





NFC TEST REPORT

No.120Z61503-IOT06

for

TCL Communication Ltd.

5G NR/LTE/WCDMA/GSM Mobile phone

T781

FCC ID: 2ACCJH133

with

Hardware Version: PIO

Software Version: 1A5A

Issued Date: 2020-10-26

Note:

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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.

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REPORT HISTORY

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1. Test Laboratory

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2005 accredited test laboratory under NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM (NVLAP) with lab code 600118-0, and is also an FCC accredited test laboratory (CN5017), and ISED accredited test laboratory (ISED#: 24849). The detail accreditation scope can be found on NVLAP 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(BDA)

Address: No.18A, Kangding Street, Beijing Economic-Technology

Development Area, Beijing, P. R. China 100176





1.3. <u>Testing Environment</u>

Normal Temperature: $15-35^{\circ}\text{C}$ Extreme Temperature: $-20/+50^{\circ}\text{C}$

Normal Relative Humidity: 20-75%

Normal Air Pressure: 86Kpa-106Kpa

1.4. Project data

Testing Start Date: 2020-09-30

Testing End Date: 2020-10-25

1.5. Signature

Zhou Bin

(Prepared this test report)

Pang Shuai

(Reviewed this test report)

Zhu Liang

(Approved this test report)



Address:



2. Client Information

2.1. Applicant Information

Company Name: TCL Communication Ltd.

5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science

Park, Shatin, NT, Hong Kong

Postal Code: /

Country: CHINA

Contact: Gong Zhizhou

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2.2. Manufacturer Information

Company Name: TCL Communication Ltd.

5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science

Park, Shatin, NT, Hong Kong

Postal Code: /

Address:

Country: CHINA

Contact: Gong Zhizhou

Telephone: 0086-755-36611722

E-mail: zhizhou.gong@tcl.com





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

3.1. About EUT

Description 5G NR/LTE/WCDMA/GSM Mobile phone

Model name/HVIN T781

FCC ID 2ACCJH133 UMTS Frequency Band(s) FDD I/II/V/VIII

GSM Frequency Band(s) GSM1900/850/900/1800

E-UTRA Frequency Band(s) FDD 1/3/5/7/8/20/26/28/32 TDD 38/40/41

5G NR Band(s) n 1/3/5/28/41/78

Extreme Temperature -10/+55°C

Nominal Voltage 3.8V
Extreme High Voltage 4.4V
Extreme Low Voltage 3.5V

3.2. Internal Identification of EUT

EUT ID*	SN or IMEI	HW Version	SW Version	Date of receipt
57o	358008610207350 &	PIO	1A5A	2020-10-03
57a	358008610207368			
38a	358008610207418 &	PIO	1A5A	2020-9-28
	358008610207426			

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

3.3. Internal Identification of AE

AE ID*	Description	SN
AE1	Battery	1
AE6	Charger	1
AE13	USB Cable	1
AE14	USB Cable	1





AE1

Model TLp043E7(CAC4360002C7)

Manufacturer veken

Capacitance 4500mAh

Nominal voltage 3.85V

AE6

Model CBA0059BGTC5

Manufacturer PUAN

Length of cable /

AE13

Model CDA0000128C1

Manufacturer JUWEI

Length of cable /

AE14

Model CDA0000128C2

Manufacturer SHENGHUA

Length of cable /

3.4. EUT Set-ups

Table 1: Eut Set-ups

EUT Set-up No.	Combination of EUT and AE	Remarks
Set.NFC01	38a + AE1 + AE6 + AE13/ AE14	-
Set.NFC02	38a + AE1	-
Set. NFC03	57a	

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 Hoperating frequency.

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





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.	2018
CFR 47 Part 15	Part 15 — Radio Frequency Devices.	2018
	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.	
ANSI C63.10	American National Standard of Procedures for Compliance	2013
	Testing of Unlicensed Wireless Devices	





5. Test Results

5.1. Summary of Test Results

Table 2: 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)	D. I	P(Set. NFC02)	
3	Electric Field Radiated	CFR 47 § 15.209	B.2	P(Set. NFC01)	
	Emissions	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 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 3 Terms for result verdict

Р	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. <u>Test Facilities Utilized</u>

Table 4: Test Facilities Utilized

NO.	NAME	TYPE	SERIES NUMBER	PRODUCER	CAL. DUE DATE	CAL. INTERVAL
1.	Spectrum Analyzer	RSA3408A	B010277	Tektronix	2021-09-24	1 Year
2.	Climatic chamber	SH242	93008658	ESPEC	2021-01-18	1 Year
3.	Test Receiver	ESU26	100235	Rohde & Schwarz	2021-03-03	1 Year
4.	BiLog Antenna	VULB9163	9163-483	Schwarzbeck	2021-09-17	1 Year
5.	LISN	ESH3-Z5	825562/028	Rohde & Schwarz	2021-10-05	1 Year
6.	Test Receiver	ESCI 7	100344	Rohde & Schwarz	2021-02-26	1 Year
7.	Test Receiver	ESU26	100376	Rohde & Schwarz	2020-10-30	1 Year
8.	H-field Antenna	HFH2-Z2	829324/007	R&S	2020-12-03	1 Year





7. Measurement Uncertainty

Table 5: Measurement Uncertainty

Item	Uncertainty
Frequency Tolerance	<i>U</i> =77 Hz, k=2
20dB Bandwidth	<i>U</i> =77 Hz, k=2
Radiated Emissions (<1GHz)	<i>U</i> =4.86 dB, k=2
Radiated Emissions (>1GHz)	<i>U</i> =5.26 dB, k=2
Conducted emission	<i>U</i> = 3.38 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:

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





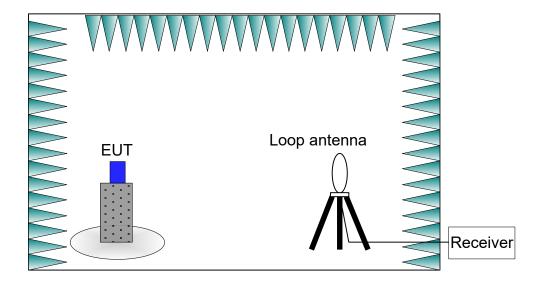


Figure B-1: Measurement Setup

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 \sim 25 $^{\circ}$ C.

B.1.4. Limits

Table B-2: Limits

Fraguency Pango (MUz)	E-field Strength Limit @ 30 m	E-field Strength Limit @ 3 m
Frequency Range (MHz)	(μ V/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	. 100	

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) = $40log_{10}$ (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.

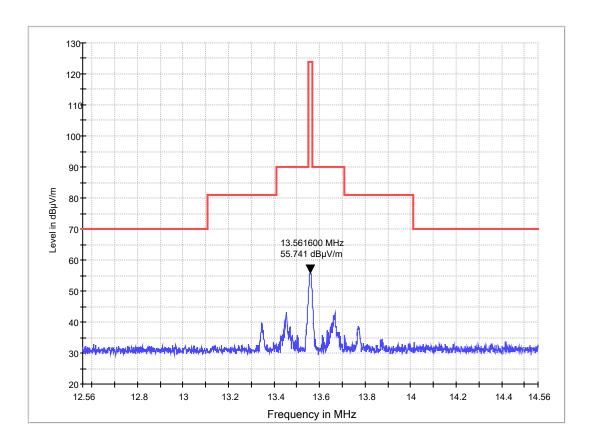


Figure B-2: Measurement results for Electric Field Strength of Fundamental and Outside the Allocated bands

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 guasi-peak detector.

The measurement bandwidth is:

Table B-3: Measurement bandwidth

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 $(dB\mu V/m) = Rx (dB\mu V) + Cable Loss (dB) + AF@3m (dB/m)$

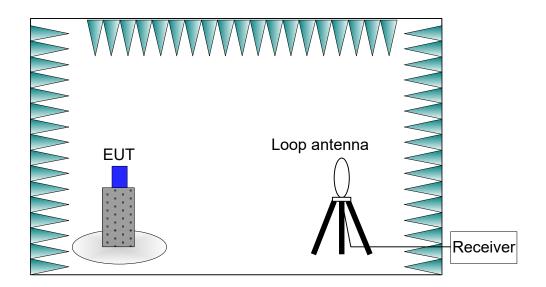


Figure B-3: Measurement Setup

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.

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

B.2.4. Limits

Table B-4: Limits

Frequency Range (MHz)	E-field Strength Limit @ 30m	E-field Strength Limit @ 3m	
Frequency Range (MIIIZ)	(mV/m)	(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) = $40\log_{10}$ (Measurement Distance/Specification Distance)

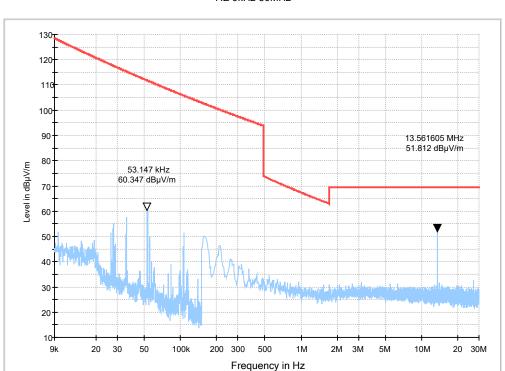
B.2.5. Measurement Results

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.







RE 9kHz-30MHz

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

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:

Table B-5: Measurement bandwidth

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

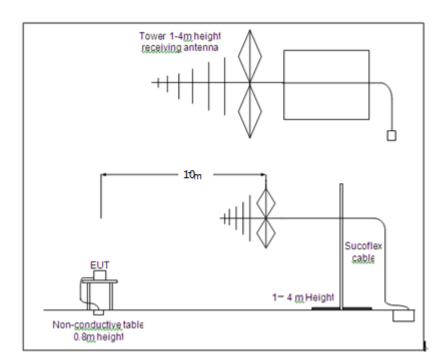


Figure B-5: Measurement Setup

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 $15 \sim 25$ °C.





B.3.4. Limits

Table B-6: 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.

RE 30MHz-1GHz

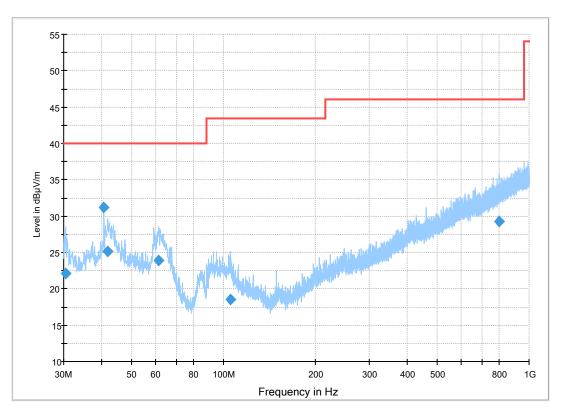


Figure B-6: Measurement results for Electric Field Radiated Emissions (≥30MHz)





Final_Result

Frequency	QuasiPeak	Height	Polarization	Azimuth	Corr.	Margin	Limit	Comment
(MHz)	(dBµV/m)	(cm)		(deg)	(dB)	(dB)	(dBµV/m)	
30.388000	22.1	100.0	v	225.0	-1.9	17.9	40.0	
40.670000	31.1	100.0	v	135.0	-0.1	8.9	40.0	
41.931000	25.1	100.0	v	45.0	-0.1	14.9	40.0	
61.331000	23.9	100.0	v	125.0	-0.8	16.1	40.0	
105.078000	18.5	111.0	v	271.0	-1.4	25.0	43.5	
800.180000	29.2	119.0	V	130.0	10.2	16.8	46.0	

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

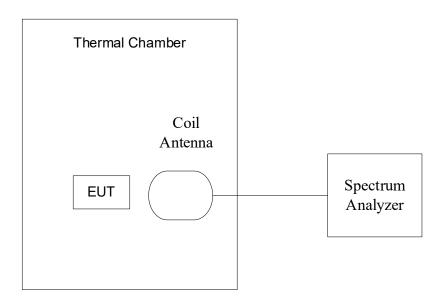


Figure B-7: Measurement Setup

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 3.85V(See 3.1)was used and the temperature was varied from -20 $^{\circ}$ C to +50 $^{\circ}$ C in 10 $^{\circ}$ C increments using an environmental chamber.
- b) The 20℃ was used and the voltages were 3.5V, 3.8V and 4.4V (The extreme low voltage ,the nominal voltage and the extreme high voltage defined in section 3.1).

The details were as following:

Table B-7: Combinations of Voltage and Temperature

Test items	Voltage	Temperature
Frequency		-20℃
stability with respect to ambient		-10℃
temperature	3.8V	0℃
		10℃
	3.0 V	20℃
		30℃
		40℃
		50℃
Frequency stability	3.5V	
when varying supply voltage	3.8V	20℃
	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-9 for different test conditions.

Conclusions: Set.NFC03, PASS.

 Table B-8:
 Measurement results for Frequency Tolerance

Temperature	Voltage		Frequen	equency (MHz)			
remperature	Temperature Voltage		2 Min Later	5 Min Later	10 Min Later		
-20℃	3.8V	13.560089375	13.560090625	13.560098125	13.560101250		
-10℃	3.8V	13.560103125	13.560101250	13.560101875	13.560102350		
0℃	3.8V	13.560093750	13.560090625	13.560089375	13.560088125		
10℃	3.8V	13.560083125	13.560079375	13.560078125	13.560075625		
20℃	3.8V	13.560046875	13.560041875	13.560036250	13.560029375		
30℃	3.8V	13.559988125	13.559984375	13.559981875	13.559980625		
40°C	3.8V	13.559965625	13.559956875	13.559953125	13.559950625		
50℃	3.8V	13.559938750	13.559935625	13.559930625	13.559928125		
20℃	3.5V	13.560021875	13.560023750	13.560023125	13.560022150		
20℃	4.4 V	13.560025625	13.560021875	13.560021250	13.560018750		

Temperature	Voltage	Frequency Error (%)				
remperature	voltage	Startup	2 Min Later	5 Min Later	10 Min Later	
-20℃	3.8V	0.001	0.001	0.001	0.001	





-10℃	3.8V	0.001	0.001	0.001	0.001
0℃	3.8V	0.001	0.001	0.001	0.001
10℃	3.8V	0.001	0.001	0.001	0.001
20℃	3.8V	0.000	0.000	0.000	0.000
30℃	3.8V	0.000	0.000	0.000	0.000
40℃	3.8V	0.000	0.000	0.000	0.000
50℃	3.8V	0.000	0.000	-0.001	-0.001
20℃	3.5V	0.000	0.000	0.000	0.000
20℃	4.4V	0.000	0.000	0.000	0.000

B.4.7. Measurement Uncertainty

Measurement uncertainty: U =77 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 140Hz RBW, 420Hz VBW and 14kHz span.

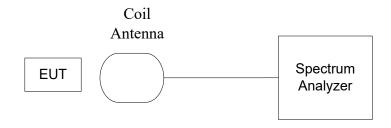


Figure B-8: Measurement Setup





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 \sim 25 $^{\circ}$ 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.





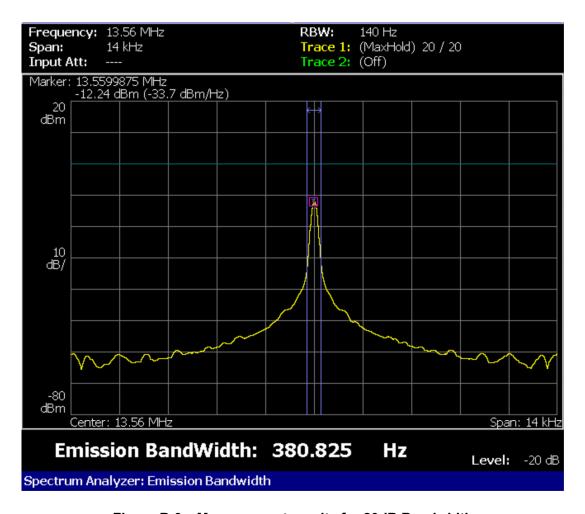


Figure B-9: Measurement results for 20dB Bandwidth

B.5.7. Measurement Uncertainty

Measurement uncertainty: *U* =77 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-9: Measurement Bandwidth

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

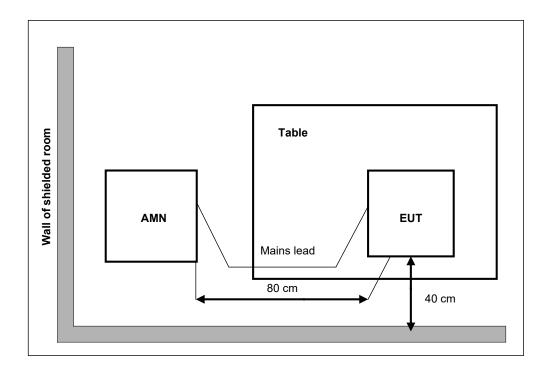


Figure B-10: Measurement Setup

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 $\,^{\circ}$ C.

B.6.4. Limits

Table B-10: Limits



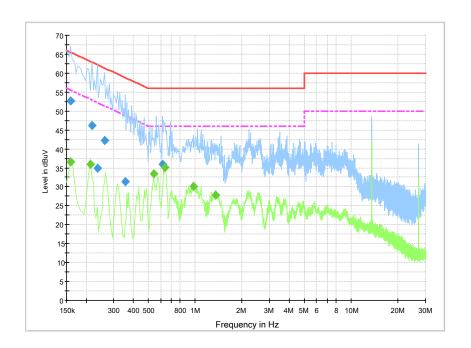


Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)
0.15 to 0.5	66 to 56	56 to 46
0.5 to 5	56	46
5 to 30	60	50

B.6.5. Measurement Results

Measurement results see Figure B-11.

Conclusions: Set.NFC01, PASS.



Note: the spike over the limit is the NFC carrier frequency and coming from the radio equipment.

Figure B-11: Measurement results for Conducted Emission





Final Result 1

Frequency	QuasiPeak	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit	Comment
(MHz)	(dBuV)	Time	(kHz)			(dB)	(dB)	(dBuV)	
		(ms)							
0.159000	52.6	5000.0	9.000	On	L1	20.0	12.9	65.5	
0.217500	46.1	5000.0	9.000	On	L1	19.9	16.8	62.9	
0.235500	34.8	5000.0	9.000	On	N	19.9	27.4	62.3	
0.262500	42.2	5000.0	9.000	On	L1	19.9	19.1	61.4	
0.357000	31.4	5000.0	9.000	On	L1	19.9	27.4	58.8	
0.618000	36.0	5000.0	9.000	On	N	19.9	20.0	56.0	

Final Result 2

Frequency	Average	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit	Comment
(MHz)	(dBuV)	Time	(kHz)			(dB)	(dB)	(dBuV)	
		(ms)							
0.159000	36.6	5000.0	9.000	On	L1	20.0	18.9	55.5	
0.213000	35.9	5000.0	9.000	On	L1	19.9	17.2	53.1	
0.541500	33.5	5000.0	9.000	On	L1	20.0	12.5	46.0	
0.636000	35.1	5000.0	9.000	On	L1	19.9	10.9	46.0	
0.978000	30.1	5000.0	9.000	On	L1	19.8	15.9	46.0	
1.351500	27.9	5000.0	9.000	On	L1	19.8	18.1	46.0	





ANNEX C: Persons involved in this testing

Table C-1: Persons involved

Test Item	Tester		
20dB Bandwidth	Zhou Bin		
Frequency Tolerance	Zhou Bin		
Electric Field Strength of Fundamental and Outside	Li Zong Liang		
the Allocated bands			
Electric Field Radiated Emissions (< 30MHz)	Li Zong Liang		
Electric Field Radiated Emissions (≥30MHz)	Li Zong Liang		
Conducted Emissions	Guo Qian		





ANNEX D: Accreditation Certificate

United States Department of Commerce National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 600118-0

Telecommunication Technology Labs, CAICT

Beijing China

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Electromagnetic Compatibility & Telecommunications

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2020-09-29 through 2021-09-30

Effective Dates



For the National Voluntary Laboratory Accreditation Program

END OF REPORT