

TEST REPORT

Verified Code: 476896

Report No.:	E202012084754-5	Application No.:	E202012084754
Client:	Huizhou Desay SV Automotive Co., Ltd.		
Address:	103, Hechang 5th Road West, Zhongkai National Hi-tech Industrial Development Zone, Huizhou, Guangdong, China		
Sample Description:	Car Wireless Charger		
Model:	VA40-66CHX		
Test Specification:	FCC 47 CFR Part 15 Subpart C		
Receipt Date:	2021-05-24		
Test Date:	2021-05-24 to 2021-07-11		
Issue Date:	2021-07-14		
Test Result:	Pass		
Prepared By: Test Engineer Yang Zhaojun	Reviewed By: Technical Manager Jiang Tao	Approved By: Manager 	
Other Aspects:			
Note:Note			
Abbreviations: ok / P = passed; fail / F = failed; n.a. / N = not applicable;			
The test result in this test report refers exclusively to the presented test sample. This report shall not be reproduced except in full, without the written approval of GRGT.			



DIRECTIONS OF TEST

- 1. This station carries out test task according to the national regulation of verifications which can be traced to National Primary Standards and BIPM.**
- 2. The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test result without the written permission of the test laboratory.**
- 3. If there is any objection concerning the test, the client should inform the laboratory within 15 days from the date of receiving the test report.**

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1. TEST RESULT SUMMARY

Technical Requirements			
FCC Part 15 Subpart C			
Item	FCC Standard Chapter	Report Chapter	Result
Antenna requirements	§15.203	Chapter 5	Complied
Radiated Spurious Emissions	§15.225(a),(b),(c),(d) §15.209	Chapter 6	Complied
20dB Bandwidth	§15.215	Chapter 7	Complied
Frequency Stability Tolerance	§15.225(e)	Chapter 8	Complied
AC Conducted Emission	§15.207	N/A	N/A

Note: 1.N/A: Not applicable,because EUT powered by DC 12V.

2. GENERAL DESCRIPTION OF EUT

2.1 APPLICANT

Name: Huizhou Desay SV Automotive Co., Ltd.
Address: 103, Hechang 5th Road West, Zhongkai National Hi-tech Industrial Development Zone, Huizhou, Guangdong, China

2.2 MANUFACTURER

Name: Huizhou Desay SV Automotive Co., Ltd.
Address: 103, Hechang 5th Road West, Zhongkai National Hi-tech Industrial Development Zone, Huizhou, Guangdong, China

2.3 FACTORY

Name : Huizhou Desay SV Automotive Co., Ltd.
Address : 103, Hechang 5th Road West, Zhongkai National Hi-tech Industrial Development Zone, Huizhou, Guangdong, China

2.4 BASIC DESCRIPTION OF EQUIPMENT UNDER TEST

Equipment: Car Wireless Charger

Model No.: VA40-66CHX

Adding Model: /

Model /

Differences:

Trade Name: /

FCC ID: 2AEQT-VA4066CHX

Power supply: DC 12V

Frequency 13.56MHz

Range:

Modulation ASK

type:

Antenna PCB Antenna

Specification:

Temperature -30 ℃ ~ +50 ℃

Range:

Hardware 006

Version:

Software 31.02_210601_D

Version:

Sample No: E202012084754-0003

Note: /

2.5 TEST OPERATION MODE

Test Item	Mode No.	Description of the modes
Radiated Emission	1	EUT powered by DC 12V Continuously Transmitting (13.56MHz TX)
20dB Bandwidth	1	EUT powered by DC 12V Continuously Transmitting (13.56MHz TX)
Frequency Stability Tolerance	1	EUT powered by DC 12V Continuously Transmitting (13.56MHz TX)

2.6 LOCAL SUPPORTIVE

Name of Equipment	Manufacturer	Model	Serial Number	Note
DC Power Source	Longwei	PS-305DM	180704473	/
/	/	/	/	/
Cable				
DC cable	/	/	/	Unshielded 1.0m
AC cable				Unshielded 1.5m

2.7 TEST SOFTWARE

Software version	Test level
/	/

3. LABORATORY AND ACCREDITATIONS

3.1 LABORATORY

The tests & measurements refer to this report were performed by Shenzhen EMC Laboratory of Guangzhou GRG Metrology & Test Co., Ltd.

Add : Address: No.1301 Guanguang Road Xinlan Community, Guanlan Street,
Longhua District Shenzhen, 518110, People's Republic of China

P.C. : 518000

Tel : 0755-61180008

Fax : 0755-61180008

3.2 ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to GB/T 27025(ISO/IEC 17025:2017)

USA A2LA(Certificate #:2861.01)

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

Canada Industry Canada
USA FCC

Copies of granted accreditation certificates are available for downloading from our web site, <http://www.grgtest.com>

3.3 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement		Frequency	Uncertainty
Radiated Emission	X	9kHz – 30MHz	4.46dB
	Y	9kHz – 30MHz	4.46dB
	Z	9kHz – 30MHz	4.46dB
	Horizontal	30MHz~1000MHz	4.3dB
	Vertical	30MHz~1000MHz	4.3dB

This uncertainty represents an expanded uncertainty factor of $k=2$.

4. LIST OF USED TEST EQUIPMENT AT GRGT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Radiated Spurious Emission&20 dB Bandwidth				
Spectrum Analyzer	Agilent	N9010A	MY52221469	2022/04/16
Loop Antenna	TESEQ	HLA6121	52599	2022/04/21
Bilog Antenna	Schwarzbeck	VULB 9163	01279	2022/02/25
Horn Antenna	Schwarzbeck	BBHA9120D(1201)	02143	2021/12/17
Board-Band Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170-497	2021/11/05
Amplifier	Tonscend	TAP9E6343	AP20E806065	2022/06/03
Amplifier	Tonscend	TAP01018048	AP20E8060075	2022/05/09
Test S/W	Tonscend	JS36-RE/2.5.1.5		
Frequency Stability Tolerance				
Spectrum Analyzer	Agilent	N9010A	MY52221469	2022/04/16
Temperature& humidity chamber	HOSON	HS01060SDF	1910008401	2021/10/15

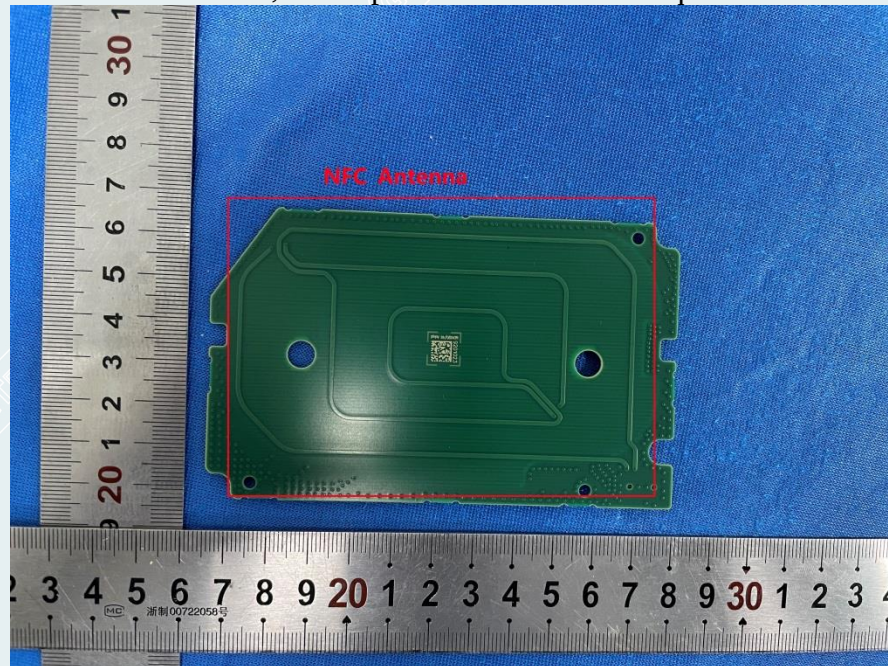
5. ANTENNA REQUIREMENTS

5.1 LIMIT

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. 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. This requirement does not apply to carrier current devices or to devices operated under the provisions of §§15.211, 15.213, 15.217, 15.219, 15.221, or §15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

5.2 TEST RESULT

The antenna is PCB antenna,so compliance with antenna requirements



6. RADIATED SPURIOUS EMISSIONS

6.1 LIMITS

IN BAND SPURIOUS EMISSIONS

- (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.

OUT BAND RADIATED SPURIOUS EMISSIONS

Frequency (MHz)	Quasi-peak(μ V/m)	Measurement distance(m)	Quasi-peak(dB μ V/m)@distance 3m
0.009-0.490	2400/F(kHz)	300	53.8~88.5
0.490-1.705	24000/F(kHz)	30	43~53.8
1.705-30.0	30	30	49.5
30 ~ 88	100	3	40
88~216	150	3	43.5
216 ~ 960	200	3	46
Above 960	500	3	54

NOTE: (1) The lower limit shall apply at the transition frequencies.

6.2 TEST PROCEDURES

1) Sequence of testing 9 kHz to 30 MHz

Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 0.8 m height is used.
- If the EUT is a floor standing device, it is placed on the ground.
- Auxiliary equipment and cables were positioned to simulate normal operation conditions.
- The EUT is connected to DC Power Source.
- The measurement distance is 3 meter.
- The EUT was set into operation.

Pre measurement:

- The turntable rotates from 0 °to 315 °using 45 °steps.
- The antenna height is 1 meter.
- At each turntable position the analyzer sweeps with peak detection to find the maximum of all emissions

Final measurement:

- Identified emissions during the pre measurement the software maximizes by rotating the turntable position (0 °to 360 °) and by rotating the elevation axes (0 °to 360 °).
- The final measurement will be done in the position (turntable and elevation) causing the highest emissions with QP detector.
- The final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the pre measurement and the limit will be stored.

2) Sequence of testing 30 MHz to 1 GHz**Setup:**

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Auxiliary equipment and cables were positioned to simulate normal operation conditions
- The EUT is connected to DC Power Source.
- The measurement distance is 3 meter.
- The EUT was set into operation.

Pre measurement:

- The turntable rotates from 0 °to 315 °using 45 °steps.
- The antenna is polarized vertical and horizontal.
- The antenna height changes from 1 to 4 meter.
- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find the maximum of all emissions.

Final measurement:

- The final measurement will be performed with minimum the six highest peaks.
- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable position ($\pm 45^\circ$) and antenna movement between 1 and 4 meter.
- The final measurement will be done with QP detector with an EMI receiver.
- The final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement with marked maximum final measurements and the limit will be stored.

6.3 MEASURING INSTRUMENTS SETTING

Frequency (MHz)	Instrument	Detector	Resolution Bandwidth	Video Bandwidth
0.009 to 30	Receiver	QP	200Hz: 0.009 to 0.15MHz 10kHz: 0.15 to 30MHz	N/A
30 to 1000	Receiver	QP	120kHz	N/A

6.4 TEST SETUP

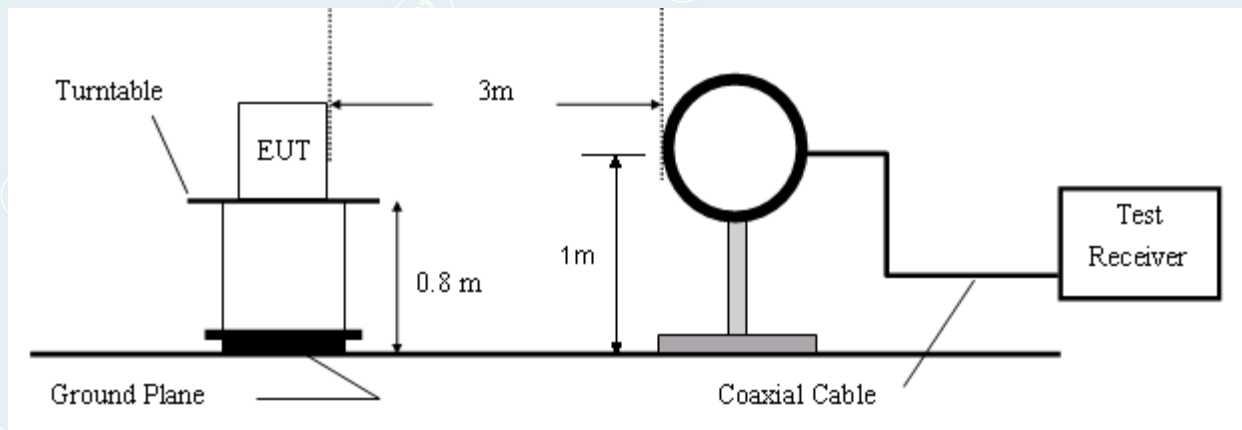


Figure 1. 9kHz to 30MHz radiated emissions test configuration

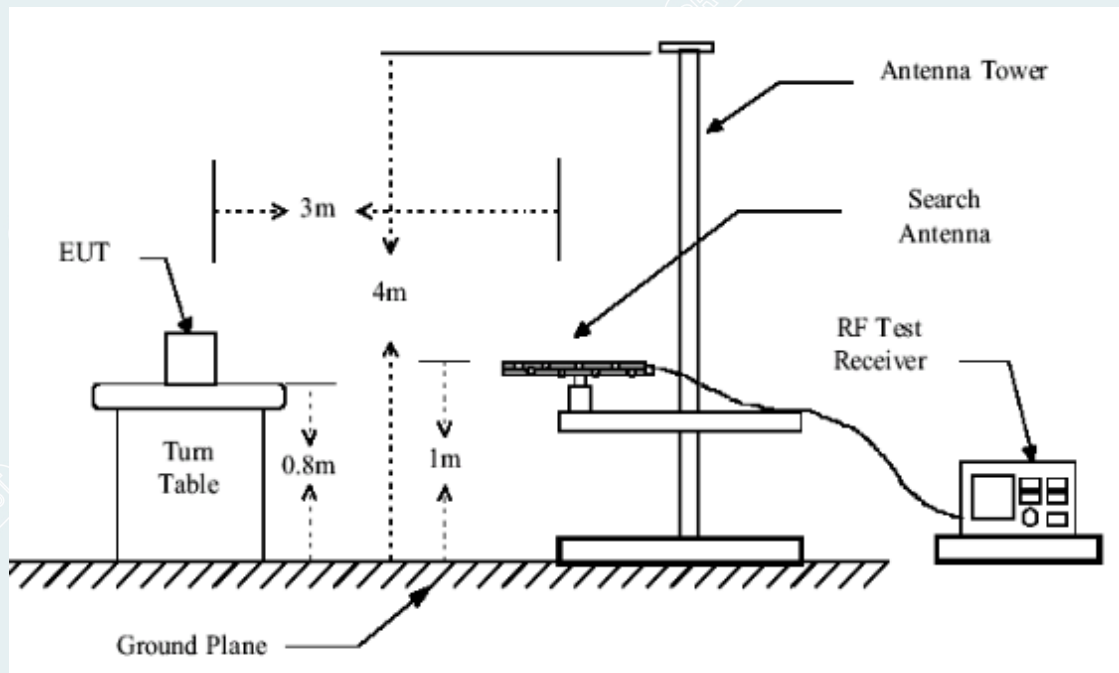


Figure 2. 30MHz to 1GHz radiated emissions test configuration

6.5 DATA SAMPLE**0.009MHz to 1GHz**

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark	Pole
	(MHz)	(dBuV/m)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)		
xxx	xxx	37.06	-15.48	21.58	40.00	-18.42	QP	Vertical

Frequency (MHz)

= Emission frequency in MHz

Ant.Pol. (H/V)

= Antenna polarization

Reading (dBuV)

= Uncorrected Analyzer / Receiver reading

Correction Factor (dB/m)

= Antenna factor + Cable loss – Amplifier gain

Result (dBuV/m)

= Reading (dBuV) + Correction Factor (dB/m)

Limit (dBuV/m)

= Limit stated in standard

Margin (dB)

= Remark Result (dBuV/m) – Limit (dBuV/m)

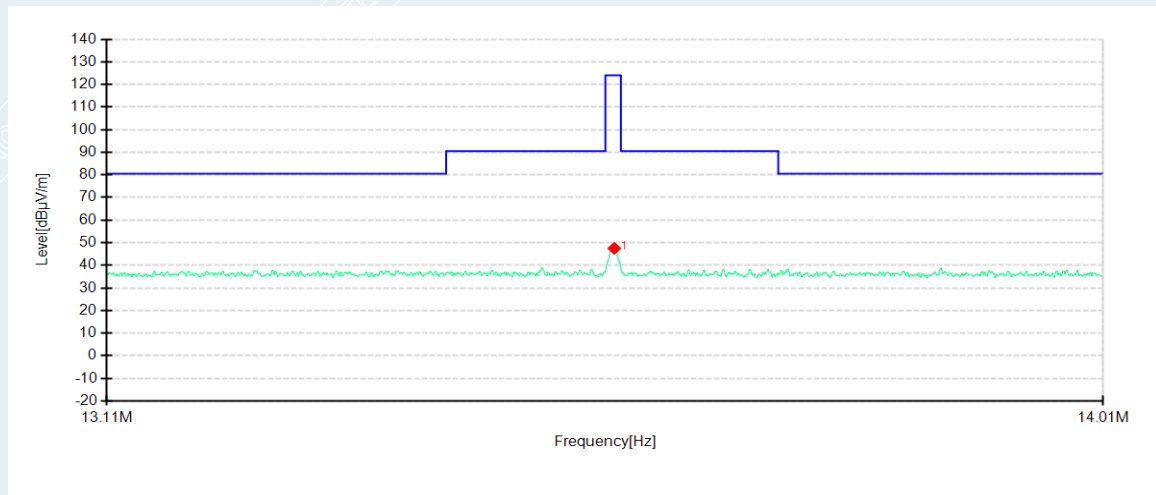
QP

= Quasi-peak Reading

6.6 TEST RESULTS

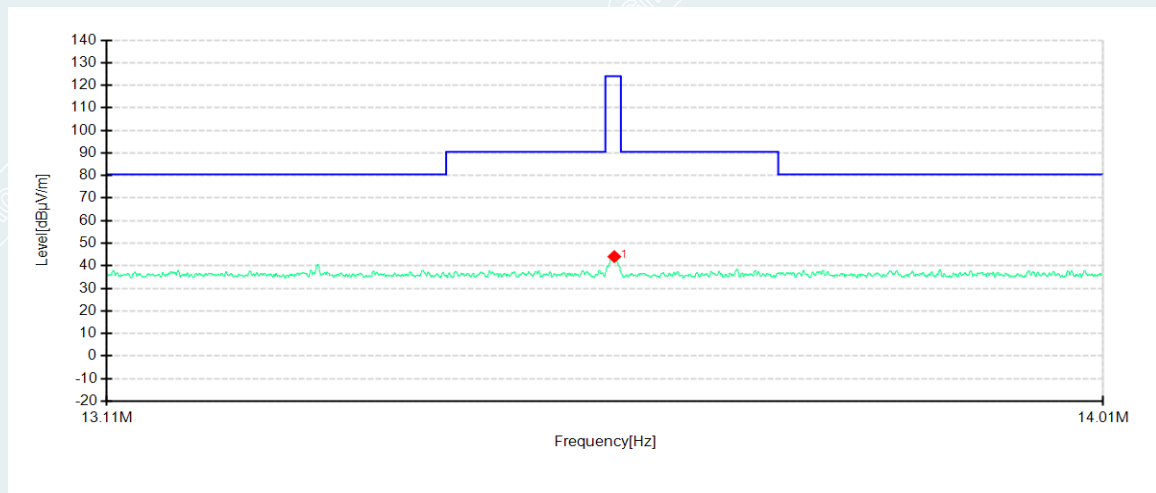
6.6.1 IN BAND RADIATED SPURIOUS EMISSIONS

Project Information			
Application No.:	E202012084754	EUT:	Car Wireless Charger
Model:	VA40-66CHX	SN:	E202012084754-0003
Mode:	NFC 13.56MHz TX	Voltage:	DC 12V
Environment:	Temp: 25°C; Humi:60%	Engineer:	Chen XiaoCong



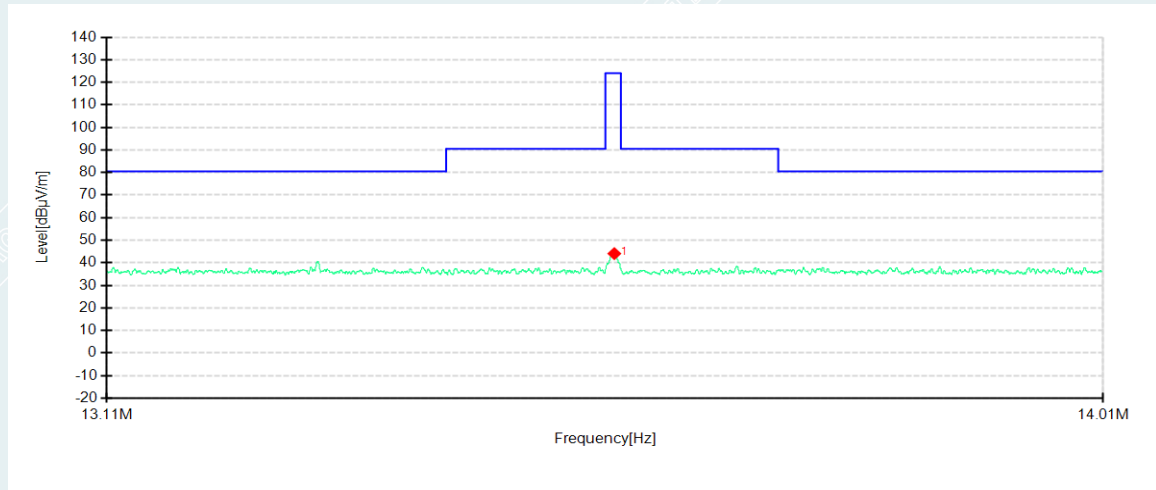
Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	13.561	26.90	47.50	20.60	123.99	76.49	100	126	X

Project Information			
Application No.:	E202012084754	EUT:	Car Wireless Charger
Model:	VA40-66CHX	SN:	E202012084754-0003
Mode:	NFC 13.56MHz TX	Voltage:	DC 12V
Environment:	Temp: 25°C; Humi:60%	Engineer:	Chen XiaoCong



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	13.561	23.46	44.06	20.60	123.99	79.93	100	45	Y

Project Information			
Application No.:	E202012084754	EUT:	Car Wireless Charger
Model:	VA40-66CHX	SN:	E202012084754-0003
Mode:	NFC 13.56MHz TX	Voltage:	DC 12V
Environment:	Temp: 25°C; Humi:60%	Engineer:	Chen XiaoCong

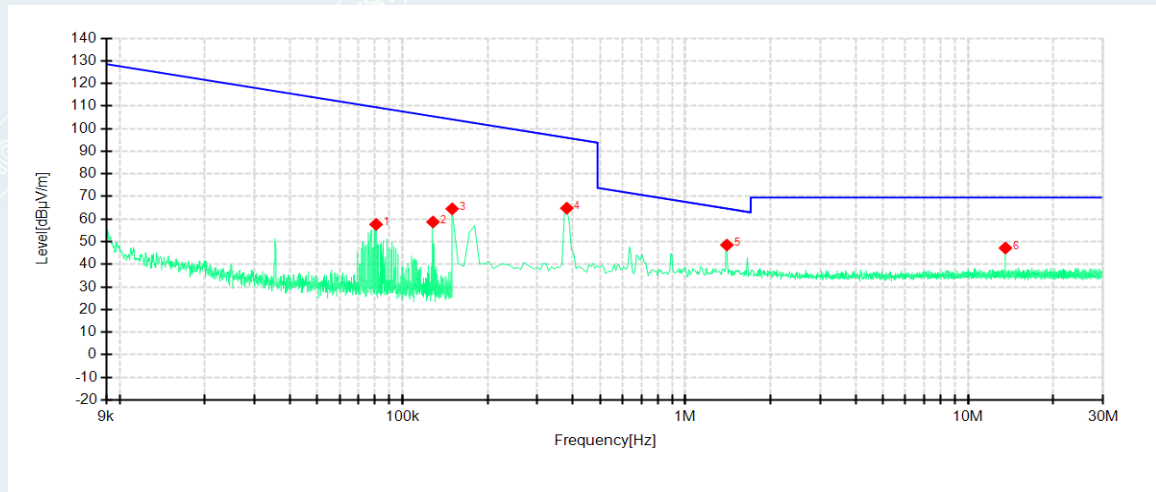


Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	13.561	23.46	44.06	20.60	123.99	79.93	100	45	Z

6.6.2 OUT BAND RADIATED SPURIOUS EMISSIONS

9kHz-30MHz

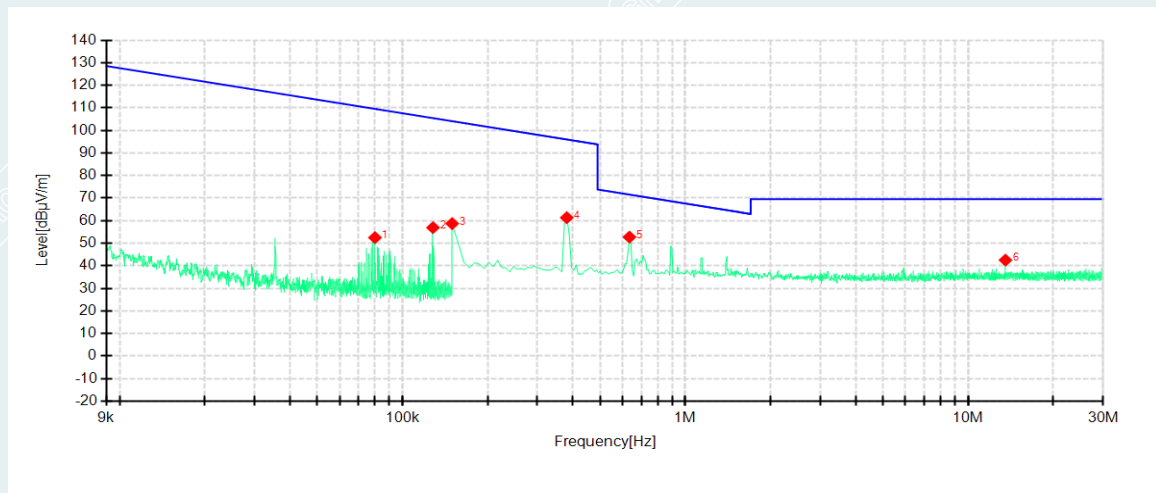
Project Information			
Application No.:	E202012084754	EUT:	Car Wireless Charger
Model:	VA40-66CHX	SN:	E202012084754-0003
Mode:	NFC 13.56MHz TX	Voltage:	DC 12V
Environment:	Temp: 25°C; Humi:60%	Engineer:	Chen XiaoCong



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	0.081	37.60	57.64	20.04	109.47	51.83	100	98	X
2	0.128	38.90	58.72	19.82	105.44	46.72	100	30	X
3	0.150	44.76	64.54	19.78	104.08	39.54	100	88	X
4	0.381	45.24	64.81	19.57	95.98	31.17	100	311	X
5	1.404	28.87	48.53	19.66	64.66	16.13	100	114	X
6	13.560	26.60	47.20	20.60	69.54	22.34	100	126	X

Note: NO.6 is the fundamental frequency point.

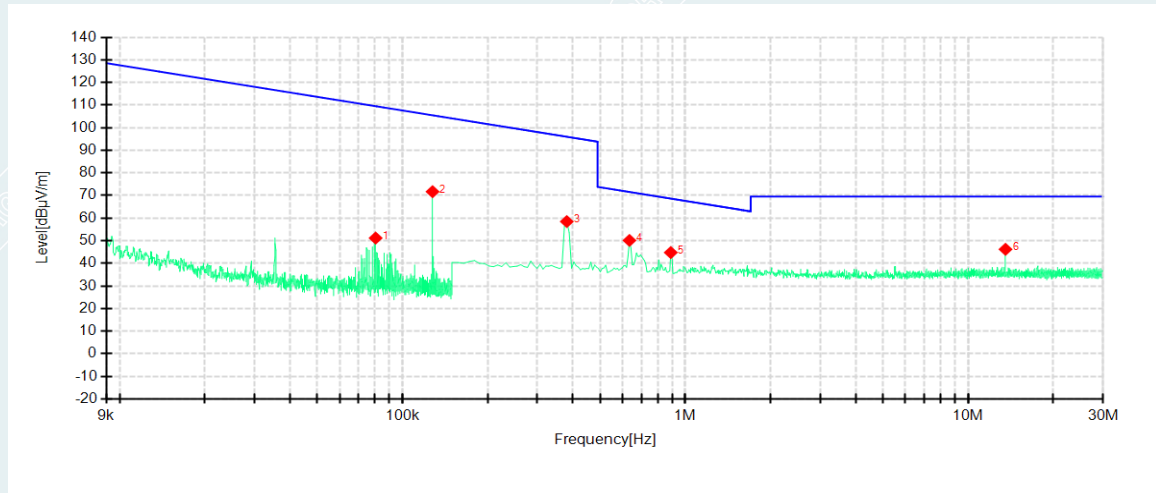
Project Information			
Application No.:	E202012084754	EUT:	Car Wireless Charger
Model:	VA40-66CHX	SN:	E202012084754-0003
Mode:	NFC 13.56MHz TX	Voltage:	DC 12V
Environment:	Temp: 25°C; Humi:60%	Engineer:	Chen XiaoCong



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	0.080	32.42	52.47	20.05	109.54	57.07	100	219	Y
2	0.128	37.08	56.90	19.82	105.44	48.54	100	30	Y
3	0.150	38.93	58.71	19.78	104.08	45.37	100	12	Y
4	0.381	41.75	61.32	19.57	95.98	34.66	100	171	Y
5	0.635	33.15	52.71	19.56	71.55	18.84	100	171	Y
6	13.560	21.92	42.52	20.60	69.54	27.02	100	205	Y

Note: NO.6 is the fundamental frequency point.

Project Information			
Application No.:	E202012084754	EUT:	Car Wireless Charger
Model:	VA40-66CHX	SN:	E202012084754-0003
Mode:	NFC 13.56MHz TX	Voltage:	DC 12V
Environment:	Temp: 25℃; Humi:60%	Engineer:	Chen XiaoCong

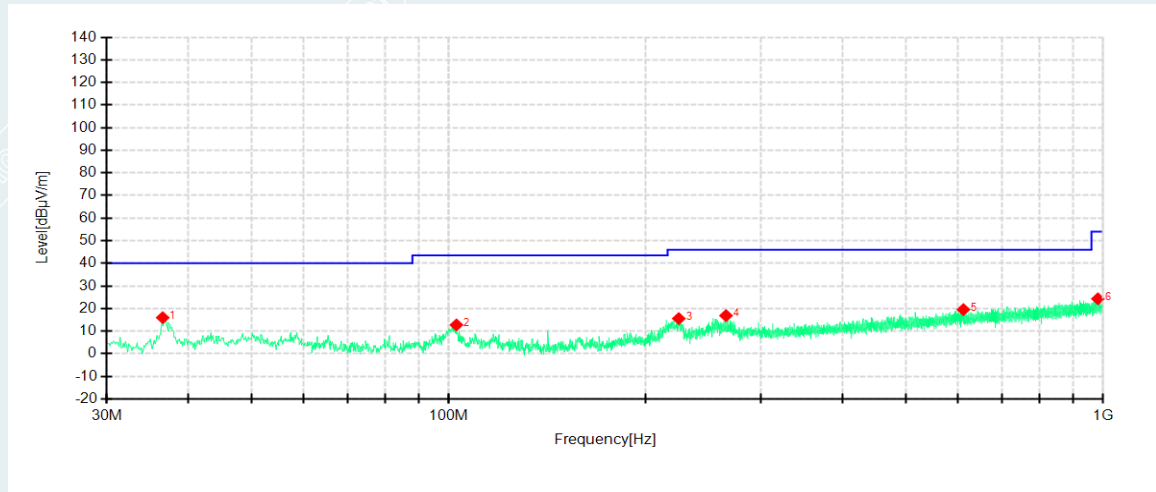


Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	0.080	31.11	51.15	20.04	109.50	58.35	100	299	Z
2	0.128	51.86	71.68	19.82	105.47	33.79	100	231	Z
3	0.381	38.90	58.47	19.57	95.98	37.51	100	304	Z
4	0.635	30.56	50.12	19.56	71.55	21.43	100	304	Z
5	0.889	25.25	44.75	19.50	68.63	23.88	100	304	Z
6	13.560	25.59	46.19	20.60	69.54	23.35	100	80	Z

Note:NO.6 is the fundamental frequency point.

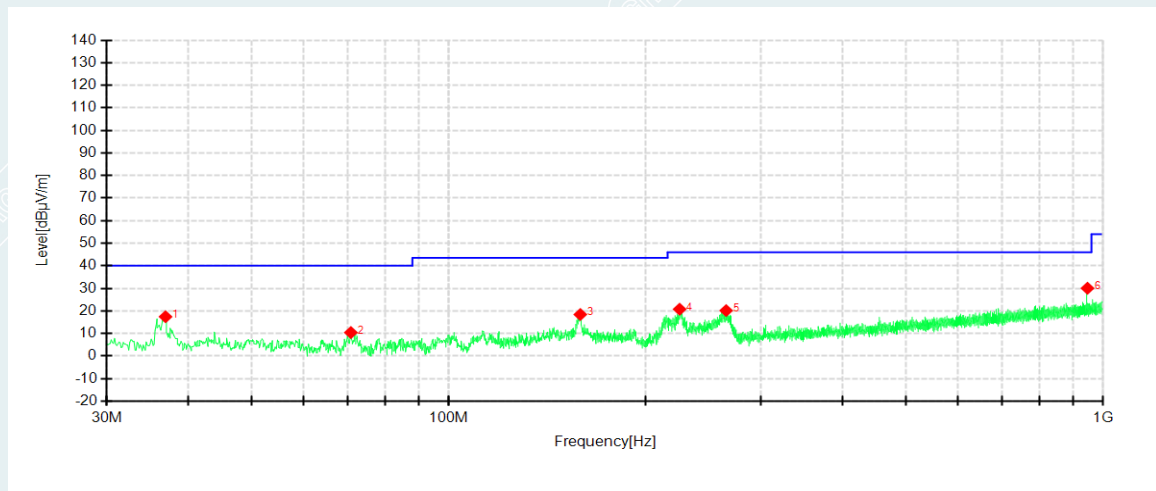
30MHz-1GHz

Project Information			
Application No.:	E202012084754	EUT:	Car Wireless Charger
Model:	VA40-66CHX	SN:	E202012084754-0003
Mode:	NFC 13.56MHz TX	Voltage:	DC 12V
Environment:	Temp: 25°C; Humi:60%	Engineer:	Chen XiaoCong



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	36.548	45.36	15.96	-29.40	40.00	24.04	100	0	Horizontal
2	102.75	41.79	12.74	-29.05	43.52	30.78	100	0	Horizontal
3	224.73	42.99	15.55	-27.44	46.02	30.47	200	90	Horizontal
4	265.35	43.11	16.85	-26.26	46.02	29.17	200	180	Horizontal
5	611.76	37.87	19.52	-18.35	46.02	26.50	100	180	Horizontal
6	982.18	37.53	24.28	-13.25	53.98	29.70	200	270	Horizontal

Project Information			
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Model:	VA40-66CHX	SN:	E202012084754-0003
Mode:	NFC 13.56MHz TX	Voltage:	DC 12V
Environment:	Temp: 25°C; Humi:60%	Engineer:	Chen XiaoCong



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	36.911	46.21	17.42	-28.79	40.00	22.58	100	270	Vertical
2	70.861	41.26	10.40	-30.86	40.00	29.60	100	180	Vertical
3	158.89	44.41	18.40	-26.01	43.52	25.12	100	90	Vertical
4	225.33	48.78	20.73	-28.05	46.02	25.29	100	270	Vertical
5	265.47	47.07	20.15	-26.92	46.02	25.87	100	180	Vertical
6	946.65	42.97	30.04	-12.93	46.02	15.98	100	0	Vertical

7. 20dB BANDWIDTH

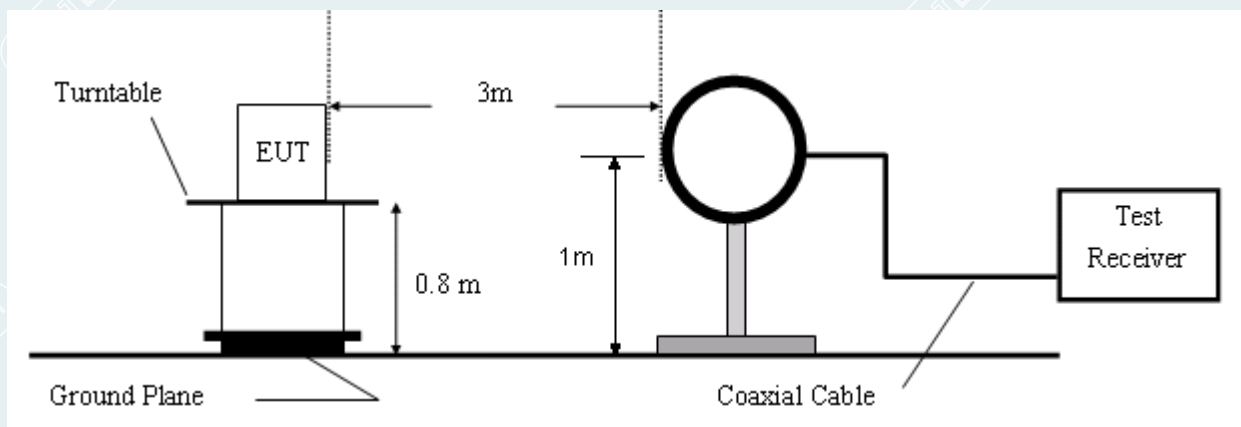
7.1 LIMITS

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. In the case of intentional radiators operating under the provisions of subpart E, the emission bandwidth may span across multiple contiguous frequency bands identified in that subpart. 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.

7.2 TEST PROCEDURES

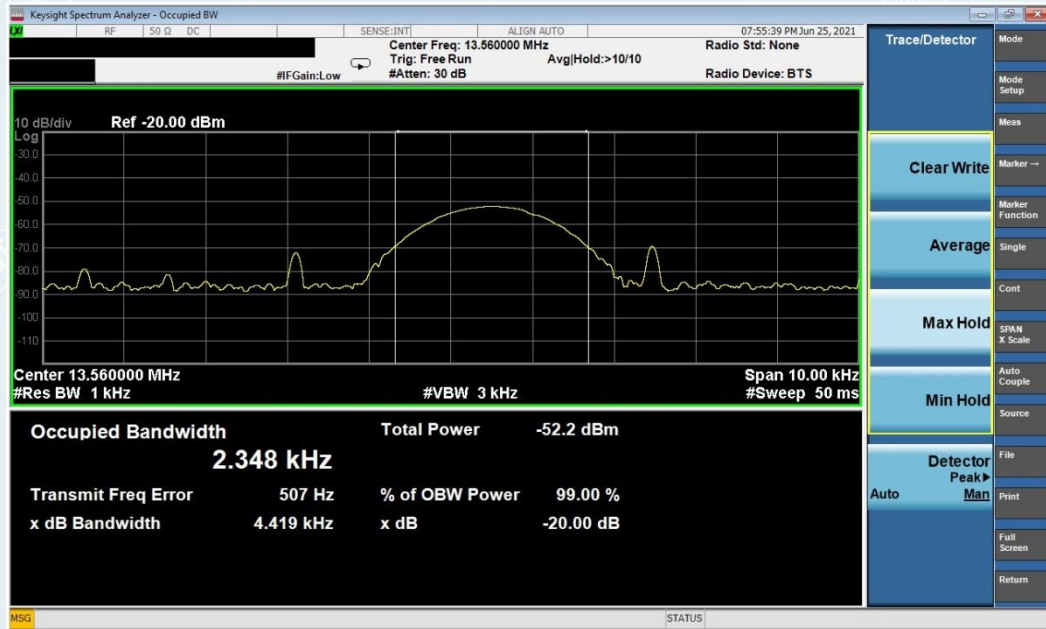
- 1) The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- 2) If the EUT is a tabletop system, a rotatable table with 0.8 m height is used.
- 3) If the EUT is a floor standing device, it is placed on the ground.
- 4) Auxiliary equipment and cables were positioned to simulate normal operation conditions.
- 5) The EUT is connected to DC Power Source.
- 6) The measurement distance is 3 meter.
- 7) The EUT was set into operation.
- 8) Adjust the test instrument for the following setting
 RBW: 1% to 5% of the Necessary bandwidth
 VBW: at least 3 times of the RBW
 Detector: Peak
 Sweep time: Auto
 Trace Mode: Max hold
- 9) Allow trace to fully stabilize

7.3 TEST SETUP



7.4 TEST RESULTS

Frequency (MHz)	99% Bandwidth (kHz)	20dB Bandwidth (kHz)	limit	Test Result
13.56	2.348	4.419	N/A	Complied



8. FREQUENCY TOLERANCE (TEMPERATURE VARIATION AND VOLTAGE VARIATION)

8.1 LIMITS

The frequency tolerance of the carrier signal shall be maintained within $\pm 0.01\%$ of operating frequency over a temperature variation of -20degrees 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.

8.2 TEST PROCEDURES

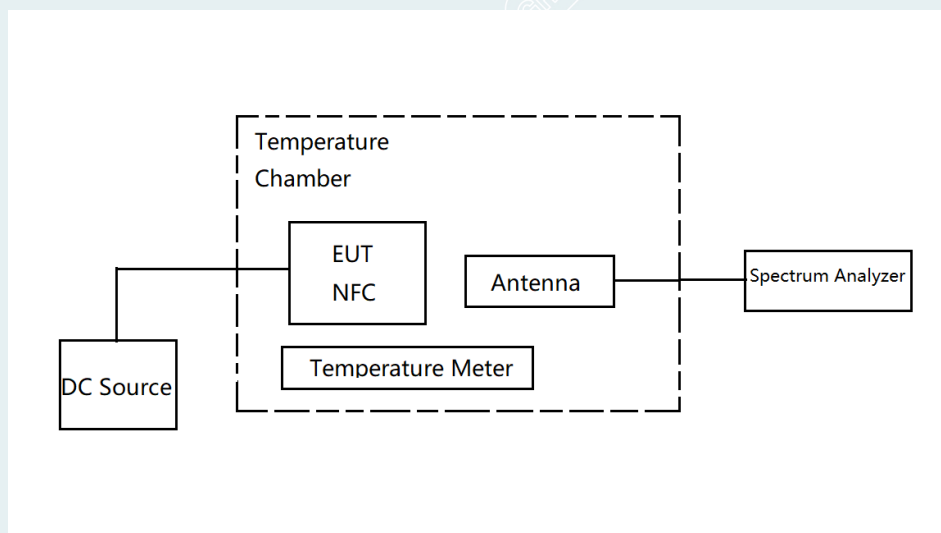
Frequency tolerance (Temperature variation)

- 1) The EUT and test equipment were setup as shown on the following page.
- 2) Set the temperature -20 degrees C.
- 3) Leave the EUT for 1 hour after it become the temperature that was setup.
- 4) Setup the EUT to transmitting.
- 5) Measure the transmitting frequency (startup, 2min, 5min and 10min).
- 6) Set the temperature -20 degrees C to +50 degrees C.
- 7) Repeat test procedure the step 4 to 6, and record the test data after the testing finished.

Frequency tolerance (Voltage variation)

- 1) The EUT and test equipment (set the supply voltage 100%) were setup as shown on the following page.
- 2) Set the temperature 20 degrees C.
- 3) Leave the EUT for 1 hour after it become the temperature that was setup.
- 4) Setup the EUT to transmitting.
- 5) Measure the transmitting frequency.
- 6) Set the supply voltage 85% and 115%
- 7) Repeat test procedure the step 4 to 6, and record the test data after the testing finished.

8.3 TEST SETUP



8.4 TEST RESULTS

Temperature Variation

startup

Transmitting Frequency (MHz)	Temperature (Degree C)	Voltage (V)	Frequency (MHz)	Deviation(%)	Limit(±) (%)
13.56	-20	12.0	13.5599	-0.000737	0.01
	-10	12.0	13.5599	-0.000737	0.01
	0	12.0	13.5612	0.008850	0.01
	10	12.0	13.5602	0.001475	0.01
	20	12.0	13.5608	0.005900	0.01
	30	12.0	13.5607	0.005162	0.01
	40	12.0	13.5598	-0.001475	0.01
	50	12.0	13.5604	0.002950	0.01

2min

Transmitting Frequency (MHz)	Temperature (Degree C)	Voltage (V)	Frequency (MHz)	Deviation(%)	Limit(±) (%)
13.56	-20	12.0	13.5598	-0.001475	0.01
	-10	12.0	13.5597	-0.002212	0.01
	0	12.0	13.5611	0.008112	0.01
	10	12.0	13.5604	0.002950	0.01
	20	12.0	13.5603	0.002212	0.01
	30	12.0	13.5608	0.005900	0.01
	40	12.0	13.5599	-0.000737	0.01
	50	12.0	13.5604	0.002950	0.01

5min

Transmitting Frequency (MHz)	Temperature (Degree C)	Voltage (V)	Frequency (MHz)	Deviation(%)	Limit(±) (%)
13.56	-20	12.0	13.5597	-0.002212	0.01
	-10	12.0	13.5598	-0.001475	0.01
	0	12.0	13.5611	0.008112	0.01
	10	12.0	13.5604	0.002950	0.01
	20	12.0	13.5606	0.004425	0.01
	30	12.0	13.5606	0.004425	0.01
	40	12.0	13.5594	-0.004425	0.01
	50	12.0	13.5602	0.001475	0.01

10min

Transmitting Frequency (MHz)	Temperature (Degree C)	Voltage (V)	Frequency (MHz)	Deviation(%)	Limit(±) (%)
13.56	-20	12.0	13.5597	-0.002212	0.01
	-10	12.0	13.5596	-0.002950	0.01
	0	12.0	13.5611	0.008112	0.01
	10	12.0	13.5605	0.003687	0.01
	20	12.0	13.5604	0.002950	0.01
	30	12.0	13.5606	0.004425	0.01
	40	12.0	13.5599	-0.000737	0.01
	50	12.0	13.5607	0.005162	0.01

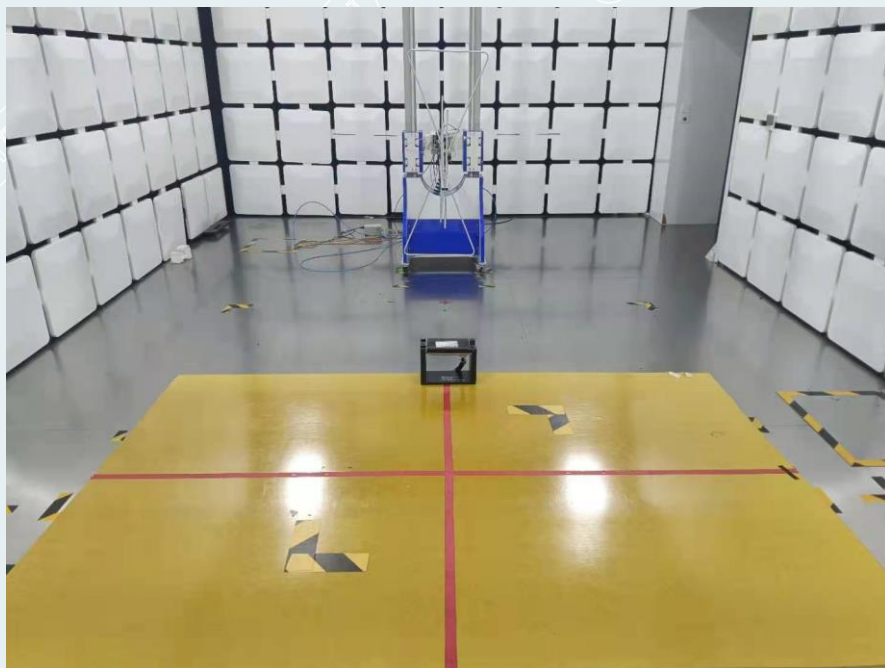
Frequency tolerance (Voltage variation)

Transmitting Frequency (MHz)	Temperature (Degree C)	Voltage (V)	Frequency (MHz)	Deviation(%)	Limit(±) (%)
13.56	20	10.2	13.5611	0.008112	0.01
	20	12.0	13.5608	0.005900	0.01
	20	13.8	13.5603	0.002212	0.01

9. APPENDIX A. PHOTOGRAPH OF THE TEST CONNECTION DIAGRAM



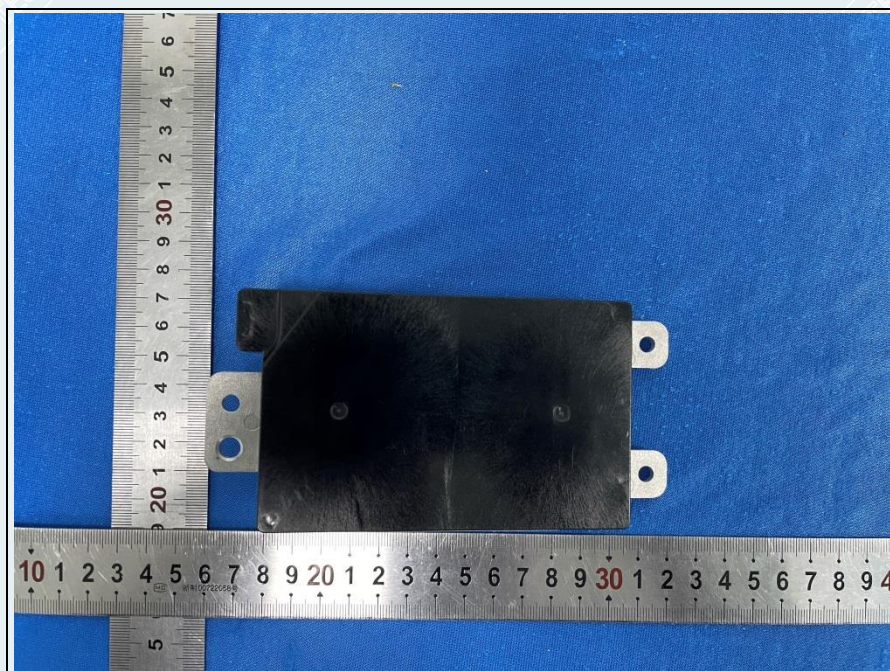
9kHz-30MHz



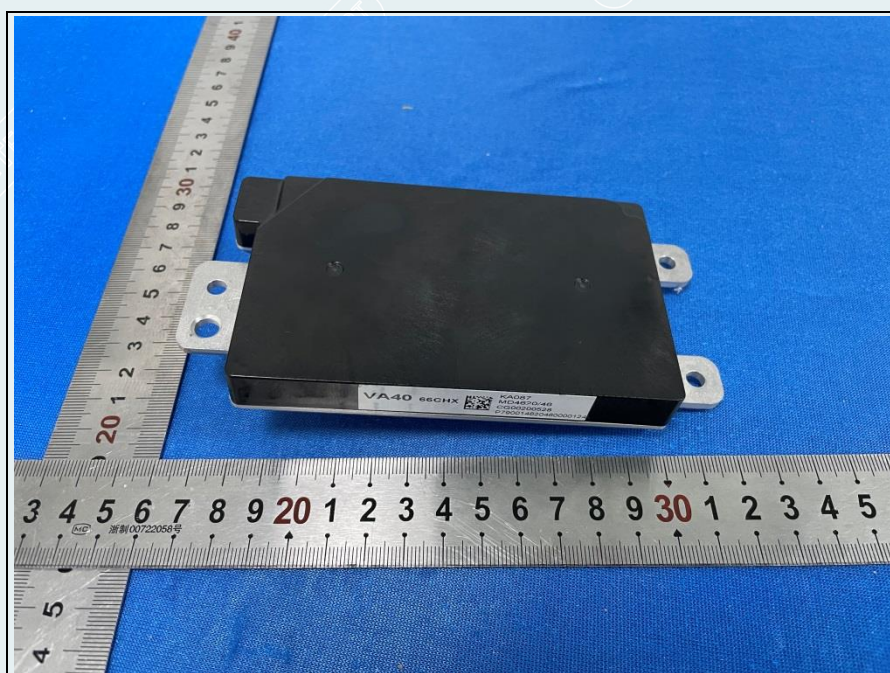
30MHz-1GHz

10.APPENDIX A: PHOTOGRAPH OF THE EUT

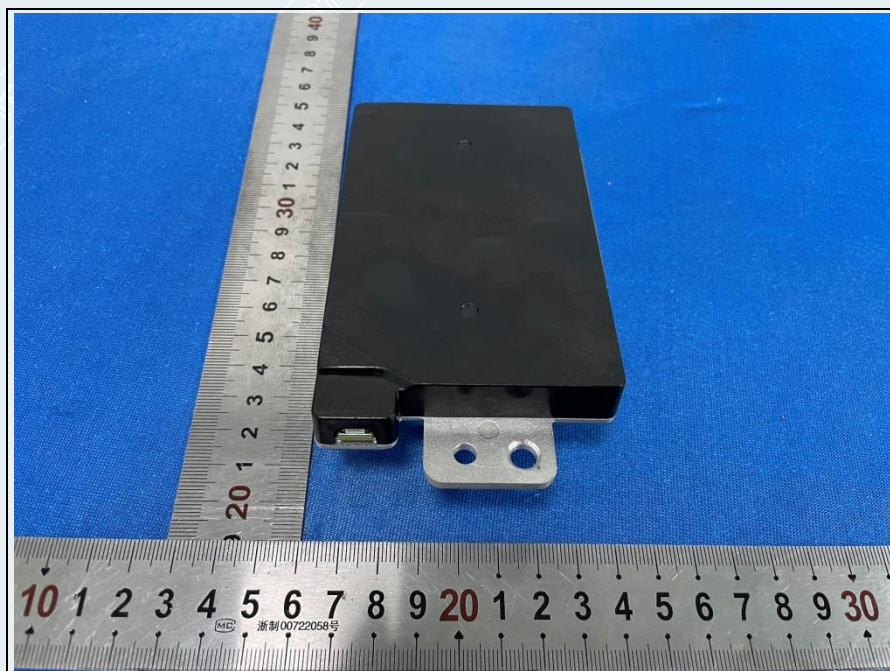
External Photos of EUT



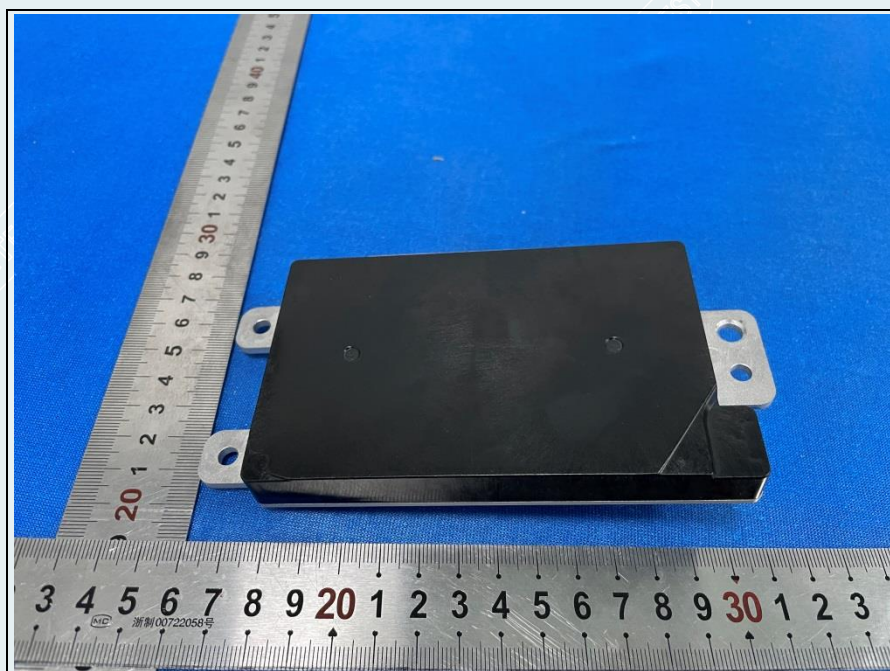
EUT-1



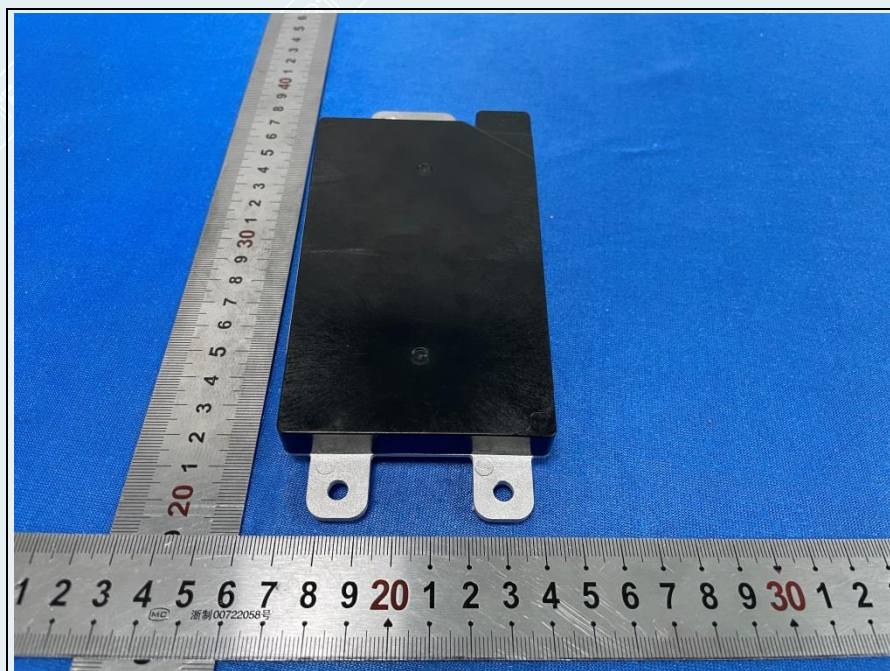
EUT-2



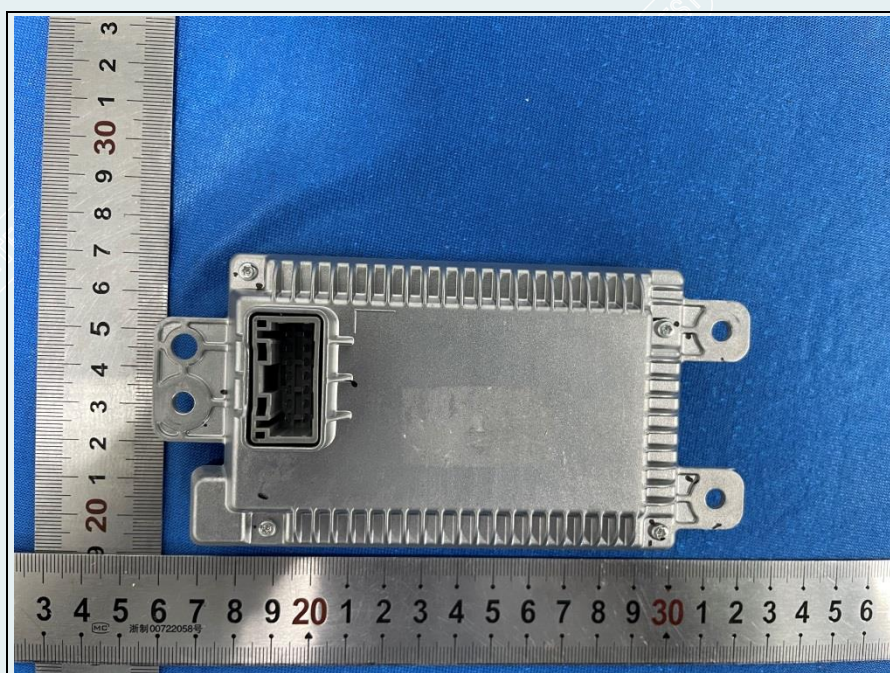
EUT-3



EUT-4

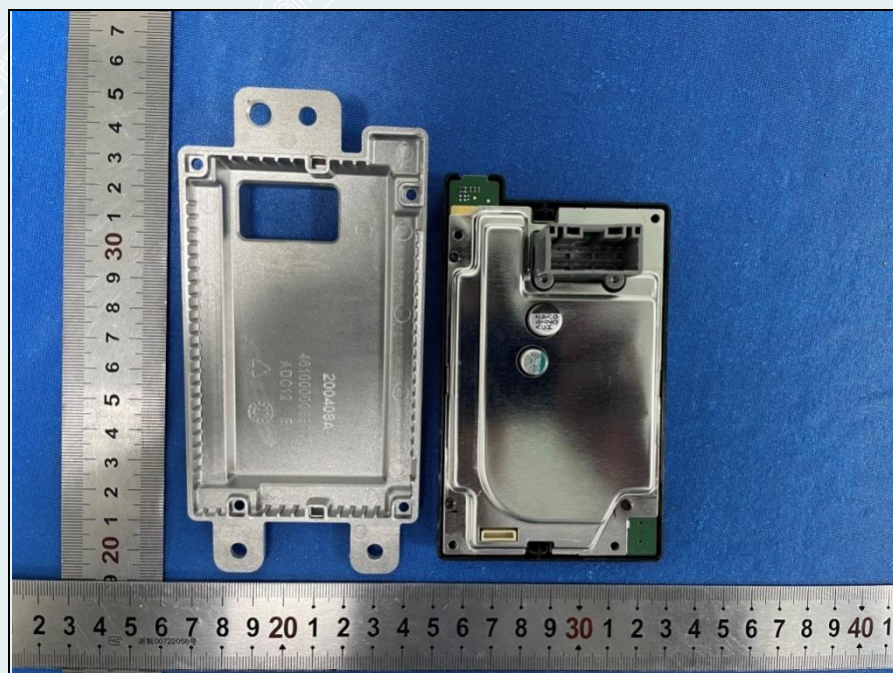


EUT-5

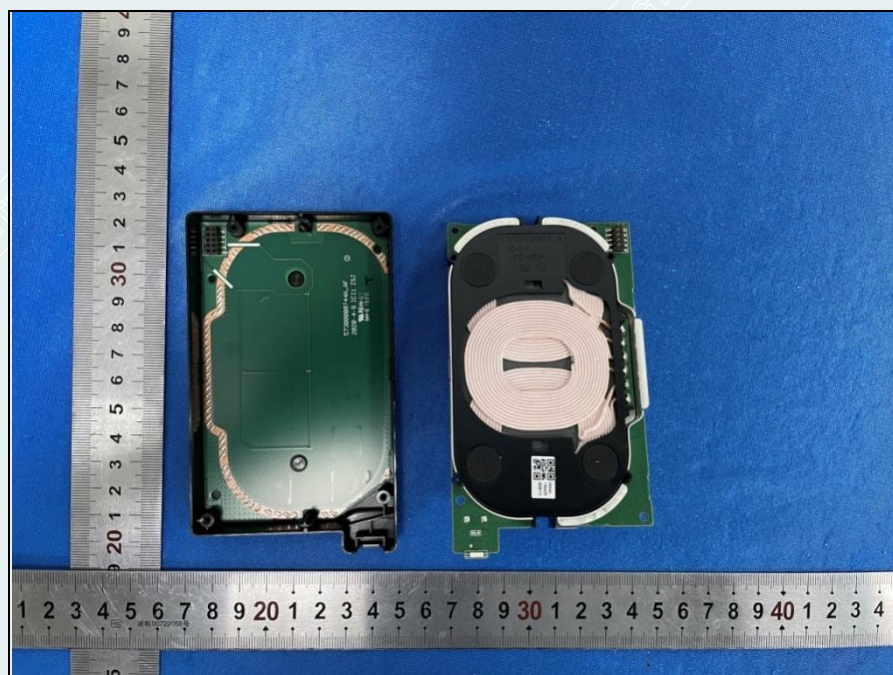


EUT-6

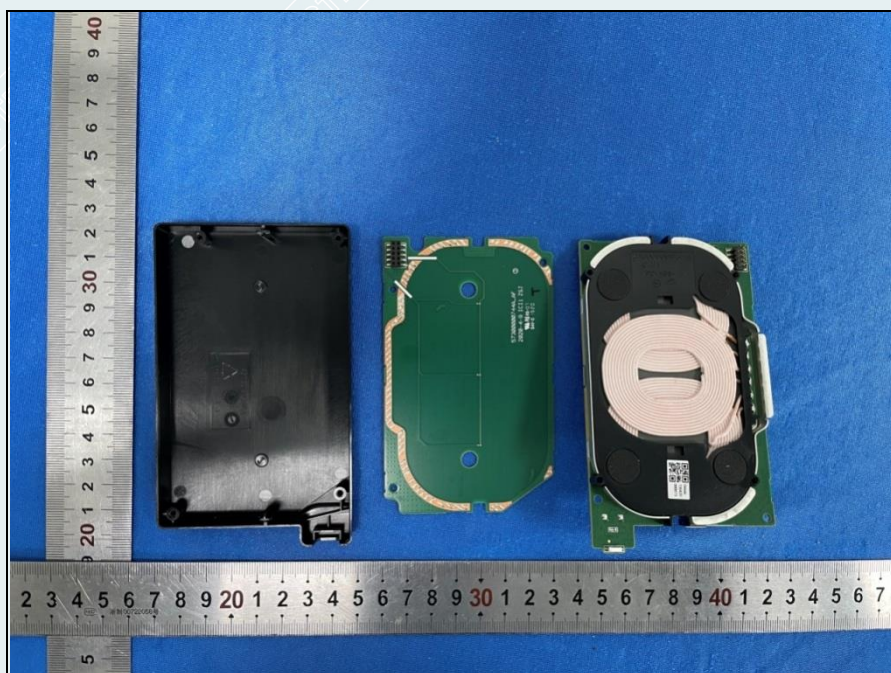
Internal Photos of EUT



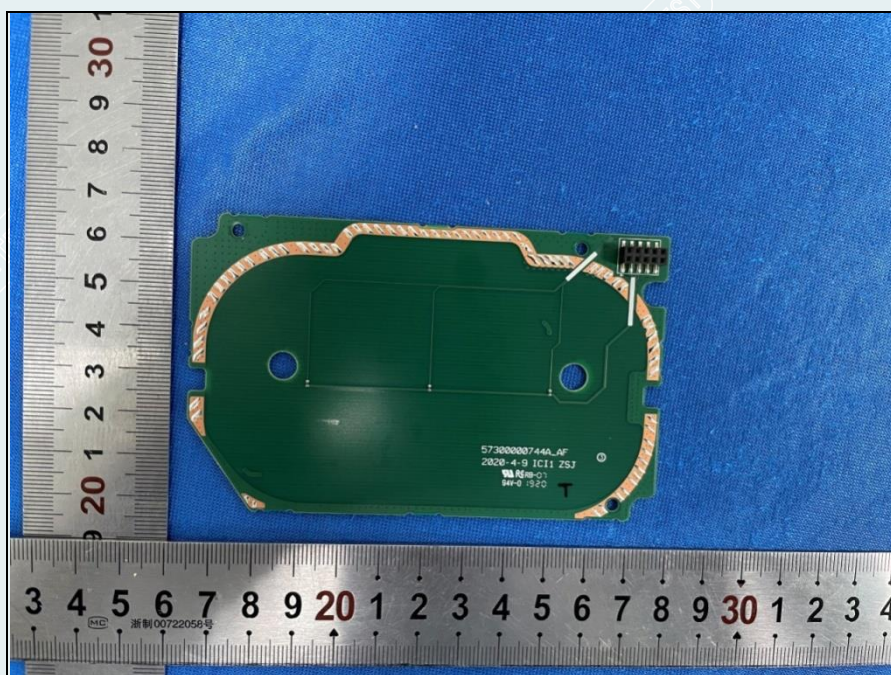
EUT-1



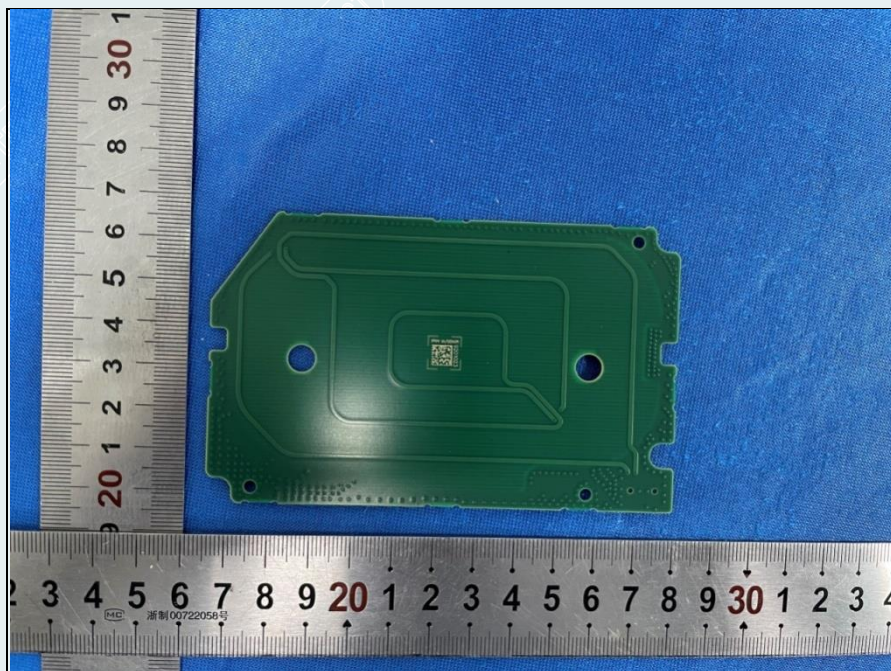
EUT-2



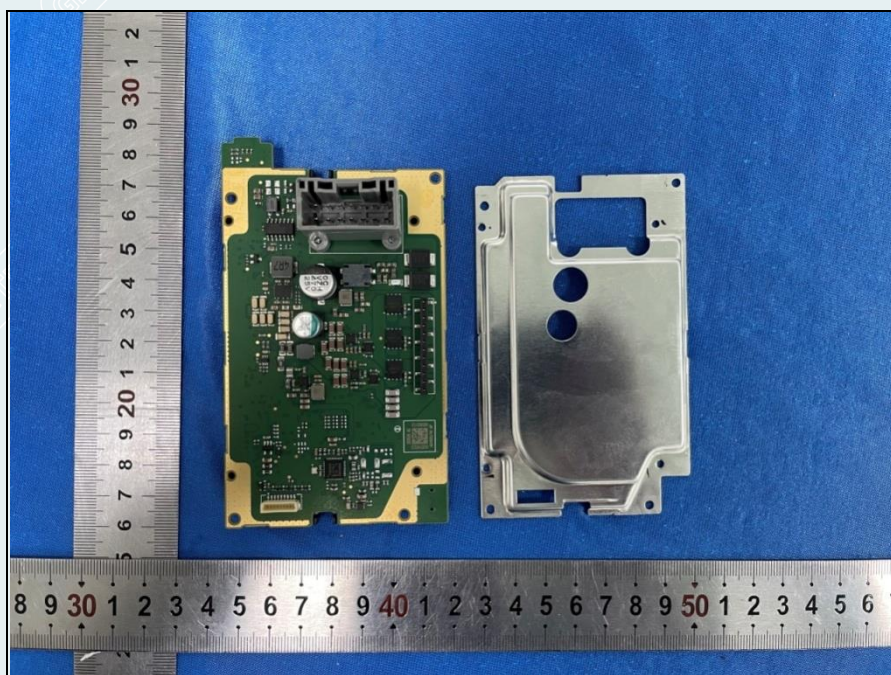
EUT-3



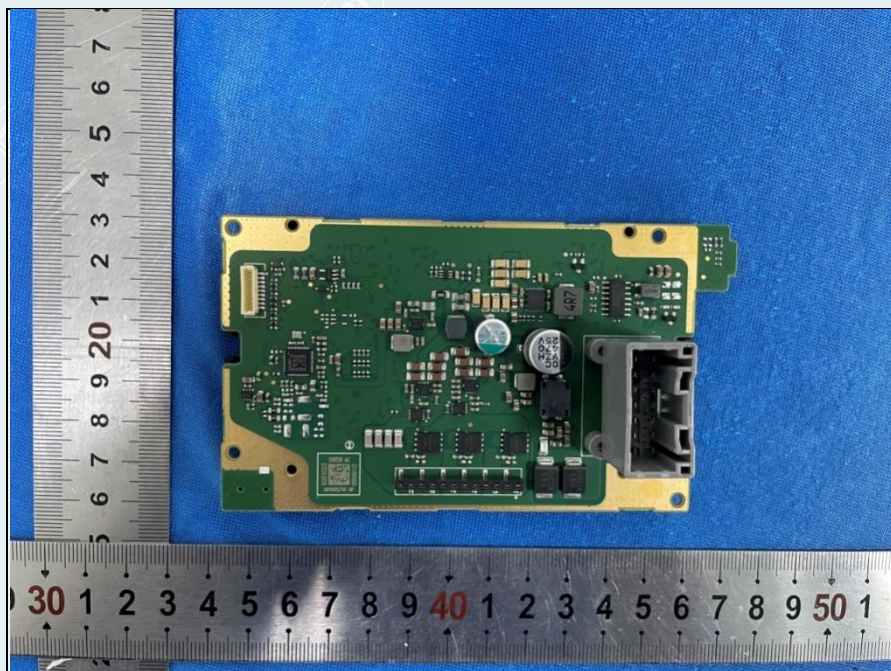
EUT-4



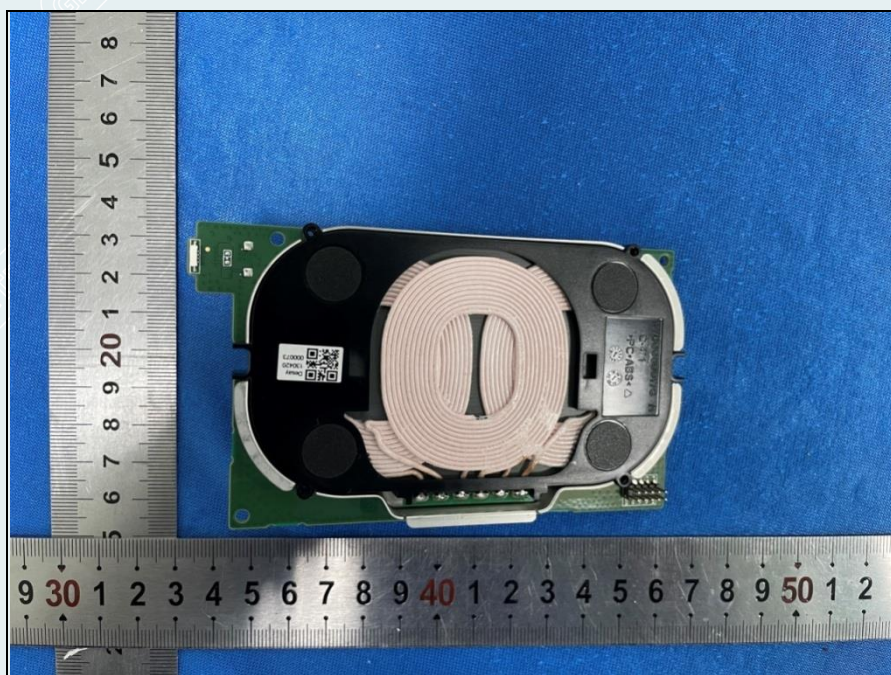
EUT-5



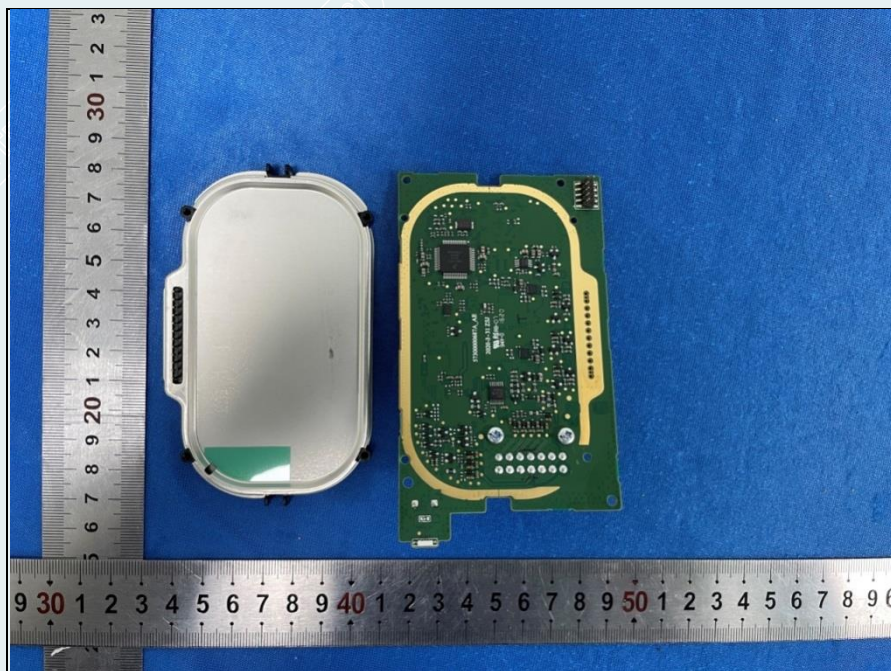
EUT-6



EUT-7



EUT-8



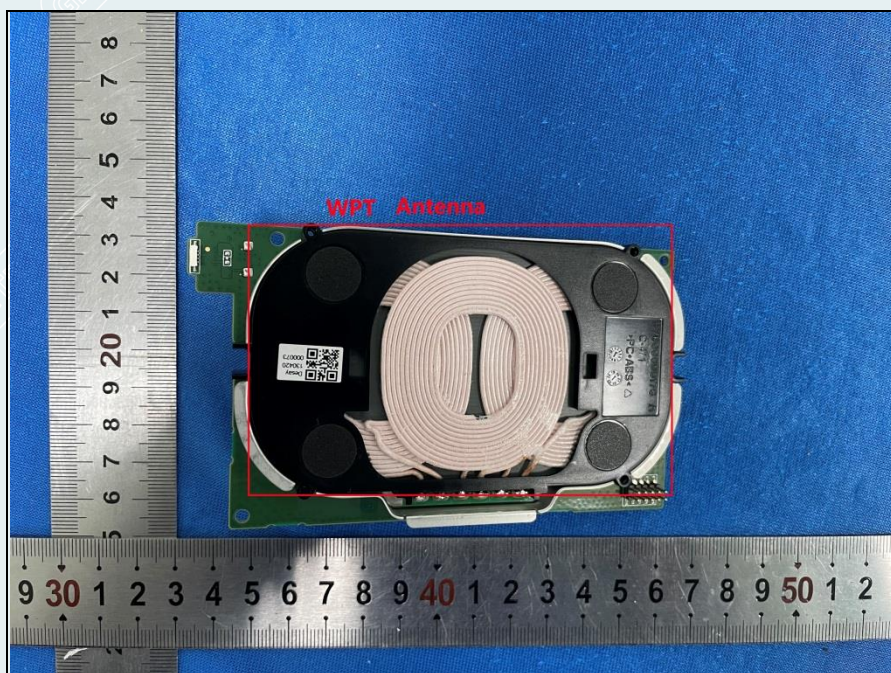
EUT-9



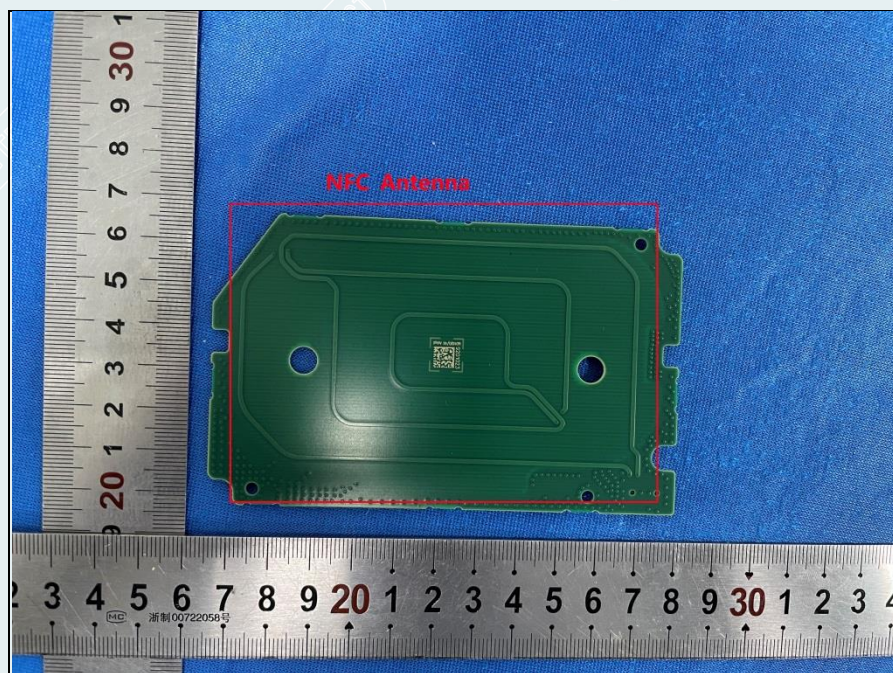
EUT-10



EUT-11



EUT-12



EUT-13

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