



# NFC TEST REPORT

No.24T04Z101591-001

for

**Guangdong OPPO Mobile Telecommunications Corp., Ltd.**

**Mobile Phone**

**CPH2659**

**FCC ID: R9C-OP23216**

**with**

**Hardware Version: 11**

**Software Version: Color OS 15.0**

**Issued Date: 2024-09-12**

**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.

**Test Laboratory:**

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## **REPORT HISTORY**

Report Number	Revision	Description	Issue Date
24T04Z101591-001	Rev.0	1 <sup>st</sup> edition	2024-09-12

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

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## **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 1: CTTL(huayuan North Road)

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

Location 2: CTTL(Cui Hu)

Address: CuiHu Cloud Center No.1 Gaolizhang Road,Wenquan  
Town,Haidian District,Beijing,China

### **1.3. Testing Environment**

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

### **1.4. Project data**

Testing Start Date: 2024-08-28  
Testing End Date: 2024-09-11

### **1.5. Signature**

苗青华

Miao Qinghua

(Prepared this test report)

周斌

Zhou Bin

(Reviewed this test report)

彭帅

Pang Shuai

(Approved this test report)

## **2. Client Information**

### **2.1. Applicant Information**

Company Name: Guangdong OPPO Mobile Telecommunications Corp., Ltd.  
Address: NO.18 HaiBin Road, Wusha Village, Chang'an Town, DongGuan City, Guangdong Province, P.R. China  
Contact: Xiong Bo  
Telephone: (86)76986076999  
Email: xiongbo@oppo.com

### **2.2. Manufacturer Information**

Company Name: Guangdong OPPO Mobile Telecommunications Corp., Ltd.  
Address: NO.18 HaiBin Road, Wusha Village, Chang'an Town, DongGuan City, Guangdong Province, P.R. China  
Contact: Xiong Bo  
Telephone: (86)76986076999  
Email: xiongbo@oppo.com

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

#### **3.1. About EUT**

Description	Mobile Phone
Model Name	CPH2659
FCC ID	R9C-OP23216
GSM Frequency bands	850/900/1800/1900
WCDMA Frequency bands	B1/2/4/5/6/8/19
E-UTRA Frequency bands	FDD 1/2/3/4/5/7/8/12/13/17/18/19/20/25/26/28/32/66 TDD 38/39/40/41
5G_NR Frequency bands	SA n1/n2/n3/n5/n7/n8/n12/n20/n25/n26/n28/n38/n40/n41/n66/n75/n76/n77/n78 NSA n1/n2/n3/n5/n7/n8/n20/n26/n28/n38/n40/n41/n66/n75/n76/n77/n78
Operating temperature	0°C - 35°C
Extreme low voltage	3V
Normal voltage	3.87V
Extreme high voltage	4.5V

#### **3.2. Internal Identification of EUT**

<b>EUT ID*</b>	<b>SN or IMEI</b>	<b>HW Version</b>	<b>SW Version</b>	<b>Date of receipt</b>
UT18a	866185070037231/ 866185070097223	11	Color OS 15.0	2024-08-21
UT12a	866185070033131	11	Color OS 15.0	2024-08-06

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

#### **3.3. Internal Identification of AE**

<b>AE ID*</b>	<b>Description</b>	<b>Model</b>	<b>Manufacturer</b>
AE1	Battery	BLPB05	Dongguan NVT Technology Co., Ltd
AE2	Adapter	VCB80AUH	Dongguan Aohai Technology Co.,Ltd.
AE3	Cable	DL129	DUWEI

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

#### **3.4. EUT Set-ups**

<b>EUT set-up No.</b>	<b>Combination of EUT and AE</b>	<b>Remarks</b>
Set.NFC01	UT12a + AE1 + AE2 + AE3+ NFC Card	Charge
Set.NFC02	UT12a + AE1+ NFC card	NFC
Set.NFC03	UT18a	---

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.

## **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

## 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 B.3	P(Set. NFC01) 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)
7	Antenna Requirement	CFR 47 § 15.203	B.7	P(Set. NFC03)

The measurement is carried out according to ANSI C63.10. See **ANNEX B** for details.

#### Note:

The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.

#### 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.

## **6. Test Facilities Utilized**

NO.	NAME	TYPE	SERIES NUMBER	PRODUCER	CAL. DUE DATE	CAL. INTERVAL
1.	Spectrum Analyzer	N9030A	MY49432143	Keysight Technologies	2024-12-16	1 Year
2.	Climatic chamber	WK3-340/70	58226117510010	WEISS	2025-06-16	1 Year
3.	Test Receiver	ESW44	103144	R&S	2024-12-26	1 Year
4.	H-field Antenna	HFH2-Z2	829324/007	R&S	2026-02-04	2 Years
5.	EMI Antenna	VULB 9163	01223	SCHWARZBECK	2024-08-18	1 Year
6.	Test Receiver	ESCI	100344	R&S	2025-04-01	1 Year
7.	LISN	ENV216	101200	R&S	2025-05-16	1 year

Note: The EMI antenna with series number of 01223 did not exceed the CAL.DUE.DATE when used.

## 7. Measurement Uncertainty

Item	Uncertainty
Frequency Tolerance	$U = 74 \text{ Hz, } k=2$
20dB Bandwidth	$U = 74 \text{ Hz, } k=2$
Radiated Emissions(9kHz-30MHz)	$U = 4.92 \text{ dB, } k=2$
Radiated Emissions (30MHz-1GHz)	$U = 4.72 \text{ dB, } k=2$
Radiated Emissions (>1GHz)	$U = 4.84 \text{ dB, } k=2$
Conducted emission	$U = 3.08 \text{ dB, } k=2$

## **ANNEX A: EUT parameters**

Disclaimer: The antenna gain provided by the client may affect the validity of the measurement results in this report, and the client shall bear the impact and consequences arising therefrom.

## **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.

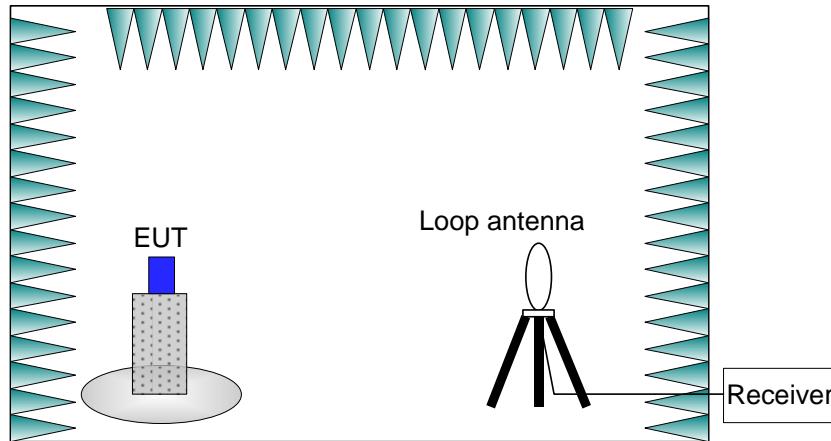
The measurement bandwidth is:

**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:

$$\text{E-field (dB}\mu\text{V/m)} = \text{Rx (dB}\mu\text{V)} + \text{Cable Loss (dB)} + \text{AF@3m (dB/m)}$$



**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 °C.

#### B.1.4. Limits

**Table B-2: Limits**

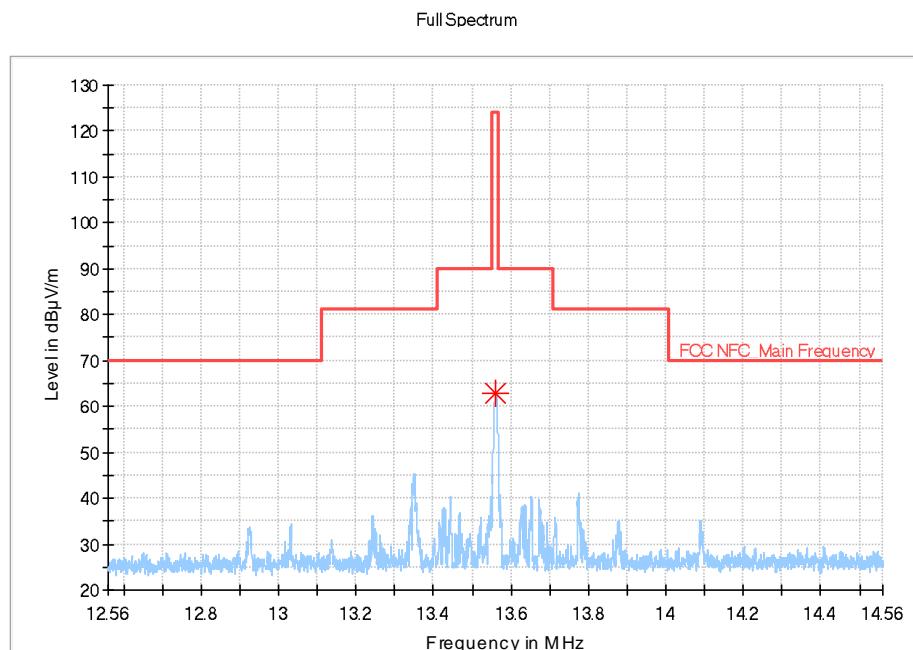
Frequency Range (MHz)	E-field Strength Limit @ 30 m (μV/m)	E-field Strength Limit @ 3 m (dBμV/m)
13.560 ± 0.007	+15,848	124
13.410 to 13.553	+334	90
13.567 to 13.710		
13.110 to 13.410	+106	81
13.710 to 14.010		

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:  
Extrapolation(dB) = 40log<sub>10</sub>(Measurement Distance/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)	Pol	Azimuth(deg)	Corr.(dB/m)
13.560250	63.03	124.00	60.97	V	0.0	18.0

## **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**

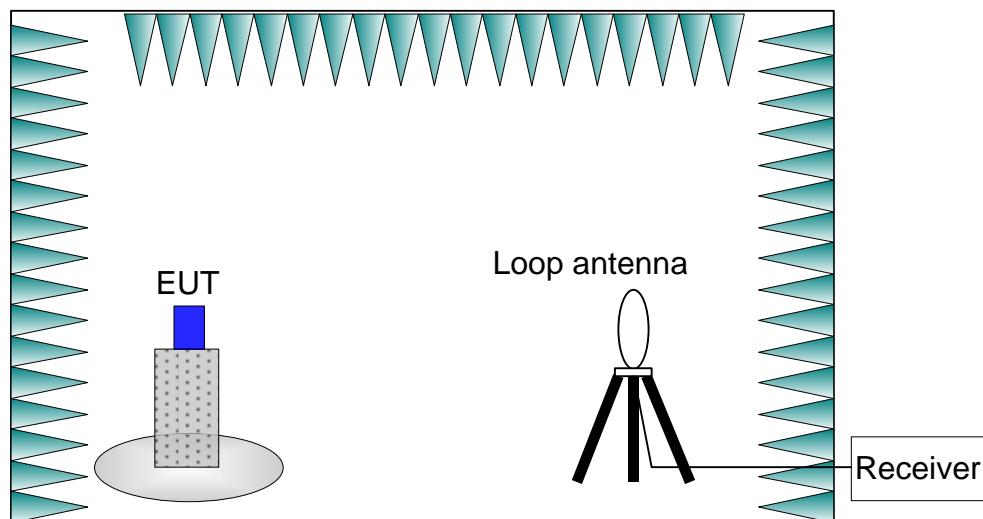
The transmitter carrier output levels (E-Field) from the EUT are measured in a semi-anechoic chamber. The EUT is placed on a non-conductive stand of 80cm high, and at a measurement distance of 3m from the receiving antenna. The center of the receiving loop antenna is 1.0 meter above the ground. The E-field 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:

$$\text{E-field (dB}\mu\text{V/m)} = \text{Rx (dB}\mu\text{V)} + \text{Cable Loss (dB)} + \text{AF@3m (dB/m)}$$



**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.

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

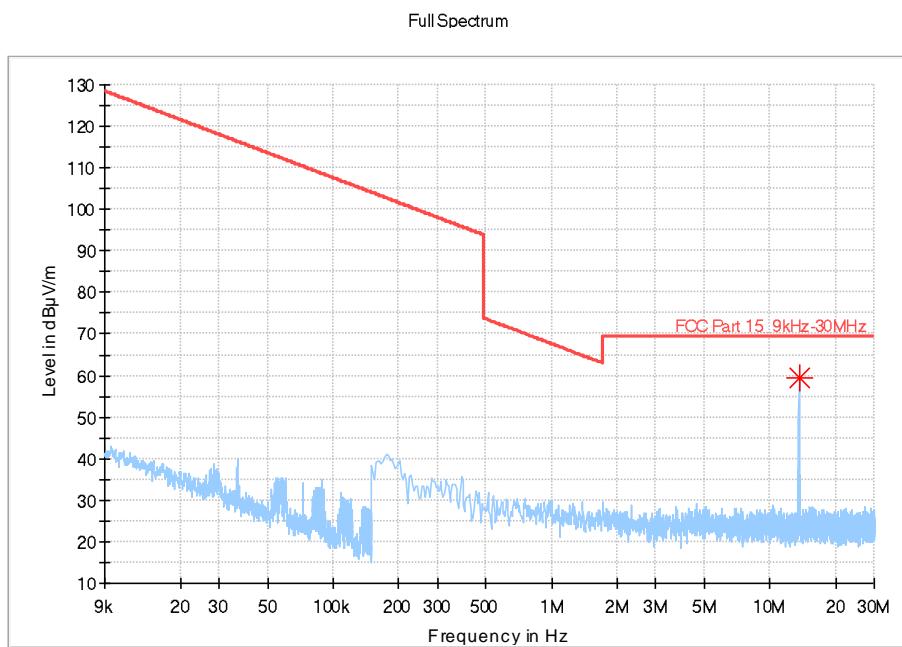
#### B.2.4. Limits

Frequency Range (MHz)	E-field Strength Limit @ 30m (mV/m)	E-field Strength Limit @ 3m (dB $\mu$ V/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: Extrapolation(dB) = 40log <sub>10</sub> (Measurement Distance/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 (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB/m)
13.560113	59.49	69.50	10.01	V	180.0	18.0

### **B.3. Electric Field Radiated Emissions ( $\geq 30\text{MHz}$ )**

#### **B.3.1. Reference**

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

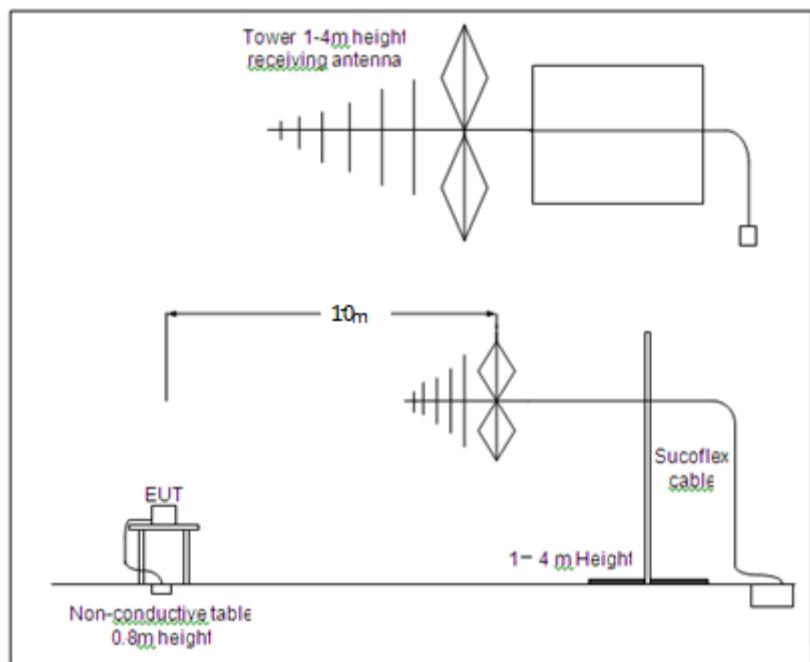
See Clause 4 and Clause 5 of ANSI C63.10-2013 generally.

#### **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

in the range of 15 ~ 25 °C.

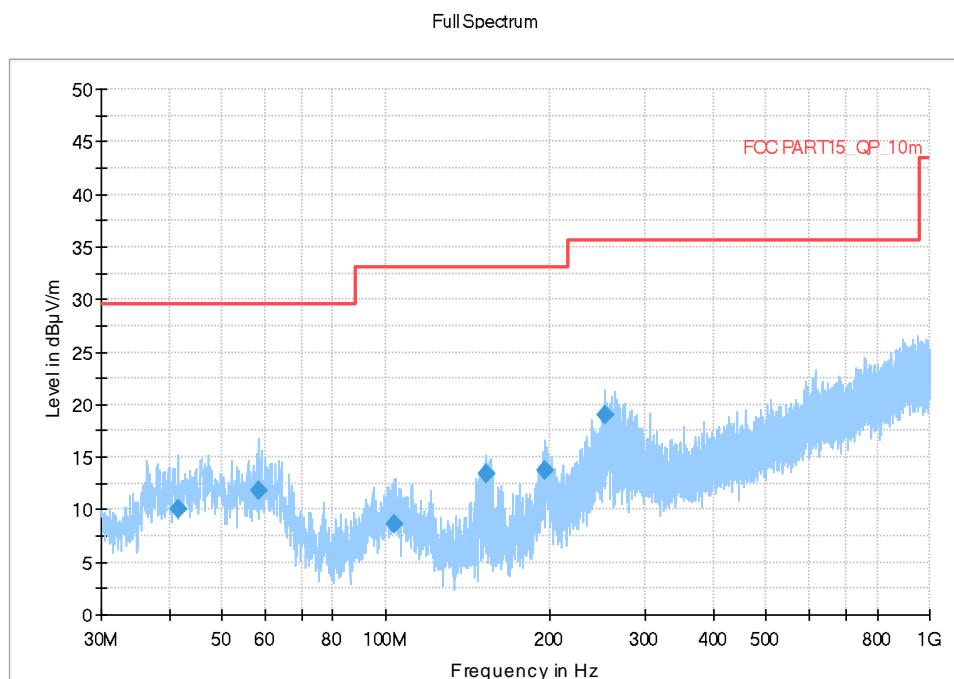
#### B.3.4. Limits

Frequency Range (MHz)	E-field Strength Limit @ 3m (mV/m)	E-field Strength Limit @ 3m (dB $\mu$ V/m)	E-field Strength Limit @ 10m (dB $\mu$ V/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 ( $\geq 30\text{MHz}$ )**  
**Final\_Result**

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
41.494500	10.05	29.54	19.49	120.000	275.0	V	217.0	-11.6
58.275500	11.87	29.54	17.67	120.000	115.0	V	91.0	-11.7
103.962500	8.61	33.06	24.45	120.000	290.0	V	117.0	-12.2
152.656500	13.44	33.06	19.62	120.000	100.0	V	-37.0	-15.4
196.209500	13.73	33.06	19.33	120.000	104.0	V	68.0	-11.4
253.827500	18.96	35.56	16.60	120.000	125.0	V	68.0	-9.6

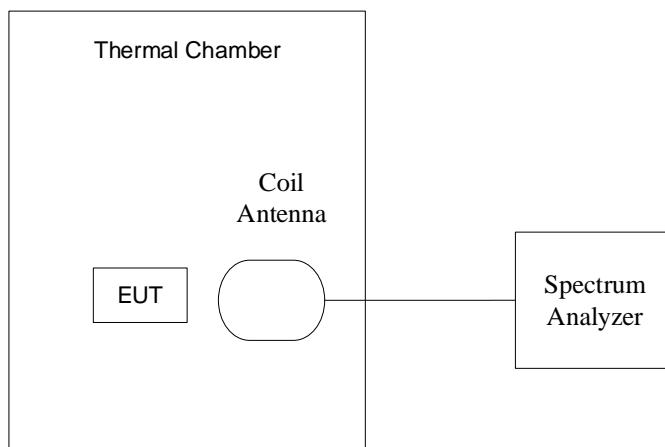
## **B.4. Frequency Tolerance**

### **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:

- The nominal voltage 3.87V(See 3.1)was used and the temperature was varied from -20°C to +50°C in 10°C increments using an environmental chamber.
- The 20°C was used and the voltages were 3.10V, 3.87V and 4.45V (The 80% of the normal voltage ,the normal voltage and 115% of the normal voltage).

The details were as following:

**Table B-3: Combinations of Voltage and Temperature**

Test items	Voltage	Temperature
Frequency stability with respect to ambient temperature	3.87V	-20°C
		-10°C
		0°C
		10°C
		20°C
		30°C
		40°C

		50°C
Frequency stability when varying supply voltage	3.10V	20°C
	3.87V	
	4.45V	

#### 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°C	3.87V	13.560737179	13.560737179	13.560721154	13.560721154
-10°C	3.87V	13.560753205	13.560753205	13.560750000	13.560750000
0°C	3.87V	13.560737179	13.560753205	13.560758013	13.560758013
10°C	3.87V	13.560721154	13.560721154	13.560737179	13.560740385
20°C	3.87V	13.560677885	13.560692308	13.560706731	13.560706731
30°C	3.87V	13.560673077	13.560673077	13.560663462	13.560663462
40°C	3.87V	13.560677885	13.560649038	13.560634615	13.560634615
50°C	3.87V	13.560625000	13.560608974	13.560605769	13.560605769
20°C	3.10V	13.560673077	13.560677885	13.560692308	13.560692308
20°C	4.45V	13.560677885	13.560677885	13.560692308	13.560692308

Temperature	Voltage	Frequency Error (%)			
		Startup	2 Min Later	5 Min Later	10 Min Later
-20°C	3.87V	0.005	0.005	0.005	0.005
-10°C	3.87V	0.006	0.006	0.006	0.006
0°C	3.87V	0.005	0.006	0.006	0.006
10°C	3.87V	0.005	0.005	0.005	0.005
20°C	3.87V	0.005	0.005	0.005	0.005
30°C	3.87V	0.005	0.005	0.005	0.005
40°C	3.87V	0.005	0.005	0.005	0.005
50°C	3.87V	0.005	0.004	0.004	0.004
20°C	3.10V	0.005	0.005	0.005	0.005
20°C	4.45V	0.005	0.005	0.005	0.005

#### B.4.7. Measurement Uncertainty

Measurement uncertainty:  $U = 74 \text{ Hz}$ ,  $k=2$

## **B.5. 20dB Bandwidth**

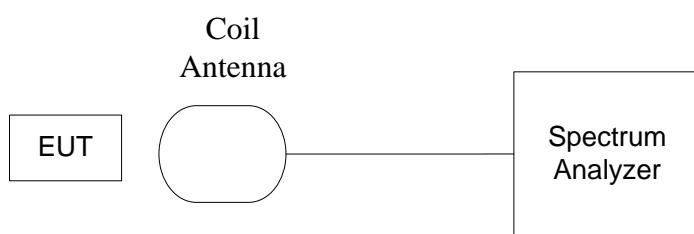
### **B.5.1. Reference**

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 300Hz RBW, 1kHz 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 °C.

### **B.5.4. Test Layouts**

See B.5.2.

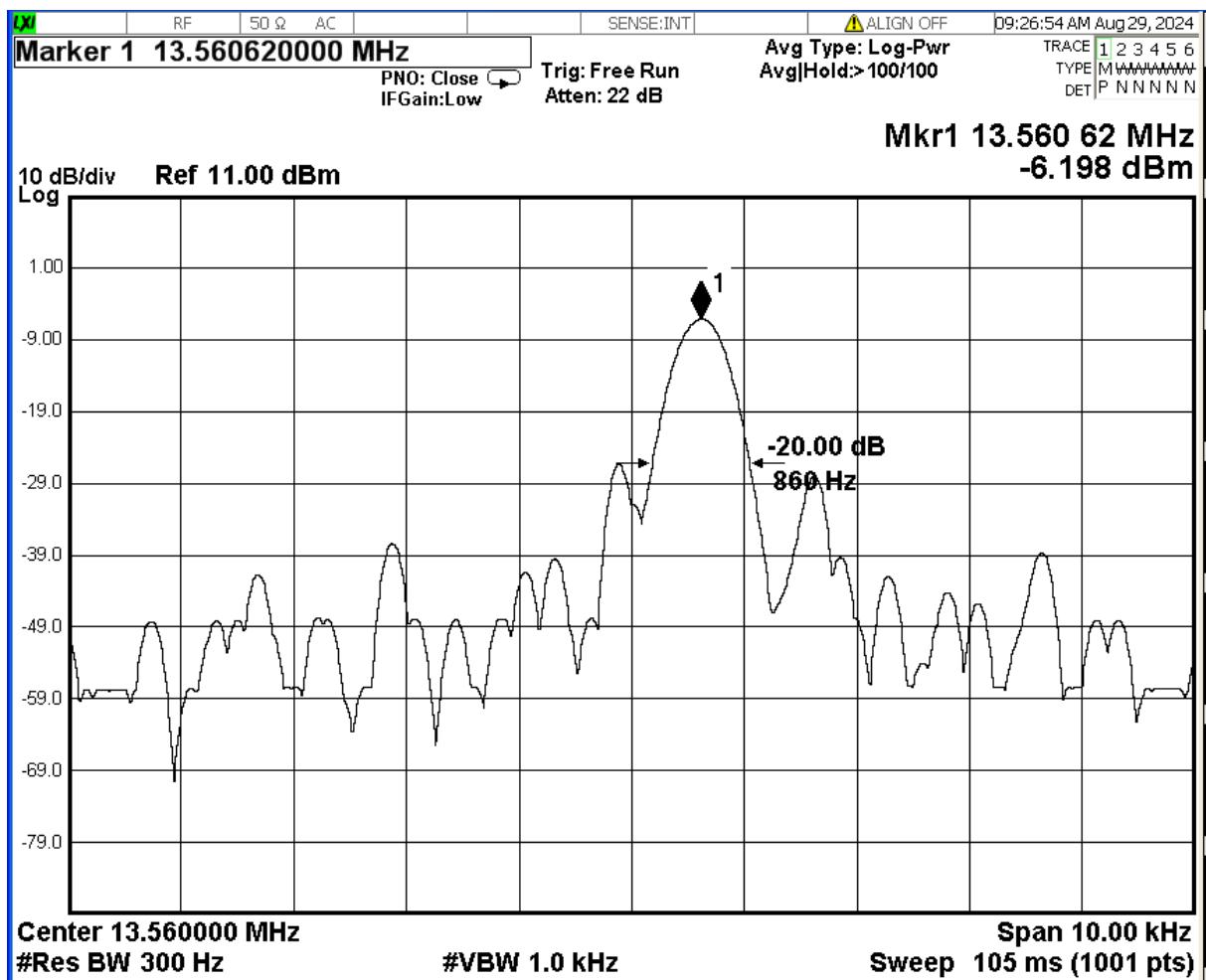
### **B.5.5. Limits**

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**.



**Figure B-9: Measurement results for 20dB Bandwidth**

#### B.5.7. Measurement Uncertainty

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

## **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**

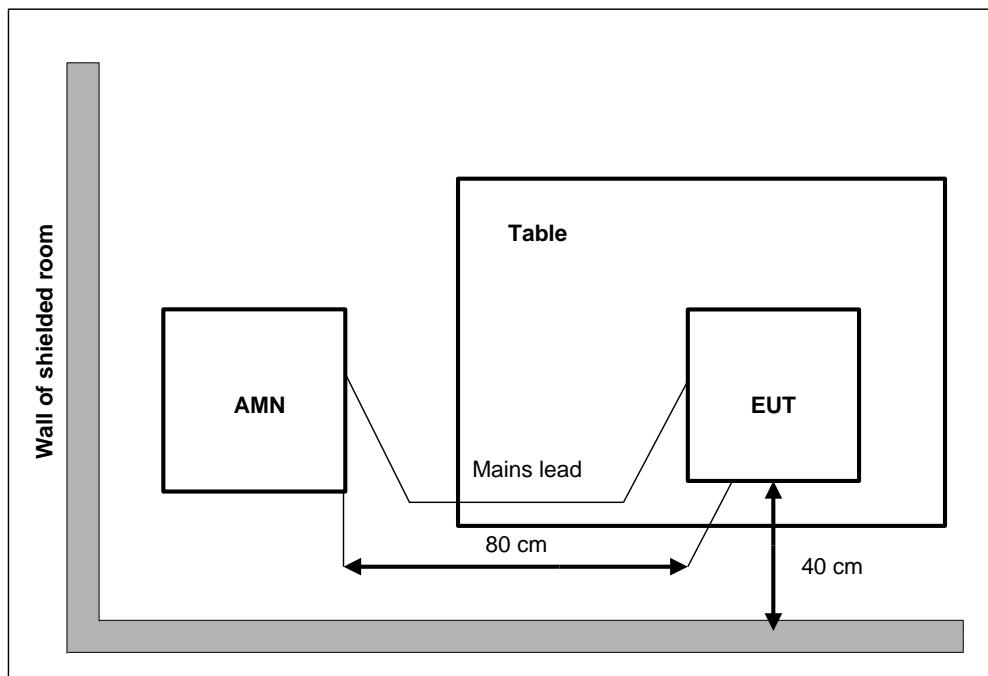
The conducted emissions from the AC port of the EUT are measured in a shielding room. The EUT is connected to a Line Impedance Stabilization Network (LISN). An overview sweep with peak detection was performed. The measurements were performed with a quasi-peak detector and if required, an average detector.

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 °C.

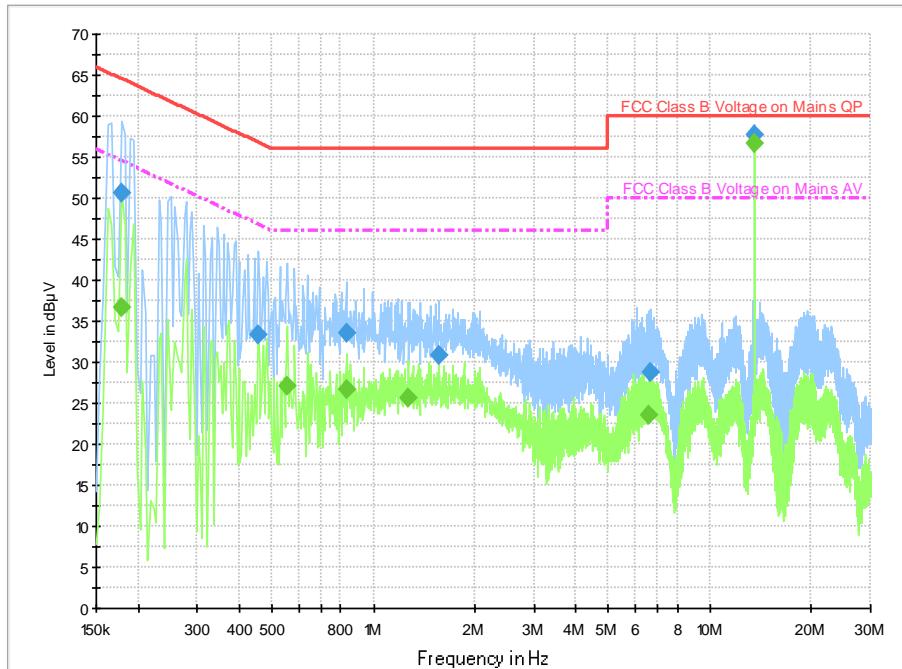
### **B.6.4. Limits**

Frequency range (MHz)	Quasi-peak Limit (dB $\mu$ V)	Average Limit (dB $\mu$ V)
0.15 to 0.5	66 to 56	56 to 46
0.5 to 5	56	46
5 to 30	60	50

### 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)
0.178000	50.5	2000.0	9.000	On	L1	19.9	14.1	64.6
0.454000	33.4	2000.0	9.000	On	L1	20.0	23.4	56.8
0.830000	33.5	2000.0	9.000	On	N	19.8	22.5	56.0
1.562000	30.9	2000.0	9.000	On	N	19.7	25.1	56.0
6.650000	28.8	2000.0	9.000	On	N	19.7	31.2	60.0
13.562000	57.7	2000.0	9.000	On	N	19.8	2.3	60.0

#### Final Result 2

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.178000	36.8	2000.0	9.000	On	L1	19.9	17.8	54.6
0.554000	27.1	2000.0	9.000	On	N	19.9	18.9	46.0
0.830000	26.6	2000.0	9.000	On	N	19.8	19.4	46.0
1.270000	25.6	2000.0	9.000	On	N	19.7	20.4	46.0
6.618000	23.4	2000.0	9.000	On	N	19.7	26.6	50.0
13.562000	56.7	2000.0	9.000	On	N	19.8	-6.7	50.0

## **B.7. Antenna Requirement**

### **B.7.1 Reference**

See CFR 47 Part 15 § 15.203

### **B.7.2. Excerpt from §15.203 of the FCC Rules/Regulations**

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.”

The antenna of the device is permanently attached.

There are no provisions for connection to an external antenna.

### **B.7.3. Results**

The unit complies with the requirement of FCC Part 15.203.

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

**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 ( $\geq$ 30MHz)	Zhang Tianli
Conducted Emissions	Li Pengfei
Antenna Requirement	Miao Qinghua

**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 23<sup>rd</sup> day of July 2024.

Mr. Trace McInturff, Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 7049.01  
Valid to July 31, 2026

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

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