

Test Report

Report No...... : **ATA0126090451**
FCC ID..... : **2BYGU-01**
Applicant..... : **CHANGCHUNSHIXINSUOSHANGMAOYOUXIANGOGNSI**
Address..... : R701 B25 Jijiawo Shantytown Ph2A, 1 Huayuan Ring Rd, E Beikaixuan, Kuancheng, Changchun, Jilin, CN
Manufacturer..... : **CHANGCHUNSHIXINSUOSHANGMAOYOUXIANGOGNSI**
Address..... : R701 B25 Jijiawo Shantytown Ph2A, 1 Huayuan Ring Rd, E Beikaixuan, Kuancheng, Changchun, Jilin, CN
Product Name..... : **RFID Reader Writer**
Trademark..... : N/A
Test Model..... : 01
Standard..... : **FCC CFR TITLE 47 PART 15 SUBPART C**
Test Procedure..... : **ANSI C63.10-2020 + Cor.1-2023**
Date Of Receipt..... : Sep. 19, 2026
Date Of Test Date..... : Sep. 19, 2026~Sep. 22, 2026
Date Of Issue..... : Sep. 22, 2026
Test Result..... : **Pass**

Compiled By:

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Lily Zheng

Supervised By:

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Approved By:

(Printed Name+Signature)

Jason Chen



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Testing Laboratory Name..... : **Shenzhen ATA Testing Lab. Inc**

Address..... : 4th Floor, Building 10, No.60 Nanchang Road, Nanchang Community, Xixiang Street, Bao'an District, Shenzhen City, China

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1. Test Summary

1.1. Test Standards

The Tests Were Performed According To The Following Standards:

FCC Rules Part 15.209: Radiated Emission Limits; General Requirements.

ANSI C63.10-2020 + Cor.1-2023: American National Standard For Testing Unlicensed Wireless Devices.

1.2. Report Version

Revised No.	Date of Issue	Description
01	Sep. 22, 2026	Original

1.3. Test Description

FCC Part 15 Subpart C(15.209)			
Test Item	Standard Section	Result	Remark
	FCC		
Antenna Requirement	15.203	Pass	
Conducted Emission	15.207	N/A	
Radiated Emission	15.209	Pass	
20 dB Bandwidth	2.1049	Pass	

Note:(1) "N/A" Denotes Test Is Not Applicable To This Device.

1.4. Test Facility

Test Site:	Shenzhen ATA Testing Lab. Inc
Test Site Location:	4th Floor, Building 10, No.60 Nanchang Road, Nanchang Community, Xixiang Street, Bao'an District, Shenzhen City, China
Telephone:	+86 0755-2783-0095
Fax:	+86 0755-2783-0095
The Test Facility Is Recognized, Certified, Or Accredited By These Organizations:	A2LA Accreditation Lab Certificate Number: 839205
	FCC Accreditation Lab Designation Number: CN1455
	ISED Accreditation Lab Designation Number: CN0201
	CNAS Certificate Registration Number is L25904.

1.5.Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01" Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the Shenzhen ATA Testing Lab. Inc. system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device. Below is the best measurement capability for Shenzhen ATA Testing Lab. Inc.

Test Items	Measurement Uncertainty	U(K=2)
Radiated Emissions 9 KHz-30 MHz	± 2.70 dB	1.96
Radiated Emissions 30 MHz ~1000 MHz	± 5.43 dB	1.96
Radiated Emissions 1 GHz ~18 GHz	± 3.88 dB	1.96
Radiated Emissions 18 GHz ~40 GHz	± 5.32 dB	1.96
Conducted Emissions 9 KHz~150 KHz	± 3.90 dB	1.96
Conducted Emissions 150 KHz~30 MHz	± 3.52 dB	1.96
Conducted Spurious Emissions	± 1.60 dB	1.96
RF Output Power Conducted	± 0.58 dB	1.96
Power Spectral Density Conducted	± 1.52 dB	1.96
Occupied Bandwidth	± 0.463 %	1.96
Humidity uncertainty	± 2.0 %RH	1.96
Temperature uncertainty	$\pm 0.6^{\circ}\text{C}$	1.96
Barometric pressure uncertainty	0.5 hPa	1.96

Note (1): This Uncertainty Represents An Expanded Uncertainty Expressed At Approximately The 95 % Confidence Level Using A Coverage Factor Of K=1.96.

1.6.Environmental Conditions

During The Measurement The Environmental Conditions Were Within The Listed Ranges:

Temperature:	15~35°C
Relative Humidity:	30~60 %
Air Pressure:	950~1050 hpa

2.General Information

2.1.General Description Of EUT

Product Name:	RFID Reader Writer
Trademark:	N/A
Test Model:	01
Series Model(S):	N/A
Model Difference:	N/A
Power Source:	Battery
Adapter:	N/A
Battery:	DC 3 V
Hardware Version:	N/A
Software Version:	N/A
Modulation Type:	ASK
Operation Frequency:	125 KHz
Channel Number:	1
Antenna Type:	Coil Antenna
Antenna Gain:	Near-field magnetic coil, N/A for dBi value.
Note: (1)All Antenna Information is Provided By The Manufacturer, Test Laboratory Will Not Be Responsible If Any Error. (2) The Product Specifications of The EUT Presented In The Test Report That May Affect The Test Assessments Are Declared By The Manufacturer Who Shall Take Full Responsibility For The Authenticity. (3) "N/A" indicates that the item is not applicable.	

2.2. Description Of The Test Modes

Operating Frequency List: The Device Under Test Was Tested Under Typical Operating Conditions. The Applicant Provided A Fixed-Frequency Prototype To Control The Device Under Test To Maintain Continuous Transmission And Reception Mode For Testing. The Device Under Test Is Provided For Testing, Operating Frequency List:

Channel	Frequency (MHz)
1	0.125

Following Channel(S) Was (Were) Selected For The Test As Listed Below.

Tested Channel	Tested Frequency
Channel	0.125(MHz)

2.3. Block Diagram of the Test Configuration

Radiated Spurious Emission Test



Ac Conducted Emission Test

N/A

RF Conducted Test



2.4. Description Of Necessary Accessories And Support Units

The EUT has been tested as an independent unit together with other necessary accessories or Support units. The following support units or accessories were used to form a representative test Configuration during the tests.

Item	Equipment	Mfr/Brand	Mode/Type	Note

Item	Equipment	Mfr/Brand	Length	Note

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (3) “YES” means “shielded” “with core”; “NO” means “unshielded” “without core”.

2.5.Measurement Instruments List

Radiation Emission							
Item	Equipment No.	Equipment Name	Manufacturer	Model	Serial No.	Calibration Date	Due Date
1	ATA-E-001	966 Chamber	CRT	9*6*6m	Crtndcr966	2025-03-21	2028-03-20
2	ATA-E-011	Ac Power Source	Xinouhua	APW-1300 N	202504292663	2026-05-07	2027-05-06
3	ATA-E-013	Dc Power Source	Xinouhua	ADC250-3 2D	202504292667	2026-05-07	2027-05-06
4	ATA-E-033	Receiver	R&S	ESPI7	100092	2026-05-07	2027-05-06
5	ATA-E-034	Broadband Antenna	Schwarzbeck	VULB9168	01839	2026-07-17	2027-07-17
6	ATA-E-035	High Frequency Horn Antenna	Schwarzbeck	BBHA 9120D	03169	2026-07-17	2027-07-17
7	ATA-E-038	Cable	Times	0-18GHZ	/	2026-05-07	2027-05-06
8	ATA-E-040	6 dB Attenuator	Zhengchang Liubo	6DB	/	2026-05-07	2027-05-06
9	ATA-E-039	Cable	Times	0-1GHZ	/	2026-05-07	2027-05-06
10	ATA-E-041	Preamplifier	Com Mv	DLNA8-1-1 8G-2705	10241234	2026-05-07	2027-05-06
11	ATA-E-042	Preamplifier	Com Mv	DLNA8-0.0 09-1000-1 034	5252881	2026-05-07	2027-05-06
12	ATA-E-044	Filter	Mwrfest	ZHPF6-C3 000-18000 -3129	08252098	2026-05-07	2027-05-06
13	ATA-E-045	Filter	Mwrfest	ZHPF6-C6 500-18000 -175	08252097	2026-05-07	2027-05-06
14	ATA-E-046	Filter	Mwrfest	ZBSF6-C2 400-2483.5 -543	08252096	2026-05-07	2027-05-06
15	ATA-E-047	Filter	Mwrfest	ZBSF6-C5 100-5900-5713	08252095	2026-05-07	2027-05-06
16	ATA-E-051	Spectrum Analyzer	R&S	FSV40-N	101779	2026-05-07	2027-05-06
17	ATA-E-052	Cable	Helplight	2.92J/2.92 J 10M	/	2026-01-19	2027-01-18
18	ATA-E-054	Cable	Helplight	2.92J/2.92 J 0.8M	/	2026-01-19	2027-01-18
19	ATA-E-059	Antenna Tower	CRT	AT-1	/	/	/
20	ATA-E-005	Temperature And Humidity Meter	Deli	LE502-WH	/	2026-05-07	2027-05-06
21	ATA-E-064	Barometer	Qingping	CGP23W	/	2026-01-28	2027-01-27
22	ATA-E-048	Loop Antenna	Zhina	ZN30900C	21104ccuts e019	2026-05-07	2027-05-06
23	ATA-E-049	Horn Antenna	Echo Microwave.,Ltd.	OBH10040 0	12221225	2026-05-07	2027-05-06

Conduction Emission							
Item	Equipment No.	Equipment Name	Manufacturer	Model	Serial No.	Calibration Date	Due Date
1	ATA-E-032	Emi Test Receiver	Schwarzbeck	ESC13	1009300	2026-05-07	2027-05-06
2	ATA-E-037	Pulse Limiter	Schwarzbeck	VTSD 9561 F-N	/	2026-05-07	2027-05-06
3	ATA-E-069	Conductive Test Cable	Schwarzbeck	2.5M	N/A	2026-01-28	2027-01-27
4	ATA-E-036	Artificial Mains Network	Schwarzbeck	NSLK 8127	01169	2026-05-07	2027-05-06
5	ATA-E-072	Three-Line V-Network	Zhinan	2N33770A	13003	2026-01-26	2027-01-27
6	ATA-E-009	Temperature And Humidity Meter	Deli	LE502-WH	/	2026-05-07	2027-05-06
7	ATA-E-010	Barometer	Qingping	CGP23W	/	2026-05-07	2027-05-06

Rf Conducted Test							
Item	Equipment No.	Equipment Name	Manufacturer	Model	Serial No.	Calibration Date	Due Date
	ATA-E-029	Spectrum Analyzer	Keysight	N9020A	My50530404	2026-05-07	2027-05-06
1	ATA-E-030	Mxg Analog Signal Generator	Agilent	N5181A	My47420598	2026-05-07	2027-05-06
2	ATA-E-031	Wideband Radio Communication Tester	R&S	CMW500	161163	2026-05-07	2027-05-06
3	ATA-E-043	Radio Control Unit	Mwrfest	MW100-RFCB	Mw250428at a-55	2026-05-07	2027-05-06

Note:

1) The Cal. Interval Was One Year.

2) The Cable Loss Has Calculated In Test Result Which Connection Between Each Test Instruments.

2.6.Test Software

Software Name	Model	Version
Conducted Emission Measurement Software	EZ-EMC	Farad-3a1.1+
Radiated Emission Measurement Software	EZ-EMC	Farad-3a1.1+
Bluetooth And Wifi Test System	MWRF8310	2.0.0.0

3.Test Item And Results

3.1.Antenna Requirement

Requirement

FCC CFR Title 47 Part 15 Subpart C Section 15.203:

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, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Antenna Information

The EUT antenna is permanent attached coil antenna.
It complies with the standard requirements.

3.2. Conducted Emission

Limit

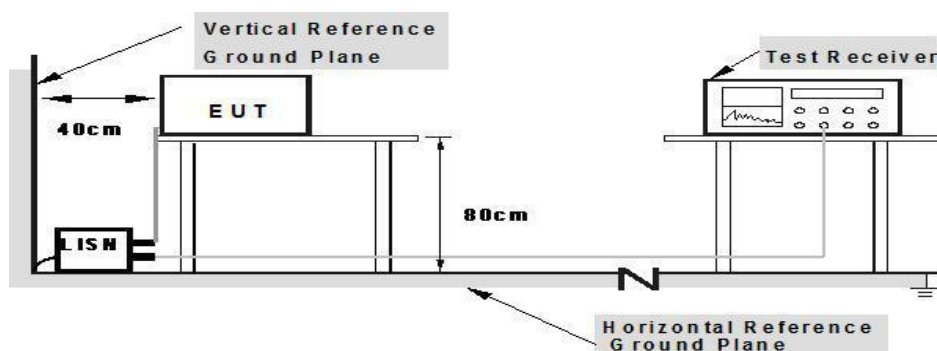
Conducted Emission Test Limit

Frequency	Maximum RF Line Voltage (dB μ V)	
	Quasi-Peak Level	Average Level
150 KHz~500 KHz	66 ~ 56 *	56 ~ 46 *
500 KHz~5 MHz	56	46
5 MHz~30 MHz	60	50

Notes:

- (1) *decreasing linearly with logarithm of the frequency.
- (2) The lower limit shall apply at the transition frequencies.
- (3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 mhz to 0.50 mhz.

Test Configuration



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

Test Procedure

1. The EUT was setup according to ANSI C63.10-2020 + Cor.1-2023 requirements.
2. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 0.8m above the conducting ground plane. The vertical conducting plane was located 80 cm to the rear of the EUT. All other surfaces of EUT were at least 0.8 m from any other grounded conducting surface.
3. The EUT and simulators are connected to the main power through a line impedances stabilization network (LISN). The LISN provides a 50 ohm / 50 uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)
4. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
5. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
6. Conducted Emissions were investigated over the frequency range from 0.15 MHz to 30 MHz using a receiver bandwidth of 9 kHz.

During the above scans, the emissions were maximized by cable manipulation.

Test Mode:

Note: "N/A" indicates that it is not applicable. The EUT (Electrical Unit Under Test) being powered by a battery is applicable to this test.

Test Results

Note: "N/A" indicates that it is not applicable. The EUT (Electrical Unit Under Test) being powered by a battery is applicable to this test.

3.3.Radiated Emission Measurement

3.3.1Radiated Emission Limits

Frequency [MHz]	Field Strength [microvolts/meter]	Measurement Distance [Meters]
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Note:

- (1) the limit for radiated test was performed according to FCC part 15c.
- (2) the tighter limit applies at the band edges.
- (3) emission level(dbuv/m)=20log emission level (uv/m).

Receiver Parameter	Setting
Attenuation	Auto
Start~Stop Frequency	9 KHz~90 KHz / RBW 200 Hz For AV
Start~Stop Frequency	90 KHz~110 KHz / RBW 200 Hz For QP
Start~Stop Frequency	110 KHz~490 KHz / RBW 200 Hz For AV
Start~Stop Frequency	490 KHz~30 MHz / RBW 9 KHz For QP
Start~Stop Frequency	30 MHz~1000 MHz / RBW 120 KHz For QP

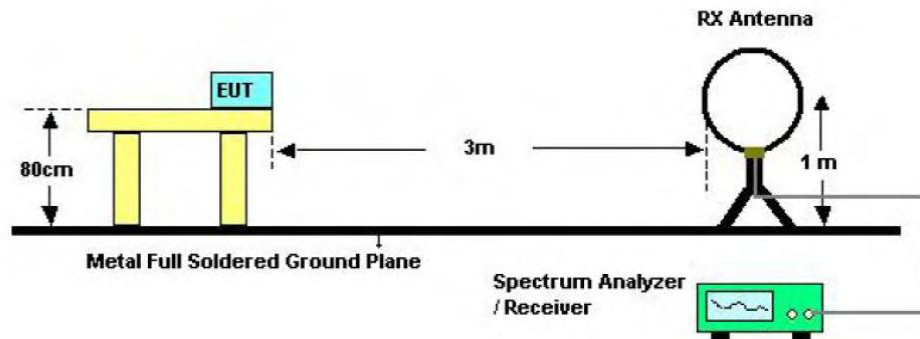
§15.209(D) The Emission Limits Shown In The Above Table Are Based On Measurements Employing A CISPR Quasi-Peak Detector Except For The Frequency Bands 9~90 KHz,110~490 KHz And Above 1000 MHz.Radiated Emission Limits In These Three Bands Are Based On Measurements Employing An Average Detector.

3.3.2Test Procedure

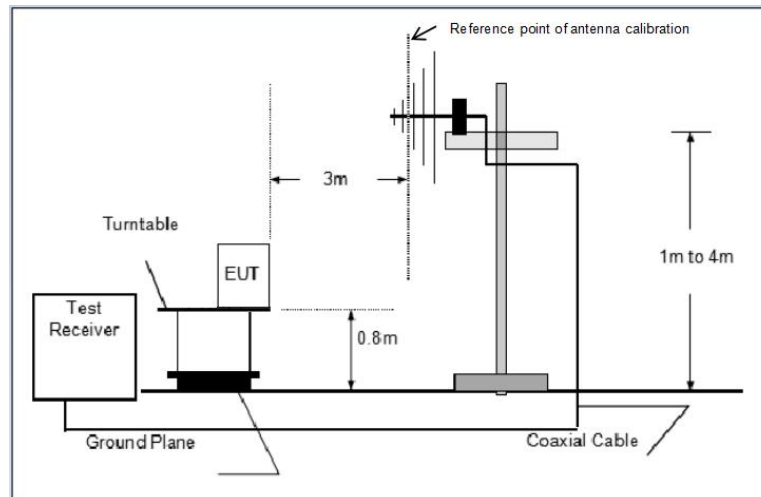
- a. The test is performed in a 3 m Semi-Anechoic Chamber; the antenna factor, cable loss and soon of the site (factors) is calculated to correct the reading. The EUT is placed on a 0.8 m high insulating Turn Table, and keeps 3m away from the Test Antenna, which is mounted on a variable-height antenna master tower. For the test Antenna
- b. In the frequency range of 9 KHz to 30 MHz, magnetic field is measured with Loop Test Antenna. The Test Antenna is positioned with its plane vertical at 1m distance from the EUT. The center of the Loop Test Antenna is 1m above the ground. During the measurement the Loop Test Antenna rotates about its vertical axis for maximum response at each azimuth about the EUT.
- c. In the frequency range above 30 MHz, Bi-Log Test Antenna (30 MHz to 1 GHz) used. Test Antenna is 3 m away from the EUT. Test Antenna height is varied from 1 m to 4 m above the ground to determine the maximum value of the field strength. The emission levels at both horizontal and vertical polarizations should be tested.
- f. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- g. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- h. For the actual test configuration, please refer to the related Item -EUT Test Photos.

Note:

Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

Test Configuration

Below 30 MHz Test Setup



Below 1000 MHz Test Setup

3.3.3 Test Results

(Radiated Emission < 30 MHz (9 KHz ~ 30 MHz, H-Field))

EUT:	RFID Reader Writer	Model Name:	01
Pressure:	1010 hpa	Phase:	X
Temperature:	24.8°C	Humidity:	52.1 %
Test Mode:	TX	Test Voltage:	DC 3 V



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0106	51.32	16.15	67.47	127.10	-59.63	QP
2	0.1255	59.80	10.41	70.21	105.60	-35.39	QP
3	0.4061	33.08	10.56	43.64	95.43	-51.79	QP
4	0.5020	34.42	10.65	45.07	73.59	-28.52	QP
5	1.1774	28.77	10.69	39.46	66.19	-26.73	QP
6*	2.3584	24.16	11.01	35.17	70.00	-34.83	QP

Note:

Below 30 MHz, Pre-test the X, Y, Z axis to find X axis is worst case, so only record X axis test data.

X: Field strength which this device generates since the position of the charging coil and loop antenna differ by 0 degrees.

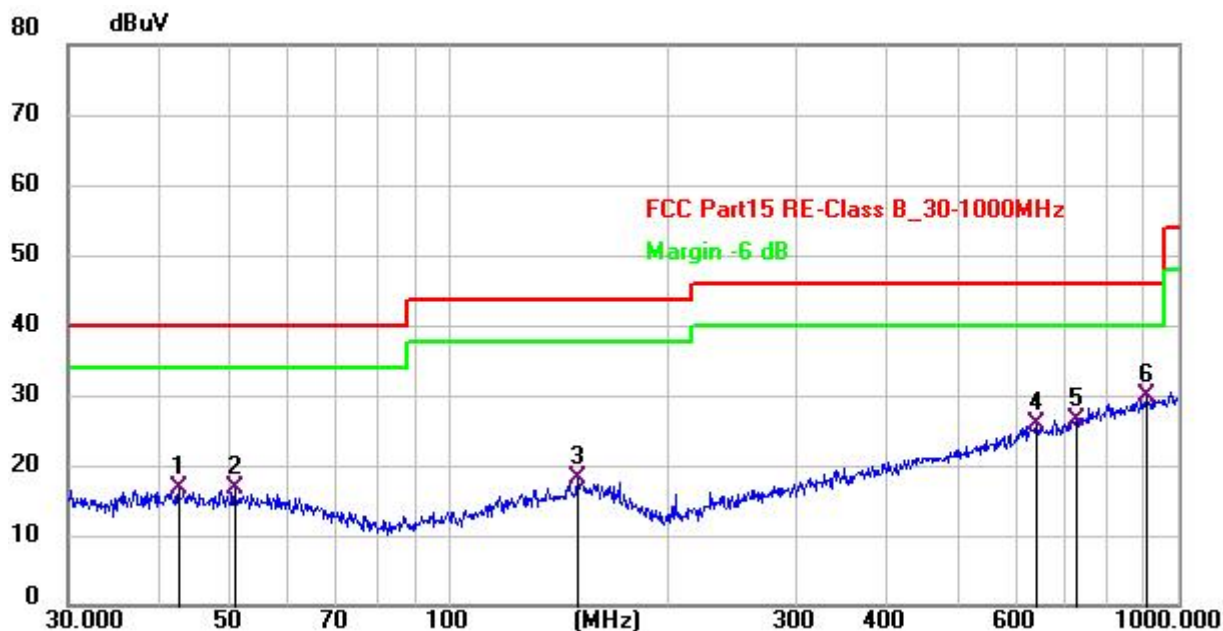
Y: Field strength which this device generates since the position of the charging coil and loop antenna differ by 90 degrees.

Z: Field strength which this device generates since the position of the charging coil and loop antenna differ by 180 degrees.

Emission Level = Read Level + Correct Factor

Results of Radiated Emissions (30 MHz~ 1000 MHz)

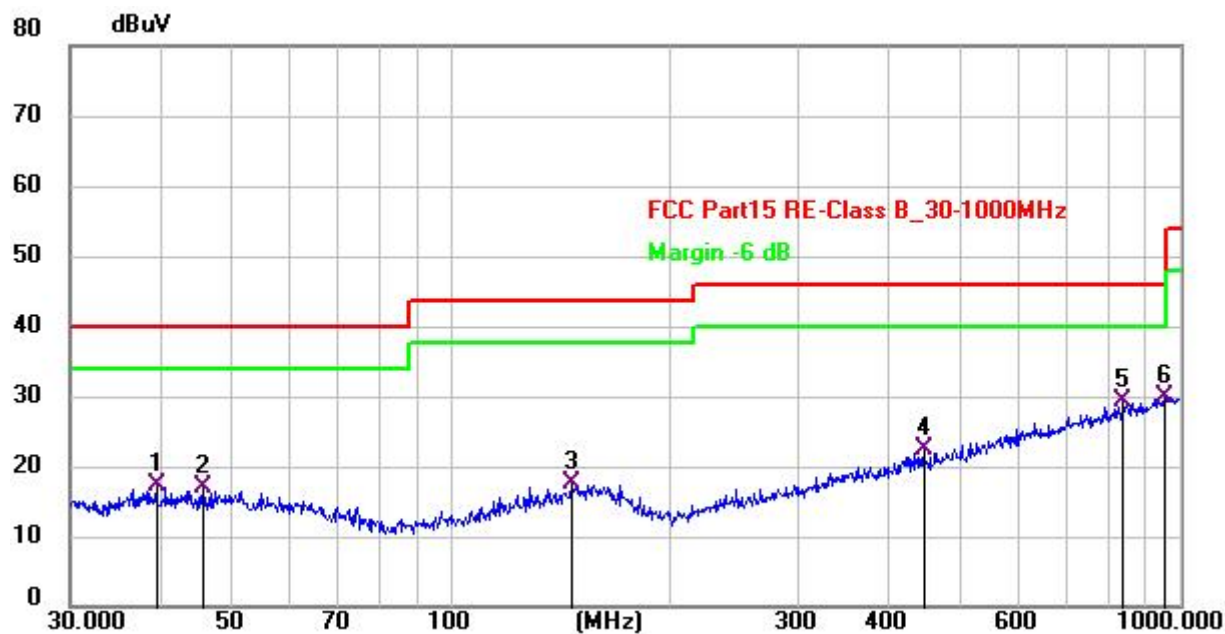
EUT:	RFID Reader Writer	Model Name:	01
Pressure:	1010 hpa	Phase:	Horizontal
Temperature:	24.8°C	Humidity:	52.1 %
Test Mode:	TX	Test Voltage:	DC 3 V



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	42.6000	29.43	-12.78	16.65	40.00	-23.35	QP
2	50.7636	29.94	-13.13	16.81	40.00	-23.19	QP
3	150.5377	29.59	-11.55	18.04	43.50	-25.46	QP
4	638.3686	29.51	-3.75	25.76	46.00	-20.24	QP
5	724.2610	28.76	-2.31	26.45	46.00	-19.55	QP
6*	906.4824	29.69	0.06	29.75	46.00	-16.25	QP

Emission Level = Read Level + Correct Factor

EUT:	RFID Reader Writer	Model Name:	01
Pressure:	1010 hPa	Phase:	Vertical
Temperature:	24.8°C	Humidity:	52.1 %
Test Mode:	TX	Test Voltage:	DC 3 V



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	39.4371	29.90	-12.65	17.25	40.00	-22.75	QP
2	45.6947	29.99	-12.99	17.00	40.00	-23.00	QP
3	146.3734	29.41	-11.72	17.69	43.50	-25.81	QP
4	444.8514	30.11	-7.79	22.32	46.00	-23.68	QP
5	836.2443	30.12	-0.89	29.23	46.00	-16.77	QP
6*	952.0937	29.24	0.60	29.84	46.00	-16.16	QP

Emission Level = Read Level + Correct Factor

3.4.20dB Bandwidth

3.4.1 Limit

The test was performed in accordance with FCC Part 2.1049.

3.4.2 Test Setup

- a) Span: Set the span to 2 to 5 times the estimated bandwidth of the EUT signal. Center the span on the nominal center frequency of the EUT channel.
- b) Resolution Bandwidth (RBW): Set RBW between 1 % and 5 % of the estimated occupied bandwidth. If this range cannot be achieved, document the actual RBW used and provide technical justification.
- c) Video Bandwidth (VBW): Set $VBW \geq 3 \times RBW$.
- d) Reference level and mixer linearity: Adjust the reference level to avoid mixer compression. The peak signal level shall be sufficiently below the reference level to prevent compression; as a guideline, the peak signal should be at least $10 \log_{10} (OBW/RBW)$ below the reference level.
- e) Dynamic range: Ensure the measurement system noise floor, at the selected RBW, is at least 10 dB below the target down-from-peak level. For example, for -20 dB bandwidth measurement, noise floor shall be ≥ 30 dB below the signal peak.
- f) Detector and trace mode: Set detector to peak; set trace mode to max-hold. Use auto-coupled sweep time. Allow the trace to fully stabilize before taking measurements.



3.4.3 EUT Operating Conditions

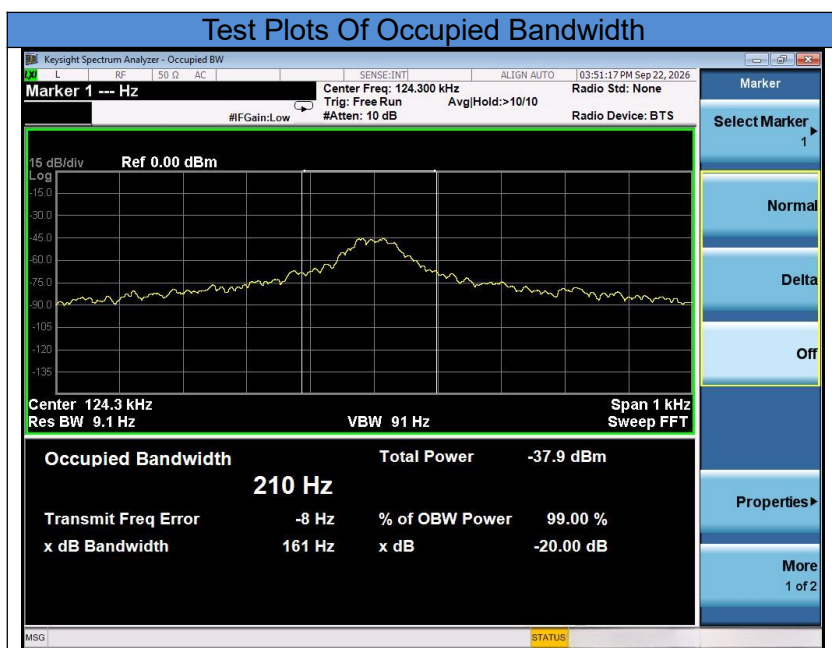
Please Refer to Section 2.3 of This Report.

3.4.4 Test Results

Pressure:	1010 hpa	Temperature:	24.8°C
Humidity:	52.1 %	Test Mode:	TX

Centre Frequency	20 dB Bandwidth (Hz)	99% Bandwidth (Hz)
125 KHz	161	210

Test Graphs:



4.EUT Test Photos

Note: Refer To The Attached Test Photos

5.PHOTOGRAPHS OF EUT CONSTRUCTIONAL

Note: Refer To The Attached Exterior And Interior Photos

*****The End*****