





NFC TEST REPORT

No.24T04Z100874-001

for

COOSEA GROUP (HK) COMPANY LIMITED

Smart Phone

SL219A/SL219C

FCC ID: 2A28USL219

with

Hardware Version: 1.0

Software Version: SL219A:SL219AA10013、

SL219C:SL219CC10013

Issued Date: 2024-06-03

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:

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





REPORT HISTORY

Report Number	Revision	Description	Issue Date
24T04Z100874-001	Rev.0	1 st edition	2024-06-03

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





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	B. 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	7
4	I. REFERENCE DOCUMENTS	8
	4.1. DOCUMENTS SUPPLIED BY APPLICANT	8
	4.2. REFERENCE DOCUMENTS FOR TESTING	
5.	5. TEST RESULTS	9
	5.1. SUMMARY OF TEST RESULTS	
	5.2. STATEMENTS	
6	5. TEST FACILITIES UTILIZED	10
7.	7. MEASUREMENT UNCERTAINTY	11
A	ANNEX A: EUT PARAMETERS	12
A	ANNEX B: DETAILED TEST RESULTS	12
A	ANNEX C: PERSONS INVOLVED IN THIS TESTING	27
A	ANNEX D: ACCREDITATION CERTIFICATE	28





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. <u>Testing Location</u>

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. <u>Testing Environment</u>

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: 2024-05-13 Testing End Date: 2024-05-27

1.5. Signature

闽南平

Miao Qinghua

(Prepared this test report)

m XX

Zhou Bin

(Reviewed this test report)

Pang Shuai

(Approved this test report)





2. Client Information

2.1. Applicant Information

Company Name: COOSEA GROUP (HK) COMPANY LIMITED

UNIT 5-6 16/F MULTIFIELD PLAZA 3-7A PRAT AVENUE

Address: TSIMSHATSUI KL

Contact: Zhao jiandong Telephone: 137-5984-9661

Email: zhaojiandong@cooseagroup.com

2.2. Manufacturer Information

Company Name: COOSEA GROUP (HK) COMPANY LIMITED

UNIT 5-6 16/F MULTIFIELD PLAZA 3-7A PRAT AVENUE

Address: TSIMSHATSUI KL

Contact: Zhao jiandong Telephone: 137-5984-9661

Email: zhaojiandong@cooseagroup.com





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

3.1. About EUT

Description Smart Phone

Model Name SL219A/SL219C

FCC ID 2A28USL219

UMTS Frequency bands FDD I/II/IV/V/VIII

E-UTRA Frequency FDD 2/3/4/5/7/12/14/17/20/29/30/66

bands

Operating temperature -10/+55°C
Extreme low voltage 3.4V
Normal voltage 3.8V
Extreme high voltage 4.4V

Note: The difference between SL219A and SL219C is that the back cover color and logo are different.

3.2. Internal Identification of EUT

EUT ID*	SN or IMEI	HW Version	SW Version
UT15a	352357990004739	1.0	SL219AA10013
UT33a	352357990007013	1.0	SL219AA10013

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

3.3. Internal Identification of AE

AE ID*	Description	Model
AE1	Battery1	BL-A67CT
AE2	Charger1	HJ-0502000-US
AE3	USB Cable1	FKY-24-049

^{*}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	UT33a + AE1 + AE2 + AE3+ NFC Card	Charge
Set.NFC02	UT33a + AE1+ NFC card	NFC
Set.NFC03	UT15a	

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. <u>Documents supplied by applicant</u>

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;	2019
	General Rules and Regulations.	
CFR 47 Part 15	Part 15 — Radio Frequency Devices.	2019
	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

No	Test Cases	Clause in Regulation	Section in This Report	Verdict	
4	Electric Field Strength of	CFR 47 § 15.225(a)		D(Set NECO2)	
ı	Fundamental Emissions	CFR 47 § 15.225(a)	B.1	P(Set. NFC02)	
2	Electric Field Strength of	CFR 47 § 15.225(b)	D. I	D/O-+ NEGGO)	
2	Outside the Allocated Bands	CFR 47 § 15.225(c)		P(Set. NFC02)	
3	Electric Field Radiated	CFR 47 § 15.209	B.2	P(Set. NFC01)	
3	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)	
7	Antenna Requirement	CFR 47 § 15.203	B.7	P(Set. NFC03)	
The	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.

All test results are derived from the DUT with model SL219A.

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

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. 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	2024-08-08	1 Year
3.	Test Receiver	ESW44	103023	R&S	2024-07-08	1 Year
4.	H-field Antenna	HFH2-Z2	829324/007	R&S	2026-02-05	2 Years
5.	EMI Antenna	VULB 9163	01223	SCHWARZBEC K	2024-07-19	1 Year
6.	Test Receiver	ESCI 3	100344	R&S	2025-04-02	1 Year
7.	LISN	ENV216	101200	R&S	2025-05-17	1 Year





7. Measurement Uncertainty

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

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

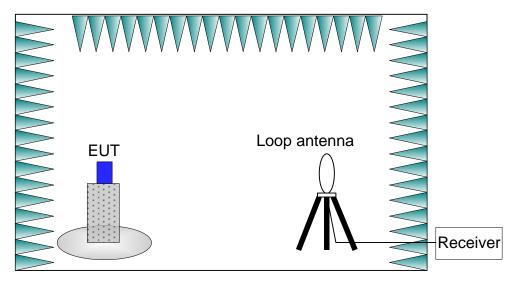


Figure B-1: Measurement Setup

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

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	1224	90	
13.567 to 13.710	+334	90	
13.110 to 13.410	1106	01	
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:

Extrapolat ion(dB) = $40\log_{10}$ (Measuremen t 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.

Full Spectrum

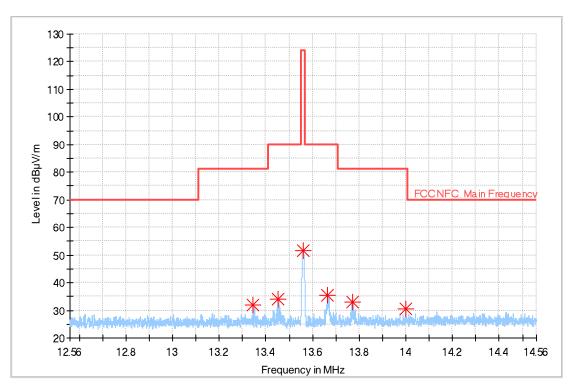


Figure B-2: Measurement results for Electric Field Strength of Fundamental and Outside the Allocated bands





Frequency	MaxPeak	Limit	Margin	Pol	Azimuth	Corr.
(MHz)	(dBµV/m)	(dBµV/m)	(dB)		(deg)	(dB/m)
13.346000	31.88	81.00	49.12	٧	8.0	18.0
13.452250	33.89	90.00	56.11	٧	171.0	18.0
13.559000	51.68	124.00	72.32	٧	15.0	18.0
13.664750	35.31	90.00	54.69	٧	0.0	18.0
13.773500	32.86	81.00	48.14	٧	218.0	18.0
14.000500	30.47	81.00	50.53	٧	68.0	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:

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



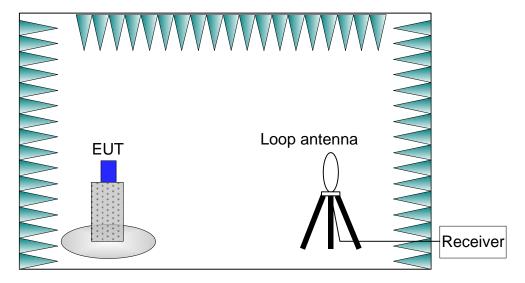


Figure B-3: Measurement Setup

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

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:

Extrapolat ion(dB) = $40\log_{10}$ (Measuremen t 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

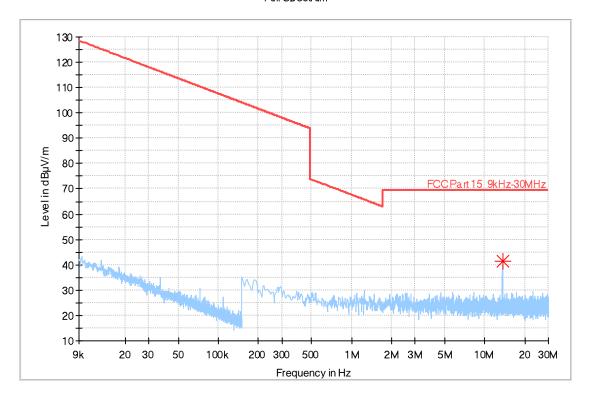


Figure B-4: Measurement results for Electric Field Radiated Emissions (< 30MHz)

Frequency	MaxPeak Limit Margin Pol		Pol	Azimuth	Corr.	
(MHz)	(dBµV/m)	(dBµV/m)	(dB)		(deg)	(dB/m)
13.560113	41.57	69.50	27.93	٧	270.0	18.0

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



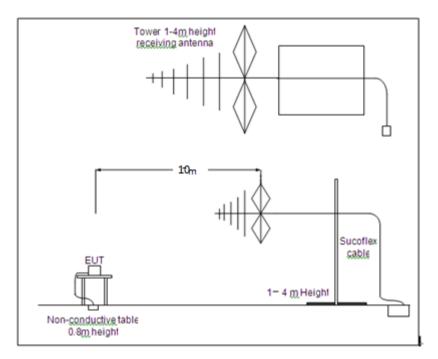


Figure B-5: Measurement Setup

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 in the range of $15 \sim 25$ °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

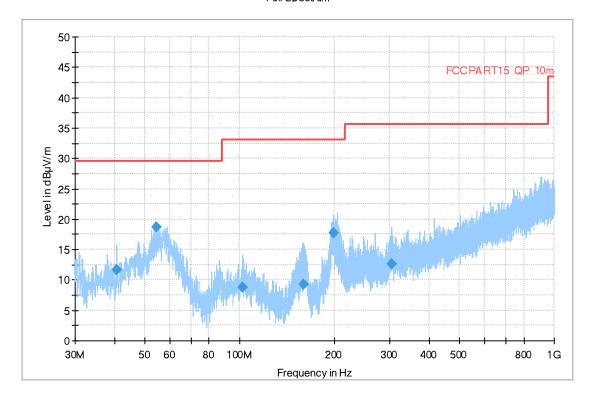


Figure B-6: Measurement results for Electric Field Radiated Emissions (≥30MHz)

Final Result

Frequency	QuasiPeak	Limit	Margin	Bandwidth	Height	Pol	Azimuth	Corr.
(MHz)	(dBµV/m)	(dBµV/m)	(dB)	(kHz)	(cm)		(deg)	(dB/m)
40.621500	11.68	29.54	17.86	120.000	225.0	V	180.0	-11.8
54.250000	18.67	29.54	10.87	120.000	105.0	٧	54.0	-11.0
102.410500	8.76	33.06	24.30	120.000	325.0	Н	46.0	-12.1
160.077000	9.31	33.06	23.75	120.000	101.0	٧	45.0	-15.0
199.410500	17.69	33.06	15.37	120.000	101.0	V	45.0	-11.7
303.394500	12.60	35.56	22.96	120.000	225.0	Н	248.0	-8.7

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



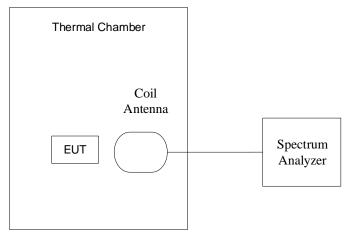


Figure B-7: Measurement Setup

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 3.8V(See 3.1)was used and the temperature was varied from -20°C to +50°C in 10°C increments using an environmental chamber.
- b) The 20° C was used and the voltages were 3.4V, 3.8V and 4.37V (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 and Temperature

Test items	Voltage	Temperature
		-20℃
		-10℃
Frequency		0℃
stability with respect to ambient temperature	3.8V	10℃
		20℃
		30℃
		40℃
		50℃
Frequency stability	3.4V	
when varying supply	3.8V	20℃
voltage	4.37V	

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

Tomoroustura	Valtaga		Frequen	cy (MHz)	
Temperature	Voltage	Startup	2 Min Later	5 Min Later	10 Min Later
-20 ℃	3.80V	13.560540000	13.560531000	13.560531000	13.560528000
-10℃	3.80V	13.560531000	13.560531000	13.560549000	13.560558000
0℃	3.80V	13.560522000	13.560522000	13.560531000	13.560549000
10℃	3.80V	13.560495000	13.560504000	13.560504000	13.560513000
20 ℃	3.80V	13.560468000	13.560477000	13.560486000	13.560486000
30℃	3.80V	13.560477000	13.560468000	13.560468000	13.560459000
40 ℃	3.80V	13.559595000	13.559586000	13.559586000	13.559577000
50 ℃	3.80V	13.559577000	13.559568000	13.559568000	13.559570000
20℃	3.40V	13.560486000	13.560495000	13.560504000	13.560504000
20℃	4.37V	13.559622000	13.559613000	13.559604000	13.559604000

Tomporoture Voltage			Frequency Error (%)				
Temperature	Voltage	Startup	2 Min Later	5 Min Later	10 Min Later		
-20 ℃	3.87V	0.004	0.004	0.004	0.004		
-10°C	3.87V	0.004	0.004	0.004	0.004		
0℃	3.87V	0.004	0.004	0.004	0.004		
10℃	3.87V	0.004	0.004	0.004	0.004		
20℃	3.87V	0.003	0.004	0.004	0.004		
30℃	3.87V	0.004	0.003	0.003	0.003		
40℃	3.87V	-0.003	-0.003	-0.003	-0.003		
50℃	3.87V	-0.003	-0.003	-0.003	-0.003		
20℃	3.6V	0.004	0.004	0.004	0.004		
20℃	4.45V	-0.003	-0.003	-0.003	-0.003		

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 300Hz RBW, 1kHz VBW and 10kHz span.

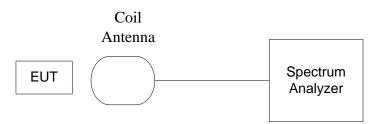


Figure B-8: Measurement Setup

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 $15 \sim 25$ °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.



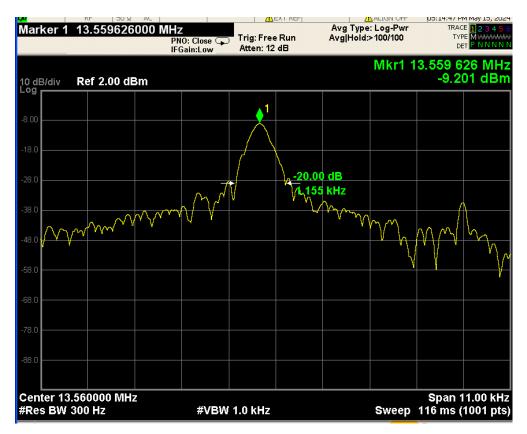


Figure B-9: Measurement results for 20dB Bandwidth

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

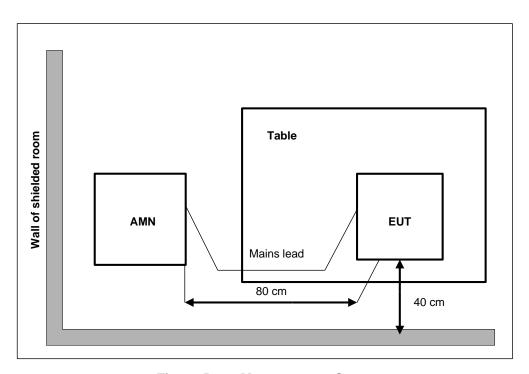


Figure B-10: Measurement Setup

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 $\,^{\circ}$ C.

B.6.4. Limits

2.0 2						
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.

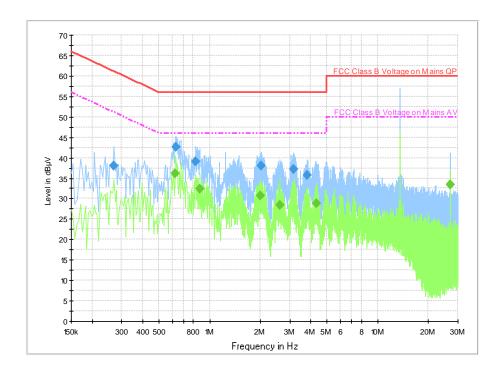


Figure B-11: Measurement results for Conducted Emission

Final Result 1

Frequency	QuasiPeak	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time	(kHz)			(dB)	(dB)	(dBµV)
		(ms)						
0.270000	38.0	2000.0	9.000	On	L1	19.9	23.1	61.1
0.630000	42.6	2000.0	9.000	On	L1	20.0	13.4	56.0
0.826000	39.2	2000.0	9.000	On	L1	19.9	16.8	56.0
2.022000	38.1	2000.0	9.000	On	L1	19.8	17.9	56.0
3.150000	37.2	2000.0	9.000	On	L1	19.8	18.8	56.0
3.810000	35.7	2000.0	9.000	On	L1	19.8	20.3	56.0

Final Result 2

Frequency	QuasiPeak	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time	(kHz)			(dB)	(dB)	(dBµV)
		(ms)						
0.626000	36.1	2000.0	9.000	On	L1	20.0	9.9	46.0
0.874000	32.4	2000.0	9.000	On	L1	19.9	13.6	46.0
1.998000	30.7	2000.0	9.000	On	L1	19.8	15.3	46.0
2.622000	28.5	2000.0	9.000	On	L1	19.8	17.5	46.0
4.322000	28.9	2000.0	9.000	On	L1	19.8	17.1	46.0
27.118000	33.4	2000.0	9.000	On	L1	20.1	16.6	50.0





B.7. Antenna Requirement

B7.1 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	Ding Zai
Electric Field Radiated Emissions (< 30MHz)	Ding Zai
Electric Field Radiated Emissions (≥30MHz)	Ding Zai
Conducted Emissions	Chen Tianwei
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 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