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Report Template Version: V04 Report Template Revision Date: 2018-07-06

Test Report

Report No.:	CQASZ20210300271E-01		
Applicant:	Shenzhen Times Innovation Technology Co., Ltd		
Address of Applicant:	5th Floor,Building B,Baseus Intelligence Park, No.2008,Xuegang Rd,Gangtou Community, Bantian Street,Longgang District,Shenzhen.		
Equipment Under Test	(EUT):		
Product:	Baseus Big Energy Car Mount Wireless Charger		
Model No.:	WXJN-01		
Test Model No.:	WXJN-01		
Brand Name:	Baseus		
FCC ID:	2AY37-WXJN-01		
Standards:	47 CFR Part 15, Subpart C		
Date of Receipt:	2021-03-11		
Date of Test:	2021-03-11 to 2021-03-31		
Date of Issue:	2021-03-31		
Test Result:	PASS*		

*In the configuration tested, the EUT complied with the standards specified above

JUh Li Tested By: ____ (Jun Li) Reviewed By: _____ (Ares Liu) Approved By: Sheek, Luc

(Sheek Luo)

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CQA, this report can't be reproduced except in full.



1 Version

Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20210300271E-01	Rev.01	Initial report	2021-03-31



2 Test Summary

Test Item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15, Subpart C Section 15.203	ANSI C63.10 2013	PASS
AC Power Line Conducted Emission	47 CFR Part 15, Subpart C Section 15.207	ANSI C63.10 2013	PASS
20dB Occupied Bandwidth	47 CFR Part 15, Subpart C Section 15.215	ANSI C63.10 2013	PASS
Radiated Emission , Radiated Spurious Emissions	47 CFR Part 15, Subpart C Section 15.209	ANSI C63.10 2013	PASS



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4 General Information

4.1 Client Information

Applicant:	Shenzhen Times Innovation Technology Co., Ltd	
Address of Applicant:	5th Floor,Building B,Baseus Intelligence Park, No.2008,Xuegang Rd,Gangtou Community, Bantian Street,Longgang District,Shenzhen.	
Manufacturer:	Dongguan goal lock electronic technology co.,Ltd	
Address of Manufacturer:	Building 2, No. 8, Shabu street, Zhuweitian, Fenggang town, Dongguan City, Guangdong Province	
Factory:	Dongguan goal lock electronic technology co.,Ltd	
Address of Factory:	Building 2, No. 8, Shabu street, Zhuweitian, Fenggang town, Dongguan City, Guangdong Province	

4.2 General Description of EUT

Product Name:	Baseus Big Energy Car Mount Wireless Charger	
Model No.:	WXJN-01	
Test Model No.:	WXJN-01	
Brand Name:	Baseus	
Hardware Version:	N/A	
Software Version:	N/A	
EUT Power Supply:	Input :Type-C DC 5V 2A, DC 9V 2A,DC12V 1.67A	

4.3 **Product Specification subjective to this standard**

Equipment Category:	Non-ISM frequency	
Operation Frequency range:	110kHz~205kHz	
Modulation Type:	Induction	
Antenna Type:	Induction coil	
Antenna Gain:	0dBi	
Power:	Output: 15W(Max)	

Note:

1. In section 15.31(m), regards to the operating frequency range less 1 MHz.



4.4 Test Environment

Operating Environment	:		
Radiated Emissions:			
Temperature:	25.5 °C		
Humidity:	53 % RH		
Atmospheric Pressure:	1009 mbar		
Conducted Emissions:			
Temperature:	25.5 °C		
Humidity:	55 % RH		
Atmospheric Pressure:	1009 mbar		
Radio conducted item to	est (RF Conducted test room):		
Temperature:	27.3 °C		
Humidity:	58 % RH		
Atmospheric Pressure:	1009 mbar		
Test Mode:			
Mode a:	Wireless output Mode at 5W		
Mode b:	Wireless output Mode at 7.5W		
Mode c:	Wireless output Mode at 10W		
Mode d:	Wireless output Mode at 15W		
Note: The mode a was t	Note: The mode a was the worst case and only the data of the worst case record in this report.		

4.5 Description of Support Units

The EUT has been tested with associated equipment below.

1) Support equipment

Description	Manufacturer	Model No. Certification		Supplied by
Adapter	HUAWEI	LPL-C010050200Z DOC		CQA
2) Cable				
Cable No.	Description	Manufacturer	Cable Type/Length	Supplied by
/	/	/	/	/



4.6 Statement of the 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 CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the **Shenzhen Huaxia Testing Technology Co., Ltd.** quality 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.

No.	Item	Uncertainty	Notes
1	Radiated Emission (Below 1GHz)	5.12dB	(1)
2	Radiated Emission (Above 1GHz)	4.60dB	(1)
3	Occupied Bandwidth	1.1%	(1)
4	Temperature test	0.8°C	(1)
5	Humidity test	2.0%	(1)

Hereafter the best measurement capability for CQA laboratory is reported:

(1)This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

4.7 Test Location

Shenzhen Huaxia Testing Technology Co., Ltd,

1F., Block A of Tongsheng Technology Building, Huahui Road, Dalang Street, Longhua District, Shenzhen, China

4.8 Test Facility

• A2LA (Certificate No. 4742.01)

Shenzhen Huaxia Testing Technology Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 4742.01.

• FCC Registration No.: 522263

Shenzhen Huaxia Testing Technology Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.:522263

4.9 Deviation from Standards

None.

4.10Other Information Requested by the Customer

None.



4.11 Equipment List

Test Equipment	Manufacturer	Model No.	Instrument No.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR7	CQA-005	2020/10/25	2021/10/24
Spectrum analyzer	R&S	FSU26	CQA-038	2020/10/25	2021/10/24
Preamplifier	MITEQ	AMF-6D-02001800-29- 20P	CQA-036	2020/10/25	2021/10/24
Loop antenna	Schwarzbeck	FMZB1516	CQA-060	2020/10/21	2021/10/20
Bilog Antenna	R&S	HL562	CQA-011	2020/9/26	2021/9/25
Horn Antenna	R&S	HF906	CQA-012	2020/9/26	2021/9/25
Horn Antenna	Schwarzbeck	BBHA 9170	CQA-088	2020/9/25	2021/9/24
Coaxial Cable (Above 1GHz)	CQA	N/A	C007	2020/9/26	2021/9/25
Coaxial Cable (Below 1GHz)	CQA	N/A	C013	2020/9/26	2021/9/25
Antenna Connector	CQA	RFC-01	CQA-080	2020/9/26	2021/9/25
RF cable(9KHz~40GHz)	CQA	RF-01	CQA-079	2020/9/26	2021/9/25
Power divider	MIDWEST	PWD-2533-02-SMA-79	CQA-067	2020/9/26	2021/9/25
EMI Test Receiver	R&S	ESR7	CQA-005	2020/10/25	2021/10/24
LISN	R&S	ENV216	CQA-003	2020/10/23	2021/10/22
Coaxial cable	CQA	N/A	CQA-C009	2020/9/26	2021/9/25
DC power	KEYSIGHT	E3631A	CQA-028	2020/9/26	2021/9/25





5 Test results and Measurement Data

5.1 Antenna Requirement

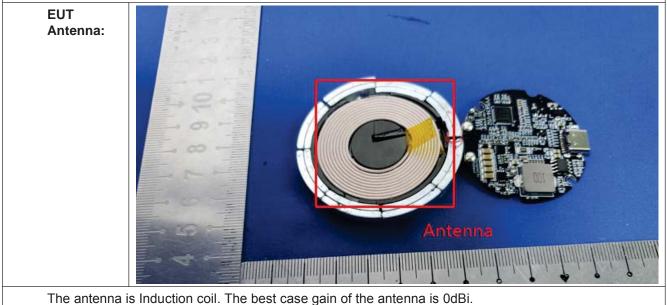


15.203 requirement:

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.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.





5.2 Conducted E	missions
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Test Requirement:	47 CFR Part 15C Section 15.207					
Test Method:	ANSI C63.10: 2013					
Test Frequency Range:						
Limit:	Limit (dBuV)					
Linna	Frequency range (MHz)	Quasi-peak				
	0.15.0.5	66 to 56*	Average 56 to 46*			
	0.15-0.5					
	0.5-5	56	46			
	5-30	60	50			
Test Procedure:	 * Decreases with the logarithm of the frequency. 1) The mains terminal disturbance voltage test was conducted in a shielded room. 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50µH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded. 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane. 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2. 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement. 					
Test Setup:	Shielding Room	AE USN2 + AC Ma Ground Reference Plane	Test Receiver			
Test Results:	Pass					

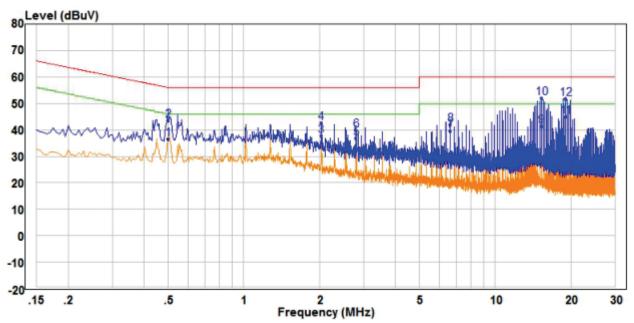


Measurement Data

The worst case:

Mode d:

Live line:



		Read			Limit	Over		
	Freq	Level	Factor	Level	Line	Limit	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.500	27.12	9.52	36.64	46.00	-9.36	Average	Line
2	0.500	33.88	9.52	43.40	56.00	-12.60	QP	Line
3	2.035	28.11	9.53	37.64	46.00	-8.36	Average	Line
4	2.035	32.98	9.53	42.51	56.00	-13.49	QP	Line
5	2.800	27.27	9.59	36.86	46.00	-9.14	Average	Line
6	2.800	30.31	9.59	39.90	56.00	-16.10	QP	Line
7	6.620	29.76	9.71	39.47	50.00	-10.53	Average	Line
8	6.620	32.40	9.71	42.11	60.00	-17.89	QP	Line
9	15.275	31.56	9.91	41.47	50.00	-8.53	Average	Line
10 QF	15.275	42.08	9.91	51.99	60.00	-8.01	QP	Line
11 PF	19.095	35.09	10.06	45.15	50.00	-4.85	Average	Line
12	19.095	41.65	10.06	51.71	60.00	-8.29	QP	Line

Remark:

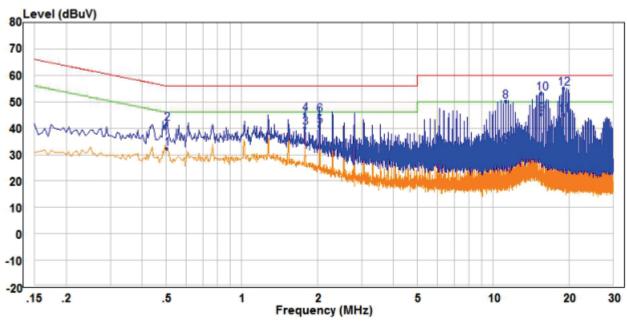
- 1. The following Quasi-Peak and Average measurements were performed on the EUT:
- 2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.
- 3. If the Peak value under Average limit, the Average value is not recorded in the report.



The worst case:

Mode d:

Neutral line:



Limit

Over

		Freq	Level	Factor	Level	Line	Limit	Remark	Pol/Phase
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.505	22.64	9.60	32.24	46.00	-13.76	Average	Neutral
2		0.505	32.08	9.60	41.68	56,00	-14.32	QP	Neutral
3		1.785	30.53	9.72	40.25	46.00	-5.75	Average	Neutral
4		1.785	35.56	9.72	45.28	56.00	-10.72	QP	Neutral
5		2.040	31.18	9.72	40.90	46.00	-5.10	Average	Neutral
6		2.040	35.30	9.72	45.02	56.00	-10.98	QP	Neutral
7		11.220	23.68	9.94	33.62	50.00	-16.38	Average	Neutral
8		11.220	40.44	9.94	50.38	60.00	-9.62	QP	Neutral
9	PP	15.570	35.41	9.93	45.34	50.00	-4.66	Average	Neutral
10		15.570	43.35	9,93	53.28	60.00	-6.72	QP	Neutral
11		19.125	34.98	10.04	45.02	50.00	-4.98	Average	Neutral
12	QP	19.125	45.16	10.04	55.20	60.00	-4.80	QP	Neutral

Remark:

1. The following Quasi-Peak and Average measurements were performed on the EUT:

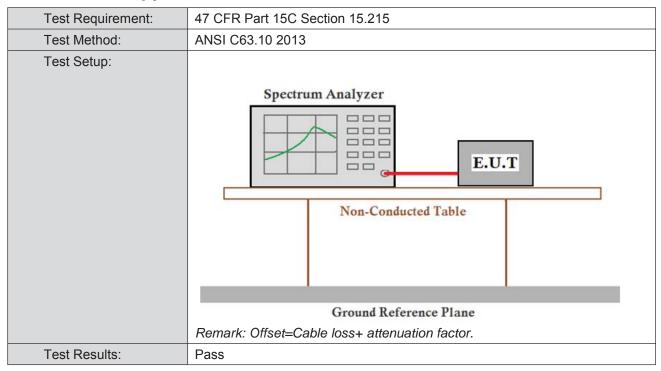
2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.

Read

3. If the Peak value under Average limit, the Average value is not recorded in the report.



5.3 20dB Occupy Bandwidth

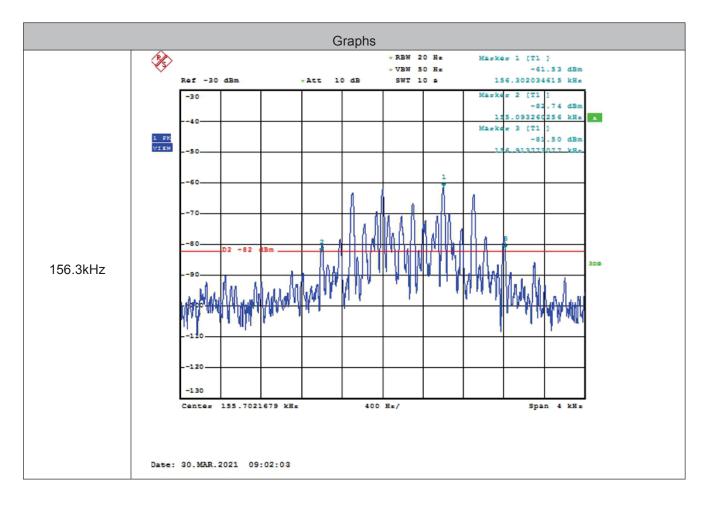


Measurement Data

Mode a						
Test Frequency (kHz)	20dB Occupy Bandwidth (Hz)	Result				
156.3	1821	Pass				



Test plot as follows:





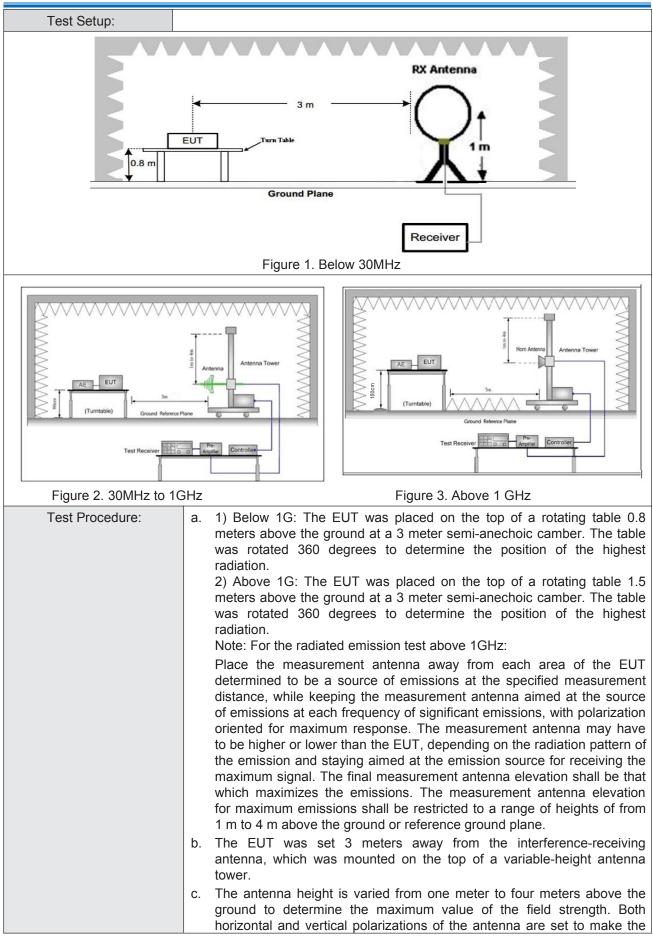
5.4 Radiated Spurious Emission & Restricted bands

5.4.1 Spurious Emissions

Test Requirement:	47 CFR Part 15C Section 15.209 and 15.205								
Test Method:	ANSI C63.10 2013								
Test Site:	Measurement Distance	: 3n	n (Semi-Anech	noic Cham	ber	r)			
Receiver Setup:	Frequency		Detector	RBW		VBW	Remark	1	
	0.009MHz-0.090MH	z	Peak	10kHz	z	30kHz	Peak	1	
	0.009MHz-0.090MH	z	Average	10kHz	z	30kHz	Average	1	
	0.090MHz-0.110MH	Z	Quasi-peak	10kHz	z	30kHz	Quasi-peak	1	
	0.110MHz-0.490MH	Z	Peak	10kHz	z	30kHz	Peak	1	
	0.110MHz-0.490MH	z	Average	10kHz	z	30kHz	Average	1	
	0.490MHz -30MHz		Quasi-peak	10kHz	z	30kHz	Quasi-peak	1	
	30MHz-1GHz		Quasi-peak	100 kH	lz	300kHz	Quasi-peak	1	
			Peak	1MHz	1MHz		Peak	1	
	Above 1GHz		Peak	1MHz	2	10Hz	Average		
Limit:	Frequency	Frequency Field stre		Limit (dBuV/m)		Remark	Measureme distance (r		
	0.009MHz-0.490MHz 2400/F(kHz)		-	-		300			
	0.490MHz-1.705MHz	-	-		30				
	1.705MHz-30MHz		30	-		-	30		
	30MHz-88MHz		100	40.0	Q	uasi-peak	3		
	88MHz-216MHz		150	43.5	Q	uasi-peak	3		
	216MHz-960MHz 200		46.0	46.0 Quasi-peak		3			
	960MHz-1GHz 500		54.0	Q	uasi-peak	3			
	Above 1GHz	54.0		Average	3				
	Above 1GHz50054.0Average3Note: 15.35(b), Unless otherwise specified, the limit on peak radiofrequency emissions is 20dB above the maximum permitted average emissionlimit applicable to the equipment under test. This peak limit applies to the totalpeak emission level radiated by the device.								



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		measurement.
	d.	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.
	e.	The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
	f.	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.
	g.	Repeat above procedures until all frequencies measured was complete.
Test Results:	Pa	SS

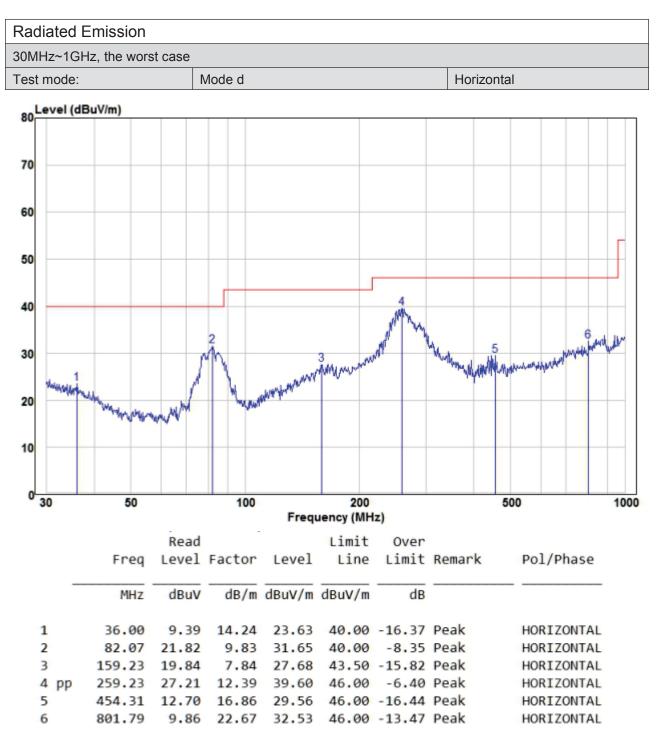
Radiated Emission below 9k~30MHz				
the worst case				
Test mode:	Mode d			

Frequency MHz	Polarization	Reading dB(uV)	Factor dB (1/m)	Level dB(uV/m) Peak	Limit dB(uV/m) Average	Margin dB	Pass/Fail
0.1563	Face	48.33	19.59	67.92	104.50	36.58	Pass
0.1563	Side	47.25	19.59	66.84	104.50	37.66	Pass

Note: No other emissions found between lowest internal used/generated frequencies to 30MHz. The peak level of the emission is less than the average limit, so the average level shall be less than the limit without test.



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Remark:

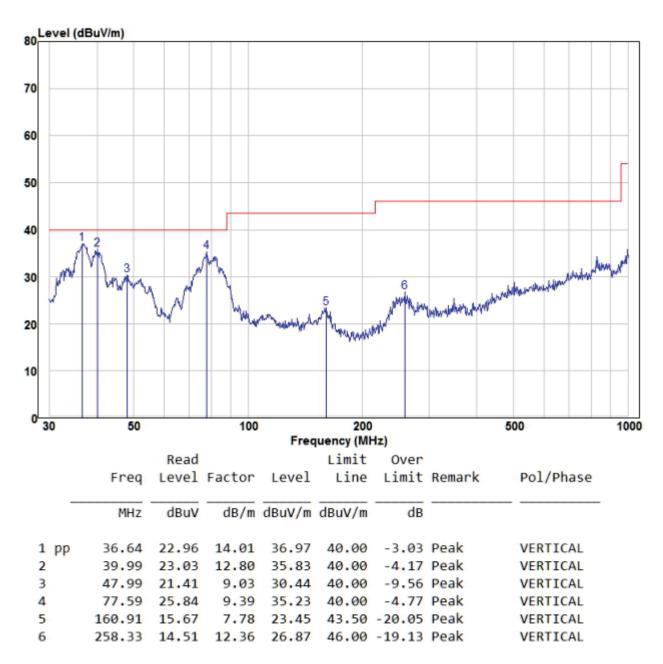
The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor



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30MHz~1GHz, the worst case						
Test mode:	Mode a	Vertical				



Remark:

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

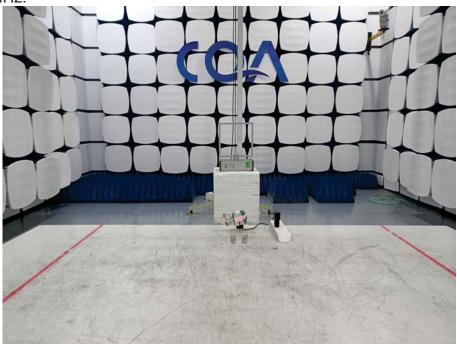
Final Test Level =Receiver Reading + Antenna Factor + Cable Factor



6 Photographs - EUT Test Setup

6.1 Radiated Emission

9kHz~30MHz:



30MHz~1GHz:





6.2 Conducted Emission





7 Photographs - EUT Constructional Details

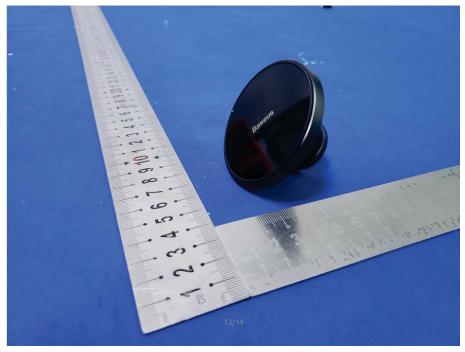






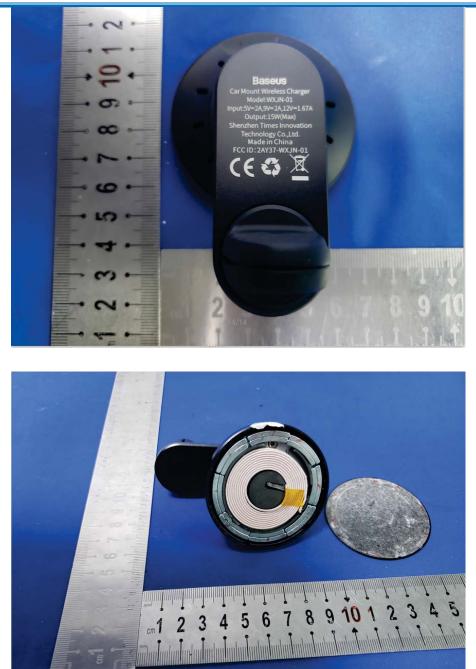
Report No.: CQASZ20210300271E-01







Report No.: CQASZ20210300271E-01

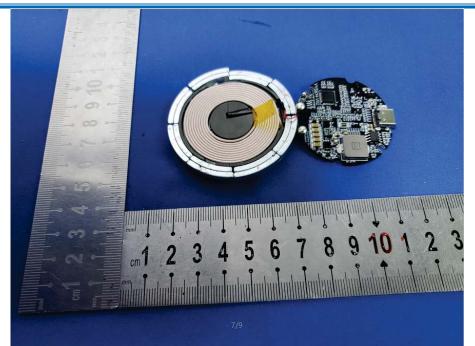


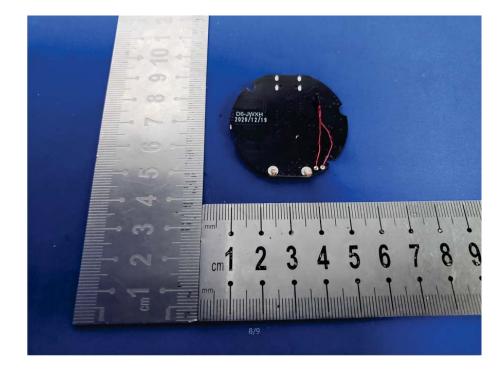
cm 1



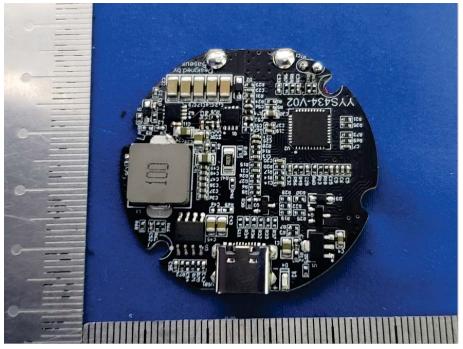


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*** End of Report ***