



# NFC TEST REPORT

No.23T04Z80421-01

for

**TCL Communication Ltd.**

**GSM/UMTS/LTE/NR Mobile phone**

**T614D**

**FCC ID: 2ACCJH179**

with

**Hardware Version: 06**

**Software Version: 3CSF**

**Issued Date: 2023-12-21**

**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.

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No. 23T04Z80421-01

## **REPORT HISTORY**

Report Number	Revision	Description	Issue Date
23T04Z80421-01	Rev.0	1 <sup>st</sup> edition	2023-12-21

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

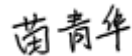
### 1.3. Testing Environment

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:	2023-11-10
Testing End Date:	2023-11-13

### 1.5. Signature



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Miao Qinghua

(Prepared this test report)



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Zhou Bin

(Reviewed this test report)



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Pang Shuai

(Approved this test report)



## **2. Client Information**

### **2.1. Applicant Information**

Company Name: TCL Communication Ltd.  
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park,  
Shatin, NT, Hong Kong  
Contact: Annie Jiang  
Telephone: +86 755 3661 1621  
Email: nianxiang.jiang@tcl.com

### **2.2. Manufacturer Information**

Company Name: TCL Communication Ltd.  
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science  
Park, Shatin, NT, Hong Kong  
Contact: Annie Jiang  
Telephone: +86 755 3661 1621  
Email: nianxiang.jiang@tcl.com

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

#### 3.1. About EUT

Description	GSM/UMTS/LTE/NR Mobile phone
Model Name	T614D
FCC ID	2ACCJH179
GSM Frequency bands	900/1800/1900/850
UMTS Frequency bands	FDD I/II/IV/V/VIII
E-UTRA Frequency bands	FDD 1/2/3/4/5/7/12/13/20/25/26/28/66/71 TDD 38/40/41/48
5G NR Frequency bands	SA n2/n5/n25/n41/n66/n71/n77/n78 NSA n2/n5/n25/n41/n66/n71/n77/n78
Operating temperature	-10/+55°C
Extreme low voltage	3.6V
Normal voltage	3.85V
Extreme high voltage	4.4V

#### 3.2. Internal Identification of EUT

EUT ID*	SN or IMEI	HW Version	SW Version
UT06a	016499000013538/ 016499000013561	06	3CSF
UT10a	016499000011490/ 016499000011516	06	3CSF

\*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	Battery1	/	/
AE2	Battery2	/	/
AE3	Charger	/	/
AE4	USB Cable1	/	/
AE5	USB Cable2	/	/
AE1			
	Model	TLp049FA	
	Manufacturer	TMB	
	Capacity(mAh)	5010mAh	
AE2			
	Model	TLp049F7	
	Manufacturer	Veken	
	Capacity(mAh)	5010mAh	
AE3			

Model	QC13US
Manufacturer	PUAN
Length of cable	/
AE4	
Model	CDA0000256C1
Manufacturer	JUWEI
Length of cable	/
AE5	
Model	CDA0000256C2
Manufacturer	SHENGHUA
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	UT10a + AE1/2 + AE3 + AE4/5 + NFC Card	Charge
Set.NFC02	UT10a + AE1/2+ NFC card	NFC
Set.NFC03	UT06a	---

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.

<b>Reference</b>	<b>Title</b>	<b>Version</b>
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	B.2	P(Set. NFC01)
		CFR 47 § 15.225(d)	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 <b>ANNEX B</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.

## 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	2024-08-08	1 Year
3.	Test Receiver	ESW44	103023	R&S	2024-07-08	13 Months
4.	H-field Antenna	HFH2-Z2	829324/007	R&S	2024-12-23	25 Months
5.	EMI Antenna	VULB 9163	01222	SCHWARZBEC K	2024-03-28	13 Months
6.	Test Receiver	ESCI	100344	R&S	2024-02-21	13 Months

Note: The Spectrum Analyzer which SERIES NUMBER is MY49432143 was before 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)	$U = 5.18 \text{ dB}, k=2$
Radiated Emissions (>1GHz)	$U = 5.54 \text{ dB}, k=2$
Conducted emission	$U = 3.08 \text{ dB}, k=2$



## **ANNEX A: EUT parameters**

/

## 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.

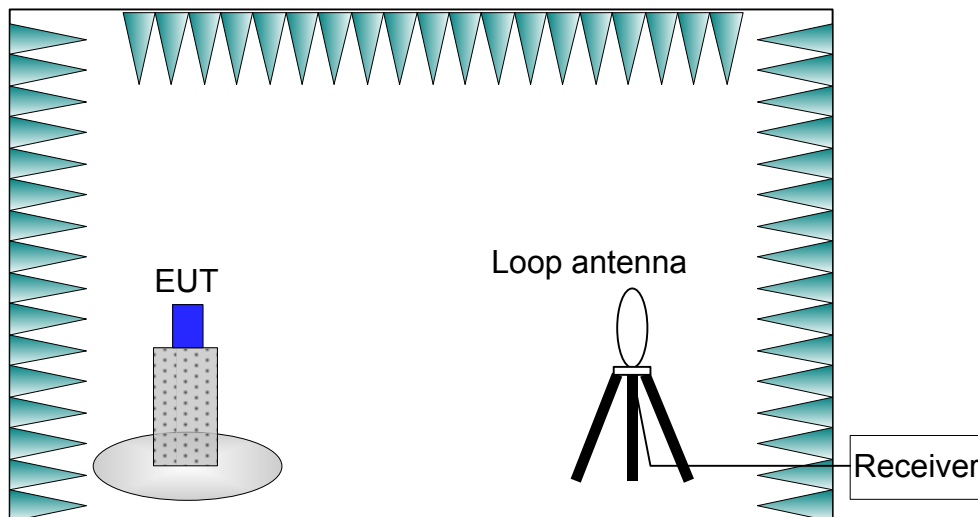
The measurement bandwidth is:

**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 13.567 to 13.710	+334	90
13.110 to 13.410 13.710 to 14.010	+106	81

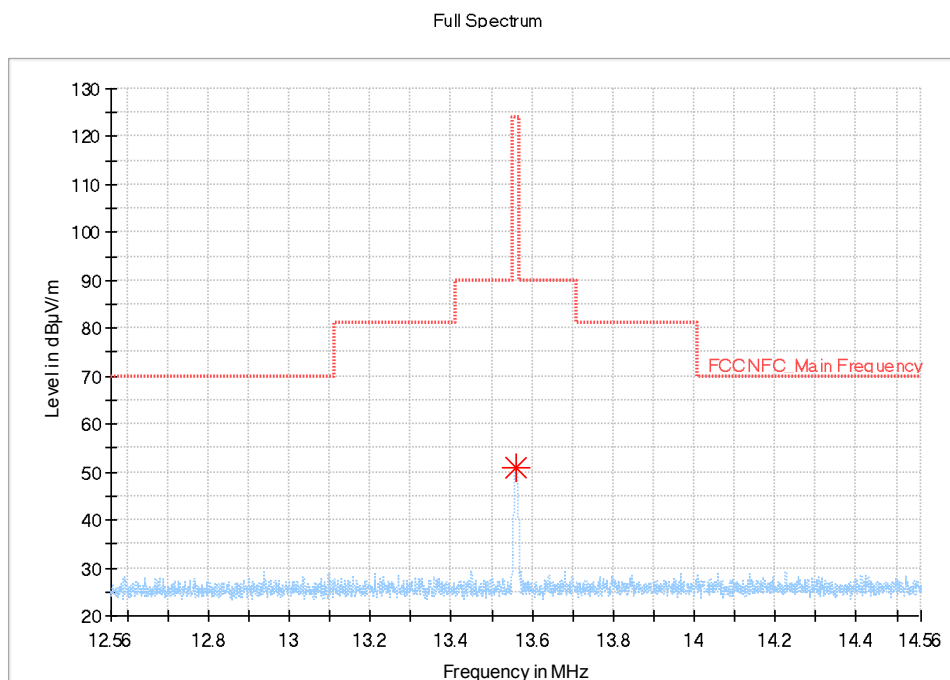
Note: Where the limits have been defined at one distance, and a signal level measured at another, the limits have been extrapolated using the following formula:  

$$\text{Extrapolation (dB)} = 40 \log_{10} (\text{Measurement Distance} / \text{Specification Distance})$$

#### 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)
13.559250	50.94	124.00	73.06	---	---	V	243.0	17.9

## 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:

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

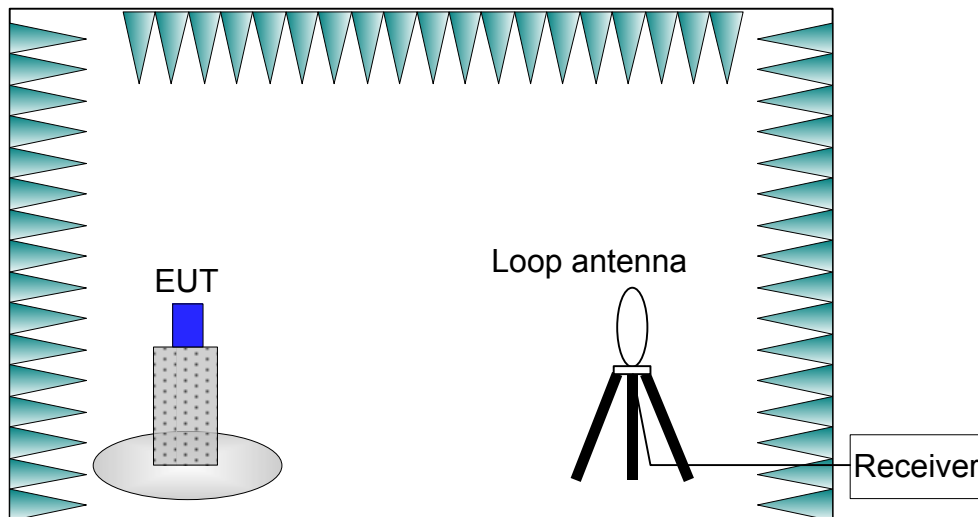


Figure B-3: Measurement Setup

### 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

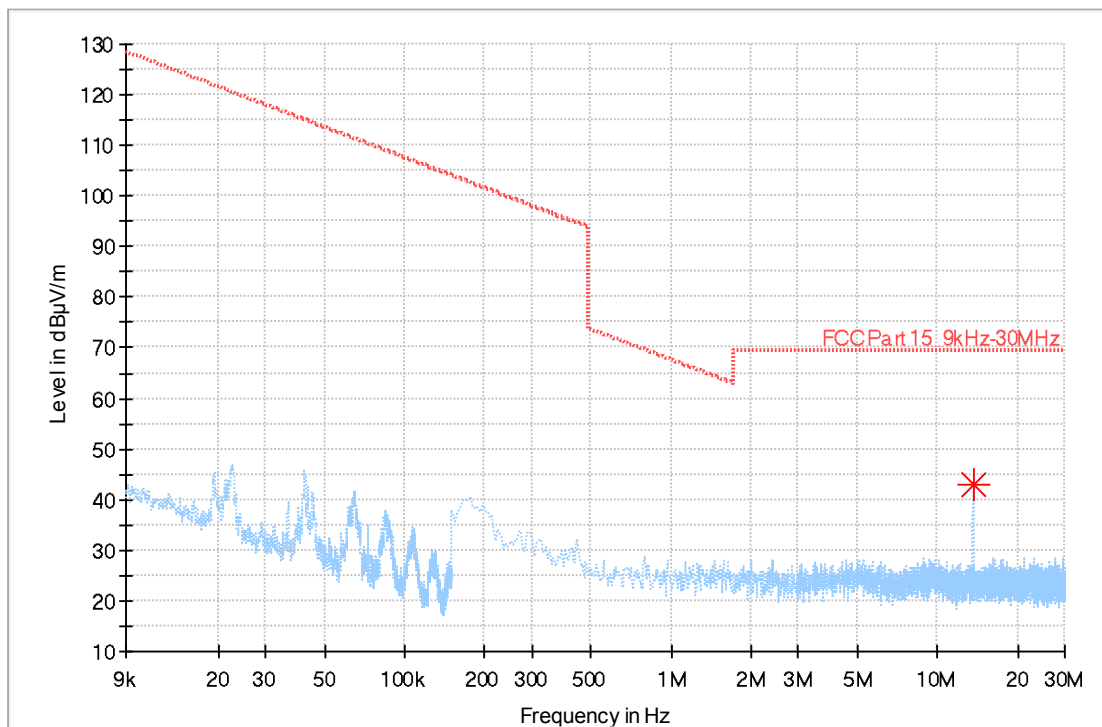
Frequency Range (MHz)	E-field Strength Limit @ 30m (mV/m)	E-field Strength Limit @ 3m (dBμV/m)
0.009-0.490	2400/F(kHz)	129-94
0.490-1.705	24000/F(kHz)	74-63
1.705-30	30	70
Note: Where the limits have been defined at one distance, and a signal level measured at another, the limits have been extrapolated using the following formula: 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**.

Full Spectrum



**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	43.13	69.50	26.37	---	---	V	180.0	17.9

### 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  $360^\circ$  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

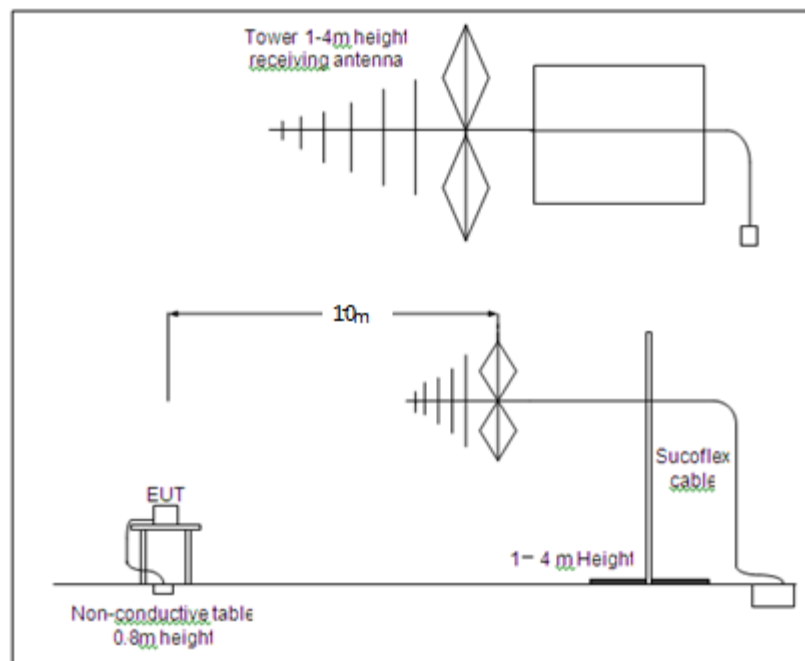


Figure B-5: Measurement Setup

#### 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

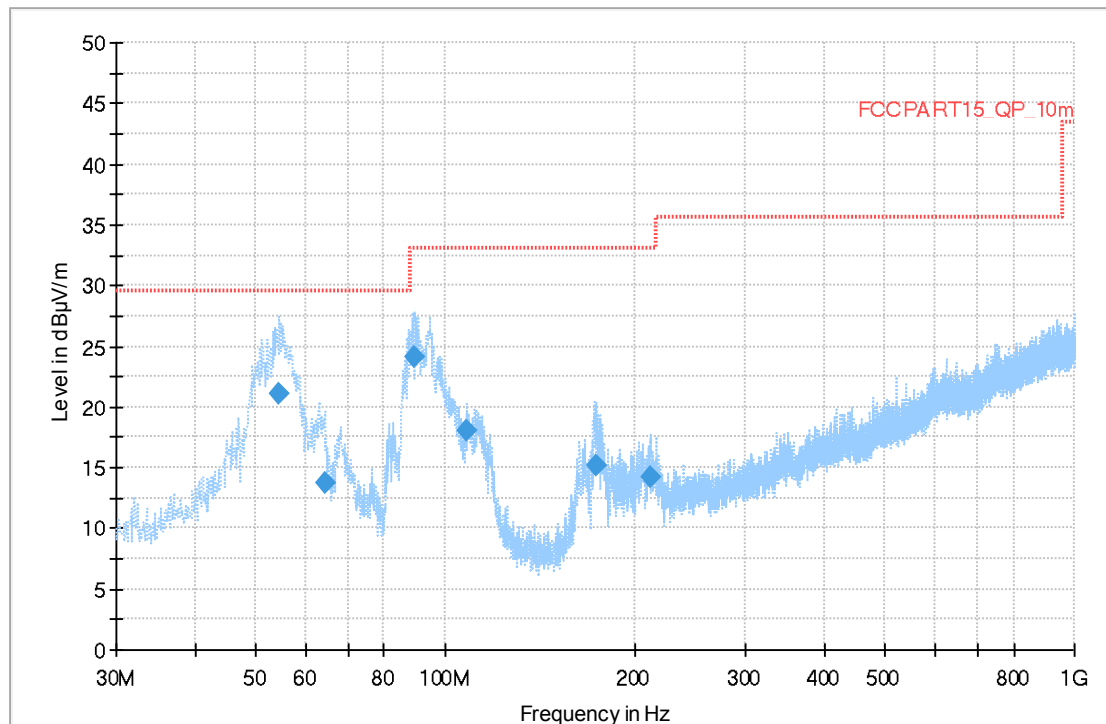
Frequency Range (MHz)	E-field Strength Limit @ 3m (mV/m)	E-field Strength Limit @ 3m (dBμV/m)	E-field Strength Limit @ 10m (dBμV/m)
30-88	100	40	30
88-216	150	43.5	33.5
216-960	200	46	36
960-1000	500	54	44

#### 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**.

Full Spectrum



**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)
54.541000	21.08	29.54	8.46	120.000	182.0	V	-45.0	-11.0
64.338000	13.76	29.54	15.78	120.000	118.0	V	45.0	-13.2
89.073000	24.09	33.06	8.97	120.000	125.0	V	-20.0	-14.7
108.473000	18.07	33.06	14.99	120.000	276.0	V	163.0	-12.5
173.948000	15.19	33.06	17.87	120.000	175.0	V	253.0	-14.3
211.778000	14.26	33.06	18.80	120.000	125.0	V	45.0	-12.1

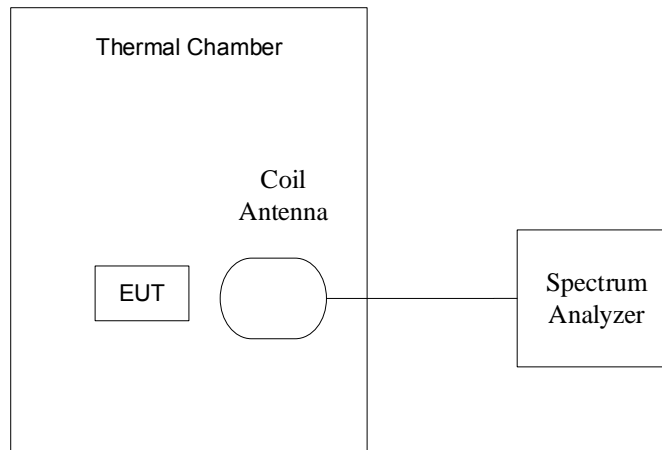
## B.4. Frequency Tolerance

### 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 3.85V(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 3.6V, 3.85V and 4.4V (The extreme low voltage ,the normal voltage and the extreme high voltage ).

The details were as following:

**Table B-3: Combinations of Voltage andTemperature**

Test items	Voltage	Temperature
Frequency stability with respect to ambient temperature	3.85V	-20°C
		-10°C
		0°C
		10°C
		20°C
		30°C
		40°C

		50°C
Frequency stability when varying supply voltage	3.6 V	20°C
	3.85V	
	4.4V	

#### 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	3.85V	13.559748000	13.559748000	13.559739000	13.559739000
-10°C	3.85V	13.559744000	13.559748000	13.559748000	13.559748000
0°C	3.85V	13.559721000	13.559721000	13.559728000	13.559736000
10°C	3.85V	13.559667000	13.559685000	13.559694000	13.559703000
20°C	3.85V	13.560504000	13.560513000	13.560522000	13.560522000
30°C	3.85V	13.560504000	13.560495000	13.560495000	13.560495000
40°C	3.85V	13.559613000	13.559604000	13.559595000	13.559595000
50°C	3.85V	13.559592000	13.559586000	13.559577000	13.559577000
20°C	3.6V	13.559721000	13.559712000	13.559694000	13.559694000
20°C	4.4V	13.559685000	13.559676000	13.559676000	13.559667000

Temperature	Voltage	Frequency Error (%)			
		Startup	2 Min Later	5 Min Later	10 Min Later
-20°C	3.85V	-0.002	-0.002	-0.002	-0.002
-10°C	3.85V	-0.002	-0.002	-0.002	-0.002
0°C	3.85V	-0.002	-0.002	-0.002	-0.002
10°C	3.85V	-0.002	-0.002	-0.002	-0.002
20°C	3.85V	0.004	0.004	0.004	0.004
30°C	3.85V	0.004	0.004	0.004	0.004
40°C	3.85V	-0.003	-0.003	-0.003	-0.003
50°C	3.85V	-0.003	-0.003	-0.003	-0.003
20°C	3.6V	-0.002	-0.002	-0.002	-0.002
20°C	4.4V	-0.002	-0.002	-0.002	-0.002

#### B.4.7. Measurement Uncertainty

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

### B.5. 20dB Bandwidth

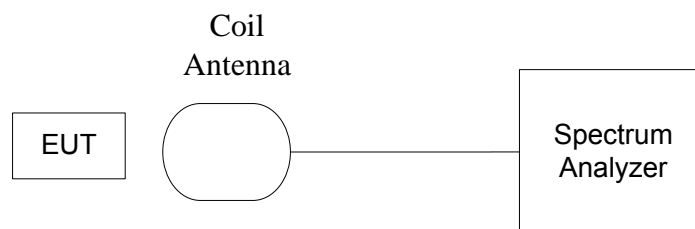
#### B.5.1. Reference

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**.

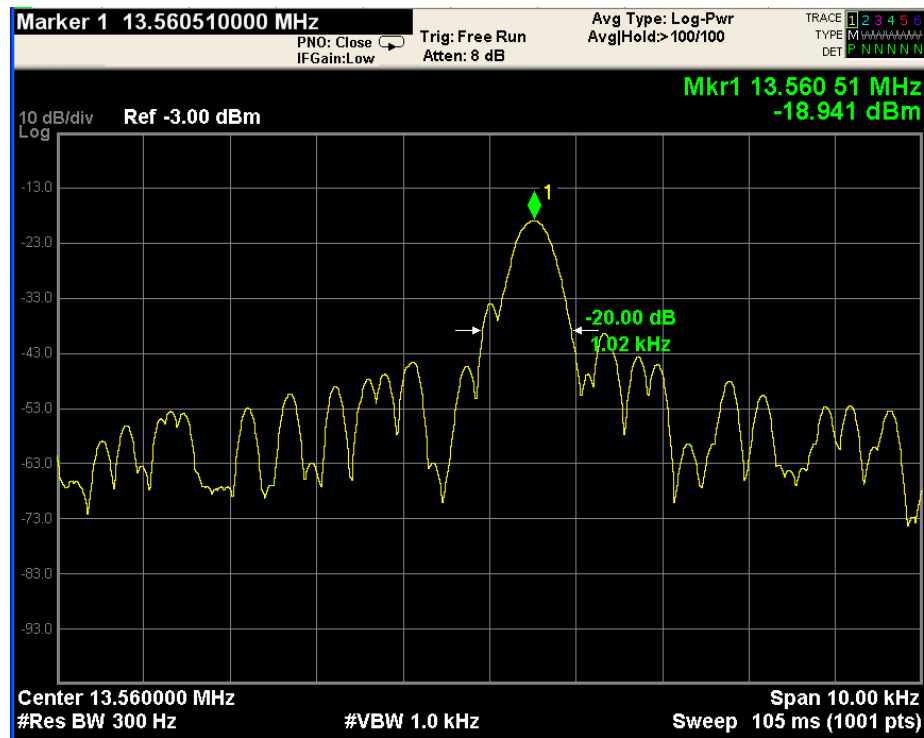


Figure B-9: Measurement results for 20dB Bandwidth

### B.5.7. Measurement Uncertainty

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

## 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

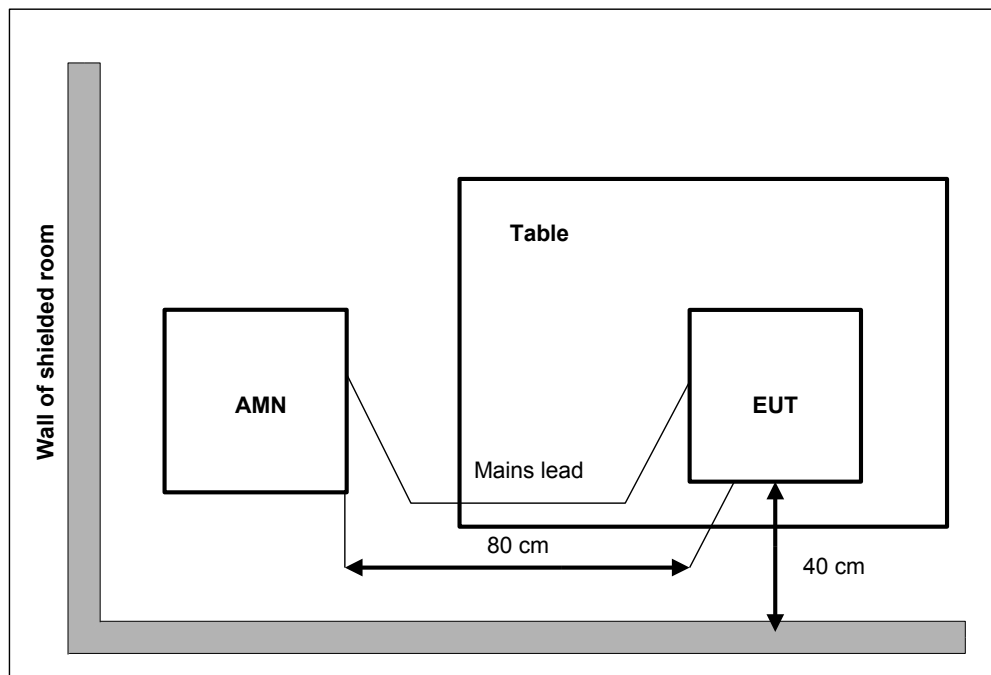
The conducted emissions from the AC port of the EUT are measured in a shielding room. The EUT is connected to a Line Impedance Stabilization Network (LISN). An overview sweep with peak detection was performed. The measurements were performed with a quasi-peak detector and if required, an average detector.

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

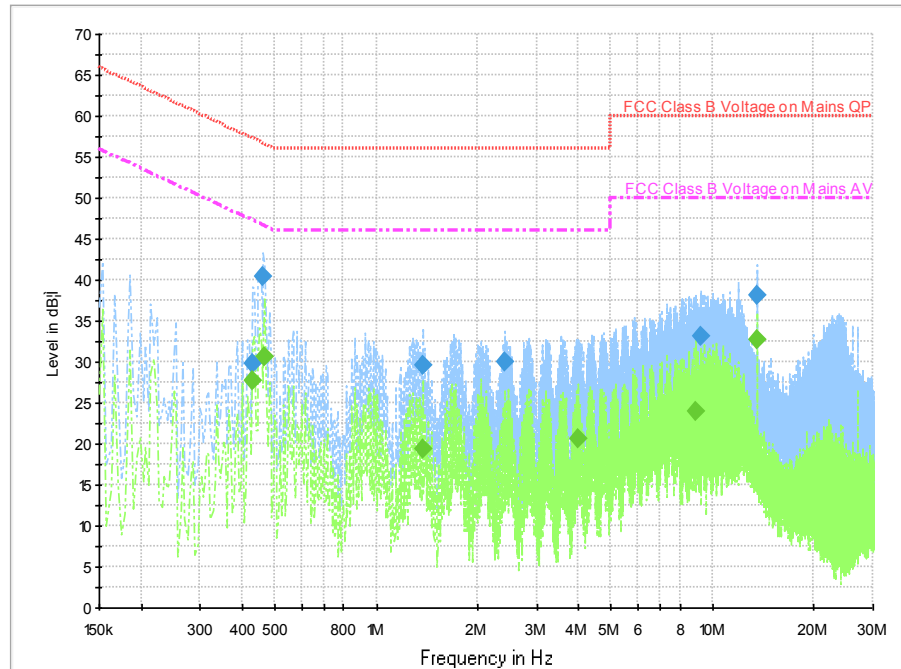
Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)
0.15 to 0.5	66 to 56	56 to 46
0.5 to 5	56	46
5 to 30	60	50



### 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)
0.430000	29.7	2000.0	9.000	On	L1	19.7	27.6	57.3
0.462000	40.4	2000.0	9.000	On	L1	19.7	16.2	56.7
1.374000	29.5	2000.0	9.000	On	L1	19.6	26.5	56.0
2.418000	30.0	2000.0	9.000	On	L1	19.6	26.0	56.0
9.210000	33.1	2000.0	9.000	On	L1	19.7	26.9	60.0
13.558000	38.2	2000.0	9.000	On	N	19.7	21.8	60.0

#### Final Result 2

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.430000	27.8	2000.0	9.000	On	L1	19.7	19.5	47.3
0.466000	30.6	2000.0	9.000	On	L1	19.7	16.0	46.6
1.374000	19.5	2000.0	9.000	On	L1	19.6	26.5	46.0
3.986000	20.5	2000.0	9.000	On	L1	19.6	25.5	46.0
8.886000	23.9	2000.0	9.000	On	L1	19.7	26.1	50.0
13.562000	32.8	2000.0	9.000	On	L1	19.7	17.2	50.0

**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 ( $\geq 30$ MHz)	Zhang Tianli
Conducted Emissions	Yan Hanchen

## 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 26<sup>th</sup> 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\*\*\*