



## FCC PART 15.225

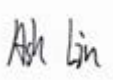
### TEST REPORT

For

## Fujian Newland Auto-ID Tech Co., Ltd.

Newland Science & Technology Park No.1 Rujiang West Rd., Mawei district, Fuzhou, Fujian, China

**FCC ID: SL9NLS-NQUIRE**

<b>Report Type:</b> Original Report	<b>Product Name:</b> Information Terminal
<b>Report Number:</b>	2407V20721E-RF-04
<b>Report Date:</b>	2025-01-03
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REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	2407V20721E-RF-04	R1V1	2025-01-03	Initial Release

## GENERAL INFORMATION

### Product Description for Equipment under Test (EUT)

Applicant:		Fujian Newland Auto-ID Tech Co., Ltd.
Product Name:		Information Terminal
Tested Model(s):		NLS-NQuire1500, NLS-NQuire500, NLS-NQuire700, NLS-NQuire1000
NLS-NQuire1500 Series Model(s):		NLS-NQuire
Trade Mark:		Newland
Power Supply:		DC 12V from adapter
Adapter Information	Model:	R361-1203000I
	Input:	AC 100-240V, 50/60Hz, 1.5A
	Output:	DC 12V, 3A, 36W
RF Function:		NFC
Operating Band/Frequency:		13.56 MHz
Antenna Type:		Coil Antenna
<i>Note:</i> 1. The Maximum Antenna Gain was declared by manufacturer. 2. All models have the same motherboard except for screen size, USB interface and antenna. NLS-NQuire is identify with NLS-NQuire1500 except for the model name, please refer to declaration for more details. 3. All measurement and test data in this report was gathered from production sample serial number: 2ORR-1(NLS-NQuire1500), 2PL7-1(NLS-NQuire500), 2PL8-1(NLS-NQuire700), 2PL5-1(NLS-NQuire1000) (Assigned) by the BACL (Xiamen). The EUT supplied by the applicant was received on 2024-08-02)		

### Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013 American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

### Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Xiamen) to collect test data is located on the Unit 102, No. 902 Meifeng South Road, Binhai West Avenue, Science and Technology Innovation Park, Torch High tech Zone XiaMen.

Bay Area Compliance Laboratories Corp. (Xiamen) Lab is accredited to ISO/IEC 17025 by A2LA (Certificate Number: 7134.01) and the lab has been recognized as the FCC accredited lab under the KDB 974614 D01, the FCC Designation No. : CN1384.

**Measurement Uncertainty**

Item		U <sub>lab</sub> = 2U <sub>c</sub> (y) (Confidence of 95%)
Conducted Emissions	150kHz-30MHz	2.33 dB
Radiated Disturbance	9kHz~30MHz	2.59 dB
	30MHz~200MHz	4.38dB
	200MHz~1GHz	4.50dB
Voltage		0.4%
Occupy Bandwidth		0.053kHz
Frequency Error		$0.082 \times 10^{-6}$
Temperature		1°C
Humidity		5%

## SYSTEM TEST CONFIGURATION

### Test Mode and Voltage

The system was configured for testing in a typical mode (as normally used by a typical user).	
Test mode:	Transmitting
Test voltage:	AC 120V/60Hz
Remark:	During all emission tests, the EUT was configured to measure its highest possible emission level and the worst case's test data was presented in this test report.

### Justification

The system was configured in testing mode which was provided by manufacturer.

Channel List:

Channel	Frequency (MHz)
1	13.56

### EUT Exercise Software

The EUT is tested in the engineering mode.

### Equipment Modifications

No modification on the EUT.

### Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Lenovo	Laptop	T480	PF1P5K4F
Kingston	U disk	DTSE9G3	Unknown

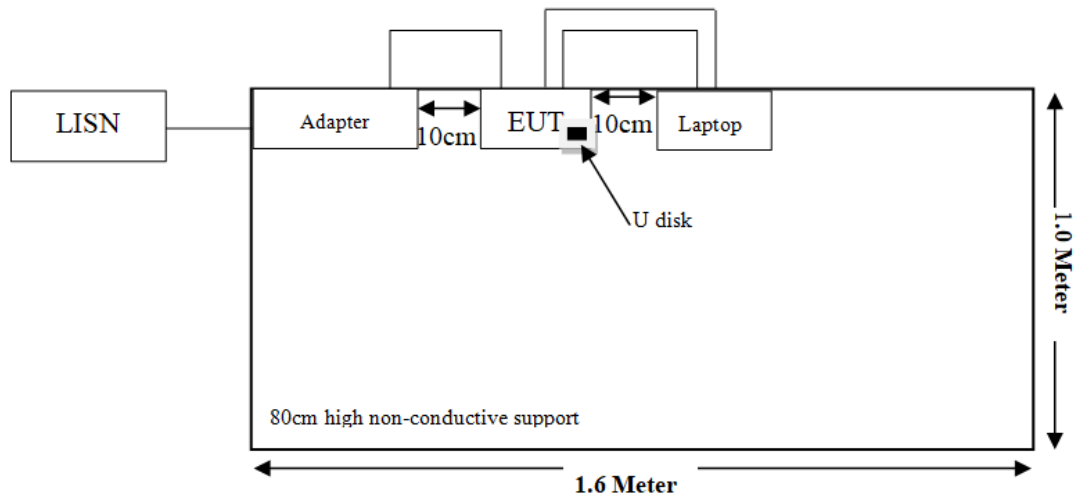
### External I/O Cable

Cable Description	Length (m)	From Port	To
Network cable	1	EUT	Laptop
USB cable	1	EUT	Laptop

## Block Diagram of Test Setup

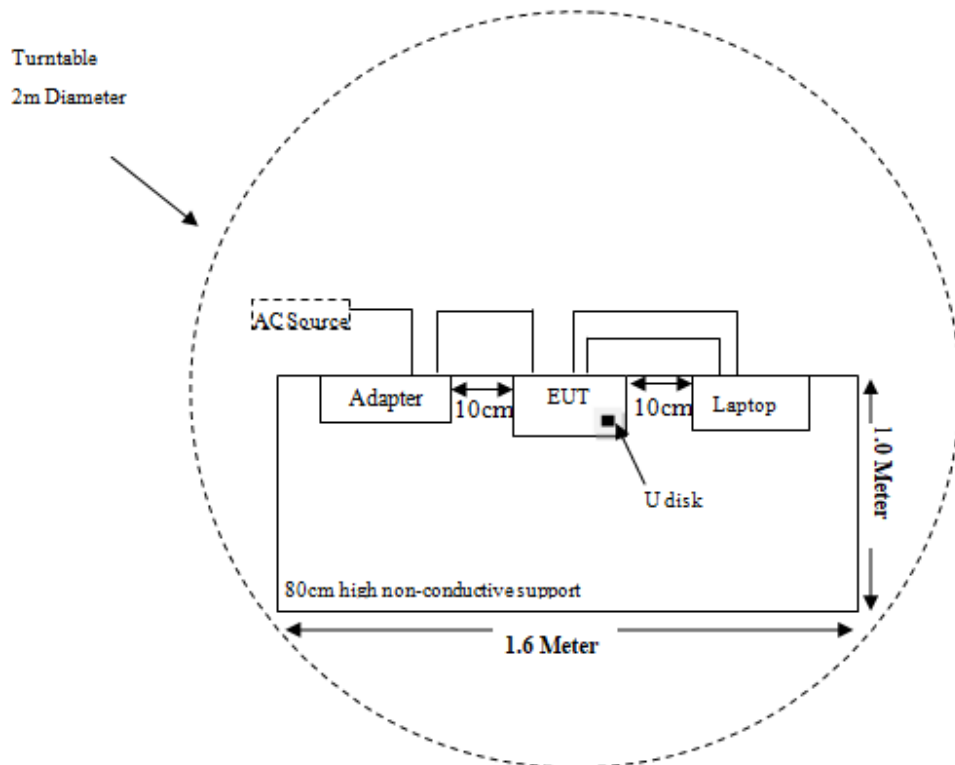
Conducted Emission:

Test Mode: Transmitting



Radiated Emission (Below 1GHz):

Test Mode : Transmitting



**SUMMARY OF TEST RESULTS**

FCC Rules	Description of Test	Result
§15.203	Antenna Requirement	Compliant
§15.207 (a)	AC Line Conducted Emissions	Compliant
§15.225 §15.209 §15.205	Radiated Emission Test	Compliant
§15.225(e)	Frequency Stability	Compliant
§15.215(c)	20dB Emission Bandwidth Testing	Compliant



## TEST EQUIPMENT LIST

Test Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
<b>Conducted Emission Test</b>					
EMI Test Receiver	Rohde & Schwarz	ESR3	103105	2024/03/29	2025/03/28
LISN	Rohde & Schwarz	ENV216	100129	2024/03/29	2025/03/28
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	0357.8810.54	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	XH400T-N-4M	CC001	2024/03/29	2025/03/28
Test Software	Audix	E3	18621a	N/A	N/A
<b>Radiated Emission Test (Below 1GHz)</b>					
EMI Test Receiver	Rohde & Schwarz	ESR3	103103	2024/03/29	2025/03/28
Loop Antenna	Rohde & Schwarz	HFH2-Z2	830749/001	2023/07/25	2026/07/26
Antenna	Sunol Sciences	JB6	A122022-5	2023/07/27	2026/07/26
Amplifier	Sonoma	310B	120903	2024/03/29	2025/03/28
AC power source	WACP	ES-CPF-SD45-600	EO20230629001	2024/03/29	2025/03/28
Temperature Chamber	BACL	BTH-150	30211	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	XH400T-N-4M	CC002	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	XH460B-N-2M	CC006	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	XH460B-N-12M	CC007	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	HFH2-CC	335.3609	N/A	N/A
Test Software	Audix	E3	18621a	N/A	N/A
<b>20dB Bandwidth test</b>					
EMI Test Receiver	Rohde & Schwarz	ESR3	103103	2024/03/29	2025/03/28
Loop Antenna	Rohde & Schwarz	HFH2-Z2	830749/001	2023/07/27	2026/07/26
Coaxial Cable	XINHANGWEIBO	HFH2-CC	335.3609	2024/03/29	2025/03/28
<b>Frequency Stability</b>					
EMI Test Receiver	Rohde & Schwarz	ESR3	103103	2024/03/29	2025/03/28
Loop Antenna	Rohde & Schwarz	HFH2-Z2	830749/001	2023/07/27	2026/07/26
Coaxial Cable	XINHANGWEIBO	HFH2-CC	335.3609	2024/03/29	2025/03/28
Constant temperature and humidity testing machine	BACL	BTH-150	30211	2024/03/29	2025/03/28
AC power source	WACP	ES-CPF-SD45-600	EO20230629001	2024/03/29	2025/03/28

**Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Xiamen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

## **FCC§15.203 - ANTENNA REQUIREMENT**

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### **Applicable Standard**

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall 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.

### **Antenna Connected Construction**

The EUT has an Coil antenna for 13.56 MHz, fulfill the requirement of this section, please refer to the EUT photos.

**Result:** Compliant.

**FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS****Applicable Standard**

## FCC§15.207(a)

(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50  $\mu$ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of emission (MHz)	Conducted limit (dB $\mu$ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

\*Decreases with the logarithm of the frequency.

(b) The limit shown in paragraph (a) of this section shall not apply to carrier current systems operating as intentional radiators on frequencies below 30 MHz. In lieu thereof, these carrier current systems shall be subject to the following standards:

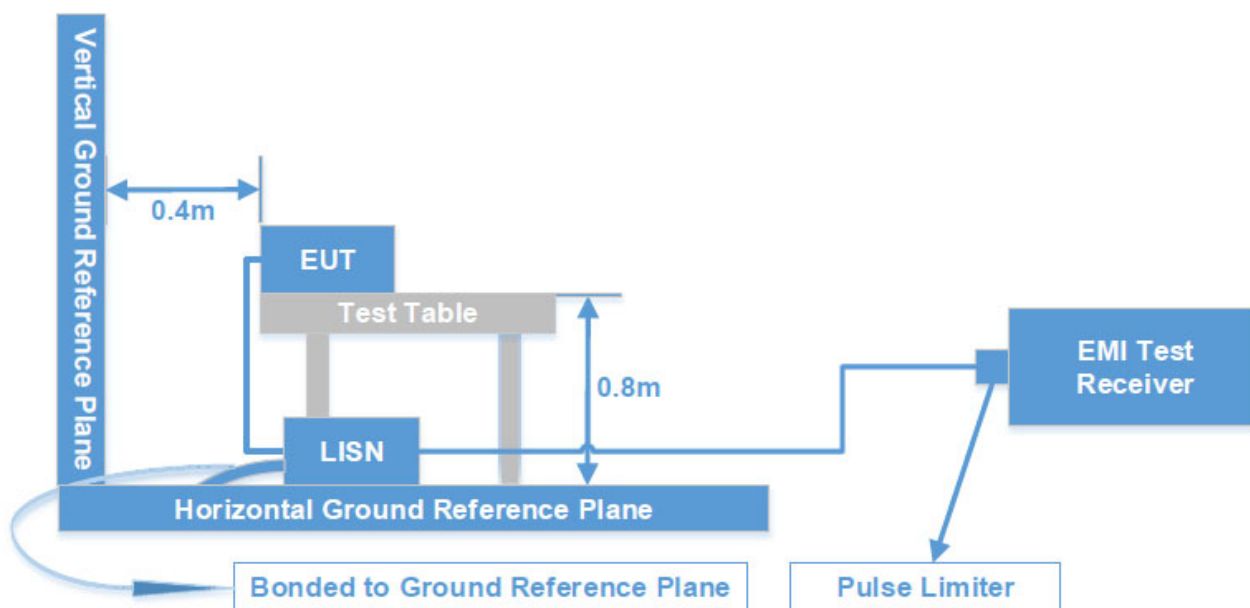
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000  $\mu$ V within the frequency band 535-1705 kHz, as measured using a 50  $\mu$ H/50 ohms LISN.

(3) Carrier current systems operating below 30 MHz are also subject to the radiated emission limits in §15.205, §15.209, §15.221, §15.223, or §15.227, as appropriate.

(c) Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines. Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, AC adapters or battery eliminators or that connect to the AC power lines indirectly, obtaining their power through another device which is connected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

## Test System Setup



The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

The adapter or EUT was connected to the main LISN with a 120 V/60 Hz AC power source.

## EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz - 30 MHz	9 kHz

## Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the LISN.

The frequency and amplitude of the six highest ac power-line conducted emissions relative to the limit, measured over all the current-carrying conductors of the EUT power cords, and the operating frequency or frequency to which the EUT is tuned (if appropriate), should be reported, unless such emissions are more than 20 dB below the limit. AC power-line conducted emissions measurements are to be separately carried out only on each of the phase (“hot”) line(s) and (if used) on the neutral line(s), but not on the ground [protective earth] line(s). If less than six emission frequencies are within 20 dB of the limit, then the noise

level of the measuring instrument at representative frequencies should be reported. The specific conductor of the power-line cord for each of the reported emissions should be identified. Measure the six highest emissions with respect to the limit on each current-carrying conductor of each power cord associated with the EUT (but not the power cords of associated or peripheral equipment that are part of the test configuration). Then, report the six highest emissions with respect to the limit from among all the measurements identifying the frequency and specific current-carrying conductor identified with the emission. The six highest emissions should be reported for each of the current-carrying conductors, or the six highest emissions may be reported over all the current-carrying conductors.

According FCC publication number 174176, for a device with a permanent antenna operating at or below 30 MHz, the measurements done with a suitable dummy load, in lieu of the permanent antenna under the following conditions: (1) perform the AC line conducted tests with the permanent antenna to determine compliance with the Section 15.207 limits outside the transmitter's fundamental emission band; (2) retest with a dummy load in lieu of the permanent antenna to determine compliance with the Section 15.207 limits within the transmitter's fundamental emission band.

### Result & Margin Calculation

The Result is calculated by adding LISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation from the Meter Reading. The basic equation is as follows:

Factor (dB) = LISN VDF (dB) + Cable Loss (dB) + Transient Limiter Attenuation (dB)

Result (dBμV) = Reading (dBμV) + Factor (dB)

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin (dB) = Limit (dBμV) – Result (dBμV)

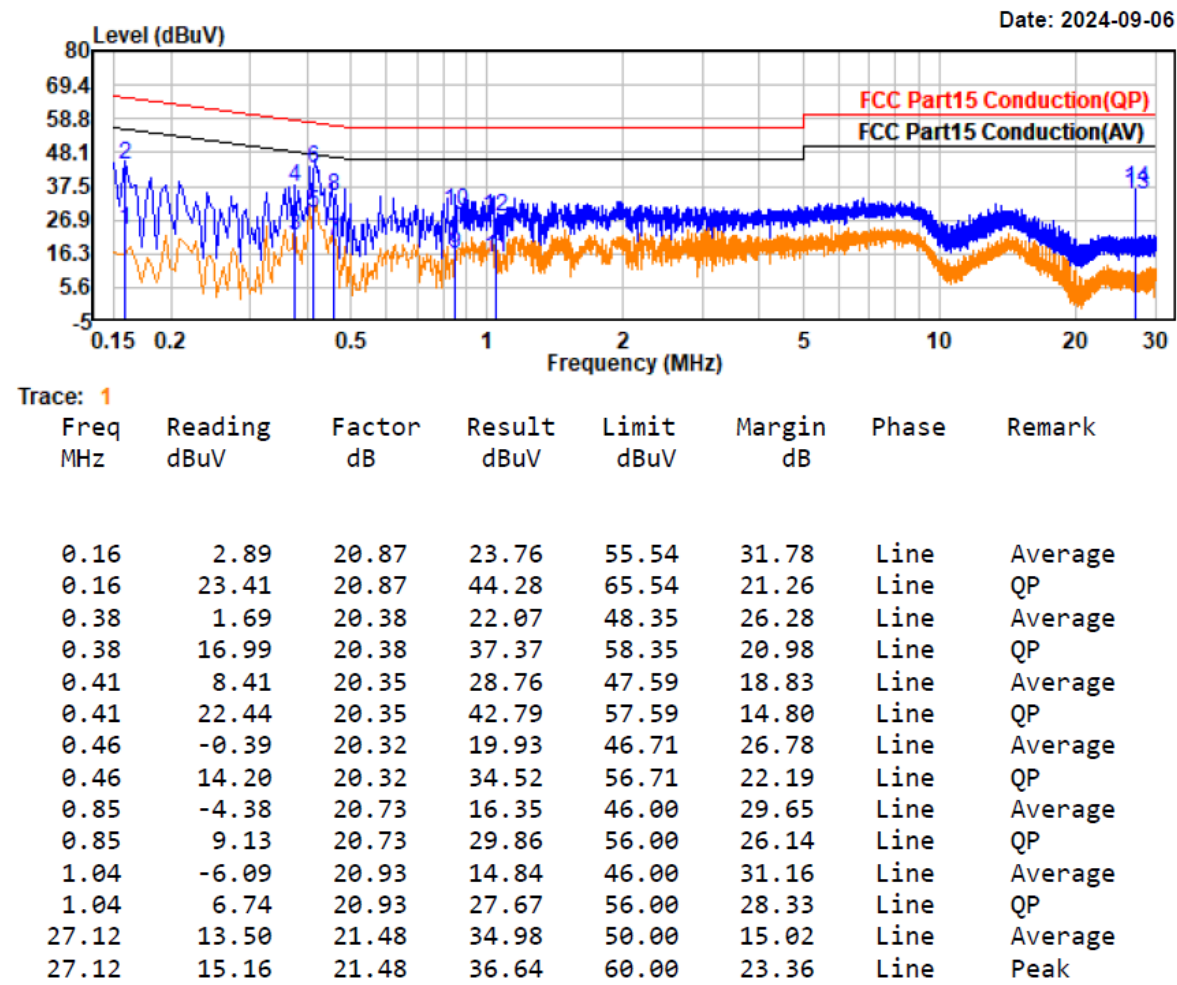
### Test Data

Temperature:	22.9°C
Relative Humidity:	53%
ATM Pressure:	100.1kPa
Test Date:	2024-09-06
Test Engineer:	Spike Gao

EUT Model: NLS-NQuire1500

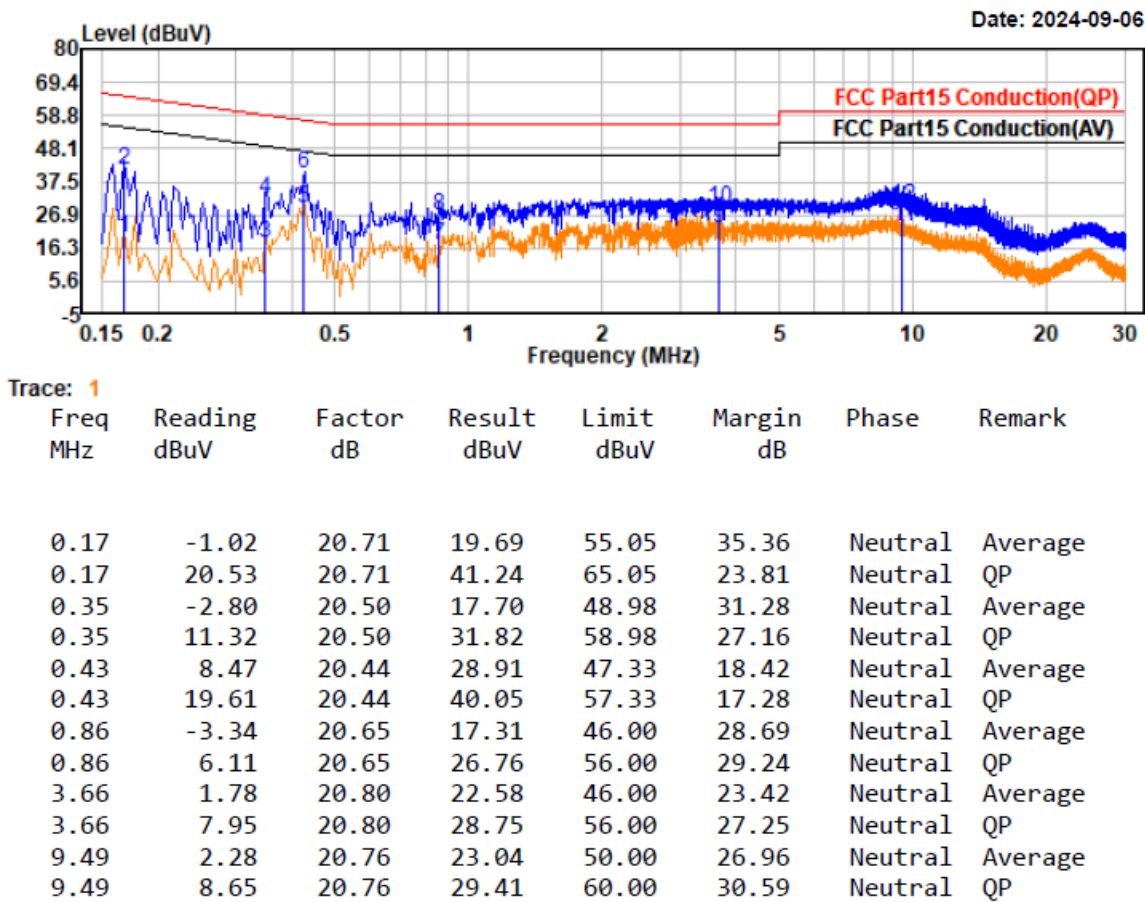
Project No.: 2407V20721E-RF  
Test Mode: NFC Transmitting  
EUT Model: NLS-NQuire1500

Temp/Humi/ATM: 22.9°C/53%/100.1kPa  
Tested by: Spike Gao  
Power Source: AC 120V/60Hz



Project No.: 2407V20721E-RF  
Test Mode: NFC Transmitting  
EUT Model: NLS-NQuire1500

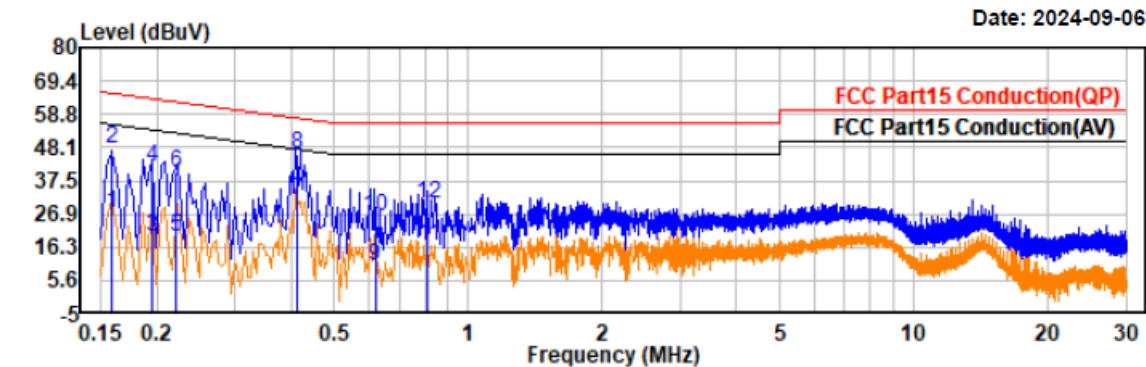
Temp/Humi/ATM: 22.9°C/53%/100.1kPa  
Tested by: Spike Gao  
Power Source: AC 120V/60Hz



EUT Model: NLS-NQuire500

Project No.: 2407V20721E-RF  
Test Mode: NFC Transmitting  
EUT Model: NLS-NQuire500

Temp/Humi/ATM: 22.9℃/53%/100.1kPa  
Tested by: Spike Gao  
Power Source: AC 120V/60Hz



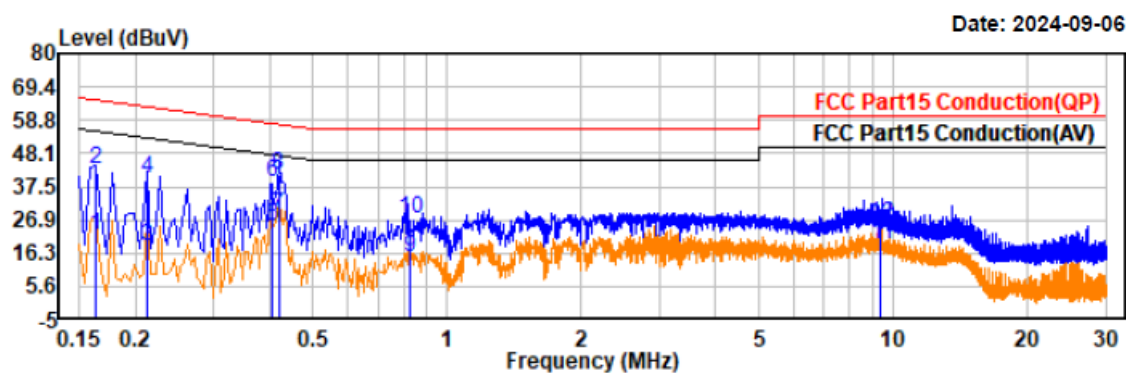
Trace: 1

Freq MHz	Reading dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dB	Phase	Remark
0.16	6.45	20.87	27.32	55.52	28.20	Line	Average
0.16	26.96	20.87	47.83	65.52	17.69	Line	QP
0.20	-0.78	20.59	19.81	53.78	33.97	Line	Average
0.20	21.38	20.59	41.97	63.78	21.81	Line	QP
0.22	-1.20	20.54	19.34	52.81	33.47	Line	Average
0.22	19.38	20.54	39.92	62.81	22.89	Line	QP
0.41	10.90	20.35	31.25	47.55	16.30	Line	Average
0.41	25.75	20.35	46.10	57.55	11.45	Line	QP
0.62	-10.15	20.42	10.27	46.00	35.73	Line	Average
0.62	5.53	20.42	25.95	56.00	30.05	Line	QP
0.81	-4.09	20.68	16.59	46.00	29.41	Line	Average
0.81	9.50	20.68	30.18	56.00	25.82	Line	QP



Project No.: 2407V20721E-RF  
Test Mode: NFC Transmitting  
EUT Model: NLS-NQuire500

Temp/Humi/ATM: 22.9°C/53%/100.1kPa  
Tested by: Spike Gao  
Power Source: AC 120V/60Hz



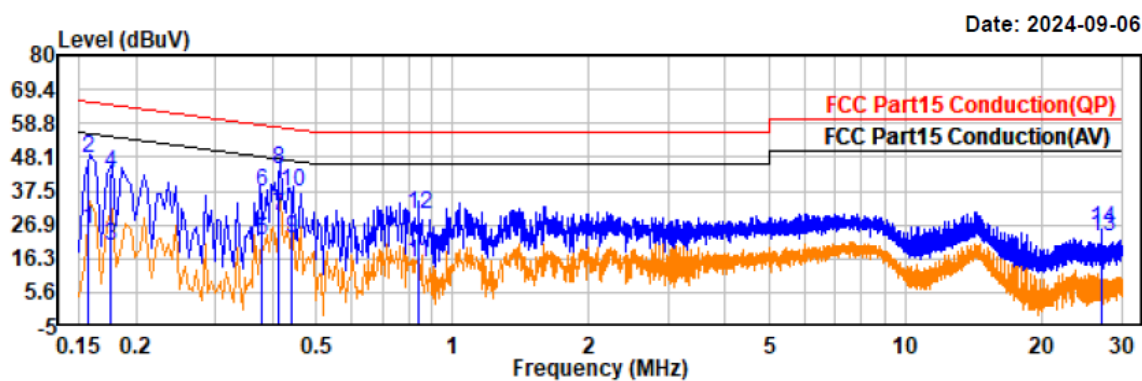
Trace: 1

Freq MHz	Reading dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dB	Phase	Remark
0.16	0.98	20.72	21.70	55.31	33.61	Neutral	Average
0.16	22.30	20.72	43.02	65.31	22.29	Neutral	QP
0.21	-2.46	20.65	18.19	53.13	34.94	Neutral	Average
0.21	19.20	20.65	39.85	63.13	23.28	Neutral	QP
0.40	4.39	20.46	24.85	47.76	22.91	Neutral	Average
0.40	18.59	20.46	39.05	57.76	18.71	Neutral	QP
0.42	7.96	20.45	28.41	47.47	19.06	Neutral	Average
0.42	20.90	20.45	41.35	57.47	16.12	Neutral	QP
0.82	-5.88	20.58	14.70	46.00	31.30	Neutral	Average
0.82	6.54	20.58	27.12	56.00	28.88	Neutral	QP
9.40	-1.52	20.77	19.25	50.00	30.75	Neutral	Average
9.40	4.85	20.77	25.62	60.00	34.38	Neutral	QP

**EUT Model: NLS-NQuire700**

Project No.: 2407V20721E-RF  
Test Mode: NFC Transmitting  
EUT Model: NLS-NQuire700

Temp/Humi/ATM: 22.9°C/53%/100.1kPa  
Tested by: Spike Gao  
Power Source: AC 120V/60Hz



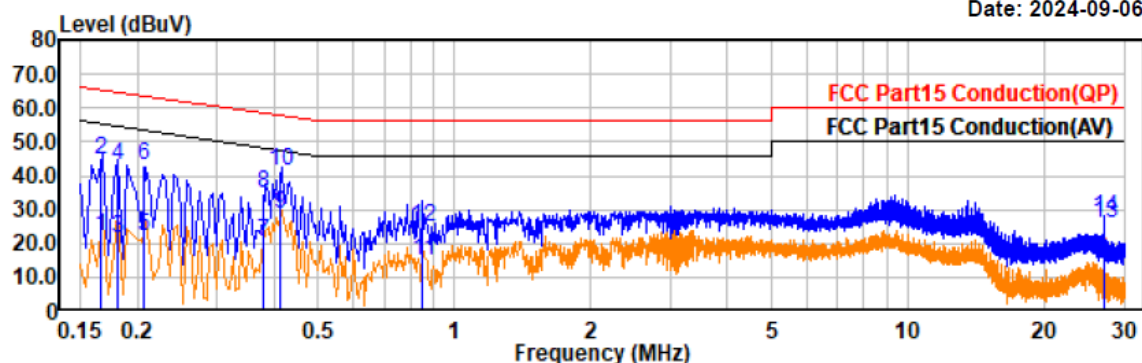
Trace: 1

Freq MHz	Reading dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dB	Phase	Remark
0.16	4.78	20.88	25.66	55.59	29.93	Line	Average
0.16	26.89	20.88	47.77	65.59	17.82	Line	QP
0.18	-0.26	20.72	20.46	54.64	34.18	Line	Average
0.18	22.52	20.72	43.24	64.64	21.40	Line	QP
0.38	1.49	20.38	21.87	48.31	26.44	Line	Average
0.38	16.96	20.38	37.34	58.31	20.97	Line	QP
0.41	8.97	20.35	29.32	47.58	18.26	Line	Average
0.41	23.85	20.35	44.20	57.58	13.38	Line	QP
0.44	2.07	20.33	22.40	47.00	24.60	Line	Average
0.44	16.84	20.33	37.17	57.00	19.83	Line	QP
0.84	-6.05	20.72	14.67	46.00	31.33	Line	Average
0.84	9.59	20.72	30.31	56.00	25.69	Line	QP
27.08	1.58	21.50	23.08	50.00	26.92	Line	Average
27.08	3.76	21.50	25.26	60.00	34.74	Line	QP

Project No.: 2407V20721E-RF  
Test Mode: NFC Transmitting  
EUT Model: NLS-NQuire700

Temp/Humi/ATM: 22.9°C/53%/100.1kPa  
Tested by: Spike Gao  
Power Source: AC 120V/60Hz

Date: 2024-09-06



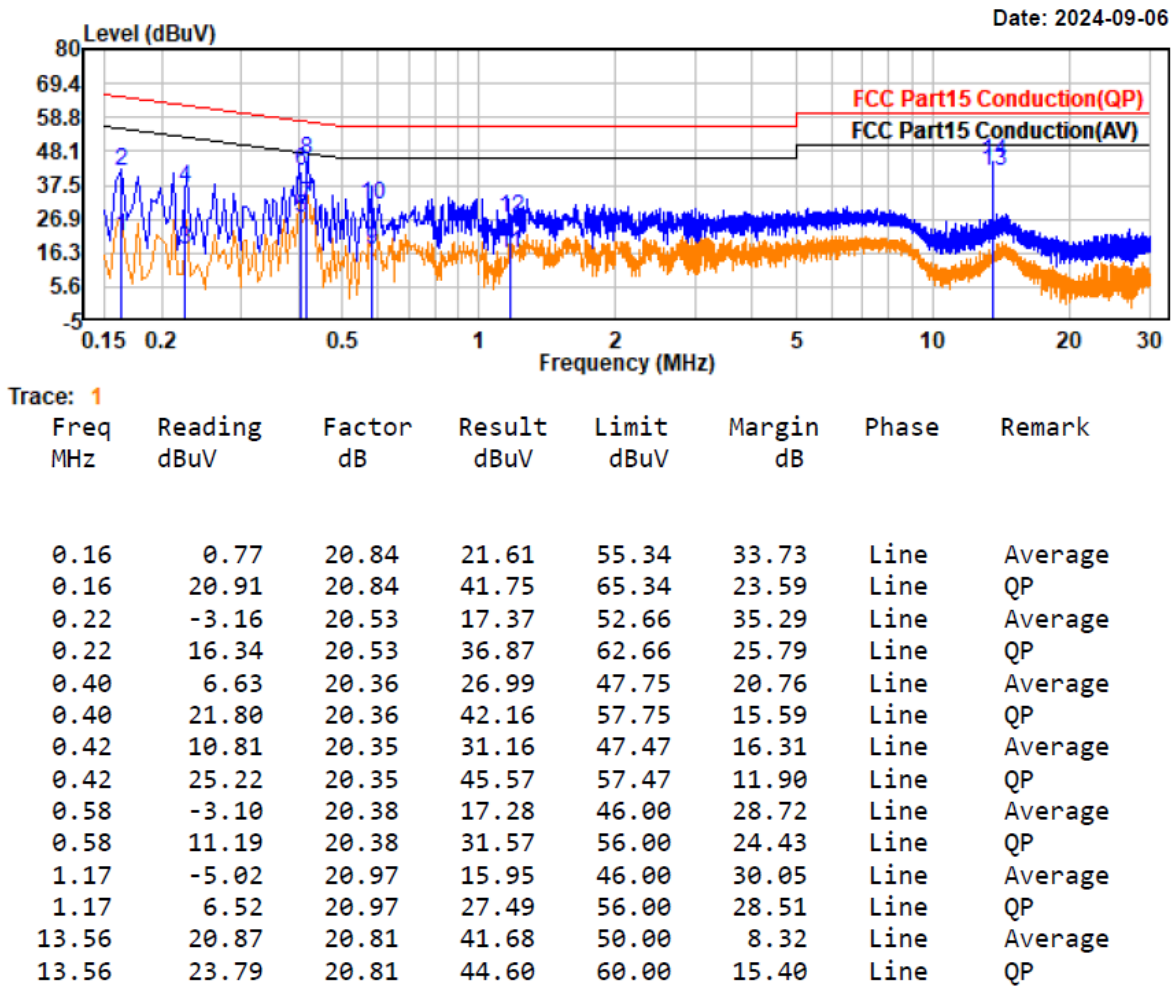
Trace: 1

Freq MHz	Reading dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dB	Phase	Remark
0.17	1.53	20.71	22.24	55.14	32.90	Neutral	Average
0.17	23.81	20.71	44.52	65.14	20.62	Neutral	QP
0.18	0.61	20.69	21.30	54.45	33.15	Neutral	Average
0.18	22.28	20.69	42.97	64.45	21.48	Neutral	QP
0.21	1.57	20.66	22.23	53.33	31.10	Neutral	Average
0.21	22.41	20.66	43.07	63.33	20.26	Neutral	QP
0.38	0.08	20.48	20.56	48.25	27.69	Neutral	Average
0.38	14.02	20.48	34.50	58.25	23.75	Neutral	QP
0.41	8.02	20.45	28.47	47.55	19.08	Neutral	Average
0.41	21.19	20.45	41.64	57.55	15.91	Neutral	QP
0.85	-6.01	20.64	14.63	46.00	31.37	Neutral	Average
0.85	4.37	20.64	25.01	56.00	30.99	Neutral	QP
27.11	4.54	21.47	26.01	50.00	23.99	Neutral	Average
27.11	6.35	21.47	27.82	60.00	32.18	Neutral	QP

EUT Model: NLS-NQuire1000

Project No.: 2407V20721E-RF  
Test Mode: NFC Transmitting  
EUT Model: NLS-NQuire1000

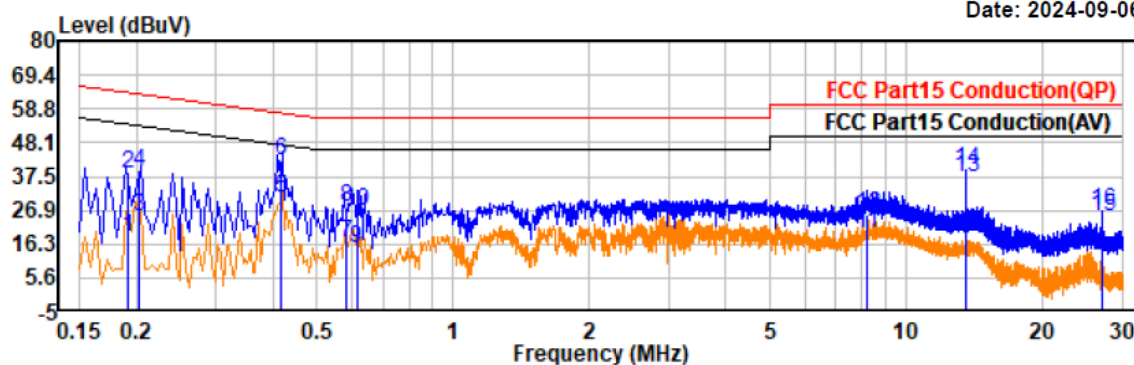
Temp/Humi/ATM: 22.9°C/53%/100.1kPa  
Tested by: Spike Gao  
Power Source: AC 120V/60Hz



Project No.: 2407V20721E-RF  
Test Mode: NFC Transmitting  
EUT Model: NLS-NQuire1000

Temp/Humi/ATM: 22.9°C/53%/100.1kPa  
Tested by: Spike Gao  
Power Source: AC 120V/60Hz

Date: 2024-09-06



Trace: 1

Freq MHz	Reading dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dB	Phase	Remark
0.19	-1.94	20.66	18.72	53.94	35.22	Neutral	Average
0.19	18.00	20.66	38.66	63.94	25.28	Neutral	QP
0.20	4.45	20.67	25.12	53.51	28.39	Neutral	Average
0.20	18.50	20.67	39.17	63.51	24.34	Neutral	QP
0.42	10.10	20.45	30.55	47.53	16.98	Neutral	Average
0.42	21.79	20.45	42.24	57.53	15.29	Neutral	QP
0.58	-3.70	20.35	16.65	46.00	29.35	Neutral	Average
0.58	7.23	20.35	27.58	56.00	28.42	Neutral	QP
0.61	-5.19	20.33	15.14	46.00	30.86	Neutral	Average
0.61	6.35	20.33	26.68	56.00	29.32	Neutral	QP
8.17	-1.03	20.88	19.85	50.00	30.15	Neutral	Average
8.17	4.87	20.88	25.75	60.00	34.25	Neutral	QP
13.55	16.35	21.00	37.35	50.00	12.65	Neutral	Average
13.55	18.70	21.01	39.71	60.00	20.29	Neutral	QP
27.13	3.17	21.46	24.63	50.00	25.37	Neutral	Average
27.13	5.37	21.46	26.83	60.00	33.17	Neutral	QP

## **FCC§15.225, §15.205 & §15.209 - RADIATED EMISSIONS TEST**

### **Applicable Standard**

As per FCC Part 15.225

(a) The field strength of any emissions within the band 13.553–13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.

(b) Within the bands 13.410–13.553 MHz and 13.567–13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.

(c) Within the bands 13.110–13.410 MHz and 13.710–14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.

(d) The field strength of any emissions appearing outside of the 13.110–14.010 MHz band shall not exceed the general radiated emission limits in §15.209.

If both the single point and the limit distance are equal to or closer to the EUT than  $\lambda/2\pi$ , then extrapolation to the limit distance shall be calculated using Equation (4):

$$FS_{\text{limit}} = FS_{\text{max}} - 40 \log \left( \frac{d_{\text{limit}}}{d_{\text{measure}}} \right)$$

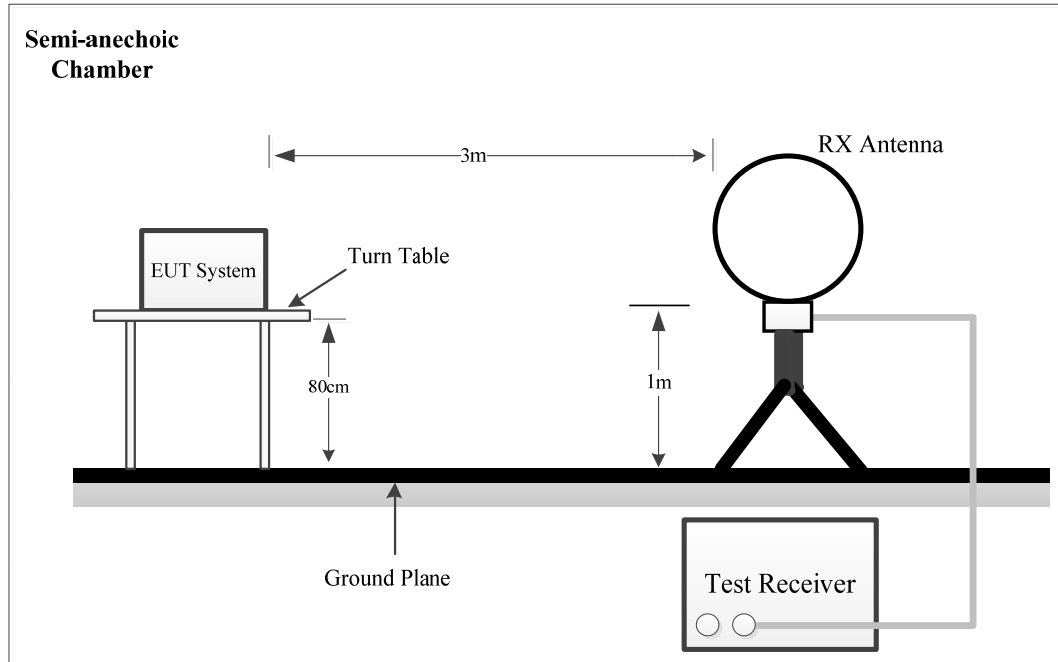
where

$FS_{\text{limit}}$	is the calculation of field strength at the limit distance, expressed in dBμV/m
$FS_{\text{max}}$	is the measured field strength, expressed in dBμV/m
$d_{\text{near field}}$	is the $\lambda/2\pi$ distance
$d_{\text{measure}}$	is the distance of the measurement point from the EUT
$d_{\text{limit}}$	is the reference distance or the distance of the $\lambda/2\pi$ point

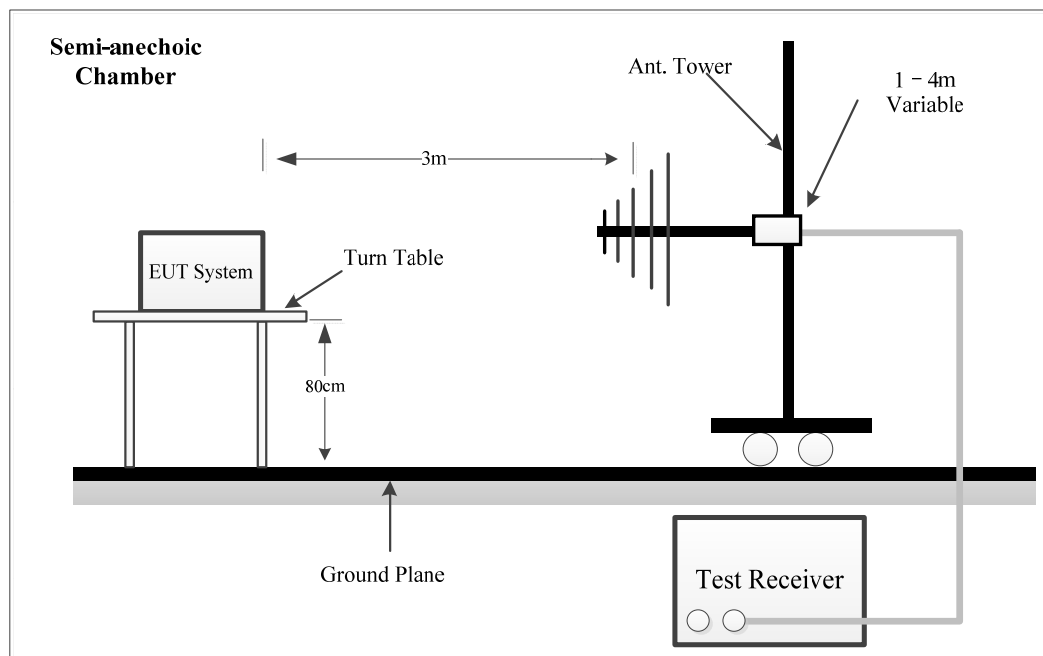
Note: dBμV/m = 20 log(μV/m)

## Test System Setup

### 9 kHz-30MHz:



### 30MHz-1GHz:



The radiated emission tests were performed in the 3-meter chamber a test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC Part Subpart C limits.

The spacing between the peripherals was 10 cm.

### EMI Test Receiver Setup

According to FCC Rules, 47 CFR 15.33, the EUT emissions were investigated up to 1000 MHz.

During the radiated emission test, the EMI test Receiver was set with the following configurations:

Frequency Range	RBW	VBW	Measurement
9 kHz – 150 kHz	300Hz	1 kHz	PK
	200Hz	/	QP
150 kHz – 30 MHz	10 kHz	30 kHz	PK
	9 kHz	/	QP
30 MHz – 1000 MHz	100 kHz	300 kHz	PK
	120 kHz	/	QP

### Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 9 kHz-1 GHz except 9-90 kHz, 110-490 kHz, employing an average detector, peak and Average detection modes for frequencies above 1 GHz.

All emissions under the average limit and under the noise floor have not recorded in the report.

### Result & Margin Calculation

The Result is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\begin{aligned}\text{Factor (dB/m)} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} - \text{Amplifier Gain (dB)} \\ \text{Result (dB}\mu\text{V/m)} &= \text{Reading (dB}\mu\text{V)} + \text{Factor (dB/m)}\end{aligned}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin (dB)} = \text{Limit (dB}\mu\text{V/m)} - \text{Result (dB}\mu\text{V/m)}$$

### Test Results Summary

According to the data in the following table, the EUT complied with the FCC Part 15.209, 15.205, 15.225.



Test Data

Frequency Range:	Below 1 GHz
Temperature:	23.3°C
Relative Humidity:	52%
ATM Pressure:	100.1kPa~100.4kPa
Test Date:	2024-10-09~2024-10-15
Test Engineer:	Wlif Wu

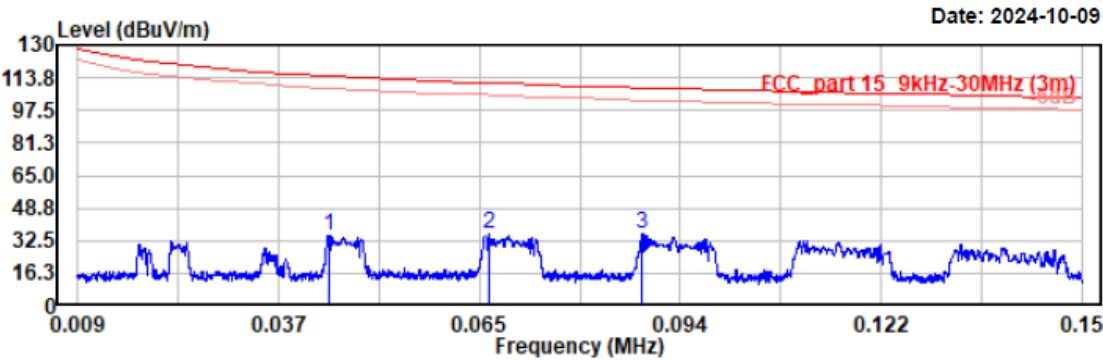
Note: Pre-scan in the X, Y and Z axes of orientation, the worst case Y-axis of orientation was recorded.

1) 9 kHz~150 kHz:

EUT Model: NLS-NQuire1500

Project No.: 2407V20721E-RF  
Test Mode: NFC(Parallel)  
EUT Model: NLS-NQuire1500  
Test distance: 3m

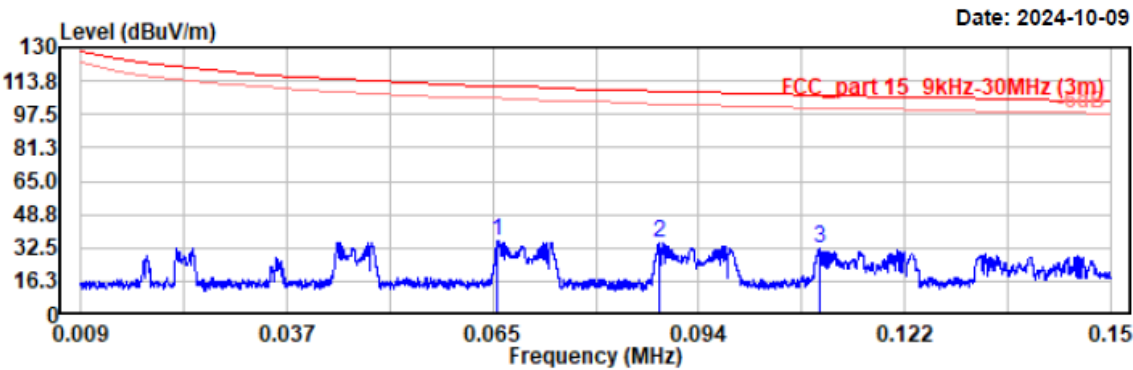
Temp/Humi/ATM: 23.3°C/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.044	15.48	19.91	35.39	114.69	79.30	Peak
0.067	15.91	19.84	35.75	111.12	75.37	Peak
0.088	16.06	19.79	35.85	108.69	72.84	Peak

Project No.: 2407V20721E-RF  
Test Mode: NFC(Perpendicular)  
EUT Model: NLS-NQuire1500  
Test distance: 3m

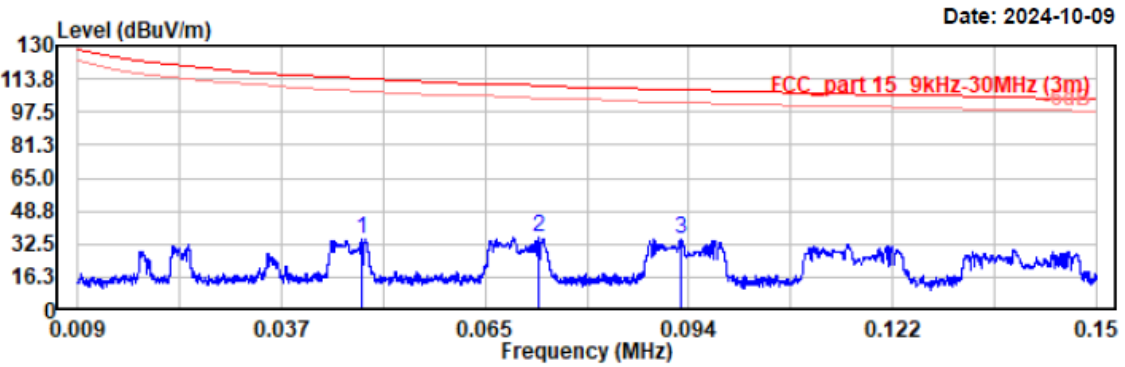
Temp/Humi/ATM: 23.3℃/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.066	15.85	19.85	35.70	111.21	75.51	Peak
0.088	15.09	19.79	34.88	108.70	73.82	Peak
0.110	12.48	19.73	32.21	106.77	74.56	Peak

Project No.: 2407V20721E-RF  
Test Mode: NFC(Ground-parallel)  
EUT Model: NLS-NQuire1500  
Test distance: 3m

Temp/Humi/ATM: 23.3℃/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.048	14.94	19.91	34.85	113.92	79.07	Peak
0.073	15.93	19.78	35.71	110.37	74.66	Peak
0.093	15.08	19.79	34.87	108.28	73.41	Peak

EUT Model: NLS-NQuire500

Project No.: 2407V20721E-RF

Test Mode: NFC(Parallel)

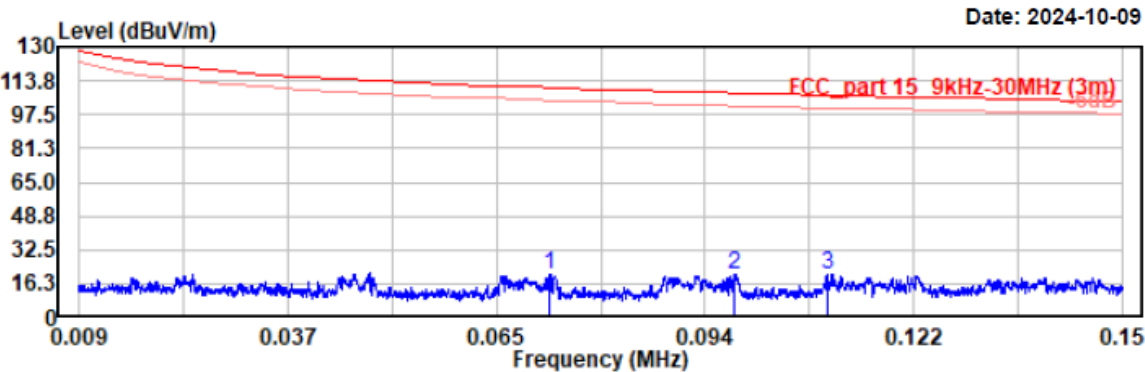
EUT Model: NLS-NQuire500

Test distance: 3m

Temp/Humi/ATM: 23.3℃/52%/100.4kPa

Tested by: Wlif Wu

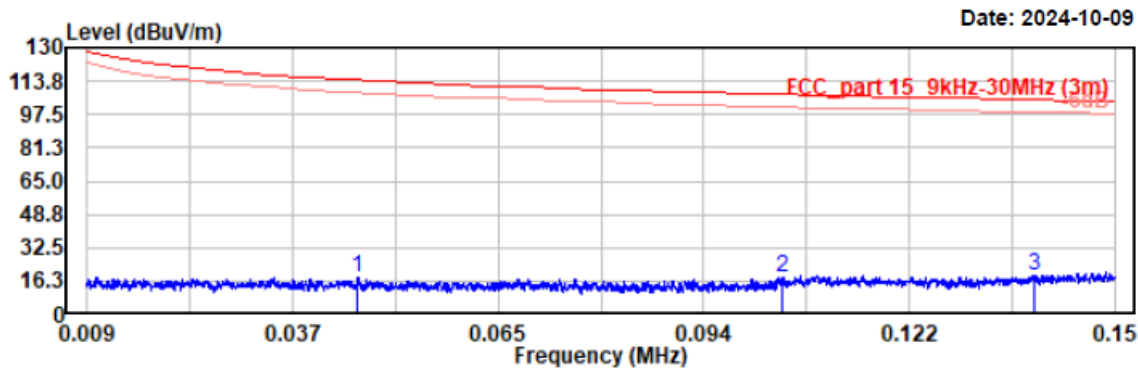
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.073	0.62	19.78	20.40	110.38	89.98	Peak
0.098	0.71	19.75	20.46	107.81	87.35	Peak
0.110	0.63	19.73	20.36	106.77	86.41	Peak

Project No.: 2407V20721E-RF  
Test Mode: NFC(Perpendicular)  
EUT Model: NLS-NQuire500  
Test distance: 3m

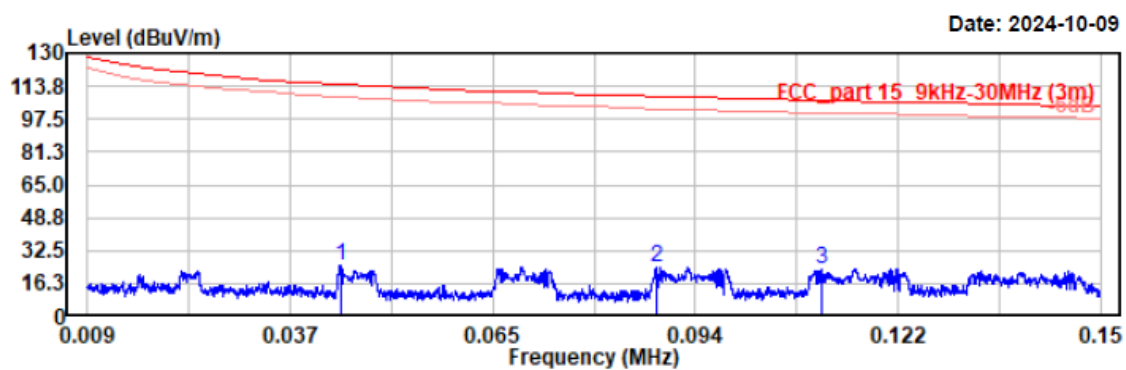
Temp/Humi/ATM: 23.3℃/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.046	-1.84	19.91	18.07	114.33	96.26	Peak
0.104	-1.76	19.73	17.97	107.23	89.26	Peak
0.139	-0.76	19.73	18.97	104.75	85.78	Peak

Project No.: 2407V20721E-RF  
Test Mode: NFC(Ground-parallel)  
EUT Model: NLS-NQuire500  
Test distance: 3m

Temp/Humi/ATM: 23.3°C/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.044	4.98	19.91	24.89	114.70	89.81	Peak
0.088	4.30	19.79	24.09	108.70	84.61	Peak
0.111	3.63	19.73	23.36	106.68	83.32	Peak

EUT Model: NLS-NQuire700

Project No.: 2407V20721E-RF

Test Mode: NFC(Parallel)

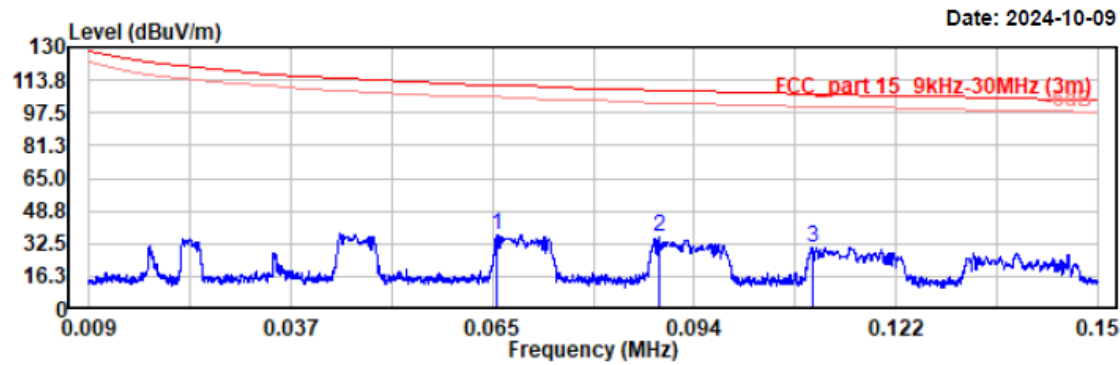
EUT Model: NLS-NQuire700

Test distance: 3m

Temp/Humi/ATM: 23.3℃/52%/100.4kPa

Tested by: Wlif Wu

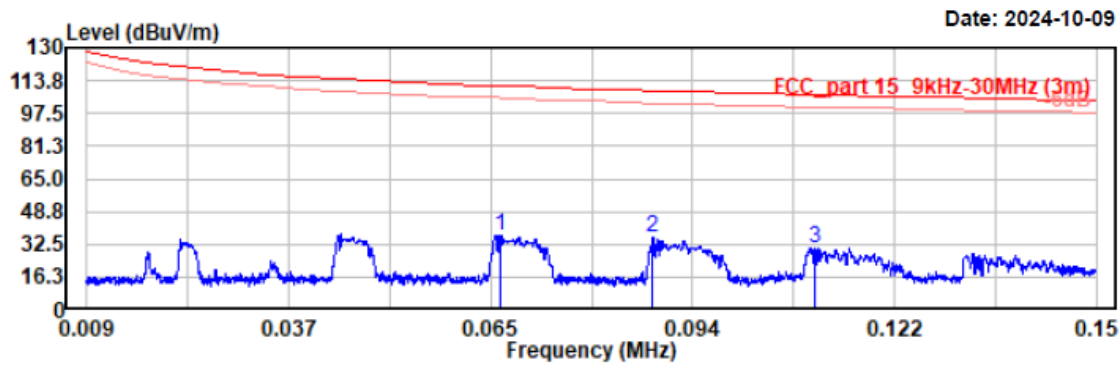
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.066	17.34	19.85	37.19	111.21	74.02	Peak
0.089	15.64	19.80	35.44	108.65	73.21	Peak
0.110	11.08	19.73	30.81	106.77	75.96	Peak

Project No.: 2407V20721E-RF  
Test Mode: NFC(Perpendicular)  
EUT Model: NLS-NQuire700  
Test distance: 3m

Temp/Humi/ATM: 23.3℃/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz

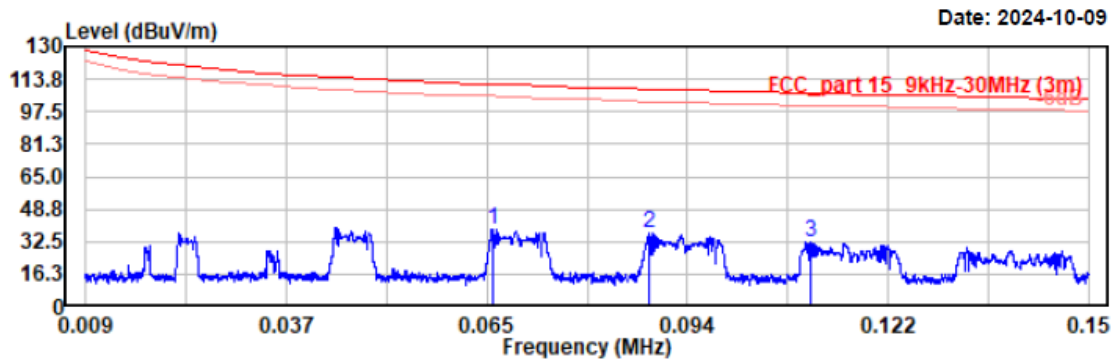


Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.067	17.34	19.84	37.18	111.13	73.95	Peak
0.088	16.27	19.79	36.06	108.71	72.65	Peak
0.111	10.96	19.73	30.69	106.73	76.04	Peak



Project No.: 2407V20721E-RF  
Test Mode: NFC(Ground-parallel)  
EUT Model: NLS-NQuire700  
Test distance: 3m

Temp/Humi/ATM: 23.3℃/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.066	18.93	19.85	38.78	111.19	72.41	Peak
0.088	17.22	19.79	37.01	108.70	71.69	Peak
0.111	12.53	19.73	32.26	106.71	74.45	Peak

EUT Model: NLS-NQuire1000

Project No.: 2407V20721E-RF

Test Mode: NFC(Parallel)

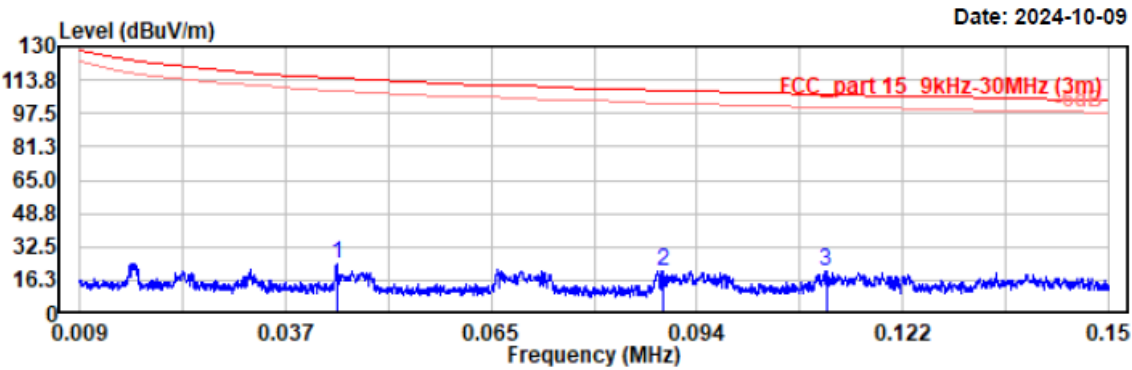
EUT Model: NLS-NQuire1000

Test distance: 3m

Temp/Humi/ATM: 23.3℃/52%/100.4kPa

Tested by: Wlif Wu

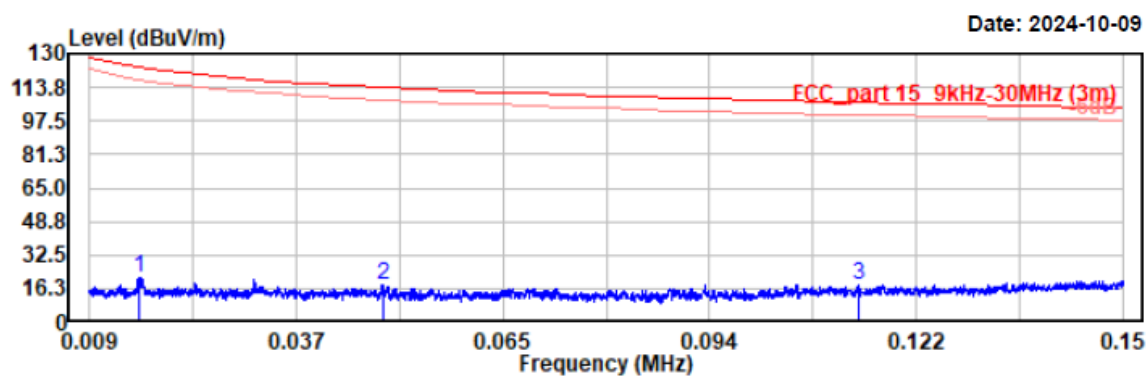
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.044	4.02	19.91	23.93	114.70	90.77	Peak
0.089	1.07	19.80	20.87	108.63	87.76	Peak
0.111	0.73	19.73	20.46	106.68	86.22	Peak

Project No.: 2407V20721E-RF  
Test Mode: NFC(Perpendicular)  
EUT Model: NLS-NQuire1000  
Test distance: 3m

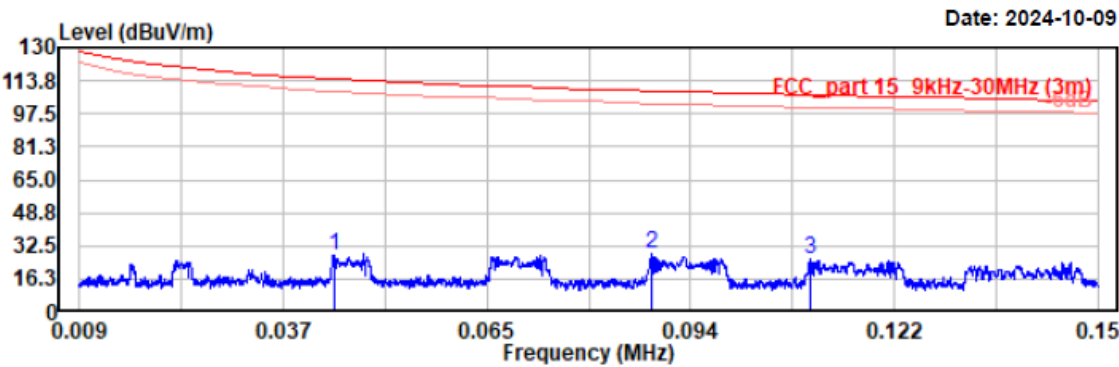
Temp/Humi/ATM: 23.3°C/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.016	2.19	19.69	21.88	123.70	101.82	Peak
0.049	-2.04	19.91	17.87	113.81	95.94	Peak
0.114	-1.59	19.73	18.14	106.47	88.33	Peak

Project No.: 2407V20721E-RF  
Test Mode: NFC(Ground-parallel)  
EUT Model: NLS-NQuire1000  
Test distance: 3m

Temp/Humi/ATM: 23.3℃/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



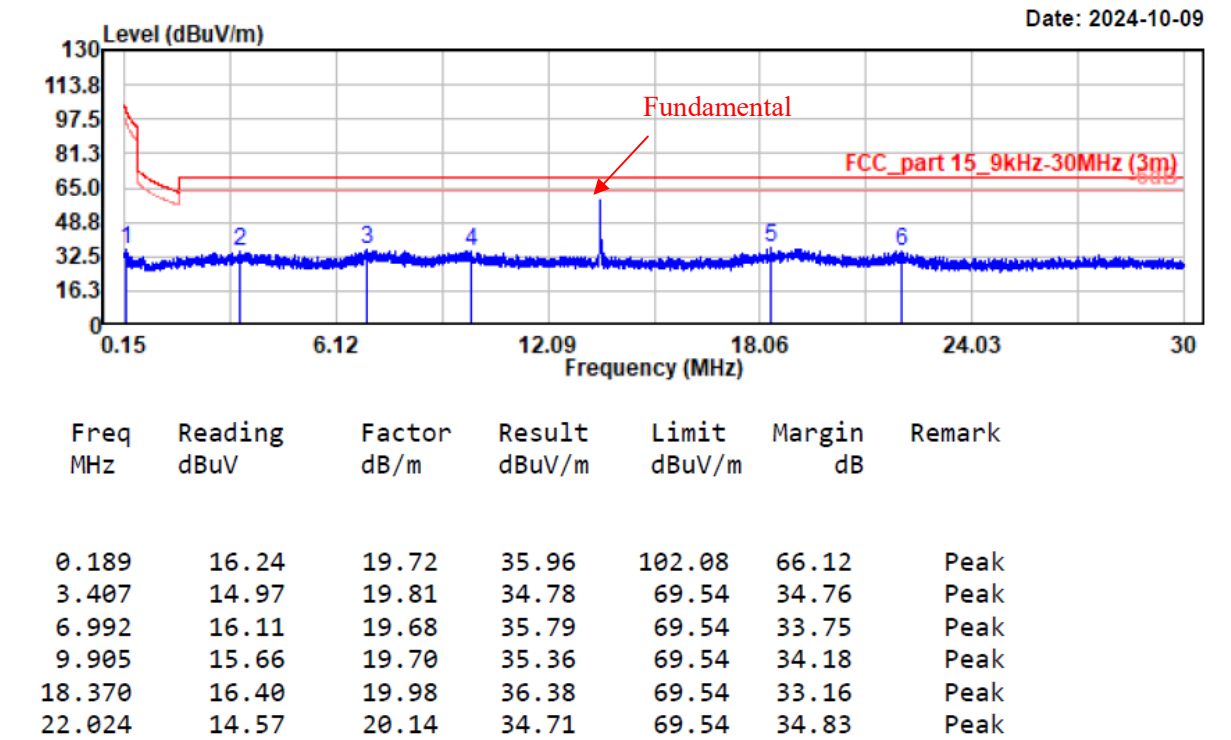
Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.044	7.97	19.91	27.88	114.70	86.82	Peak
0.088	8.65	19.79	28.44	108.69	80.25	Peak
0.110	6.03	19.73	25.76	106.77	81.01	Peak

2) 150 kHz ~30MHz

EUT Model: NLS- NQuire1500

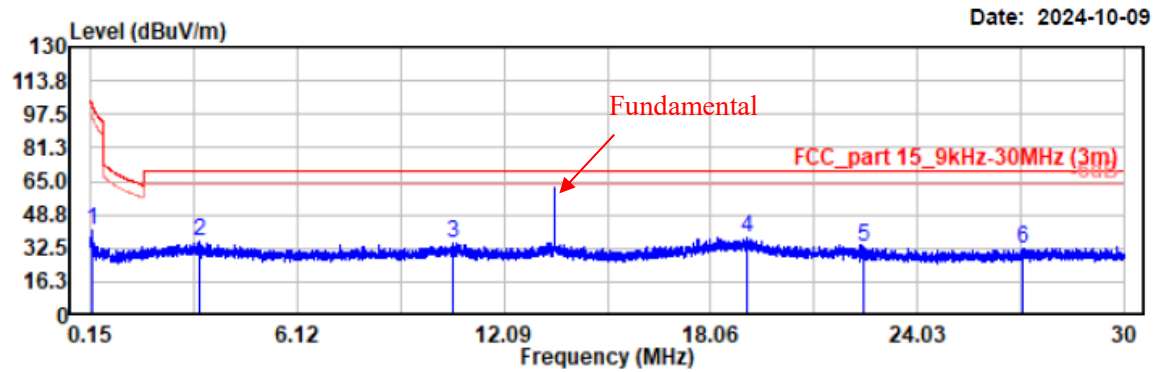
Project No.: 2407V20721E-RF  
Test Mode: NFC(Parallel)  
EUT Model: NLS-NQuire1500  
Test distance: 3m

Temp/Humi/ATM: 23.3℃/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Project No.: 2407V20721E-RF  
Test Mode: NFC(Perpendicular)  
EUT Model: NLS-NQuire1500  
Test distance: 3m

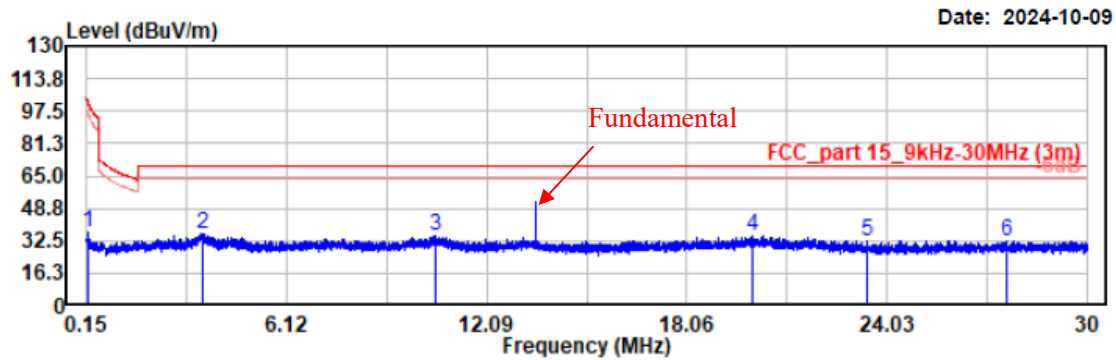
Temp/Humi/ATM: 23.3℃/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.183	21.83	19.72	41.55	102.36	60.81	Peak
3.314	15.63	19.82	35.45	69.54	34.09	Peak
10.600	15.15	19.71	34.86	69.54	34.68	Peak
19.099	17.73	20.03	37.76	69.54	31.78	Peak
22.460	12.71	20.15	32.86	69.54	36.68	Peak
27.090	12.48	20.11	32.59	69.54	36.95	Peak

Project No.: 2407V20721E-RF  
Test Mode: NFC(Ground-parallel)  
EUT Model: NLS-NQuire1500  
Test distance: 3m

Temp/Humi/ATM: 23.3°C/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.189	16.80	19.72	36.52	102.08	65.56	Peak
3.633	15.68	19.80	35.48	69.54	34.06	Peak
10.583	15.27	19.71	34.98	69.54	34.56	Peak
20.003	14.73	20.09	34.82	69.54	34.72	Peak
23.433	12.17	20.18	32.35	69.54	37.19	Peak
27.597	12.48	20.08	32.56	69.54	36.98	Peak

EUT Model: NLS-NQuire500

Project No.: 2407V20721E-RF

Test Mode: NFC(Parallel)

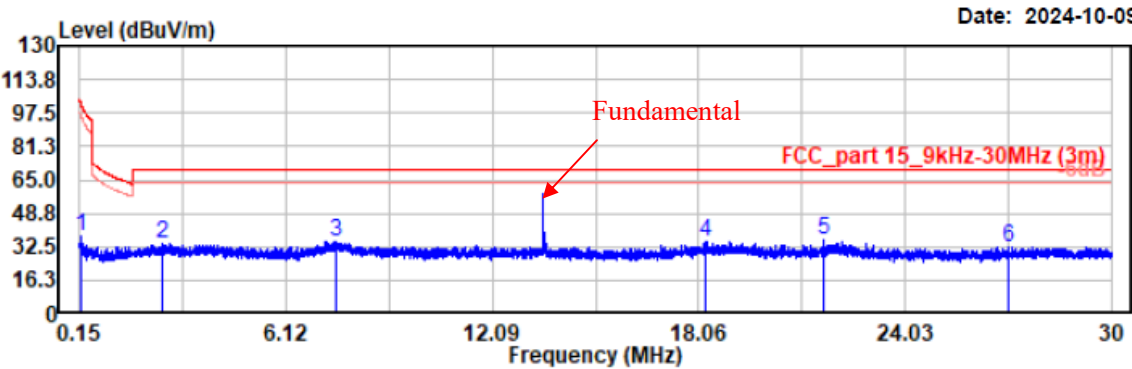
EUT Model: NLS-NQuire500

Test distance: 3m

Temp/Humi/ATM: 23.3°C/52%/100.4kPa

Tested by: Wlif Wu

Power Source: AC120V/60Hz

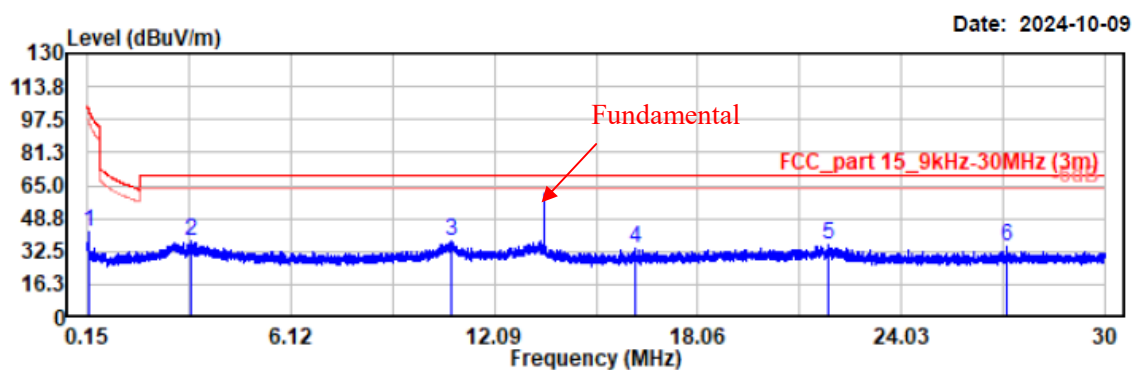


Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.186	17.93	19.72	37.65	102.22	64.57	Peak
2.535	14.62	19.72	34.34	69.54	35.20	Peak
7.544	15.58	19.68	35.26	69.54	34.28	Peak
18.245	15.09	19.97	35.06	69.54	34.48	Peak
21.663	15.80	20.13	35.93	69.54	33.61	Peak
26.994	12.47	20.12	32.59	69.54	36.95	Peak



Project No.: 2407V20721E-RF  
Test Mode: NFC(Perpendicular)  
EUT Model: NLS-NQuire500  
Test distance: 3m

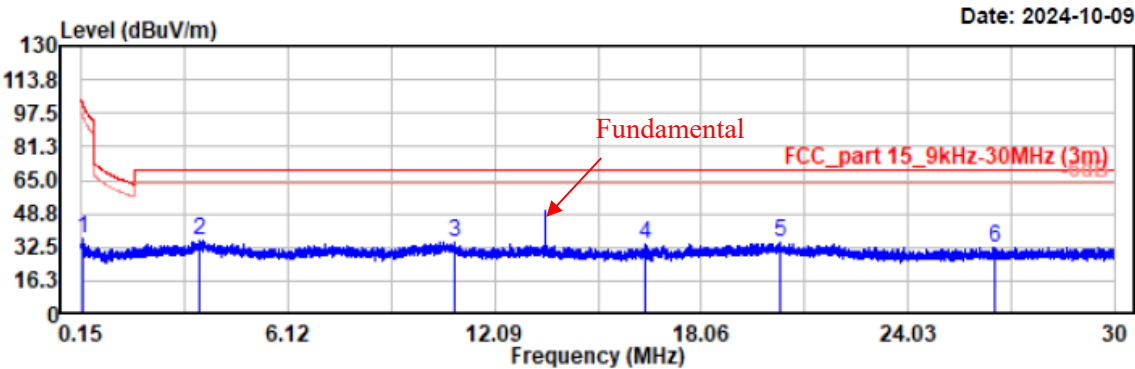
Temp/Humi/ATM: 23.3°C/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.192	22.73	19.72	42.45	101.95	59.50	Peak
3.171	17.99	19.83	37.82	69.54	31.72	Peak
10.803	18.22	19.71	37.93	69.54	31.61	Peak
16.230	13.82	19.84	33.66	69.54	35.88	Peak
21.908	15.77	20.14	35.91	69.54	33.63	Peak
27.122	15.19	20.11	35.30	69.54	34.24	Peak

Project No.: 2407V20721E-RF  
Test Mode: NFC(Ground-parallel)  
EUT Model: NLS-NQuire500  
Test distance: 3m

Temp/Humi/ATM: 23.3℃/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.186	16.80	19.72	36.52	102.22	65.70	Peak
3.577	16.29	19.80	36.09	69.54	33.45	Peak
10.911	15.29	19.71	35.00	69.54	34.54	Peak
16.436	14.62	19.86	34.48	69.54	35.06	Peak
20.320	14.71	20.10	34.81	69.54	34.73	Peak
26.528	12.54	20.14	32.68	69.54	36.86	Peak

EUT Model: NLS-NQuire700

Project No.: 2407V20721E-RF

Test Mode: NFC(Parallel)

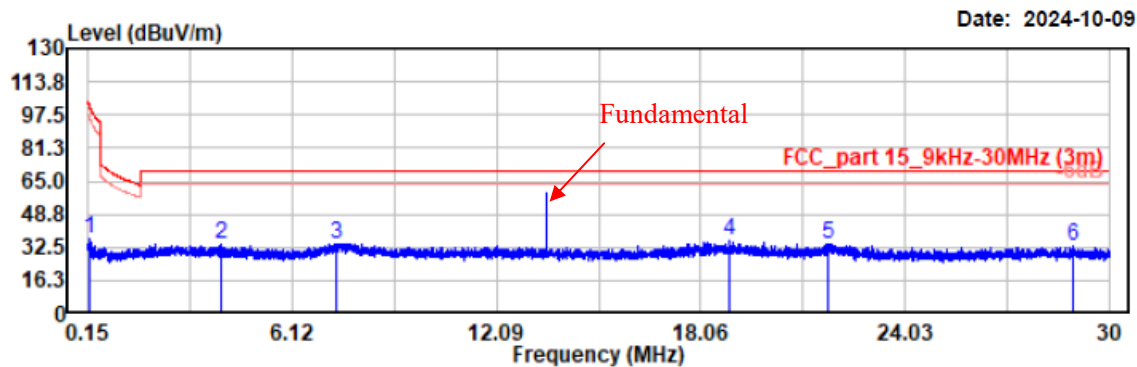
EUT Model: NLS-NQuire700

Test distance: 3m

Temp/Humi/ATM: 23.3°C/52%/100.4kPa

Tested by: Wlif Wu

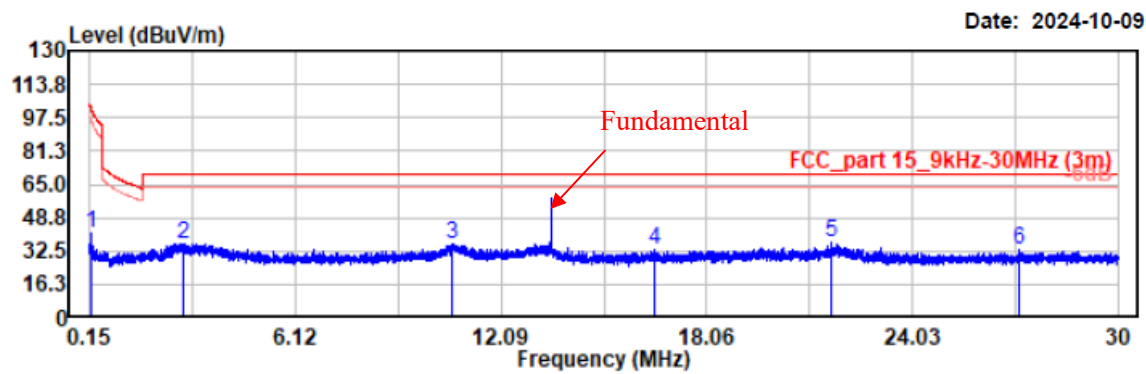
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.195	16.80	19.72	36.52	101.81	65.29	Peak
4.031	14.40	19.76	34.16	69.54	35.38	Peak
7.421	14.81	19.68	34.49	69.54	35.05	Peak
18.917	15.48	20.02	35.50	69.54	34.04	Peak
21.758	14.22	20.14	34.36	69.54	35.18	Peak
28.934	13.44	20.02	33.46	69.54	36.08	Peak

Project No.: 2407V20721E-RF  
Test Mode: NFC(Perpendicular)  
EUT Model: NLS-NQuire700  
Test distance: 3m

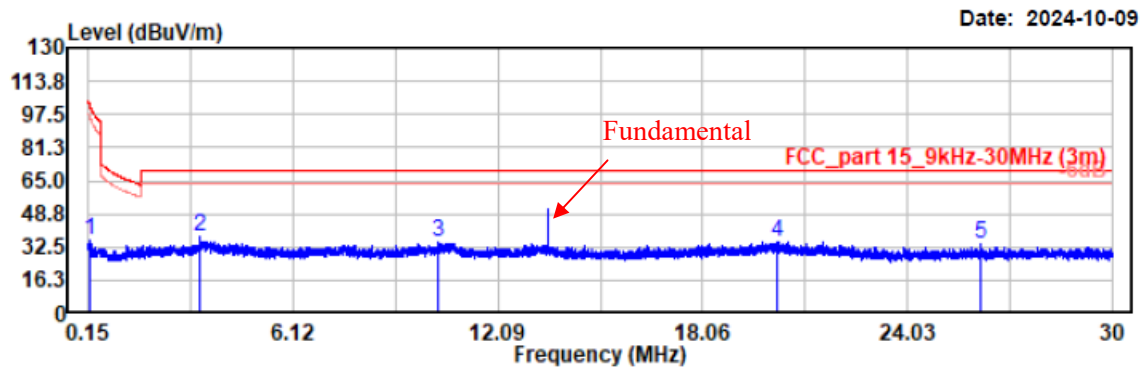
Temp/Humi/ATM: 23.3°C/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.183	21.71	19.72	41.43	102.36	60.93	Peak
2.854	16.47	19.81	36.28	69.54	33.26	Peak
10.657	15.78	19.71	35.49	69.54	34.05	Peak
16.556	12.92	19.86	32.78	69.54	36.76	Peak
21.678	16.39	20.13	36.52	69.54	33.02	Peak
27.125	13.09	20.11	33.20	69.54	36.34	Peak

Project No.: 2407V20721E-RF  
Test Mode: NFC(Ground-parallel)  
EUT Model: NLS-NQuire700  
Test distance: 3m

Temp/Humi/ATM: 23.3°C/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz

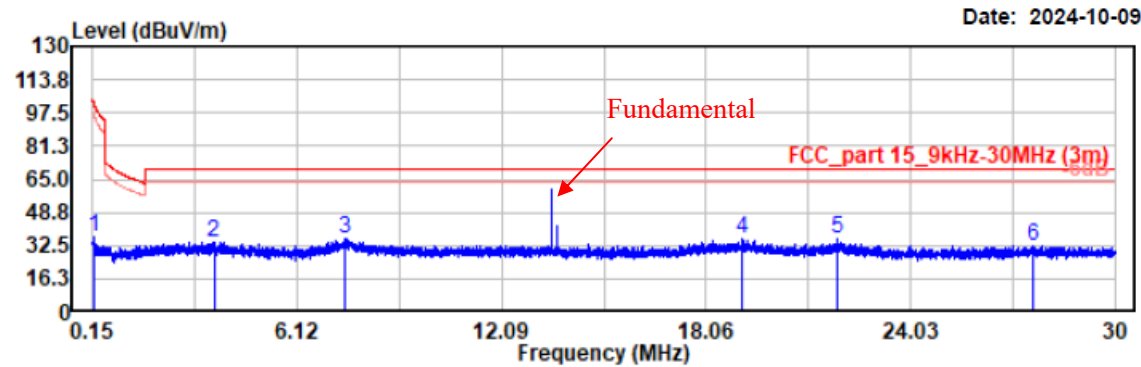


Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.189	15.88	19.72	35.60	102.08	66.48	Peak
3.416	17.60	19.81	37.41	69.54	32.13	Peak
10.365	14.84	19.70	34.54	69.54	35.00	Peak
20.257	15.04	20.10	35.14	69.54	34.40	Peak
26.188	13.93	20.15	34.08	69.54	35.46	Peak

EUT Model: NLS-NQuire1000

Project No.: 2407V20721E-RF  
Test Mode: NFC(Parallel)  
EUT Model: NLS-NQuire1000  
Test distance: 3m

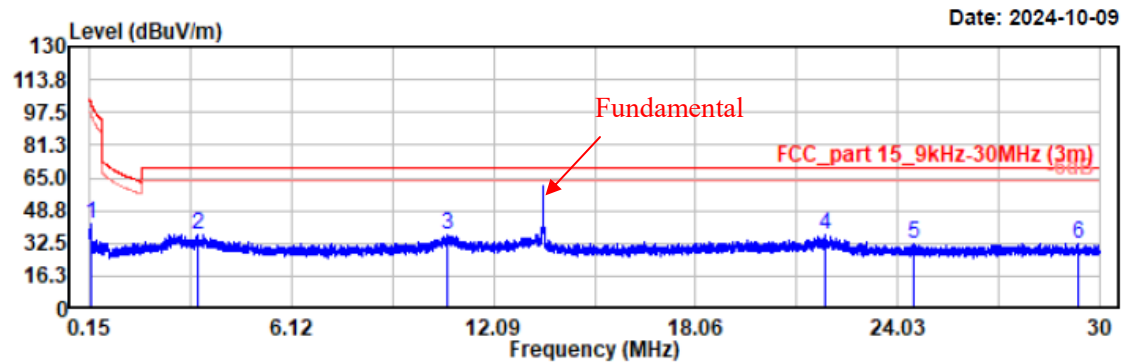
Temp/Humi/ATM: 23.3°C/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.195	16.96	19.72	36.68	101.81	65.13	Peak
3.696	14.55	19.79	34.34	69.54	35.20	Peak
7.541	16.00	19.68	35.68	69.54	33.86	Peak
19.096	15.53	20.03	35.56	69.54	33.98	Peak
21.911	15.34	20.14	35.48	69.54	34.06	Peak
27.621	12.64	20.08	32.72	69.54	36.82	Peak

Project No.: 2407V20721E-RF  
Test Mode: NFC(Perpendicular)  
EUT Model: NLS-NQuire1000  
Test distance: 3m

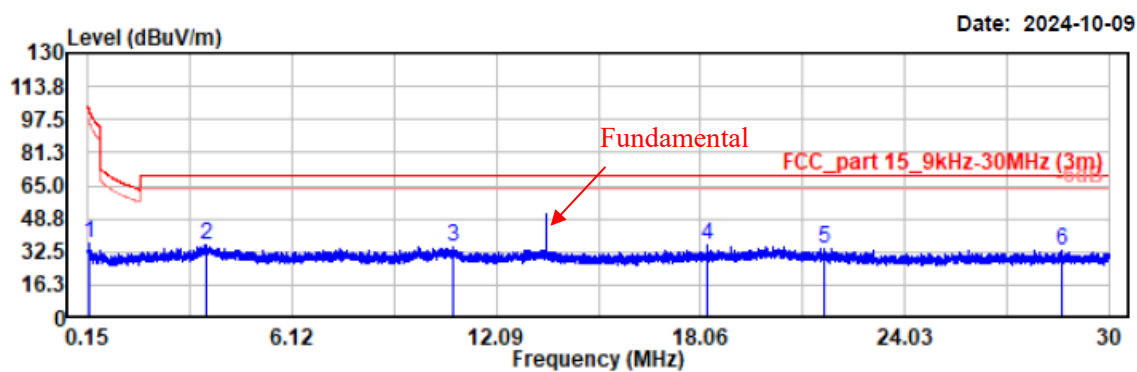
Temp/Humi/ATM: 23.3°C/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.192	22.56	19.72	42.28	101.95	59.67	Peak
3.359	17.13	19.81	36.94	69.54	32.60	Peak
10.711	17.09	19.71	36.80	69.54	32.74	Peak
21.908	16.34	20.14	36.48	69.54	33.06	Peak
24.529	11.71	20.21	31.92	69.54	37.62	Peak
29.376	12.50	19.99	32.49	69.54	37.05	Peak

Project No.: 2407V20721E-RF  
Test Mode: NFC(Ground-parallel)  
EUT Model: NLS-NQuire1000  
Test distance: 3m

Temp/Humi/ATM: 23.3°C/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.183	17.48	19.72	37.20	102.36	65.16	Peak
3.622	16.17	19.80	35.97	69.54	33.57	Peak
10.806	15.48	19.71	35.19	69.54	34.35	Peak
18.251	15.60	19.98	35.58	69.54	33.96	Peak
21.669	14.04	20.13	34.17	69.54	35.37	Peak
28.600	13.30	20.03	33.33	69.54	36.21	Peak



3) 13.11MHz-14.01MHz

EUT Model: NLS-NQuire1500

Project No.: 2407V20721E-RF

Temp/Humi/ATM: 23.3℃/52%/100.4kPa

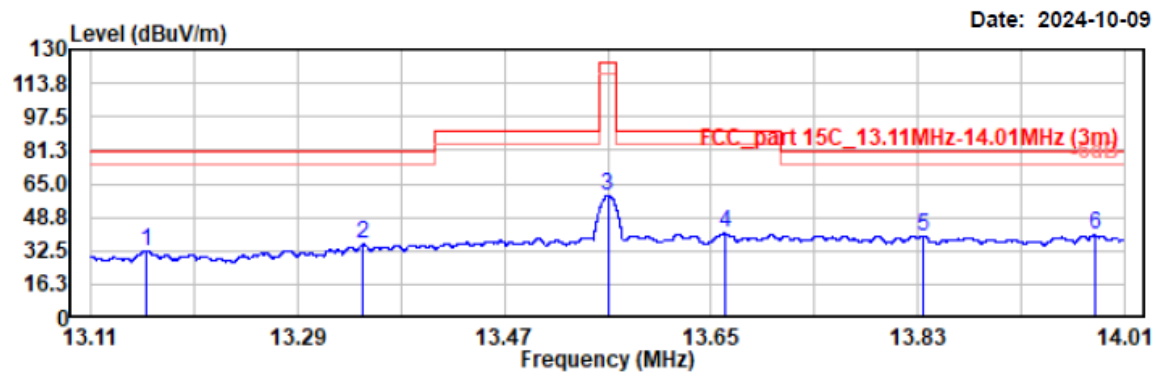
Test Mode: NFC(Parallel)

Tested by: Wlif Wu

EUT Model: NLS-NQuire1500

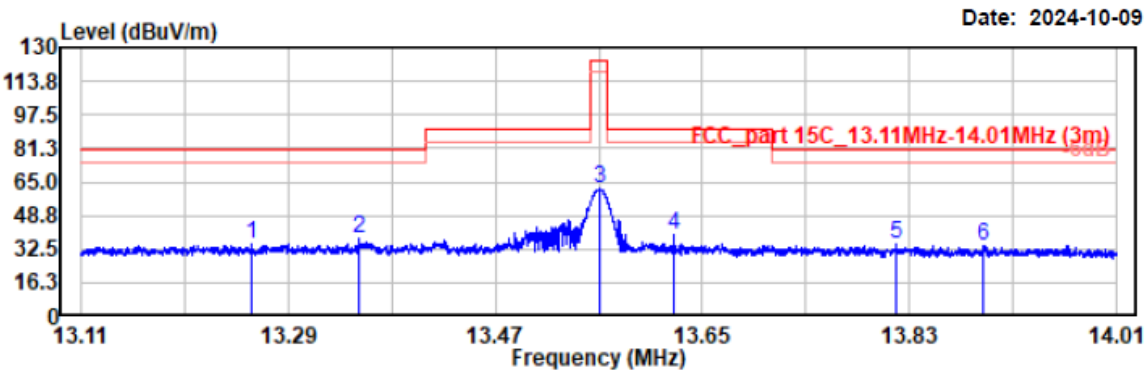
Power Source: AC120V/60Hz

Test distance: 3m



Project No.: 2407V20721E-RF  
Test Mode: NFC(Perpendicular)  
EUT Model: NLS-NQuire1500  
Test distance: 3m

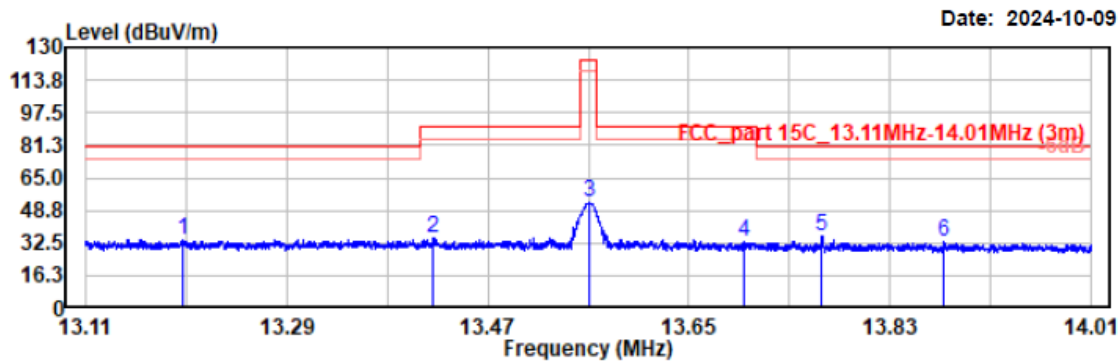
Temp/Humi/ATM: 23.3℃/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
13.258	14.89	19.74	34.63	80.51	45.88	Peak
13.351	17.59	19.74	37.33	80.51	43.18	Peak
13.561	41.72	19.74	61.46	124.00	62.54	Peak
13.625	19.92	19.74	39.66	90.47	50.81	Peak
13.819	14.82	19.75	34.57	80.51	45.94	Peak
13.895	14.50	19.75	34.25	80.51	46.26	Peak

Project No.: 2407V20721E-RF  
Test Mode: NFC(Ground-parallel)  
EUT Model: NLS-NQuire1500  
Test distance: 3m

Temp/Humi/ATM: 23.3℃/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
13.196	14.46	19.74	34.20	80.51	46.31	Peak
13.421	15.19	19.74	34.93	90.47	55.54	Peak
13.560	32.81	19.74	52.55	124.00	71.45	Peak
13.699	13.46	19.74	33.20	90.47	57.27	Peak
13.769	16.14	19.75	35.89	80.51	44.62	Peak
13.879	12.98	19.75	32.73	80.51	47.78	Peak

EUT Model: NLS-NQuire500

Project No.: 2407V20721E-RF

Test Mode: NFC(Parallel)

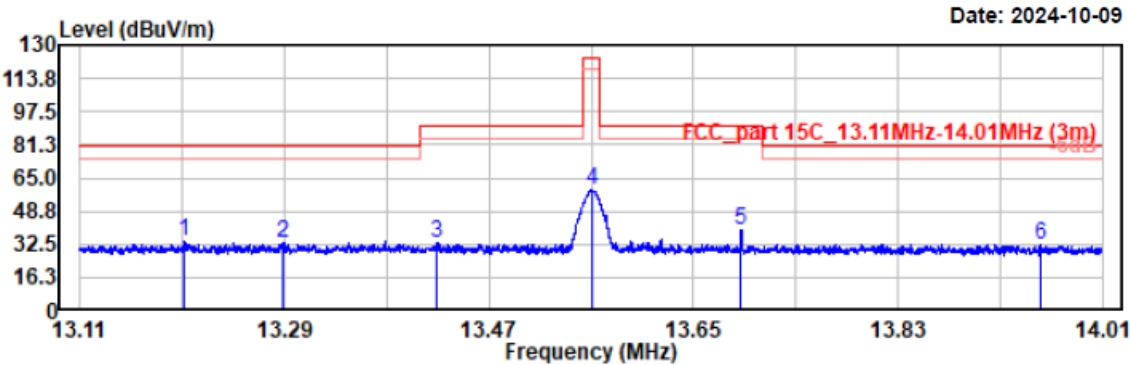
EUT Model: NLS-NQuire500

Test distance: 3m

Temp/Humi/ATM: 23.3°C/52%/100.4kPa

Tested by: Wlif Wu

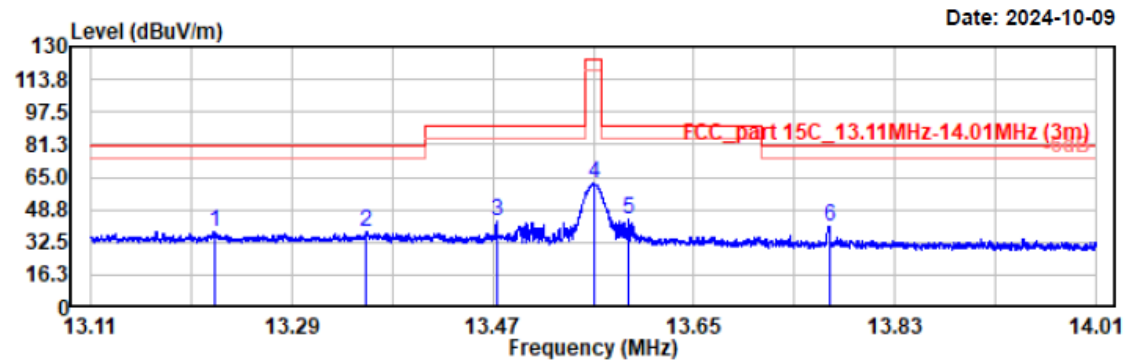
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
13.202	13.90	19.74	33.64	80.51	46.87	Peak
13.289	13.73	19.74	33.47	80.51	47.04	Peak
13.425	13.04	19.74	32.78	90.47	57.69	Peak
13.560	39.00	19.74	58.74	124.00	65.26	Peak
13.692	19.67	19.74	39.41	90.47	51.06	Peak
13.955	12.24	19.75	31.99	80.51	48.52	Peak

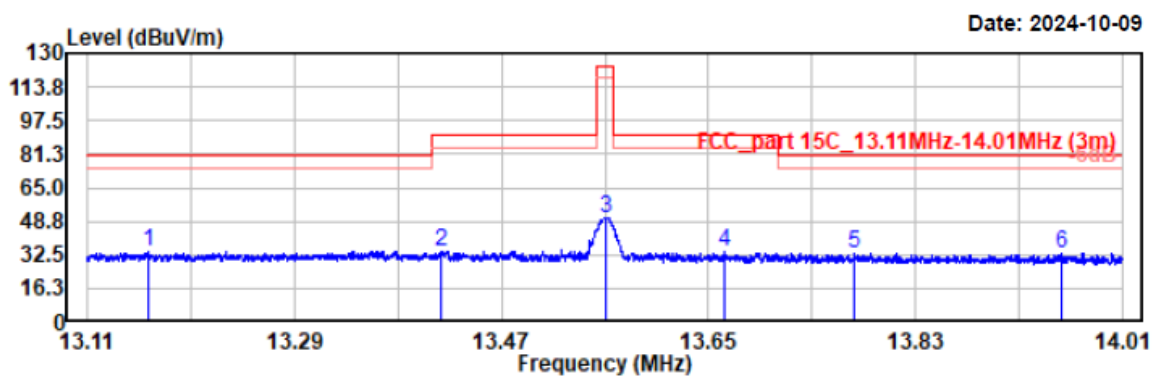
Project No.: 2407V20721E-RF  
Test Mode: NFC(Perpendicular)  
EUT Model: NLS-NQuire500  
Test distance: 3m

Temp/Humi/ATM: 23.3°C/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Project No.: 2407V20721E-RF  
Test Mode: NFC(Ground-parallel)  
EUT Model: NLS-NQuire500  
Test distance: 3m

Temp/Humi/ATM: 23.3°C/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
13.162	14.12	19.74	33.86	80.51	46.65	Peak
13.418	14.75	19.74	34.49	90.47	55.98	Peak
13.561	30.82	19.74	50.56	124.00	73.44	Peak
13.664	14.30	19.74	34.04	90.47	56.43	Peak
13.777	13.74	19.75	33.49	80.51	47.02	Peak
13.957	13.66	19.75	33.41	80.51	47.10	Peak

EUT Model: NLS-NQuire700

Project No.: 2407V20721E-RF

Test Mode: NFC(Parallel)

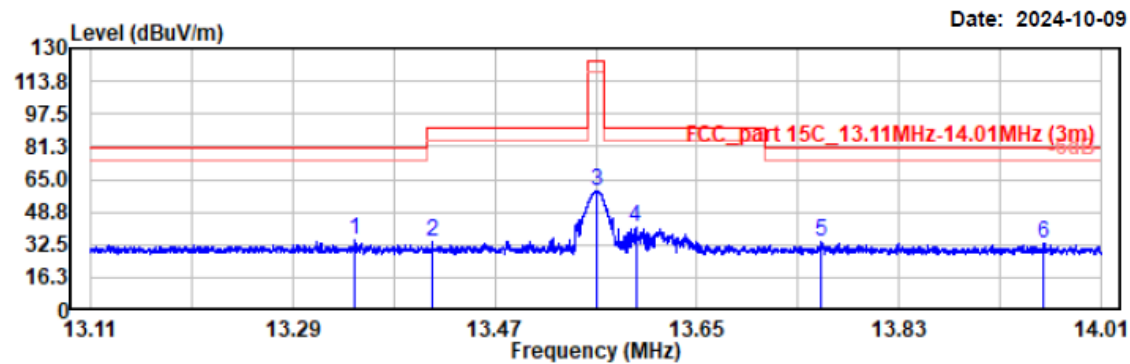
EUT Model: NLS-NQuire700

Test distance: 3m

Temp/Humi/ATM: 23.3°C/52%/100.4kPa

Tested by: Wlif Wu

Power Source: AC120V/60Hz



Project No.: 2407V20721E-RF

Test Mode: NFC(Perpendicular)

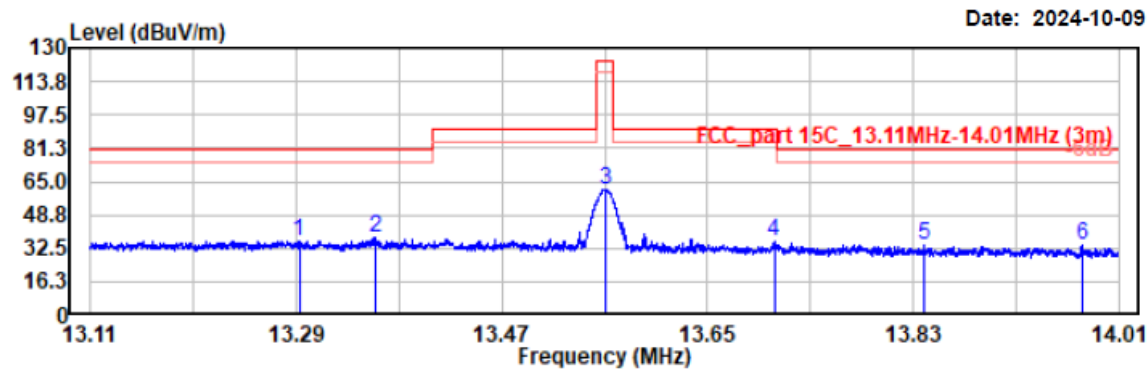
EUT Model: NLS-NQuire700

Test distance: 3m

Temp/Humi/ATM: 23.3°C/52%/100.4kPa

Tested by: Wlif Wu

Power Source: AC120V/60Hz

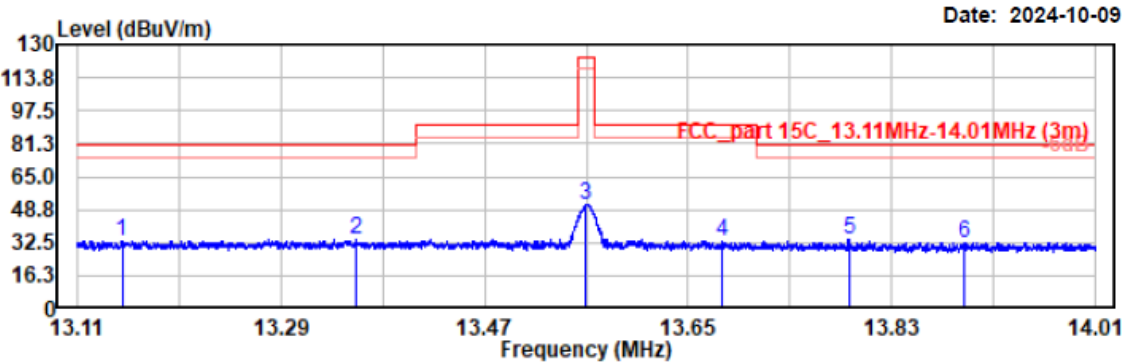


Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
13.293	16.32	19.74	36.06	80.51	44.45	Peak
13.359	17.94	19.74	37.68	80.51	42.83	Peak
13.560	41.59	19.74	61.33	124.00	62.67	Peak
13.708	15.68	19.74	35.42	90.47	55.05	Peak
13.840	14.02	19.75	33.77	80.51	46.74	Peak
13.977	14.18	19.75	33.93	80.51	46.58	Peak



Project No.: 2407V20721E-RF  
Test Mode: NFC(Ground-parallel)  
EUT Model: NLS-NQuire700  
Test distance: 3m

Temp/Humi/ATM: 23.3°C/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
13.149	13.78	19.74	33.52	80.51	46.99	Peak
13.356	14.74	19.74	34.48	80.51	46.03	Peak
13.560	31.07	19.74	50.81	124.00	73.19	Peak
13.680	13.55	19.74	33.29	90.47	57.18	Peak
13.792	14.18	19.75	33.93	80.51	46.58	Peak
13.894	12.92	19.75	32.67	80.51	47.84	Peak

EUT Model: NLS-NQuire1000

Project No.: 2407V20721E-RF

Test Mode: NFC(Parallel)

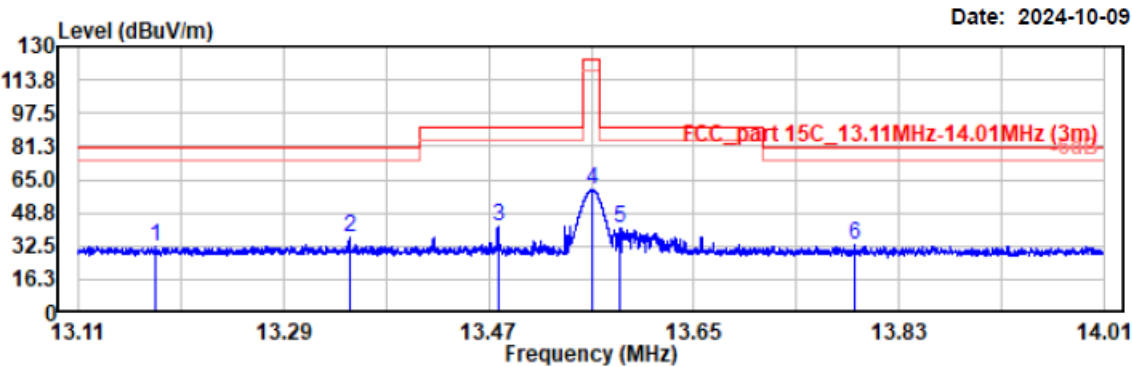
EUT Model:NLS-NQuire1000

Test distance: 3m

Temp/Humi/ATM: 23.3°C/52%/100.4kPa

Tested by: Wlif Wu

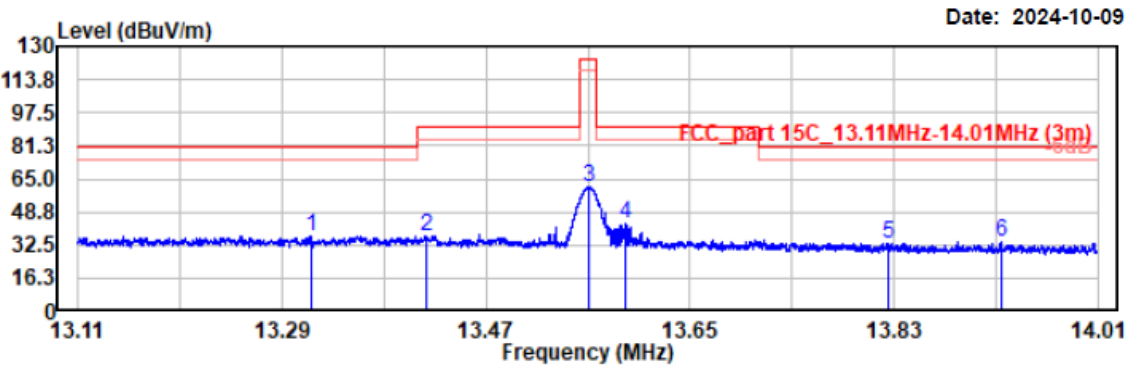
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
13.177	12.27	19.74	32.01	80.51	48.50	Peak
13.348	16.91	19.74	36.65	80.51	43.86	Peak
13.478	22.49	19.74	42.23	90.47	48.24	Peak
13.561	40.37	19.74	60.11	124.00	63.89	Peak
13.586	21.91	19.74	41.65	90.47	48.82	Peak
13.791	13.07	19.75	32.82	80.51	47.69	Peak

Project No.: 2407V20721E-RF  
Test Mode: NFC(Perpendicular)  
EUT Model: NLS-NQuire1000  
Test distance: 3m

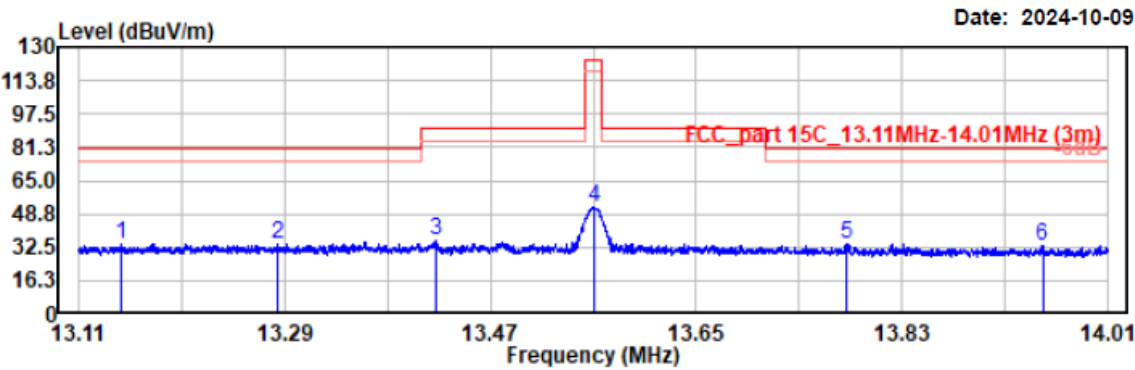
Temp/Humi/ATM: 23.3°C/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
13.315	17.31	19.74	37.05	80.51	43.46	Peak
13.417	17.29	19.74	37.03	90.47	53.44	Peak
13.561	41.50	19.74	61.24	124.00	62.76	Peak
13.593	23.09	19.74	42.83	90.47	47.64	Peak
13.825	13.71	19.75	33.46	80.51	47.05	Peak
13.925	14.77	19.75	34.52	80.51	45.99	Peak

Project No.: 2407V20721E-RF  
Test Mode: NFC(Ground-parallel)  
EUT Model: NLS-NQuire1000  
Test distance: 3m

Temp/Humi/ATM: 23.3°C/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
13.146	14.75	19.74	34.49	80.51	46.02	Peak
13.284	14.71	19.74	34.45	80.51	46.06	Peak
13.422	15.89	19.74	35.63	90.47	54.84	Peak
13.561	32.03	19.74	51.77	124.00	72.23	Peak
13.782	14.25	19.75	34.00	80.51	46.51	Peak
13.953	13.39	19.75	33.14	80.51	47.37	Peak

4) 30MHz-1GHz

EUT Model: NLS-NQuire1500

Project No.: 2407V20721E-RF

Test Mode: NFC Transmitting

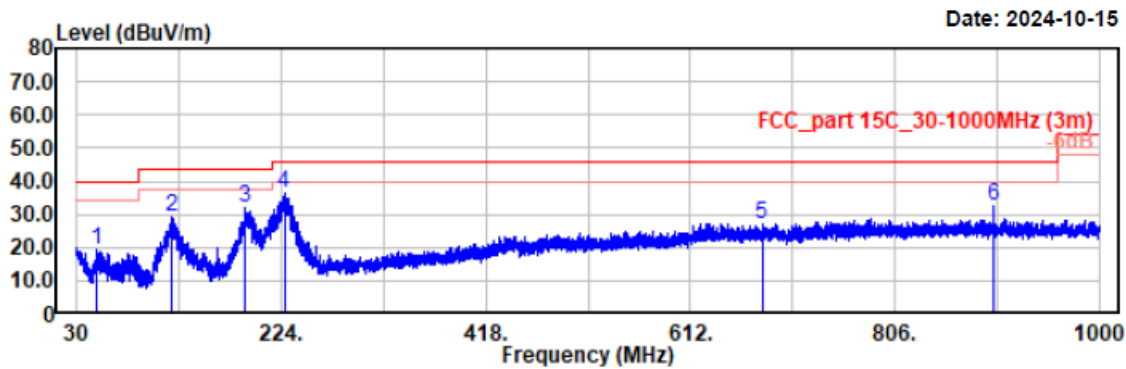
EUT Model: NLS-NQuire1500

Test distance: 3m

Temp/Humi/ATM: 23.3°C/52%/100.1kPa

Tested by: Wlif Wu

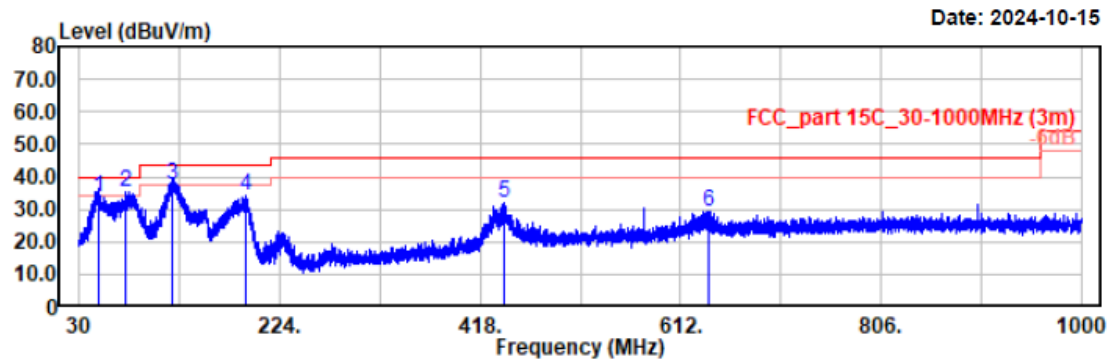
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
49.21	36.33	-17.26	19.07	40.00	20.93	Horizontal	Peak
119.63	39.41	-10.42	28.99	43.50	14.51	Horizontal	Peak
190.15	44.52	-12.27	32.25	43.50	11.25	Horizontal	Peak
226.81	48.70	-12.39	36.31	46.00	9.69	Horizontal	Peak
680.00	27.56	-0.69	26.87	46.00	19.13	Horizontal	Peak
900.09	30.00	2.54	32.54	46.00	13.46	Horizontal	Peak

Project No.: 2407V20721E-RF  
Test Mode: NFC Transmitting  
EUT Model: NLS-NQuire1500  
Test distance: 3m

Temp/Humi/ATM: 23.3°C/52%/100.1kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz

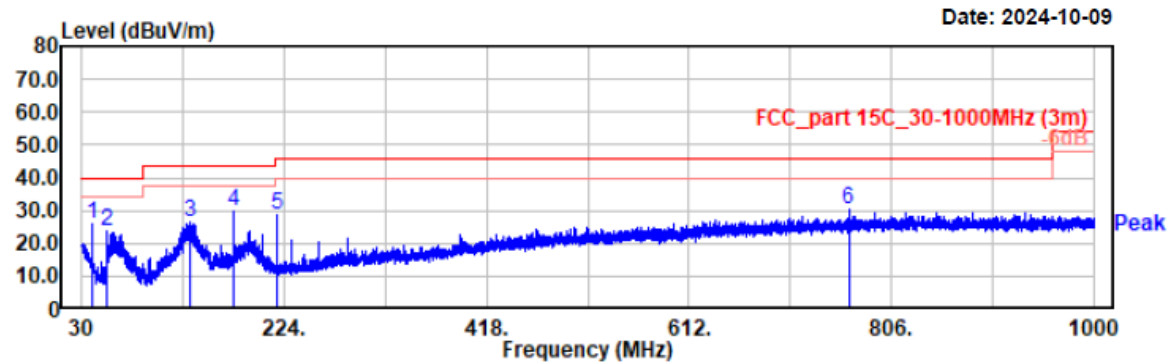


Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
49.18	50.80	-17.26	33.54	40.00	6.46	Vertical	QP
75.40	52.35	-17.12	35.23	40.00	4.77	Vertical	QP
120.74	47.62	-10.30	37.32	43.50	6.18	Vertical	QP
191.02	46.23	-12.18	34.05	43.50	9.45	Vertical	QP
440.99	37.01	-5.04	31.97	46.00	14.03	Vertical	QP
638.77	30.66	-1.17	29.49	46.00	16.51	Vertical	QP

EUT Model: NLS-NQuire500

Project No.: 2407V20721E-RF  
Test Mode: NFC Transmitting  
EUT Model: NLS-NQuire500  
Test distance: 3m

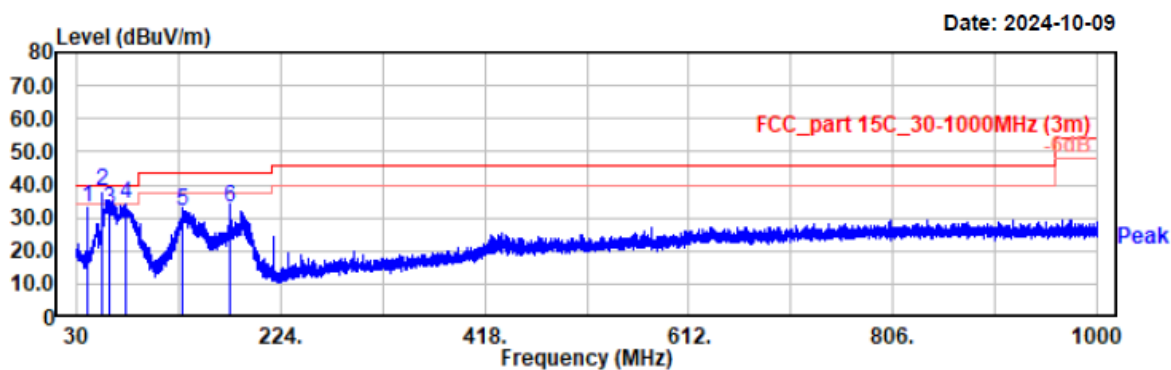
Temp/Humi/ATM: 23.3°C/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBUV	Factor dB/m	Result dBUV/m	Limit dBUV/m	Margin dB	Polarity	Remark
40.67	38.07	-12.12	25.95	40.00	14.05	Horizontal	QP
54.15	41.26	-17.81	23.45	40.00	16.55	Horizontal	QP
134.47	37.03	-10.29	26.74	43.50	16.76	Horizontal	QP
176.28	42.19	-12.13	30.06	43.50	13.44	Horizontal	QP
216.92	41.12	-12.68	28.44	46.00	17.56	Horizontal	QP
765.07	29.47	0.71	30.18	46.00	15.82	Horizontal	QP

Project No.: 2407V20721E-RF  
Test Mode: NFC Transmitting  
EUT Model: NLS-NQuire500  
Test distance: 3m

Temp/Humi/ATM: 23.3°C/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



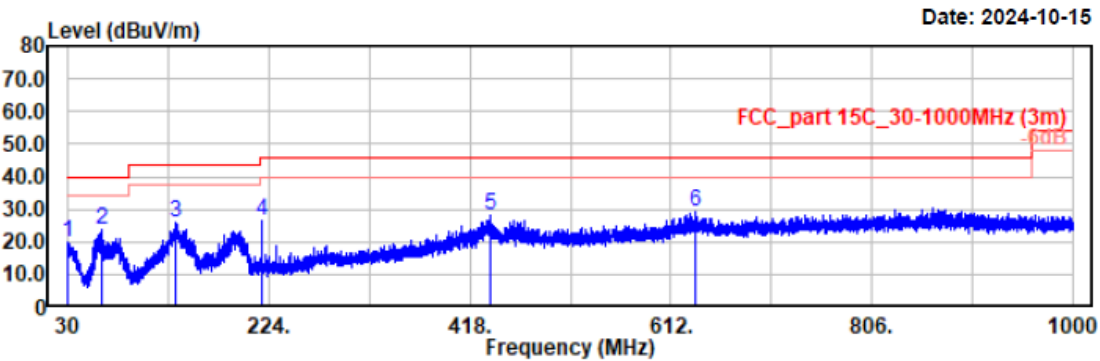
Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
40.67	45.04	-12.12	32.92	40.00	7.08	Vertical	QP
54.25	55.71	-17.81	37.90	40.00	2.10	Vertical	QP
61.05	49.66	-17.37	32.29	40.00	7.71	Vertical	QP
76.95	51.62	-17.15	34.47	40.00	5.53	Vertical	QP
130.78	42.20	-10.18	32.02	43.50	11.48	Vertical	QP
176.28	45.19	-12.13	33.06	43.50	10.44	Vertical	QP



EUT Model: NLS-NQuire700

Project No.: 2407V20721E-RF  
Test Mode: NFC Transmitting  
EUT Model: NLS-NQuire700  
Test distance: 3m

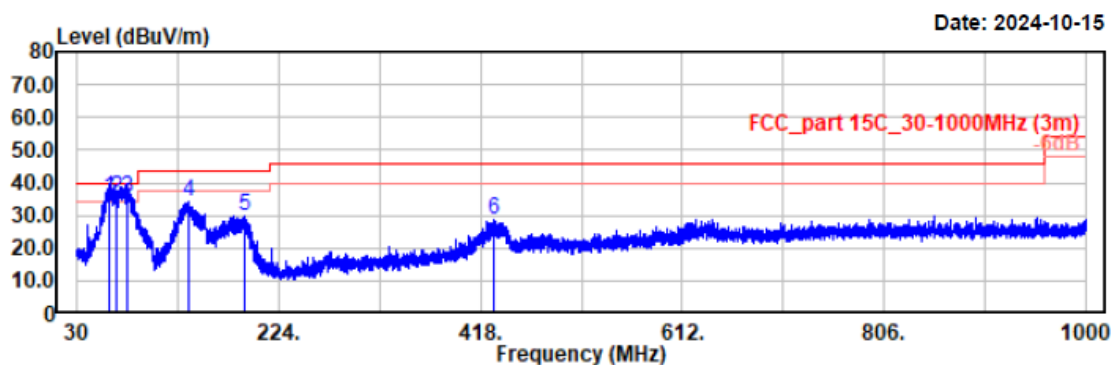
Temp/Humi/ATM: 23.3°C/52%/100.1kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
30.10	25.33	-5.63	19.70	40.00	20.30	Horizontal	Peak
62.40	41.37	-17.42	23.95	40.00	16.05	Horizontal	Peak
134.08	36.38	-10.25	26.13	43.50	17.37	Horizontal	Peak
216.92	39.26	-12.68	26.58	46.00	19.42	Horizontal	Peak
437.30	33.34	-5.18	28.16	46.00	17.84	Horizontal	Peak
635.96	30.48	-1.23	29.25	46.00	16.75	Horizontal	Peak

Project No.: 2407V20721E-RF  
Test Mode: NFC Transmitting  
EUT Model: NLS-NQuire700  
Test distance: 3m

Temp/Humi/ATM: 23.3°C/52%/100.1kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz

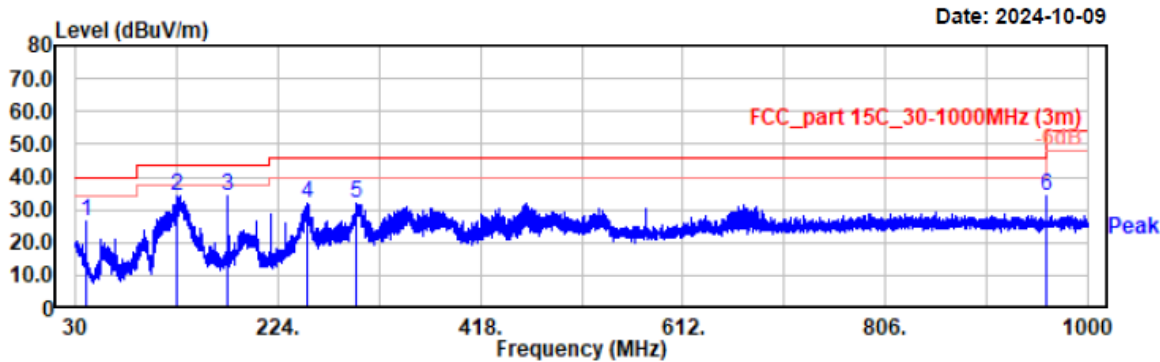


Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
61.81	52.54	-17.44	35.10	40.00	4.90	Vertical	QP
67.43	52.38	-17.11	35.27	40.00	4.73	Vertical	QP
77.69	52.37	-17.12	35.25	40.00	4.75	Vertical	QP
136.60	44.40	-10.39	34.01	43.50	9.49	Vertical	QP
190.63	41.82	-12.22	29.60	43.50	13.90	Vertical	QP
431.29	34.27	-5.36	28.91	46.00	17.09	Vertical	QP

EUT Model: NLS-NQuire1000

Project No.: 2407V20721E-RF  
Test Mode: NFC Transmitting  
EUT Model: NLS-NQuire1000  
Test distance: 3m

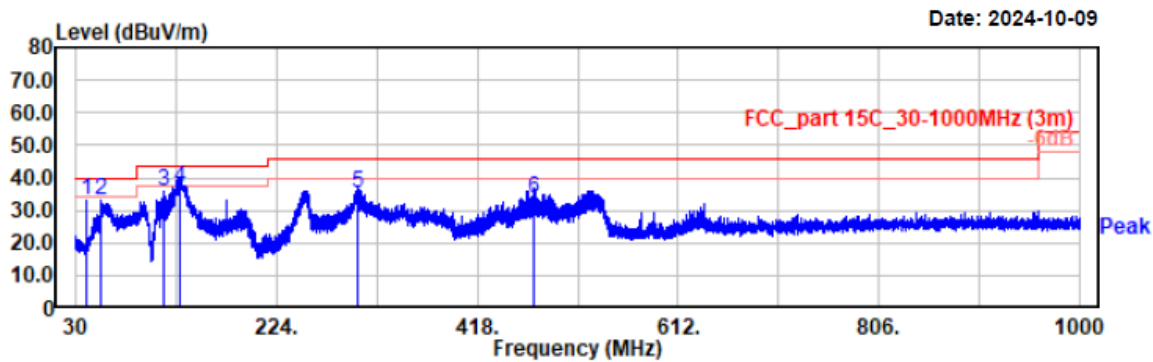
Temp/Humi/ATM: 23.3°C/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
40.67	38.79	-12.12	26.67	40.00	13.33	Horizontal	QP
127.58	44.07	-9.96	34.11	43.50	9.39	Horizontal	QP
176.28	46.38	-12.13	34.25	43.50	9.25	Horizontal	QP
251.84	43.41	-11.40	32.01	46.00	13.99	Horizontal	QP
298.11	41.40	-9.22	32.18	46.00	13.82	Horizontal	QP
960.04	30.59	3.38	33.97	54.00	20.03	Horizontal	QP

Project No.: 2407V20721E-RF  
Test Mode: NFC Transmitting  
EUT Model: NLS-NQuire1000  
Test distance: 3m

Temp/Humi/ATM: 23.3°C/52%/100.4kPa  
Tested by: Wlif Wu  
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
40.67	45.03	-12.12	32.91	40.00	7.09	Vertical	QP
54.15	50.65	-17.81	32.84	40.00	7.16	Vertical	QP
115.17	46.58	-10.88	35.70	43.50	7.80	Vertical	QP
130.42	47.11	-10.14	36.97	43.50	6.53	Vertical	QP
302.38	44.23	-9.16	35.07	46.00	10.93	Vertical	QP
473.00	38.02	-4.12	33.90	46.00	12.10	Vertical	QP

## **FCC§15.225(e) - FREQUENCY STABILITY**

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### **Applicable Standard**

The frequency tolerance of the carrier signal shall be maintained within  $\pm 0.01\%$  of the operating frequency over a temperature variation of  $-20$  degrees to  $+50$  degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

### **Test Procedure**

a) Supply the EUT with a nominal ac voltage or install a new or fully charged battery in the EUT. If possible, a dummy load shall be connected to the EUT because an antenna near the metallic walls of an environmental test chamber could affect the output frequency of the EUT. If the EUT is equipped with a permanently attached, adjustable-length antenna, then the EUT shall be placed in the center of the chamber with the antenna adjusted to the shortest length possible.

Turn ON the EUT and tune it to one of the number of frequencies shown in 5.6.

b) Couple the unlicensed wireless device output to the measuring instrument by connecting an antenna to the measuring instrument with a suitable length of coaxial cable and placing the measuring antenna near the EUT (e.g., 15 cm away), or by connecting a dummy load to the measuring instrument, through an attenuator if necessary.

NOTE—An instrument that has an adequate level of accuracy as specified by the procuring or regulatory agency is the recommended measuring instrument.

c) Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument but is strong enough to allow measurement of the operating or fundamental frequency of the EUT).

d) Turn the EUT OFF and place it inside the environmental temperature chamber. For devices that have oscillator heaters, energize only the heater circuit.

e) Set the temperature control on the chamber to the highest specified in the regulatory requirements for the type of device and allow the oscillator heater and the chamber temperature to stabilize.

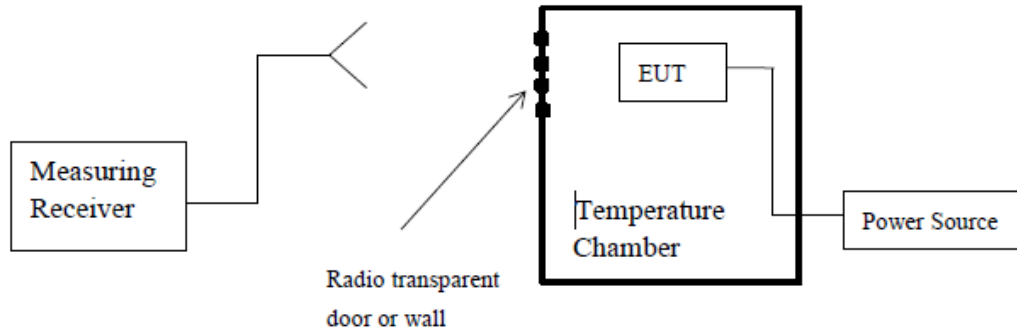
f) While maintaining a constant temperature inside the environmental chamber, turn the EUT ON and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized. Four measurements in total are made.

g) Measure the frequency at each of frequencies specified in 5.6.

h) Switch OFF the EUT but do not switch OFF the oscillator heater.

i) Lower the chamber temperature by not more than  $10^{\circ}\text{C}$ , and allow the temperature inside the chamber to stabilize.

j) Repeat step f) through step i) down to the lowest specified temperature.

**Test Setup Block diagram****Test Data**

<b>Test Mode:</b>	Transmitting	<b>Test Engineer:</b>	Wlif Wu
<b>Test Date:</b>	2024-10-09	<b>Environment:</b>	Temp.: 23.3°C Humi.: 52% Atm:100.4kPa

**Test Result:** Compliant**EUT Model:** NLS-NQuire1500

$F_0 = 13.56\text{MHz}$				
Power Supply( $V_{ac}$ )	Temperature ( $^{\circ}\text{C}$ )	Measured Frequency (MHz)	Frequency Error (%)	Part 15.225 Limit(%)
120	-20	13.560374	0.0028	0.01
	-10	13.559891	-0.0008	0.01
	0	13.560094	0.0007	0.01
	10	13.560115	0.0008	0.01
	20	13.560507	0.0037	0.01
	30	13.560783	0.0058	0.01
	40	13.560827	0.0061	0.01
	50	13.560805	0.0059	0.01
102	20	13.560323	0.0024	0.01
138	20	13.560790	0.0058	0.01

**EUT Model: NLS-NQuire500**

<b>F<sub>0</sub>=13.56MHz</b>				
<b>Power Supply(V<sub>ac</sub>)</b>	<b>Temperature (°C)</b>	<b>Measured Frequency (MHz)</b>	<b>Frequency Error (%)</b>	<b>Part 15.225 Limit(%)</b>
120	-20	13.559917	-0.0006	0.01
	-10	13.560376	0.0028	0.01
	0	13.560015	0.0001	0.01
	10	13.559959	-0.0003	0.01
	20	13.560434	0.0032	0.01
	30	13.560879	0.0065	0.01
	40	13.560517	0.0038	0.01
	50	13.560556	0.0041	0.01
102	20	13.560309	0.0023	0.01
138	20	13.560619	0.0046	0.01

**EUT Model: NLS-NQuire700**

<b>F<sub>0</sub>=13.56MHz</b>				
<b>Power Supply(V<sub>ac</sub>)</b>	<b>Temperature (°C)</b>	<b>Measured Frequency (MHz)</b>	<b>Frequency Error (%)</b>	<b>Part 15.225 Limit(%)</b>
120	-20	13.560297	0.0022	0.01
	-10	13.560305	0.0023	0.01
	0	13.560445	0.0033	0.01
	10	13.560053	0.0004	0.01
	20	13.560478	0.0035	0.01
	30	13.560755	0.0056	0.01
	40	13.561012	0.0075	0.01
	50	13.560800	0.0059	0.01
102	20	13.560427	0.0031	0.01
138	20	13.560953	0.0070	0.01

**EUT Model: NLS-NQuire1000**

<b>F<sub>0</sub>=13.56MHz</b>				
<b>Power Supply(V<sub>ac</sub>)</b>	<b>Temperature (°C)</b>	<b>Measured Frequency (MHz)</b>	<b>Frequency Error (%)</b>	<b>Part 15.225 Limit(%)</b>
120	-20	13.560309	0.0023	0.01
	-10	13.560198	0.0015	0.01
	0	13.560078	0.0006	0.01
	10	13.559950	-0.0004	0.01
	20	13.560434	0.0032	0.01
	30	13.560541	0.0040	0.01
	40	13.560507	0.0037	0.01
	50	13.560504	0.0037	0.01
102	20	13.560385	0.0028	0.01
138	20	13.560765	0.0056	0.01



## §15.215(c) - 20dB EMISSION BANDWIDTH TESTING

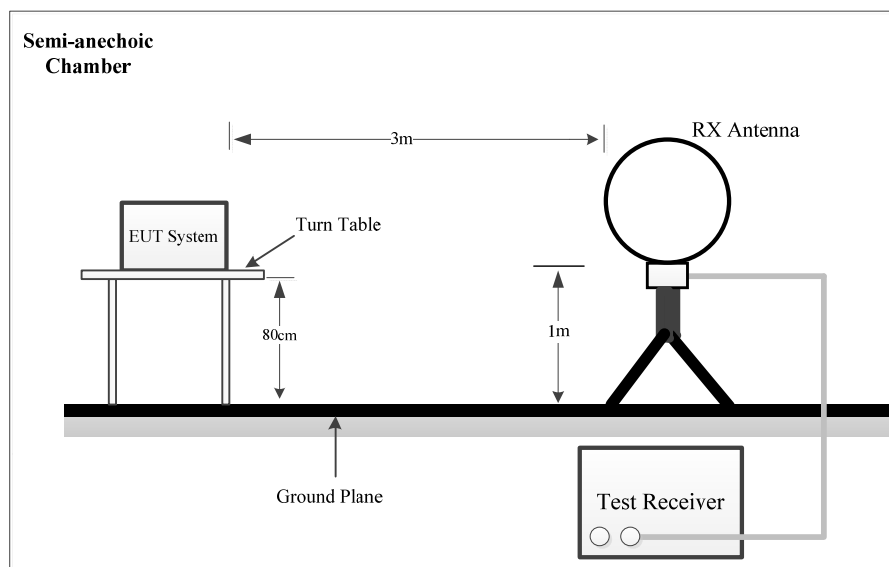
### Requirement

Per 15.215 (c) Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

### Test Procedure

1. Position the EUT on the test table without connection to measurement instrument. Turn on the EUT. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
2. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.

### Test Setup Block diagram



Test Data

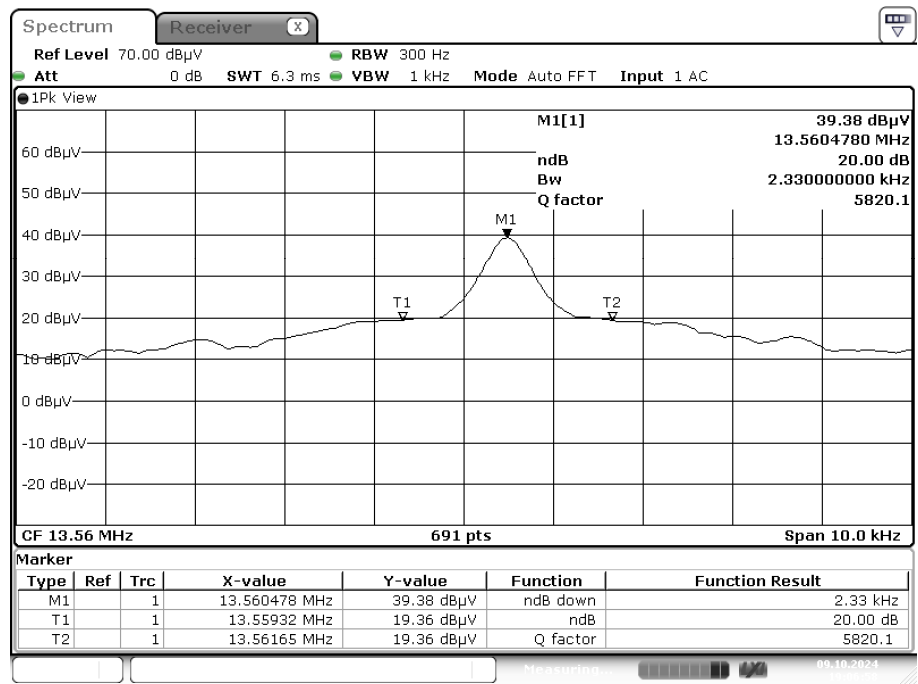
Test Mode:	Transmitting	Test Engineer:	Wlif Wu
Test Date:	2024-10-09	Environment:	Temp.: 23.3°C Humi.: 52% Atm:100.4kPa

Test Result: Compliant

EUT Model	Frequency (MHz)	20 dB Bandwidth (kHz)
NLS-NQuire500	13.56	2.33
NLS-NQuire700	13.56	2.359
NLS-NQuire1000	13.56	2.084
NLS-NQuire1500	13.56	2.142

NLS-NQuire500

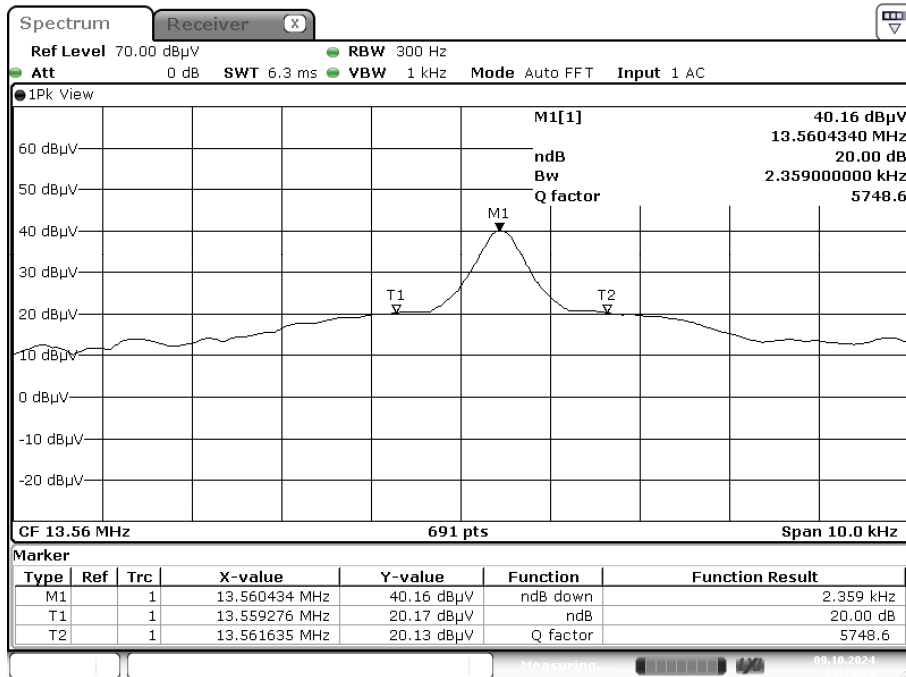
20 dB Emission Bandwidth-13.56MHz



ProjectNo.:2407V20721E-RF Testers:Wlif Wu  
Date: 9.OCT.2024 19:06:58

## NLS-NQuire700

## 20 dB Emission Bandwidth-13.56MHz

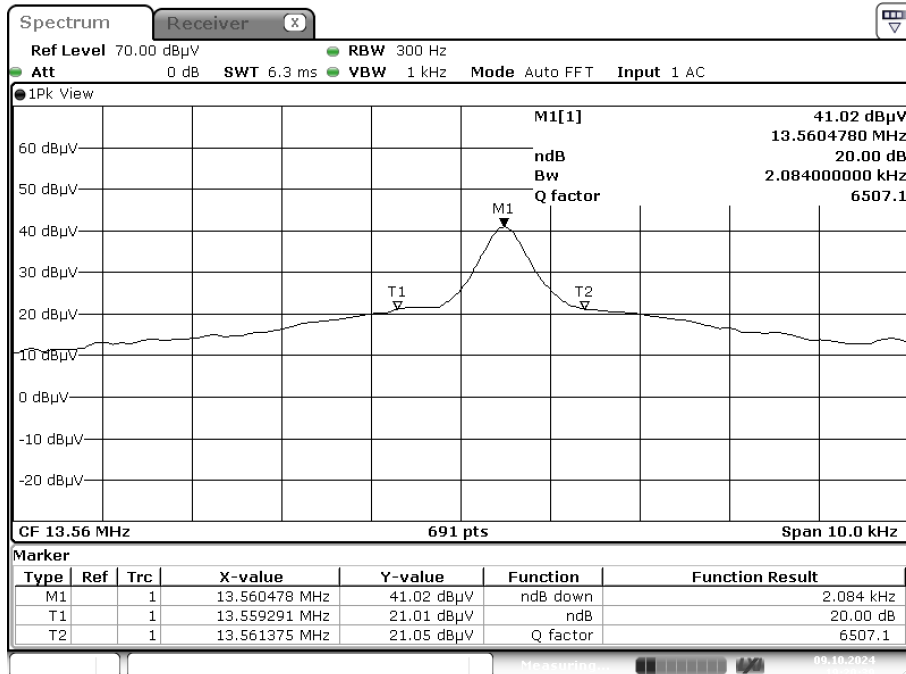


ProjectNo.:2407V20721E-RF Testers:Wlif Wu

Date: 9.OCT.2024 19:11:26

## NLS-NQuire1000

## 20 dB Emission Bandwidth-13.56MHz

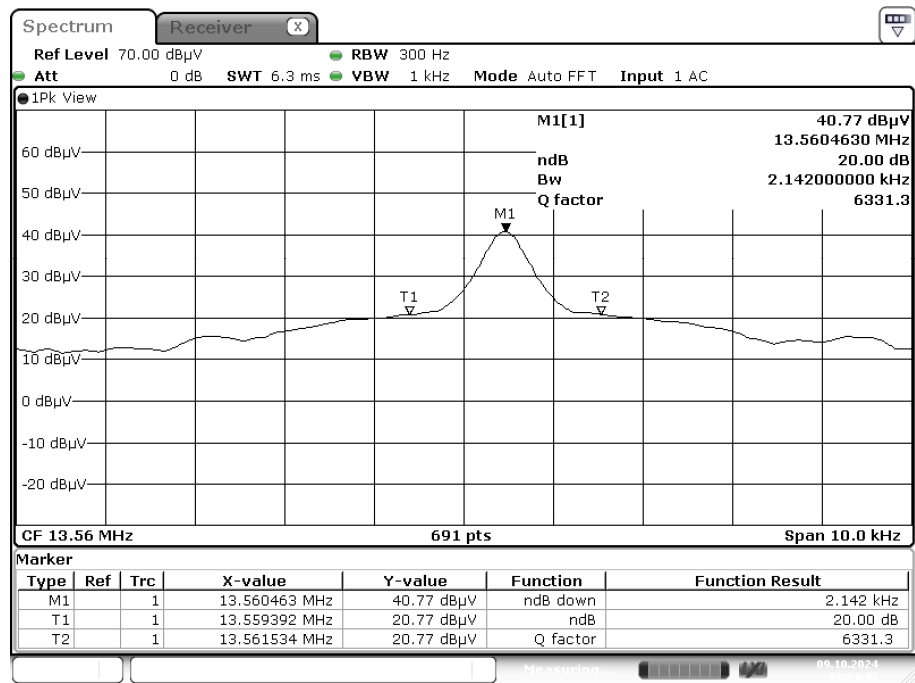


ProjectNo.:2407V20721E-RF Testers:Wlif Wu

Date: 9.OCT.2024 19:20:40

NLS-NQuire1500

20 dB Emission Bandwidth-13.56MHz



ProjectNo.:2407V20721E-RF Testers:Wlif Wu  
Date: 9.OCT.2024 19:24:46

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## **EUT PHOTOGRAPHS**

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Please refer to the attachment 2407V20721E-RF-EXP\_EUT EXTERNAL PHOTOGRAPHS and 2407V20721E-RF-INP\_EUT INTERNAL PHOTOGRAPHS.

## **TEST SETUP PHOTOGRAPHS**

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Please refer to the attachment 2407V20721E-RF-TSP-03 TEST SETUP PHOTOGRAPHS.

### **Declarations**

1. Bay Area Compliance Laboratories Corp. (Xiamen) is not responsible for authenticity of any information provided by the applicant. Information from the applicant that may affect test results are marked with an asterisk “★”.
2. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested.
3. Unless required by the rule provided by the applicant or product regulations, then decision rule in this report did not consider the uncertainty.
4. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor  $k=2$  with the 95% confidence interval.
5. This report cannot be reproduced except in full, without prior written approval of Bay Area Compliance Laboratories Corp. (Xiamen).
6. This report is valid only with a valid digital signature. The digital signature may be available only under the adobe software above version 7.0.

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