

TEST REPORT

Product : Smart Access Controller
Trade mark : BYD
Model/Type reference : K3CJ
Serial Number : N/A
Report Number : EED32S820484
FCC ID : SD4-K3CJ
Date of Issue : September 20, 2026
Test Standards : 47 CFR Part 15, Subpart C
Test result : PASS

Prepared for:

BYD Auto Industry Company Limited
No.3001 and 3007, Pingshan Hengping Road, Pingshan New District,
Shenzhen, Guangdong, China

Prepared by:

Centre Testing International Group Co., Ltd.
Building C, Hongwei Industrial Park Block 70, Bao'an District,
Shenzhen, China

TEL: +86-755-3368 3668

FAX: +86-755-3368 3385



Compiled by:

Frazer Li

Frazer Li

Approved by:

Aaron Ma

Aaron Ma

Reviewed by:

Tom Chen

Tom Chen

Date:

September 20, 2026

Check No.: 5718240826

1 Contents

	Page
1 CONTENTS	2
2 TEST SUMMARY	3
3 GENERAL INFORMATION	4
3.1 CLIENT INFORMATION	4
3.2 GENERAL DESCRIPTION OF E.U.T.	4
3.3 TEST ENVIRONMENT & TEST MODE	5
3.4 DESCRIPTION OF SUPPORT UNITS	5
3.5 TEST LOCATION	6
3.6 DEVIATION FROM STANDARDS	6
3.7 ABNORMALITIES FROM STANDARD CONDITIONS	6
3.8 OTHER INFORMATION REQUESTED BY THE CUSTOMER	6
3.9 MEASUREMENT UNCERTAINTY (95% CONFIDENCE LEVELS, K=2)	7
3.10 EQUIPMENT LIST	8
4 TEST RESULT AND MEASUREMENT DATA	9
4.1 ANTENNA REQUIRMENT	9
4.2 ELECTRIC FIELD STRENGTH OF FUNDAMENTAL AND OUTSIDE THE ALLOCATED BANDS	10
4.3 RADIATED EMISSIONS	13
4.4 FREQUENCY STABILITY	19
4.5 20dB OCCUPIED BANDWIDTH	21
5 PHOTOGRAPHS	23

2 Test Summary

Test Item	FCC Test Requirement	Test Method	Result
Antenna Requirement	47 CFR Part 15, Subpart C Section 15.203	ANSI C63.10 2020	Pass
Conducted Emission (150KHz to 30MHz)	47 CFR Part 15, Subpart C Section 15.207	ANSI C63.10 2020	N/A
Electric Field Strength of Fundamental and Outside the Allocated bands	47 CFR Part 15, Subpart C Section 15.225(a)/(b)/(c)	ANSI C63.10 2020	Pass
Radiated Emission	47 CFR Part 15, Subpart C Section 15.225(d)/15.209	ANSI C63.10 2020	Pass
Frequency Tolerance	47 CFR Part 15, Subpart C Section 15.225(e)	ANSI C63.10 2020	Pass
20dB Occupied Bandwidth	47 CFR Part 15, Subpart C Section 15.215	ANSI C63.10 2020	Pass

N/A:The product is powered by DC and is not applicable.

3 General Information

3.1 Client Information

Applicant:	BYD Auto Industry Company Limited
Address of Applicant:	No.3001 and 3007, Pingshan Hengping Road, Pingshan New District, Shenzhen, Guangdong, China
Manufacturer:	BYD Auto Industry Company Limited
Address of Manufacturer:	No.3001 and 3007, Pingshan Hengping Road, Pingshan New District, Shenzhen, Guangdong, China
Factory:	Changsha BYD Automobile Co., Ltd.
Address of Factory:	No.88, Environmental Protection East Road, Yuhua District, Changsha City, Hunan Province, China

3.2 General Description of E.U.T.

Product Name:	Smart Access Controller
Model No.:	K3CJ
Test Model No.:	K3CJ
Model difference:	N/A
Trade mark:	BYD
Product Type:	Fixed Use
Operation Frequency:	13.56MHz
Modulation Type:	ASK
Antenna Type:	Loop antenna
Antenna Gain:	0dBi
Power Supply:	DC 5.0V
Test voltage:	5V DC
Sample Received Date:	Aug. 24, 2026
Sample tested Date:	Aug. 24, 2026 to Sep. 18, 2026

3.3 Test Environment & Test Mode

Operating Environment:	
Radiated Emissions:	
Temperature:	22~25.0 °C
Humidity:	50~55 % RH
Atmospheric Pressure:	1010mbar
Conducted Emissions:	
Temperature:	22~25.0 °C
Humidity:	50~55 % RH
Atmospheric Pressure:	1010mbar
Test Mode:	
Test mode:	Keep EUT working in continuous transmitting mode with 100% duty cycle.

3.4 Description of Support Units

The EUT has been tested independently.

3.5 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd.

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 3368 3668 Fax: +86 (0) 755 3368 3385

No tests were sub-contracted.

IC-Registration No.: 7408A, CAB identifier number: CN0037

3.6 Deviation from Standards

None.

3.7 Abnormalities from Standard Conditions

None.

3.8 Other Information Requested by the Customer

None.

3.9 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty
1	Radio Frequency	7.9×10^{-8}
2	RF power, conducted	0.46dB (30MHz-1GHz)
		0.55dB (1GHz-18GHz)
3	Radiated Spurious emission test	3.3dB (9kHz-30MHz)
		4.3dB (30MHz-1GHz)
		4.5dB (1GHz-12.75GHz)
4	Conduction emission	3.5dB (9kHz to 150kHz)
		3.1dB (150kHz to 30MHz)
5	Temperature test	0.64°C
6	Humidity test	3.8%
7	DC power voltages	0.026%

3.10 Equipment List

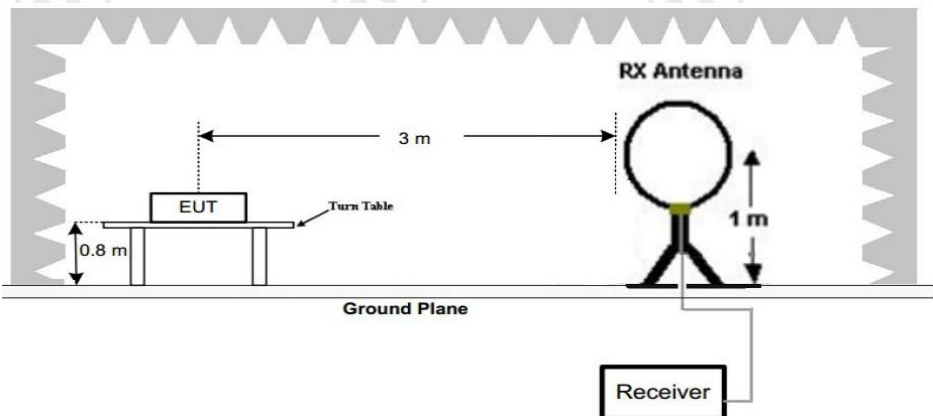
3M Semi/full-anechoic Chamber					
Equipment	Manufacturer	Model No.	Serial Number	Cal. date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
3M Chamber & Accessory Equipment	TDK	SAC-3	---	01/13/2024	01/12/2027
Receiver	R&S	ESC17	100938-003	09/03/2025 08-31-2026	09/02/2026 08-30-2027
TRILOG Broadband Antenna	schwarzbeck	VULB 9163	9163-618	05/11/2026	05/10/2027
Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-076	03/29/2026	03/28/2027
Microwave Preamplifier	Tonscend	EMC051845 SE	980380	11/25/2025	11/24/2026
Horn Antenna	A.H.SYSTEMS	SAS-574	374	07/02/2023 05-16-2026	07/01/2026 05-15-2027
Horn Antenna	ETS-LINGREN	BBHA 9120D	9120D-1869	03/31/2026	03/30/2027
Preamplifier	Agilent	11909A	12-1	02/06/2026	02/05/2027
Preamplifier	CD	PAP-1840-60	6041.6042	05/16/2026	05/15/2027
Test software	Fara	EZ-EMC	EMEC-3A1-Pre	---	---
Cable line	Fulai(7M)	SF106	5219/6A	01/13/2024	01/12/2027
Cable line	Fulai(6M)	SF106	5220/6A	01/13/2024	01/12/2027
Cable line	Fulai(3M)	SF106	5216/6A	01/13/2024	01/12/2027
Cable line	Fulai(3M)	SF106	5217/6A	01/13/2024	01/12/2027

4 Test Result and Measurement Data

4.1 Antenna Requirement

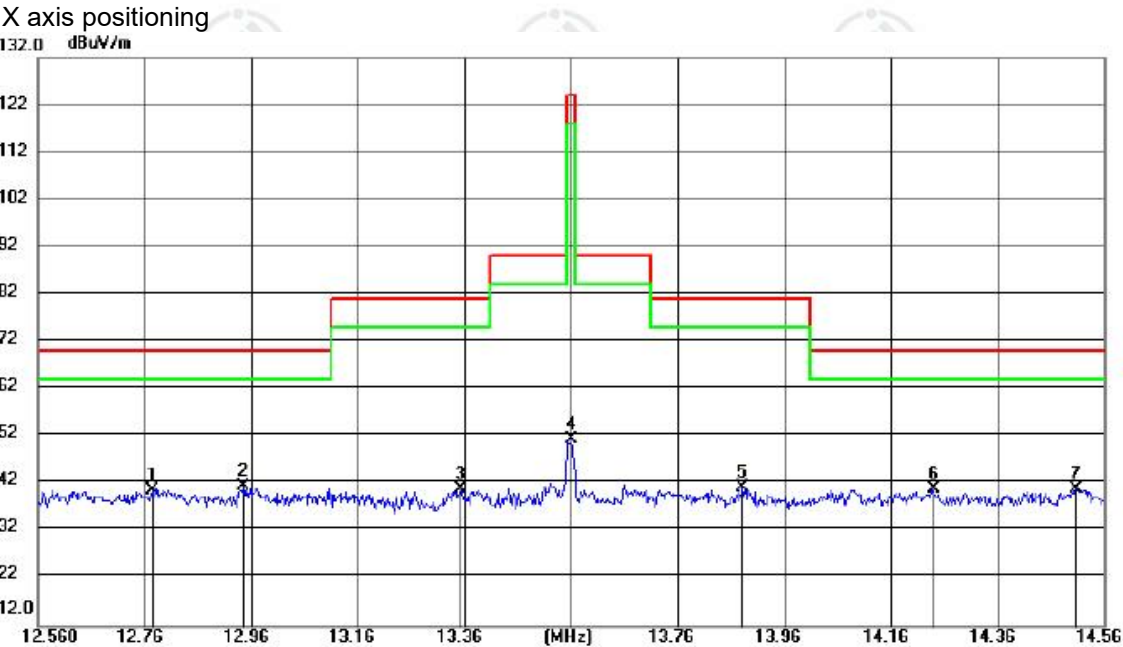
Standard requirement:	47 CFR Part15 C Section 15.203
15.203 requirement:	An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique 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.
EUT Antenna:	Please see Internal photos
The antenna is Loop antenna.	

4.2 Electric Field Strength of Fundamental and Outside the Allocated bands

Test Requirement:	47 CFR Part 15, Subpart C Section 15.225(a)/(b)/(c)				
Test Method:	ANSI C63.10: 2020				
Test Site:	3m (Semi-Anechoic Chamber)				
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak
	0.009MHz-0.090MHz	Average	10kHz	30kHz	Average
	0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
	0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak
	0.110MHz-0.490MHz	Average	10kHz	30kHz	Average
	0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
Limit:	Frequency Range(MHz)	E-field Strength Limit @ 30 m (μV/m)		E-field Strength Limit @ 3 m (dBμV/m)	
	13.560 ± 0.007	15848		124	
	13.410 to 13.553 13.567 to 13.710	334		90	
	13.110 to 13.410 13.710 to 14.010	106		81	
	Note: Where the limits have been defined at one distance, and a signal level measured at another, the limits have been extrapolated using the following formula: Extrapolation(dB)=40log ₁₀ (Measurement Distance/Specification Distance)				
Test Setup:	 Figure 1. Below 30MHz				
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the				

	ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. - For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. - The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. - If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. - The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report.
Test Mode:	Transmitting with ASK modulation.
Test Result:	Pass

Measurement Data



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin	Antenna	Table	
		MHz	Level	Factor	ment			Height	Degree	Comment
			dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	
1		12.7736	20.05	20.49	40.54	70.00	-29.46	peak		
2	*	12.9458	21.18	20.49	41.67	70.00	-28.33	peak		
3		13.3536	20.50	20.50	41.00	81.00	-40.00	peak		
4		13.5617	30.84	20.50	51.34	124.00	-72.66	peak		
5		13.8818	20.70	20.50	41.20	81.00	-39.80	peak		
6		14.2400	20.59	20.49	41.08	70.00	-28.92	peak		
7		14.5076	20.36	20.50	40.86	70.00	-29.14	peak		

Remark:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Factor= Antenna Factor + Cable Factor – Preamplifier Factor,

Level = Read Level + Factor,

Over Limit=Level-Limit Line.

4.3 Radiated Emissions

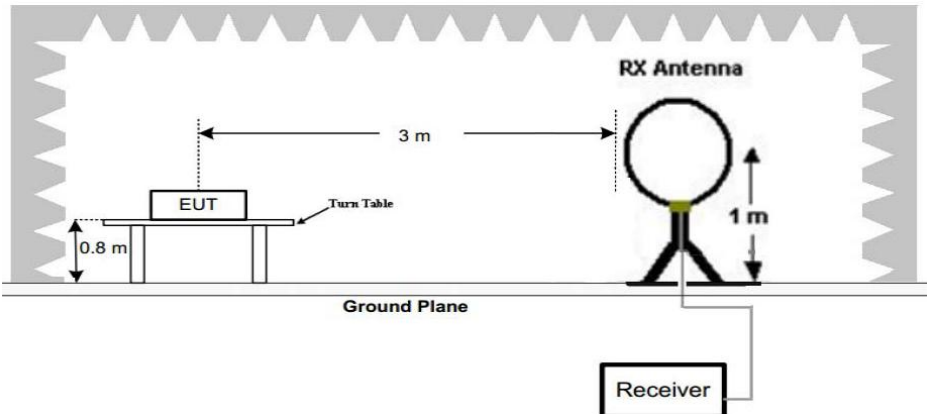
Test Requirement:	47 CFR Part 15C Section 15.209 and 15.225(d),				
Test Method:	ANSI C63.10: 2020				
Test Site:	3m (Semi-Anechoic Chamber)				
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak
	0.009MHz-0.090MHz	Average	10kHz	30kHz	Average
	0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
	0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak
	0.110MHz-0.490MHz	Average	10kHz	30kHz	Average
	0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
	30MHz-1GHz	Peak	100 kHz	300kHz	Peak
Limit:	Frequency	Field strength (microvolt/meter)	Limit (dBuV/m) @ 3 m	Remark	
	0.009MHz-0.490MHz	2400/F(kHz) @300m	128.5-93.8	Quasi-peak	
	0.490MHz-1.705MHz	24000/F(kHz) @30m	73.8-63	Quasi-peak	
	1.705MHz-30MHz	30 @30m	70	Quasi-peak	
	30MHz-88MHz	100 @3m	40.0	Quasi-peak	
	88MHz-216MHz	150 @3m	43.5	Quasi-peak	
	216MHz-960MHz	200 @3m	46.0	Quasi-peak	
	960MHz-1GHz	500 @3m	54.0	Quasi-peak	
Note: Where the limits have been defined at one distance, and a signal level measured at another, the limits have been extrapolated using the following formula: Extrapolation(dB)=40log ₁₀ (Measurement Distance/Specification Distance)					
Test Setup:					

Figure 1. Below 30MHz

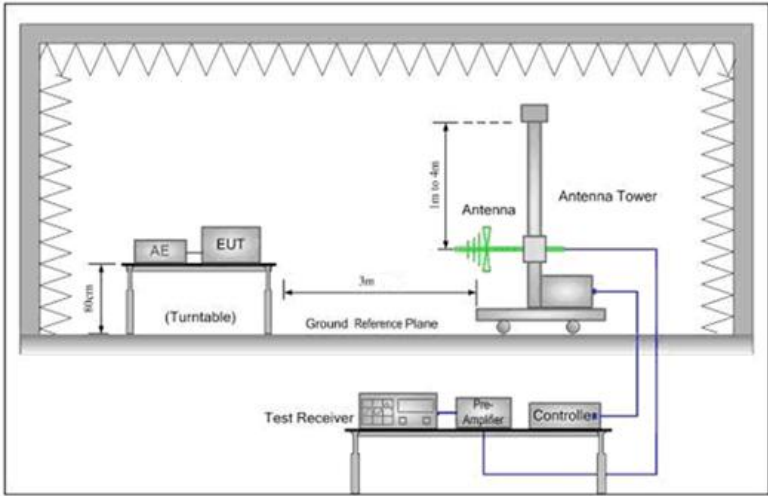


Figure 2. 30MHz to 1GHz

Test Procedure:

- 5. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- 6. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- 7. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 8. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- 7. The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report.

Test Mode:

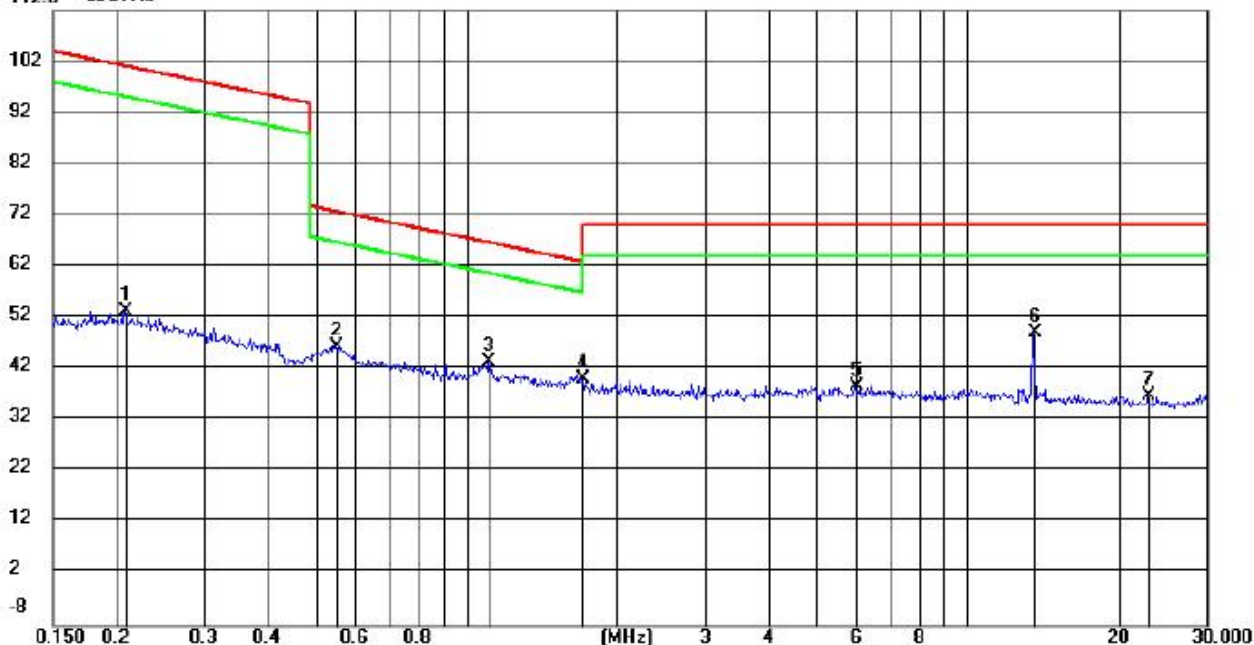
Transmitting with ASK modulation.

Test Result:

Pass

9kHz – 150KHz:

112.0 dBuV/m



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Antenna Height cm	Table Degree degree	Comment
1		0.2088	32.93	20.55	53.48	101.16	-47.68	peak		
2		0.5500	26.07	20.48	46.55	72.80	-26.25	peak		
3		1.1108	23.01	20.30	43.31	66.71	-23.40	peak		
4		1.7016	19.93	20.30	40.23	63.02	-22.79	peak		
5		5.9813	18.29	20.44	38.73	70.00	-31.27	peak		
6	*	13.5616	28.64	20.46	49.10	70.00	-20.90	peak		
7		22.9572	16.42	20.46	36.88	70.00	-33.12	peak		

Remark:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

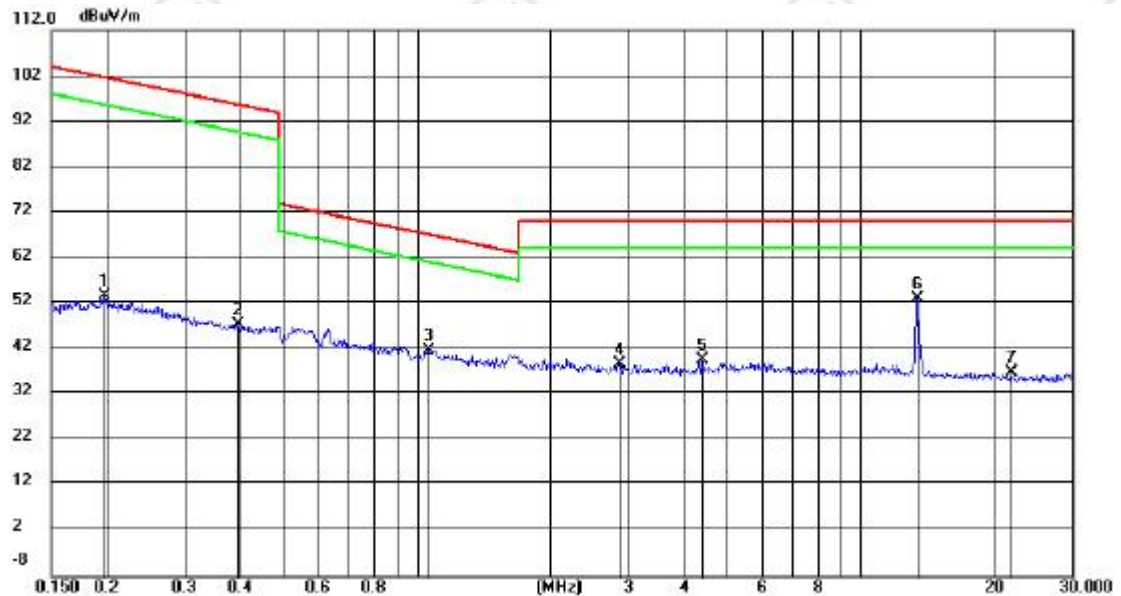
Factor= Antenna Factor + Cable Factor – Preamplifier Factor,

Level = Read Level + Factor,

Over Limit=Level-Limit Line.

X axis positioning

150KHz-30MHz:



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Antenna Height cm	Table Degree degree	Comment
1		0.1970	33.06	20.57	53.63	101.67	-48.04	peak		
2		0.3941	26.75	20.50	47.25	95.68	-48.43	peak		
3		1.0625	21.33	20.30	41.63	67.10	-25.47	peak		
4		2.8639	18.39	20.30	38.69	70.00	-31.31	peak		
5		4.3859	19.16	20.37	39.53	70.00	-30.47	peak		
6	*	13.3475	32.61	20.47	53.08	70.00	-16.92	peak		
7		21.8414	16.35	20.44	36.79	70.00	-33.21	peak		

Remark:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

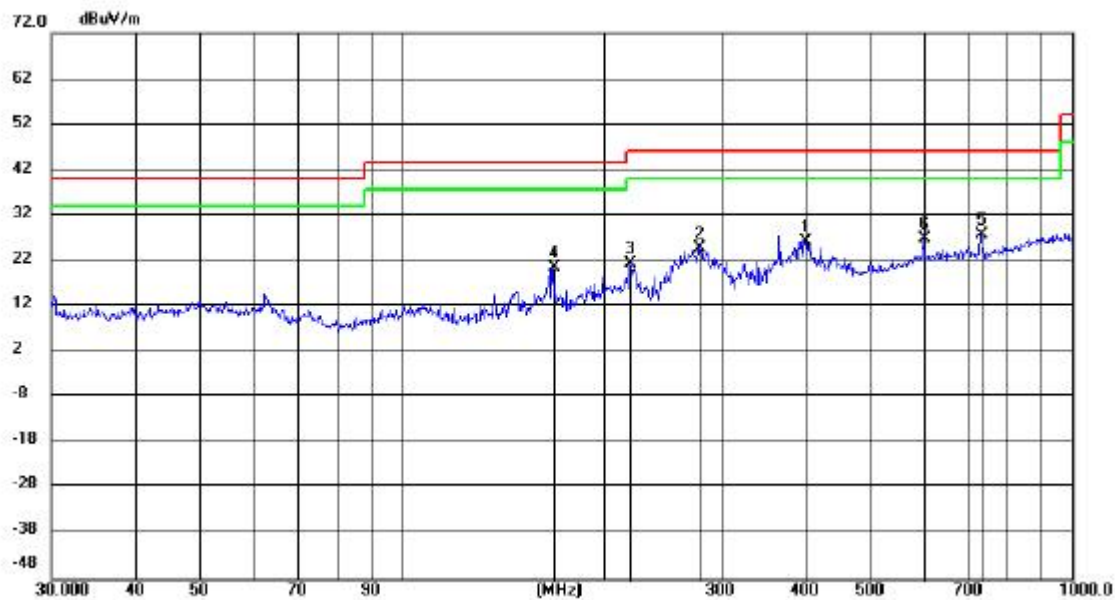
Factor= Antenna Factor + Cable Factor – Preamplifier Factor,

Level = Read Level + Factor,

Over Limit=Level-Limit Line.

30MHz-1GHz

Horizontal



Remark:

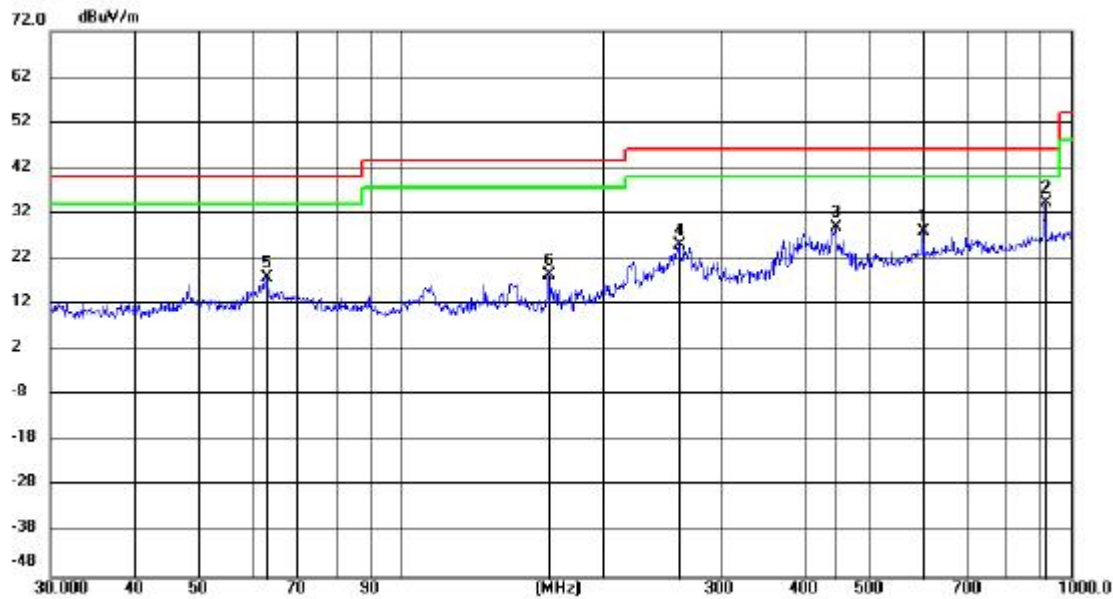
The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Factor= Antenna Factor + Cable Factor – Preamplifier Factor,

Level = Read Level + Factor,

Over Limit=Level-Limit Line.

Vertical



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin	Antenna	Table	
		MHz	Level	Factor	ment			Height	Degree	Comment
1		600.0570	5.03	22.97	28.00	46.00	-18.00	QP	100	125
2	*	913.5022	7.26	27.08	34.34	46.00	-11.66	QP	100	24
3		446.1009	8.98	19.94	28.92	46.00	-17.08	QP	200	12
4		260.3269	9.91	15.04	24.95	46.00	-21.05	QP	100	25
5		63.2800	5.15	12.69	17.84	40.00	-22.16	QP	200	12
6		166.0098	7.62	10.87	18.49	43.50	-25.01	QP	100	254

Remark:

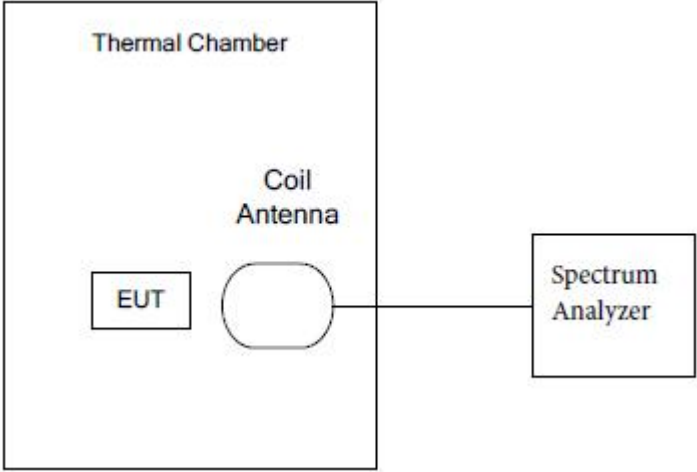
The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Factor= Antenna Factor + Cable Factor – Preamplifier Factor,

Level = Read Level + Factor,

Over Limit=Level-Limit Line.

4.4 Frequency Stability

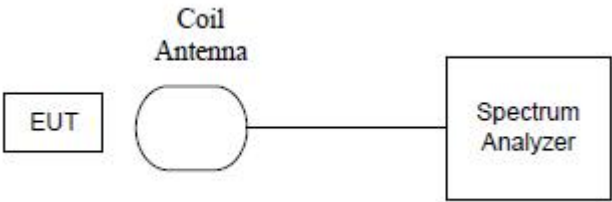
Test Requirement:	47 CFR Part 15 C Section 15.225(e)
Test Method:	ANSI C63.10: 2020
Test Setup:	 The diagram illustrates the test setup. A large rectangular box labeled 'Thermal Chamber' contains two components: a smaller rectangle labeled 'EUT' (Equipment Under Test) and an oval labeled 'Coil Antenna'. A line connects the 'Coil Antenna' to a rectangle labeled 'Spectrum Analyzer' located outside the 'Thermal Chamber'.
Frequency Range:	Operation within the band 13.110-14.010 MHz
Requirements:	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.
Method of Measurement:	The EUT was placed in an environmental test chamber and powered such that control element received normal voltage and the transmitter provided maximum RF output.
Test Result:	The unit does meet the FCC Part 15 C Section 15.225(e) requirements.

Test Frequency: 13.56MHz			Temperature:20°C	
Supply Voltage (V) DC	Test Result (MHz)	Deviation (kHz)	Limit ±0.01% (kHz)	Result
5	13.55978	-0.22	1.3560	Pass
4.35	13.55973	-0.26	1.3560	Pass
3.4	13.55977	-0.24	1.3560	Pass

Test Frequency: 13.56MHz			Normal Voltage:5.0Vdc	
Temperature (°C)	Test Result (MHz)	Deviation (kHz)	Limit ±0.01% (kHz)	Result
-20	13.55976	-0.24	1.3560	Pass
-10	13.55977	-0.23	1.3560	
0	13.55975	-0.25	1.3560	
10	13.55977	-0.23	1.3560	
20	13.55976	-0.24	1.3560	
30	13.55975	-0.25	1.3560	
40	13.55976	-0.24	1.3560	
50	13.55974	-0.26	1.3560	

Note: Deviation (KHz) = (Test Result-13.56MHz)*1000

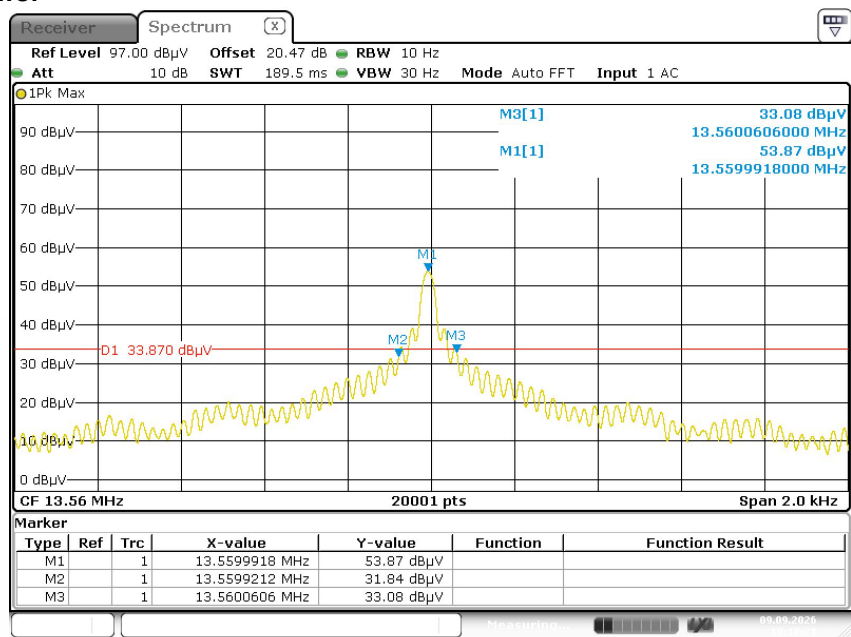
4.5 20dB Occupied Bandwidth

Test Requirement:	47 CFR Part 15 C Section 15.215 (C)
Test Method:	ANSI C63.10: 2020
Test Setup:	
Frequency Range:	Operation within the band 13.110 – 14.010 MHz
Requirements:	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 is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the 20 dB 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 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.
Limit:	For 13.56 MHz the permitted frequency band is 14kHz, so the limit is 13.5488MHz to 13.5712MHz.

Test Data:

20dB bandwidth (kHz)	FL (MHz)	FH (MHz)	Limit(MHz)	Result
4	13.556	13.560	13.110 – 14.010	Pass

Test plot as follows:



Note:
During the test, RBW has been set as close to 1% of OBW as possible.

5 PHOTOGRAPHS

Refer to Appendix Photographs of Report No. EED32S820484.

Statement

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
4. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule stated in ILAC-G8:09/2019/CNAS-GL015:2022;
5. Without written approval of CTI, this report can't be reproduced except in full;

*** End of Report ***