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

Test Report

Report No.:	CQASZ20211001749E-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:	Wireless Charger
Model No.:	BS-W508X1, BS-W508X
Test Model No.:	BS-W508X1
Brand Name:	Baseus
FCC ID:	2AY37-W508X
Standards:	47 CFR Part 15, Subpart C
Date of Receipt:	2021-10-13
Date of Test:	2021-10-13 to 2021-11-15
Date of Issue:	2021-11-26
Test Result:	PASS*

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

Tested By: (Timo Lei) (Timo Lei) Reviewed By: (Rock Huang) Approved By: Junio PPROVE (Jack Ai)

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
CQASZ20211001749E-01	Rev.01	Initial report	2021-11-26



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:	Shenzhen Times Innovation Technology Co., Ltd
Address of Manufacturer:	5th Floor, Building B, Baseus Intelligence Park, No.2008,Xuegang Rd,
	Gangtou Community, Bantian Street, Longgang District, Shenzhen.
Factory:	Dongguan Anju Electronic Technology Co., Ltd
Address of Factory:	floor 3, No. 1, HeXie Road, danwu village, Shijie Town, Dongguan City

4.2 General Description of EUT

Product Name:	Wireless Charger
Model No.:	BS-W508X1, BS-W508X
Test Model No.:	BS-W508X1
Brand Name:	Baseus
Hardware Version:	V1.0
Software Version:	V3.2.3.1
EUT Power Supply:	Input :DC 9V 2A, DC 12V 2A

4.3 Product Specification subjective to this standard

Equipment Category:	Non-ISM frequency
Operation Frequency range:	115kHz~205kHz
Modulation Type:	ASK
Antenna Type:	Induction coil
Antenna Gain:	0dBi
Power:	Output: 10W+10W Max

Note:

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

2.Model No.: BS-W508X1,BS-W508X

Their electrical circuit design, layout, components used and internal wiring are identical, There are only different software versions, so the output parameters are different.



4.4 Test Environment

Operating Environment	t:
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 t	test (RF Conducted test room):
Temperature:	27.3 °C
Humidity:	58 % RH
Atmospheric Pressure:	1009 mbar
Test Mode:	
Mode a:	Wireless output Mode at 10W +10W Max
Mode b:	Wireless output Mode at 10W + 5W

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	050200Z DOC	
Earphone	APPLE	AIRPODS PRO	/	CQA
Wireless electronic Load	_	_	1	CQA

2) Cable

Cable No.	Description	Manufacturer	Cable Type/Length	Supplied by	
/	/	1	/	/	



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.



4.11Equipment List

To st E su is so ant	Manufastura		Instrument	Calibration	Calibration
Test Equipment	Manufacturer	Model No.	No.	Date	Due Date
EMI Test Receiver	R&S	ESR7	CQA-005	2021/9/10	2022/9/9
Spectrum analyzer	R&S	FSU26	CQA-038	2021/9/10	2022/9/9
		AMF-6D-02001800-29-			
Preamplifier	MITEQ	20P	CQA-036	2021/9/10	2022/9/9
Loop antenna	Schwarzbeck	FMZB1516	CQA-060	2021/9/10	2022/9/9
Bilog Antenna	R&S	HL562	CQA-011	2021/9/16	2024/9/15
Horn Antenna	R&S	HF906	CQA-012	2021/9/16	2024/9/15
Horn Antenna	Schwarzbeck	BBHA 9170	CQA-088	2021/9/16	2024/9/15
Coaxial Cable (Above 1GHz)	CQA	N/A	C007	2021/9/16	2024/9/15
Coaxial Cable (Below 1GHz)	CQA	N/A	C013	2021/9/10	2022/9/9
Antenna Connector	CQA	RFC-01	CQA-080	2021/9/10	2022/9/9
RF cable(9KHz~40GHz)	CQA	RF-01	CQA-079	2021/9/10	2022/9/9
Power divider	MIDWEST	PWD-2533-02-SMA-79	CQA-067	2021/9/10	2022/9/9
EMI Test Receiver	R&S	ESR7	CQA-005	2021/9/10	2022/9/9
LISN	R&S	ENV216	CQA-003	2021/9/10	2022/9/9
Coaxial cable	CQA	N/A	CQA-C009	2021/9/10	2022/9/9
DC power	KEYSIGHT	E3631A	CQA-028	2021/9/10	2022/9/9



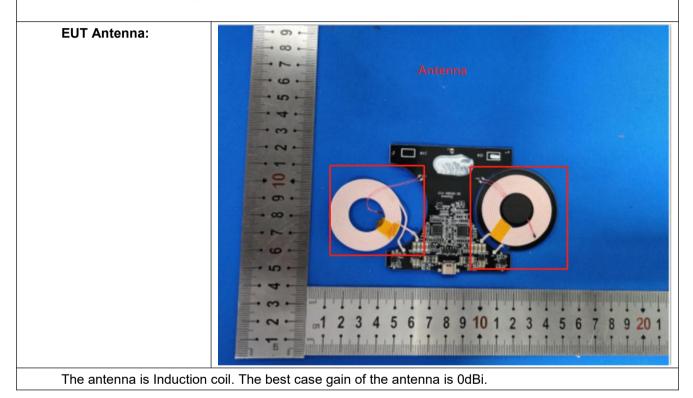
5 Test results and Measurement Data

5.1 Antenna Requirement

Standard requirement: 47 CFR Part 15C 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.





	1			1	
Test Requirement:	47 CFR Part 15C Section 15.207				
Test Method:	ANSI C63.10: 2013				
Test Frequency Range:	150kHz to 30MHz				
Limit:		Limit (c	lBuV)		
	Frequency range (MHz)	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 logarithn	n of the frequency.	·		
Test Procedure:	 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. 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 				
Test Setup:	Shielding Room	AE USN2 + AC Ma Ground Reference Plane	Test Receiver		
Test Results:	Pass				
	1 400				

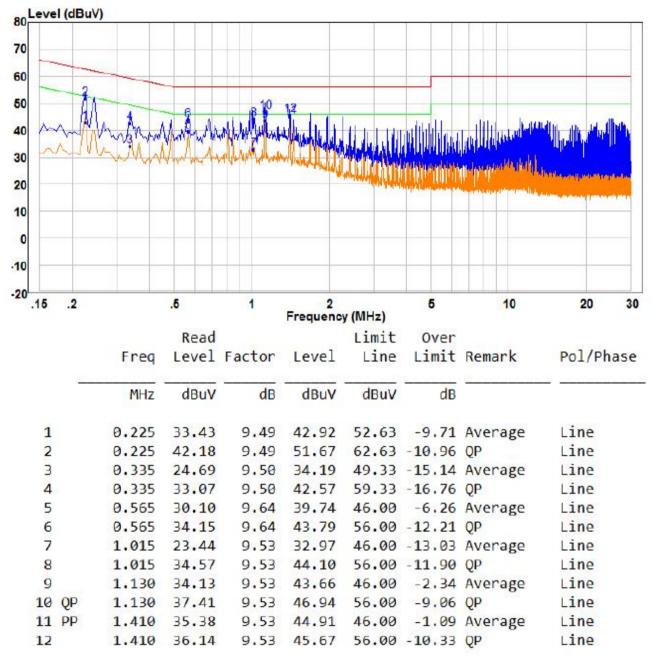


Measurement Data

BS-W508X1

Mode a

Live line:



Remark:

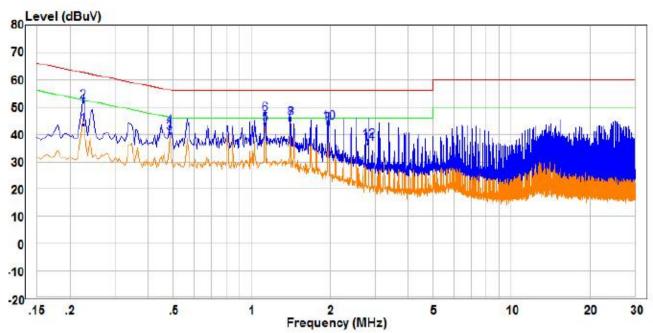
1. The following Quasi-Peak and Average measurements were performed on the EUT:

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.



Neutral line:



			Read			Limit	Over		
		Freq	Level	Factor	Level	Line	Limit	Remark	Pol/Phase
	7 <u>17</u>	MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.225	34.06	9,48	43.54	52.63	-9.09	Average	Neutral
2		0.225	42.53	9,48	52.01	62.63	-10.62	QP	Neutral
З		0.485	30.85	9.58	40.43	46.25	-5.82	Average	Neutral
4		0.485	33.37	9.58	42.95	56.25	-13.30	QP	Neutral
5		1.130	34.10	9.72	43.82	46.00	-2.18	Average	Neutral
6	QP	1.130	37.92	9.72	47.64	56.00	-8.36	QP	Neutral
7	PP	1.410	35.62	9.72	45.34	46.00	-0.66	Average	Neutral
8		1.410	36.36	9.72	46.08	56.00	-9.92	QP	Neutral
8 9		1.975	34.10	9.72	43.82	46.00	-2.18	Average	Neutral
10		1.975	34.65	9.72	44.37	56.00	-11.63	QP	Neutral
11		2.820	26.95	9.74	36.69	46.00	-9.31	Average	Neutral
12		2.820	28.13	9.74	37.87	56.00	-18.13	QP	Neutral

Remark:

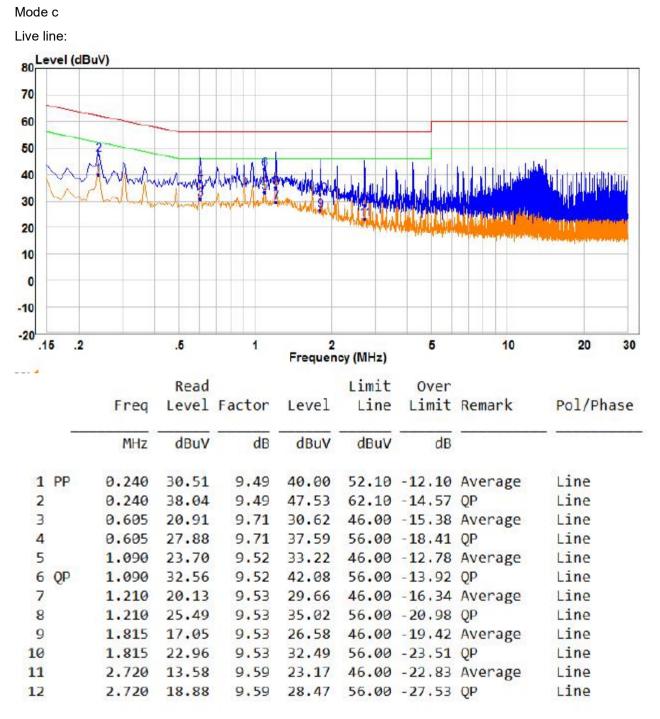
1. The following Quasi-Peak and Average measurements were performed on the EUT:

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

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



BS-W508X



Remark:

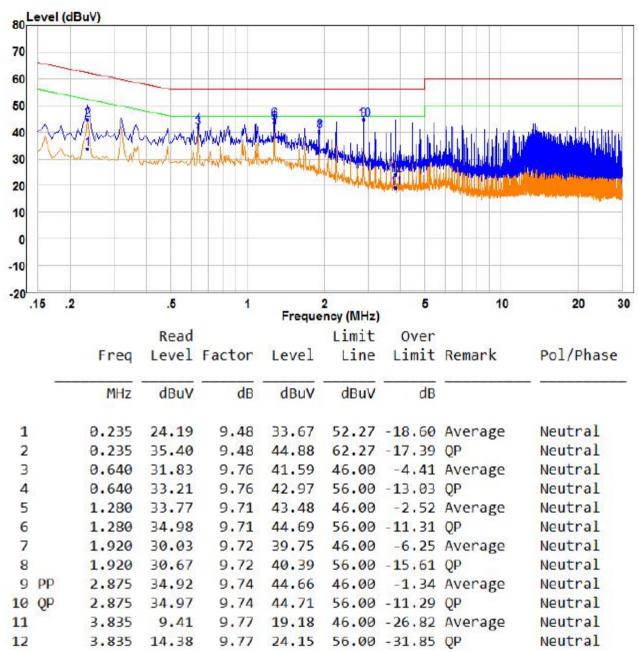
1. The following Quasi-Peak and Average measurements were performed on the EUT:

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.



Neutral line:

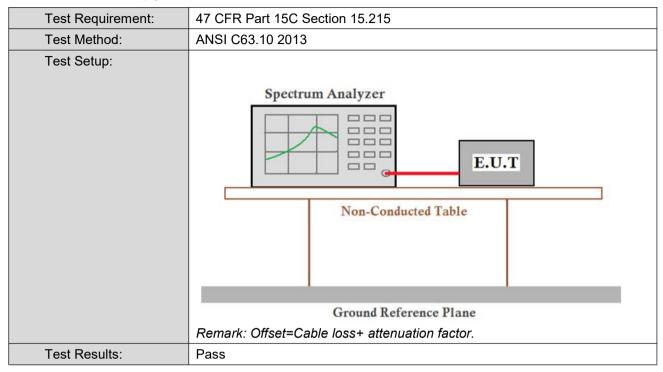


Remark:

- 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.



5.3 20dB Occupy Bandwidth

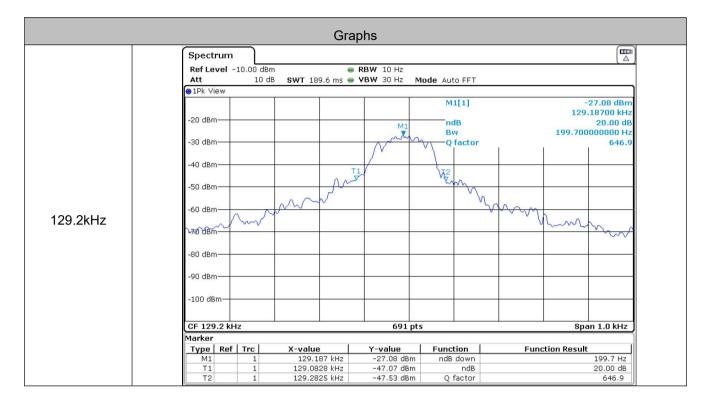


Measurement Data

Mode a				
Test Frequency (kHz) 20dB Occupy Bandwidth (Hz) Result				
129.2	199.7	Pass		



Test plot as follows:

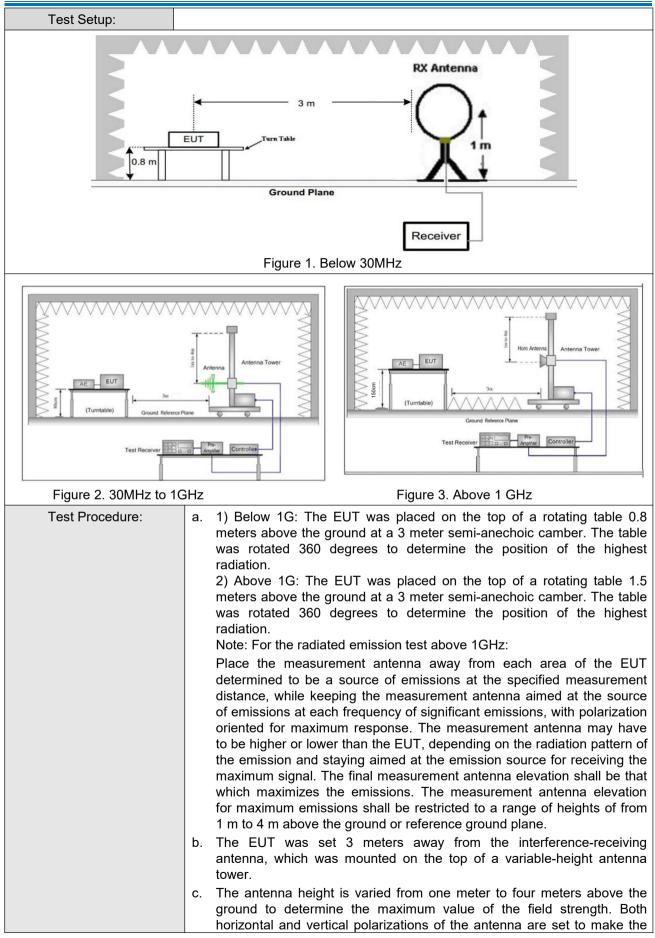




5.4 Radiated Spurious Emission & Restricted bands

Test Requirement:	47 CFR Part 15C Section 15.209 and 15.205							
Test Method:	ANSI C63.10 2013							
Test Site:	Measurement Distance	Measurement Distance: 3m (Semi-Anechoic Chamber)						
Receiver Setup:	Frequency		Detector	RBW	VBW	Remark		
	0.009MHz-0.090MH	z	Peak	10kHz	z 30kHz	Peak		
	0.009MHz-0.090MH	z	Average	10kHz	z 30kHz	Average		
	0.090MHz-0.110MH	z	Quasi-peak	10kHz	z 30kHz	Quasi-peak		
	0.110MHz-0.490MH	z	Peak	10kHz	z 30kHz	Peak		
	0.110MHz-0.490MH	z	Average	10kHz	z 30kHz	Average		
	0.490MHz -30MHz		Quasi-peak	10kHz	z 30kHz	Quasi-peak		
	30MHz-1GHz Quasi-peak		100 kH	z 300kHz	Quasi-peak			
	Above 1GHz		Peak	1MHz	3MHz	Peak		
			Peak	1MHz	10Hz	Average		
Limit:	Frequency		eld strength crovolt/meter)	Limit (dBuV/m)	Remark	Measuremer distance (m)		
	0.009MHz-0.490MHz	2	400/F(kHz)	-	-	300		
	0.490MHz-1.705MHz	24	1000/F(kHz)	-	-	30		
	1.705MHz-30MHz		30	-	-	30		
	30MHz-88MHz		100	40.0	Quasi-peak	3		
	88MHz-216MHz	88MHz-216MHz 150		43.5	Quasi-peak	3		
	216MHz-960MHz	216MHz-960MHz 200		46.0	Quasi-peak	3		
	960MHz-1GHz 500 Above 1GHz 500		54.0	Quasi-peak	3			
			54.0	Average	3			
	Note: 15.35(b), Unless otherwise specified, the limit on peak r frequency emissions is 20dB above the maximum permitted average emis limit applicable to the equipment under test. This peak limit applies to the peak emission level radiated by the device.					erage emission		







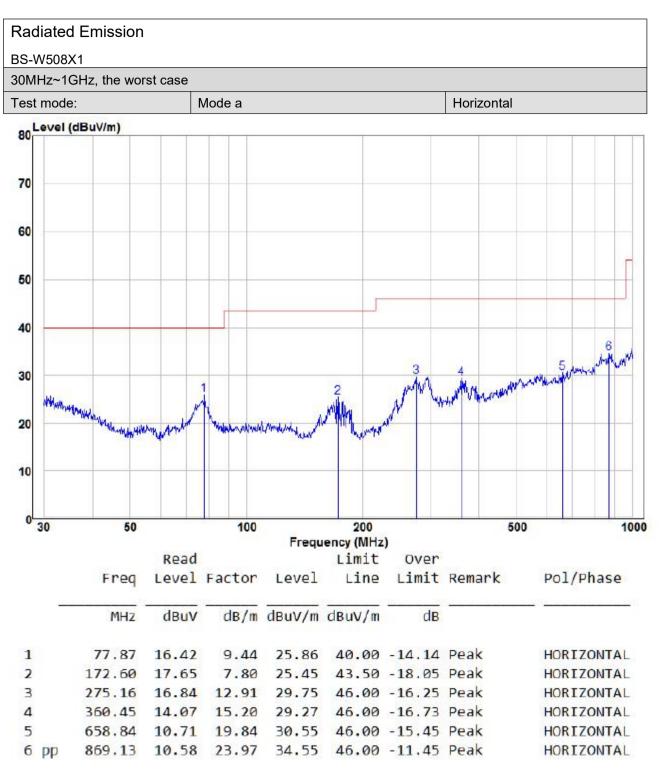
		measurement.
	d.	and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
	e.	The test-receiver system was set to Peak 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. Repeat above procedures until all frequencies measured was complete.
	g.	Repeat above procedures unui all frequencies measured was complete.
Test Results:	Pa	SS

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

Frequency MHz	Polarization	Reading dB(uV)	Factor dB (1/m)	Level dB(uV/m) Peak	Limit dB(uV/m) Average	Margin dB	Pass/Fail
0.1292	Face	48.51	19.59	68.1	105.38	37.28	Pass
0.1292	Side	46.34	19.59	65.93	105.38	39.45	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.





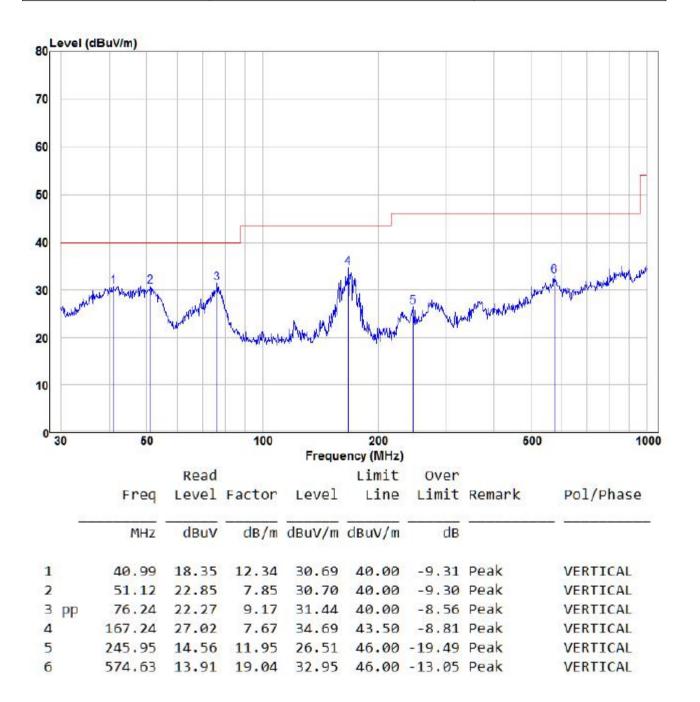
Remark:

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

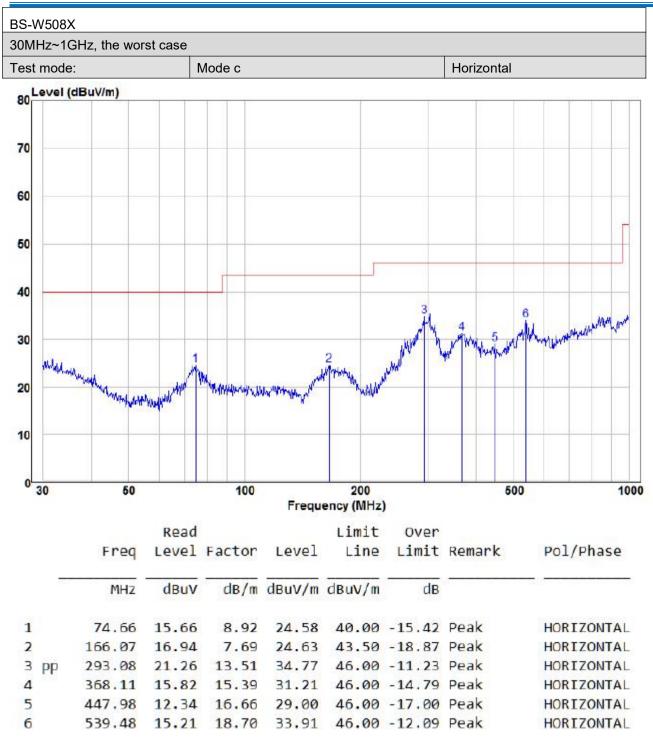


30MHz~1GHz, the worst case			
Test mode:	Mode a	Vertical	





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Remark:

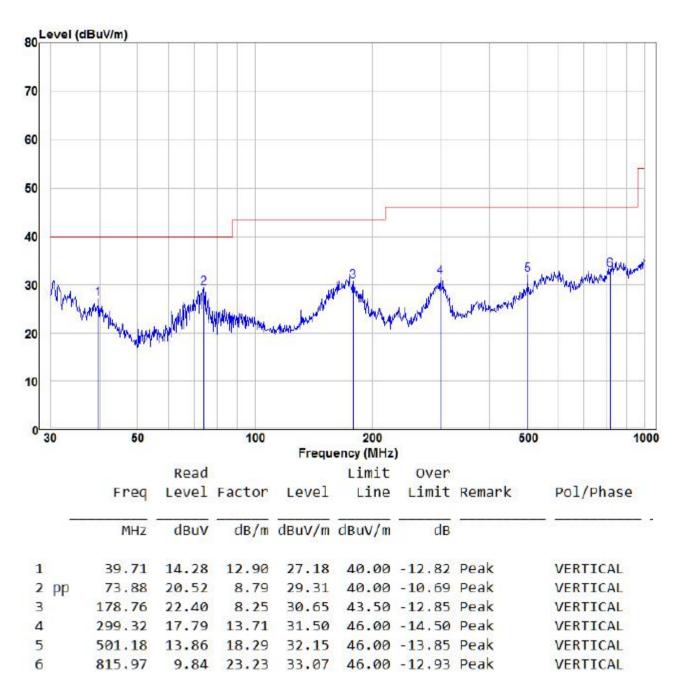
The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

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



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

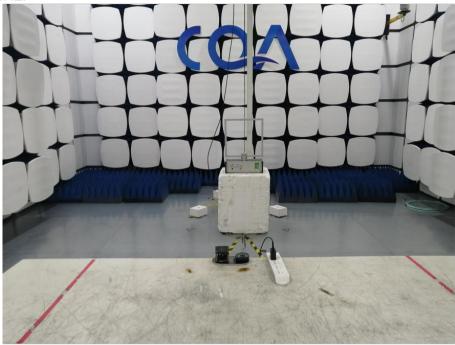




6 Photographs - EUT Test Setup

6.1 Radiated Emission

9kHz~30MHz:



30MHz~1GHz:





6.2 Conducted Emission





7 Photographs - EUT Constructional Details



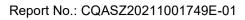




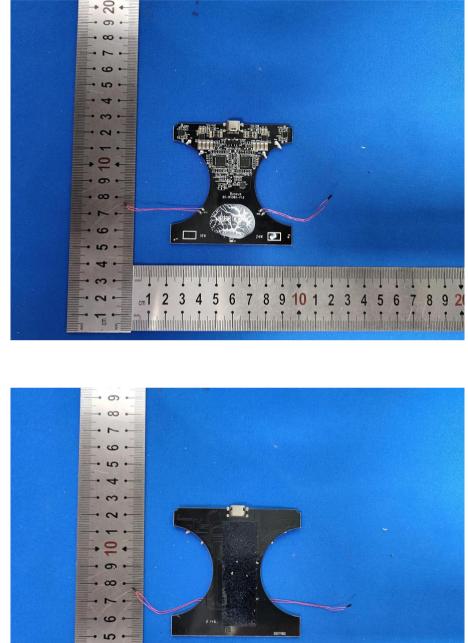






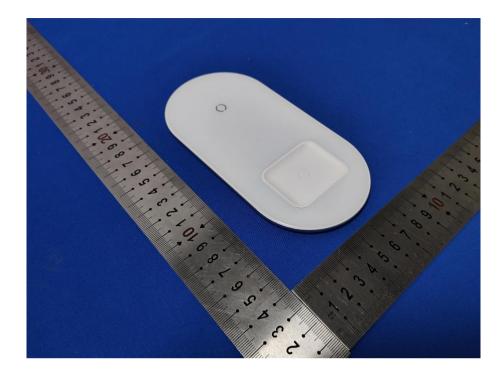






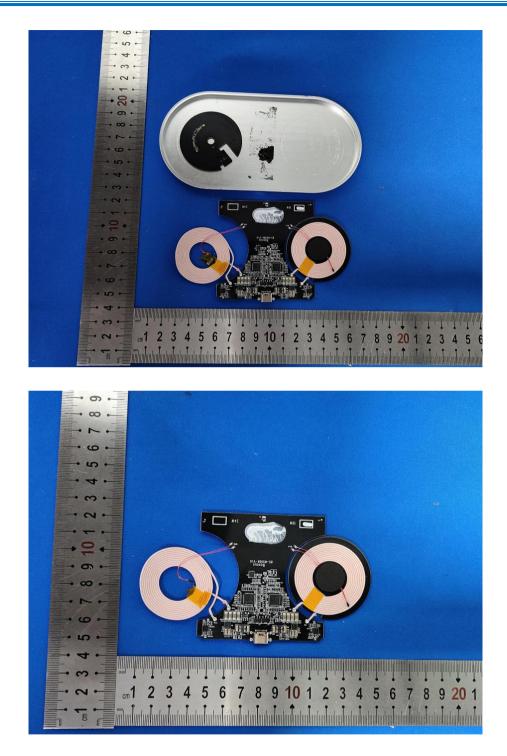






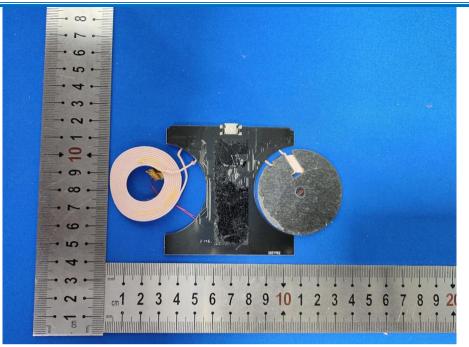


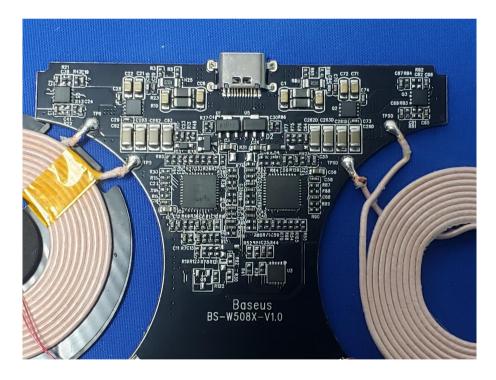






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*** End of Report ***