
See Clause 4 and Clause 5 of ANSI C63.10-2013 generally.

B.5.2. Measurement Methods

The transmitter output signal was picked up by coil antenna connected to the spectrum analyzer. The bandwidth of the center frequency was measured with 470Hz RBW, 1.5kHz VBW and 10kHz span.

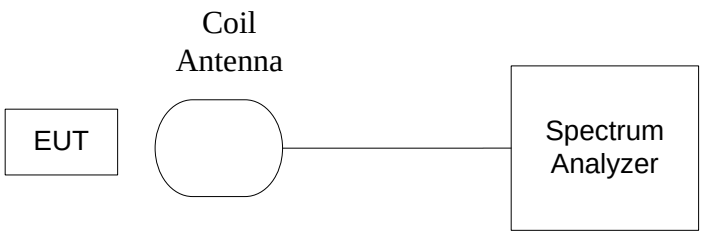

Figure B-8: Measurement Setup

B.5.3. EUT Operating Mode and Test Conditions

The measurement of EUT was carried out under the transmit state of NFC (See 3.4).
EUT had not been connected to a travel adapter.

During the measurements, the ambient temperature was in the range of 15 ~ 25 ℃.

B.5.4. Test Layouts

See B.5.2.

B.5.5. Limits

The 20dB bandwidth shall be less than 80% of the permitted frequency band. For 13.56 MHz NFC, the permitted frequency band is 14kHz, so the limit is 11.2 kHz.

B.5.6. Measurement Results

Measurement results see Figure B-9.
Conclusions: Set.NFC03, **PASS**.

©Copyright. All rights reserved by CTTL.

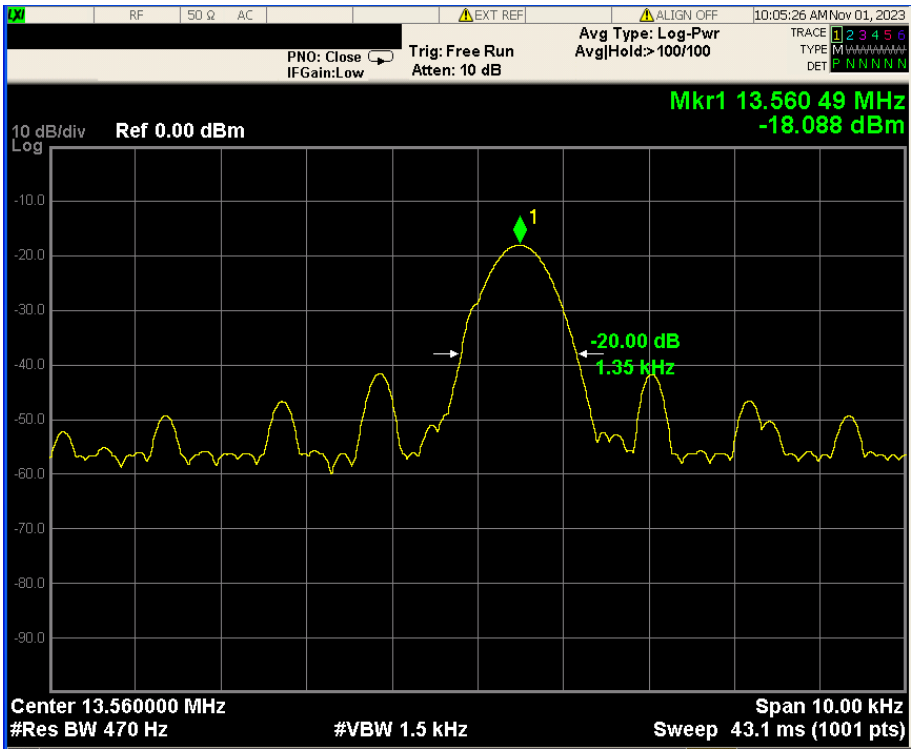

Figure B-9: Measurement results for 20dB Bandwidth

B.5.7. Measurement Uncertainty

Measurement uncertainty: U =74 Hz, k=2

©Copyright. All rights reserved by CTTL.

B.6. Conducted emission

B.6.1. Reference

See Clause 6.2 of ANSI C63.10-2013 specifically.

See Clause 4 and Clause 5 of ANSI C63.10-2013 generally.

B.6.2. Measurement Methods

The conducted emissions from the AC port of the EUT are measured in a shielding room. The EUT is connected to a Line Impedance Stabilization Network (LISN). An overview sweep with peak detection was performed. The measurements were performed with a quasi-peak detector and if required, an average detector.

The conducted emission measurements were made with the following detector of the test receiver: Quasi-Peak / Average Detector.

The measurement bandwidth is:

Table B-5: Measurement Bandwidth

Frequency of Emission (MHz)	RBW/VBW
0.15-30	9kHz

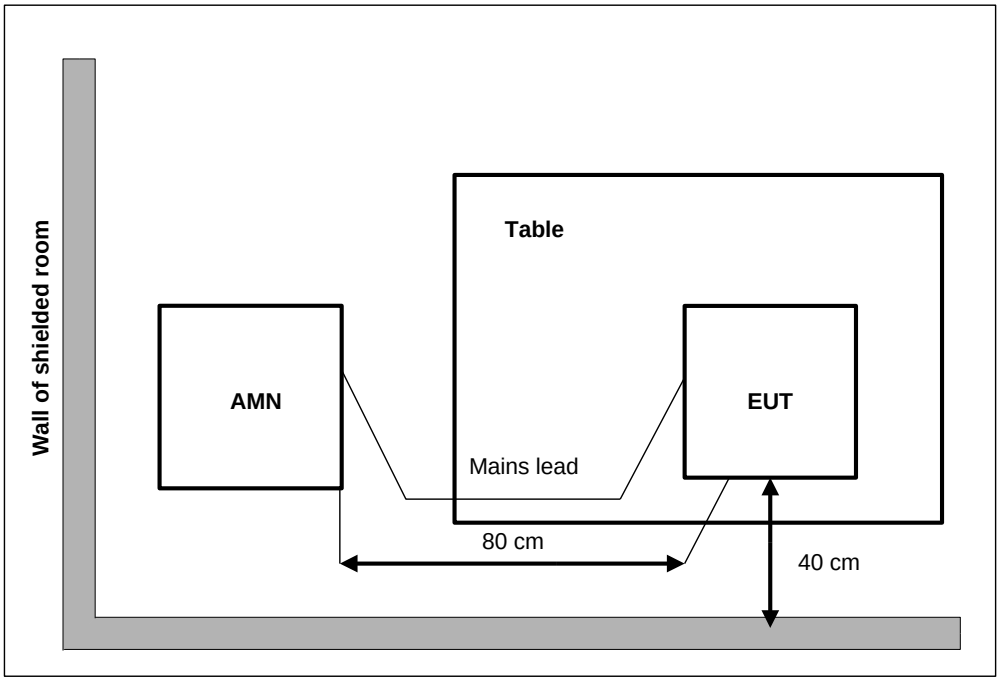

Figure B-10: Measurement Setup

B.6.3. EUT Operating Mode and Test Conditions

The measurement of EUT is carried out under the transmit state of NFC(See 3.4).

The EUT is powered by a travel adapter.

During the measurements, the ambient temperature is in the range of 15 ~ 25 ℃.

B.6.4. Limits

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)
0.15 to 0.5	66 to 56	56 to 46
0.5 to 5	56	46
5 to 30	60	50

©Copyright. All rights reserved by CTTL.

B.6.5. Measurement Results

Measurement results see Figure B-11.

Conclusions: Set.NFC01, **PASS**.

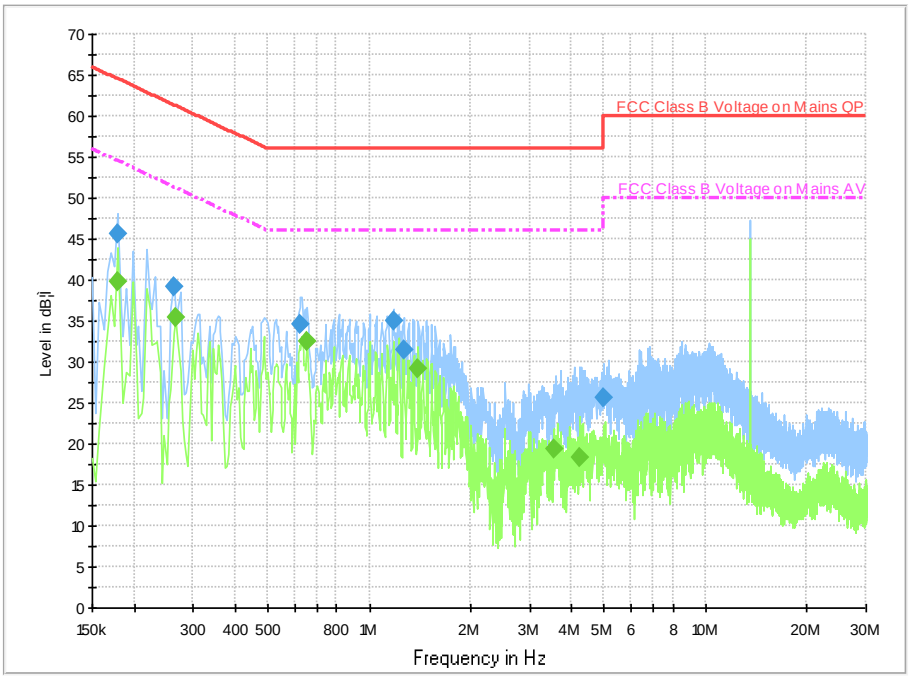

Figure B-11: Measurement results for Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.178000	45.6	2000.0	9.000	On	N	19.7	18.9	64.6	
0.262000	39.1	2000.0	9.000	On	N	19.7	22.3	61.4	
0.626000	34.6	2000.0	9.000	On	N	19.6	21.4	56.0	
1.178000	35.0	2000.0	9.000	On	N	19.6	21.0	56.0	
1.270000	31.4	2000.0	9.000	On	N	19.6	24.6	56.0	
4.950000	25.6	2000.0	9.000	On	L1	19.6	30.4	56.0	

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.178000	39.8	2000.0	9.000	On	N	19.7	14.8	54.6	
0.266000	35.5	2000.0	9.000	On	N	19.7	15.7	51.2	
0.654000	32.6	2000.0	9.000	On	N	19.6	13.4	46.0	
1.398000	29.2	2000.0	9.000	On	N	19.6	16.8	46.0	
3.526000	19.4	2000.0	9.000	On	N	19.6	26.6	46.0	
4.226000	18.3	2000.0	9.000	On	N	19.6	27.7	46.0	

©Copyright. All rights reserved by CTTL.

ANNEX C: Persons involved in this testing

Test Item	Tester
20dB Bandwidth	Miao Qinghua
Frequency Tolerance	Miao Qinghua
Electric Field Strength of Fundamental and Outside the Allocated bands	Zhang Tianli
Electric Field Radiated Emissions (< 30MHz)	Zhang Tianli
Electric Field Radiated Emissions (≥30MHz)	Zhang Tianli
Conducted Emissions	Li Pengfei

©Copyright. All rights reserved by CTTL.

ANNEX D: Accreditation Certificate

Accredited Laboratory

A2LA has accredited

TELECOMMUNICATION TECHNOLOGY LABS, CAICT

Beijing, People's Republic of China

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated April 2017*).

Presented this 26th day of June 2023.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 7049.01
Valid to July 31, 2024

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

*****END OF REPORT*****

©Copyright. All rights reserved by CTTL.