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Report Template Version: V02 Report Template Revision Date: 2021-06-01

Test Report

*In the configuration to	ted the FUT complied with the standards specified above
Test Result:	PASS*
Date of Issue:	2022-05-17
Date of Test:	2022-03-19 to 2022-05-17
Date of Receipt:	2022-03-19
FCC ID:	2A482-W527
Brand Name:	Baseus
Model No.:	BS-W527
EUT Name:	Wireless Charger
Equipment Under Test (EUT):
Address of Applicant:	2th Floor, Building B, Baseus Intelligence Park, No.2008, Xuegang Rd, Gangtou Community, Bantian Street, Longgang District, Shenzhen.
Applicant:	Shenzhen Baseus Technology Co., Ltd.
Report No.:	D220319006

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

Tested By:	Damon	
	(Damon Deng)	/
Reviewed By:	Am lin	E
	(Ares Liu)	- \
Approved By:	Victor	
-	(Victor Meng)	_



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 ITL, this report can't be reproduced except in full.



1 Version

Revision History Of Report

Report No.	Version	Description	Issue Date
D220319006	Rev.01	Initial report	2022-05-16



Test Summary 2

Test	Test Requirement	Test method	Result
Antenna Requirement	FCC PART 15 section 15.203	FCC PART 15 section 15.203	PASS
Radiated Emission	FCC PART 15 section 15.209	ANSI C 63.10	PASS
Conducted Emission	FCC PART 15 section 15.207	ANSI C 63.10	PASS
Emission Bandwidth	FCC PART 15 section 15.215(c)	ANSI C 63.10	PASS
Remark:			
N/A: because the device is battery EUT: In this whole report EUT me Tx: In this whole report Tx (or tx) r	ans Equipment Under Test. neans Transmitter.		

Rx: In this whole report Rx (or rx) means Receiver. RF: In this whole report RF means Radio Frequency.

ANSI C63.10: the detail version is ANSI C63.10:2013 in the whole report.

N/A: In this whole report not application.



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4 General Information

4.1 Details of Client

Applicant:	Shenzhen Baseus Technology Co., Ltd.
Address of Applicant:	2th Floor, Building B, Baseus Intelligence Park, No.2008, Xuegang Rd, Gangtou Community, Bantian Street, Longgang District, Shenzhen.
Manufacturer:	Shenzhen Baseus Technology Co., Ltd.
Address of Manufacturer:	2th 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:	3Foor No.1 Hexie Road, Shanwu village, Shijie town, Dongguan city, Guangdong Province, China

4.2 Datasheet of Equipment Under Test

Product Name:	Wireless Charger
Model No.:	BS-W527
Trade Mark:	Baseus
Operation Frequency range	115-205kHz
Antenna Type:	Coil Antenna
Power Supply:	9V 2A, 12V 2A



4.3 Test Environment

Operating Environment	
Temperature:	25.0 °C
Humidity:	53 % RH
Atmospheric Pressure:	995mbar
EUT Power Supply:	120Vac, 60Hz (For adapter)
Test Mode:	Communication and charging Pre-test at both DC 9V and DC 12V, recorded worst case All the situation (full load, half load and empty load) has been tested, only the worst situation (full load) was recorded in the report.

4.4 Description of Support Units

The EUT has been tested with associated equipment below.

Description	Manufacturer	Model No.	Connection	Working state
Wireless Charging load	YBZ	5W/7.5W/10W /15W	/	Normal
		HW- 200325CP0 Input: 100- 240V~50/60Hz		
Adapter	HUAWEI	Output:5Vdc, 2A, 9V, 2A, 12Vdc, 2A, 15Vdc, 3A, 20Vdc, 3.25A	/	Normal

4.5 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 ITL 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.

Test	Range	Uncertainty	Notes
Radiated Emission	Below 1GHz	±4.54dB	(1)
Radiated Emission	Above 1GHz	±4.10dB	(1)
Conducted	0.15~30MHz	±3.58dB	(1)



Disturbance		

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

4.6Test Location

ITL Co., Ltd No.8, JinQianLing street 5, Huangjiang Town, Dongguan, Guangdong, 523757 P.R.C

4.7Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- CNAS(Lab code: L9342)
- NVLAP LAB CODE 600199-0
- FCC Designation Number: CN5035
- FCC Test Firm Registration Number: 239076

4.8 Abnormalities from Standard Conditions

None.

4.9Other Information Requested by the Customer

None.



4.10 Equipment List

No.	Test Equipment	Manufacturer	Model	Serial No.	Cal Data	Due Date
DGITL - 301	Semi-Anechoic chamber	ETS•Lindgren	9*6*6	CT000874- 1181	2021.08.02	2022.08.01
DGITL - 307	EMI test receiver	SCHWARZBECK	ESVS10	833616 /003	2021.05.11	2022.05.10
DGITL -376	Wideband Radio Communication Tester	SCHWARZBECK	CMW500	LR114195	2021.05.11	2022.05.10
DGITL -349	MXG Vector Signal Generator	Agilent Technologies	N5182A	MY47071034	2021.05.11	2022.05.10
DGITL - 306	Spectrum Analyzer	Agilent Technologies	N9010A	MY54200334	2021.05.11	2022.05.10
DGITL - 352	Pre Amplifier	MInI-CIrcuits	ZFC- 1000HX	SN292801110	2021.05.11	2022.05.10
DGITL -375	Spectrum Analyzer	SCHWARZBECK	FSV40-N	6625-01-588- 5515	2021.05.11	2022.05.10
DGITL -309	Horn Antenna	ETS Lindgren	3117	SN00152265	2021.05.11	2024.05.10
DGITL -308	Bilog Antenna	ETS. Lindgren	3142E	156975	2020.06.20	2023.06.19
DGITL -350	Wideband Amplifier Super Ultra	MInI-CIrcuits	ZVA- 183X-S+	SN986401426	2021.05.11	2022.05.10
DGITL -365	Broad-band Horn Antenna	SCHWARZBECK	9170	795	2020.07.04	2022.07.04
DGITL -371	Pre Amplifier	teramicrowave	TALA- 0040G35	18081001	2021.05.11	2022.05.10
DGITL -363	Active Loop Antenna	SCHWARZBECK	FMZB 1519B	062	2020.07.04	2022.07.03

Software list					
Testing software	Manufacturer	Model	Version number		
e3	AUDIX	e3.Ink	Version:6.2009-11-3c(itl)		
MTS	MWRFTEST	MTS 8310	Version:2.0		



5 Antenna Requirement

According to FCC Part 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 shall be considered sufficient to comply with the provisions of this section.

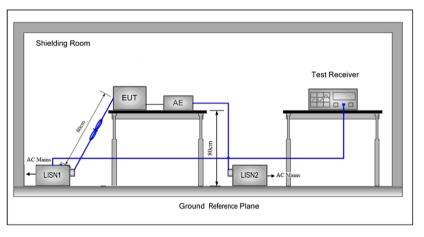
Test Result

This product uses permanently attached internal coil antenna that meets the requirement in 15.203



6 Conducted Emissions at Mains Terminals 150 kHz to 30MHz

For AC Main Port					
Test Requirement:§ 15.207(a)					
Test Method:	§ 15.	.207(a)			
Detector:	Peak	for pre-scan (9kHz Resolution E	Bandwidth)		
	Quas	si-Peak if maximized peak within	6dB of Quasi-Peak	limit	
EUT Operation:					
Ambient:	Tem	o.: 20.8°C	Humid.: 51%	Press.: 1009mbar	
Test Mode:	Communication and charging				
Test Status:	All the situation (full load, half load and empty load) has been tested, only the worst situation (full load) was recorded in the report.				
Equipment Used:	Refer to section 5 for details.				
Limits for conducted disturbance at the mains p		ns ports of class B			
		Frequency Range	Class E	Limit (dBµV)	
		(MHz)	Quasi-peak	Average	
Limit:		0.15 to 0.50	66 to 56	56 to 46	
		0.50 to 5	56	46	
		5 to 30 60 50		50	
		NOTE 1: The limit decreases linearly with the logarithm of the frequency in			
		the range 0.15 MHz to 0.50 MHz.			
NOTE 2: The lower limit is applicable at the transition frequency.			on 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 $50\Omega/50\mu$ H + 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 was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground

Test Setup:

Test Procedure:



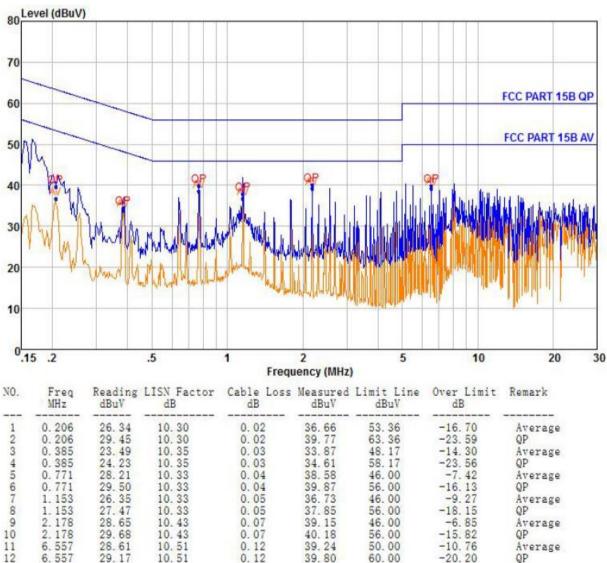
reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2. PASS

Test result:

Measurement Data:

An initial pre-scan was performed on the live and neutral lines with peak detector.

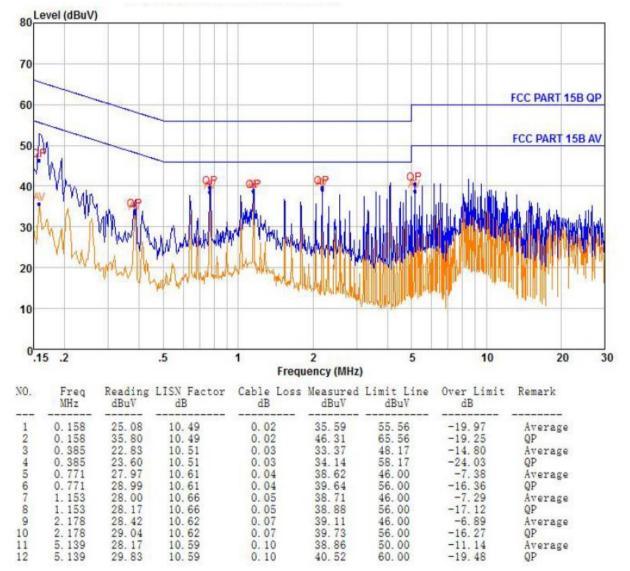
Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected. For EUT the communicating was worst case mode.



Live Line:



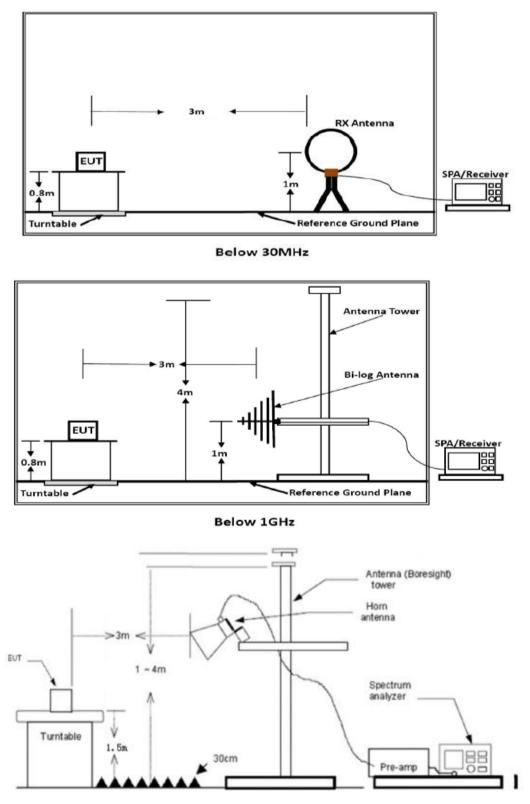
Neutral Line:





7 RADIATED EMISSION MEASUREMENT

7.1. Block Diagram of Test Setup





7.2. Radiated Emission Limit

15.205 (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
\1\ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293.	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(\2\)
13.36-13.41			

\1\ Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

\2\ Above 38.6

According to §15.247 (d): 20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies	Field Strength	Measurement Distance
(MHz)	(microvolts/meter)	(meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

7.3 EUT Configuration on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in

normal application.



7.4 Measuring Setting

The following table is the setting of spectrum analyzer and receiver.

Receiver Parameter	Setting	
Attenuation	Auto	
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP/Average	
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP/Average	
Start ~ Stop Frequency	30MHz~1000MHz / RB 100kHz for QP	

7.5 Test Procedure

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 AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- --- The measurement distance is 3 meter.
- --- The EUT was set into operation.

Premeasurement:

--- 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 premeasurement 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 QPK 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 premeasurement 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 AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- --- The measurement distance is 3 meter.
- --- The EUT was set into operation.

Premeasurement:

--- The turntable rotates from 0° to 315° using 45° steps.

- --- The antenna is polarized vertical and horizontal.
- --- The antenna height changes from 1 to 3 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°) 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.

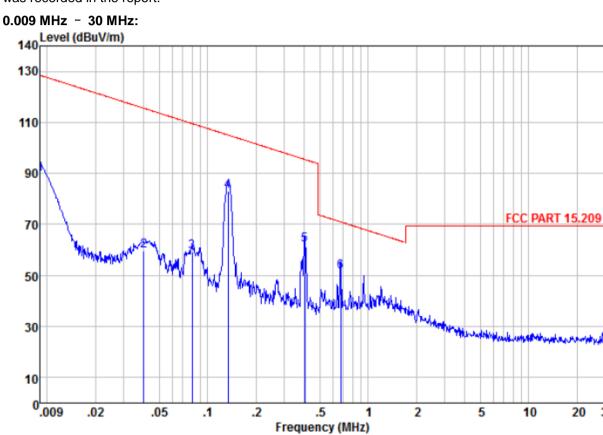


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30

7.6 Test Results

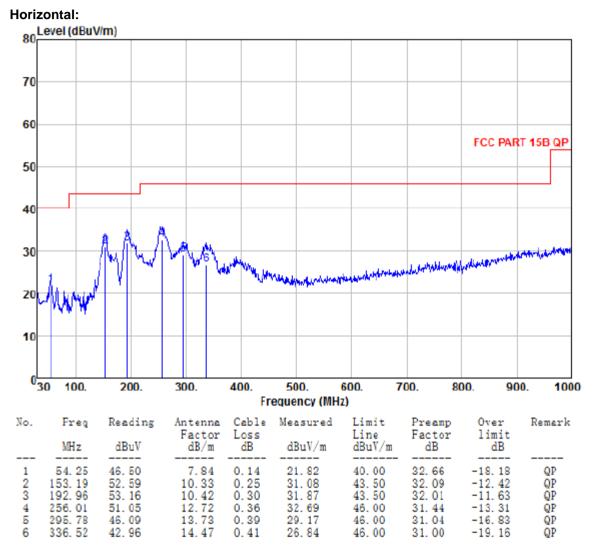
All the situation (full load, half load and empty load) has been tested, only the worst situation (full load) was recorded in the report.



Frequency (MHz)	Reading Level (DbµV/m)	Correct (Db/m)	Emission Level (DbµV/m)	Limit (DbµV/m)	Margin (Db)	Detector
0.010	67.90	21.6	89.50	128.52	-39.02	PK
0.040	38.99	20.75	59.74	115.56	-55.82	PK
0.080	38.53	20.7	59.23	109.57	-50.34	PK
0.130	62.62	20.3	82.92	105.06	-22.14	PK
0.400	41.64	20.37	62.01	95.47	-33.46	PK
0.670	30.85	20.5	51.35	71.04	-19.69	PK

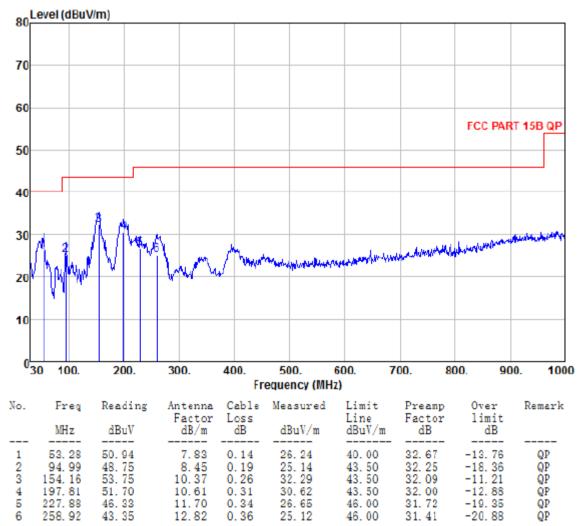


30MHz-1GHz:





Vertical:





8 Emission Bandwidth

Test Requirement: Test Method:	FCC Part 15 C section ANSI C63.10:	n 15.215 (c)
Operating Environment:		
Temperature: 24.0 °C	Humidity: 50 % RH	Atmospheric Pressure: 101 kPa

Requirements:

According to 15.215 (c), 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. 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.

Method of measurement: The useful radiated emission from the EUT was detected by the spectrum analyzer with peak detector. Record the 20 dB bandwidth of the carrier.

According to the ANSI 63.10-2013, the emission bandwidth test method as follows. Set span = 2~5 x OBW , centered on a transmitting channel RBW=1%~5% OBW, VBW=3RBW Sweep = auto Detector function = peak Trace = max hold

Mode 1: Base station in stand-by, idle mode Mode 2: Communication and charging

Test result: Antenna 1

Mode	Test Frequency kHz	20dB Bandwidth Hz	
Mode 1	128.3	122	
Mode 2	167.7	106	

Antenna 2

Mode	Test Frequency kHz	20dB Bandwidth Hz
Mode 1	128.3	108
Mode 2	165.4	108



Test plot:

Antenna 1







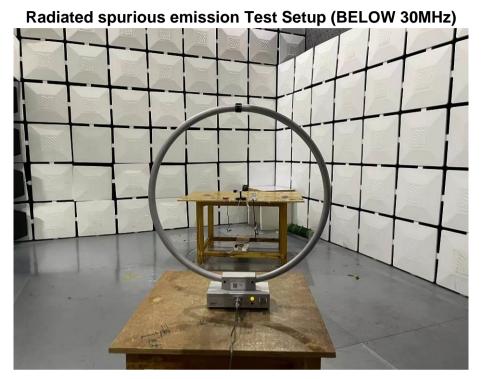
Antenna 2



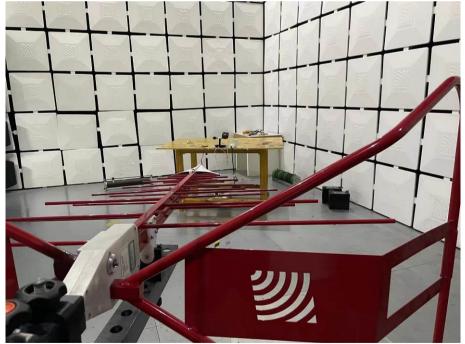




PHOTOGRAPHS OF TEST SETUP



Radiated spurious emission Test Setup (BELOW 1GHz)



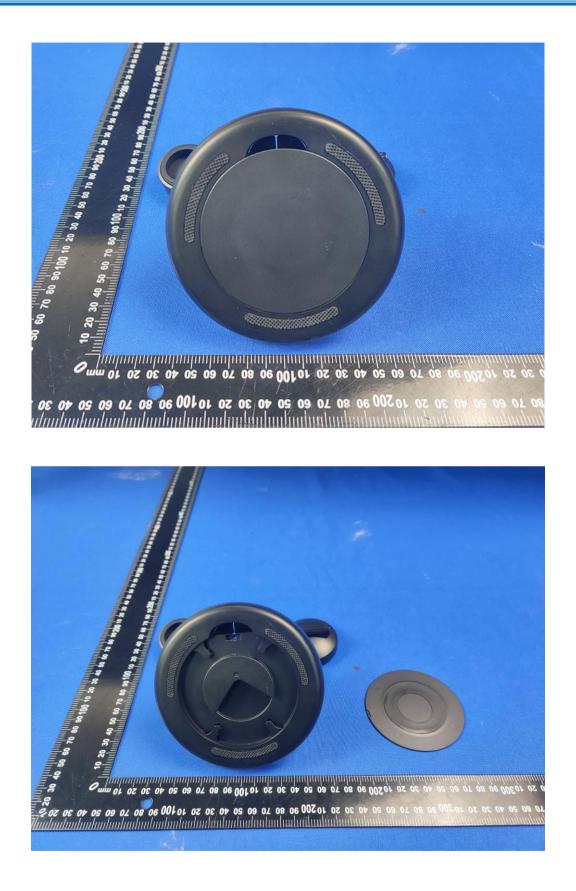




PHOTOGRAPHS OF EUT Constructional Details

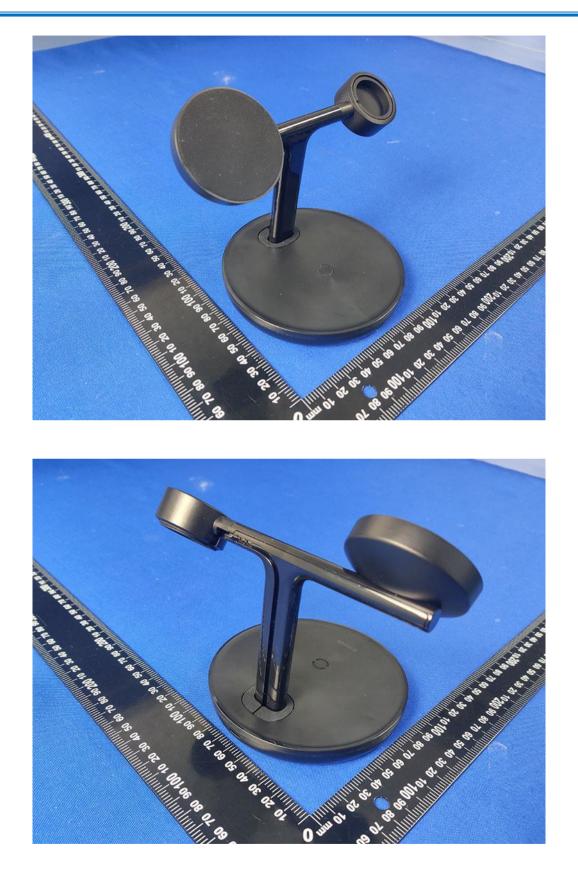






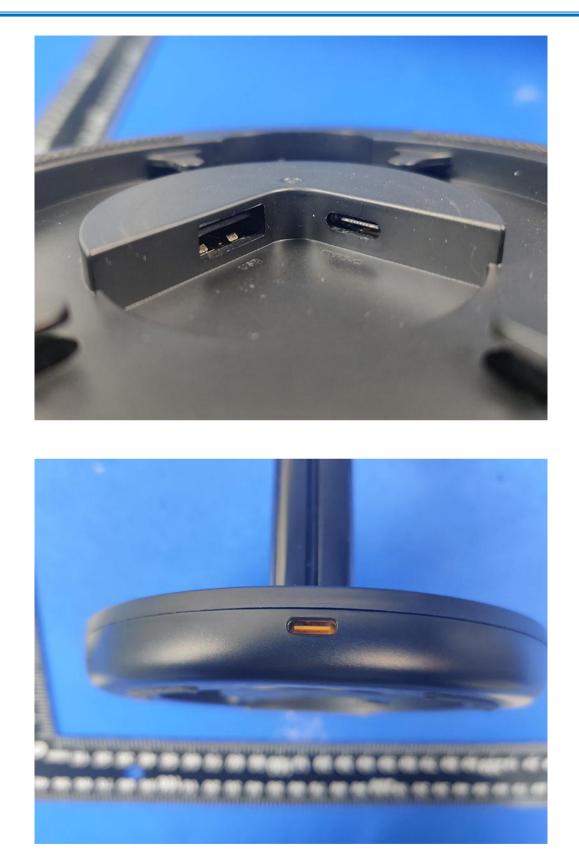










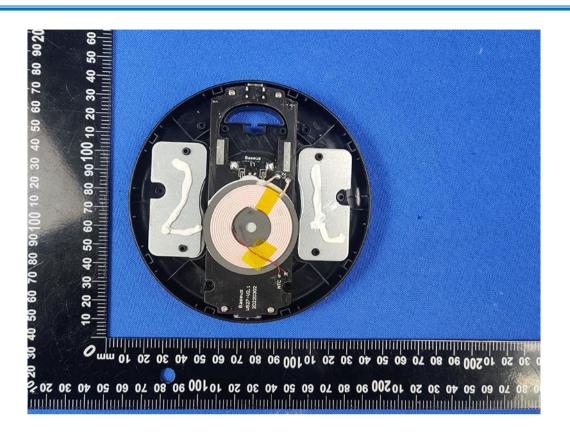






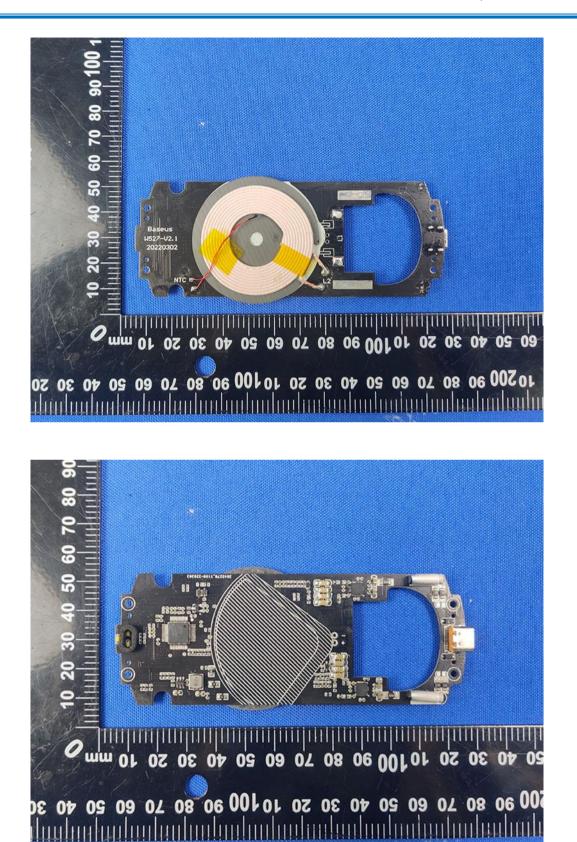




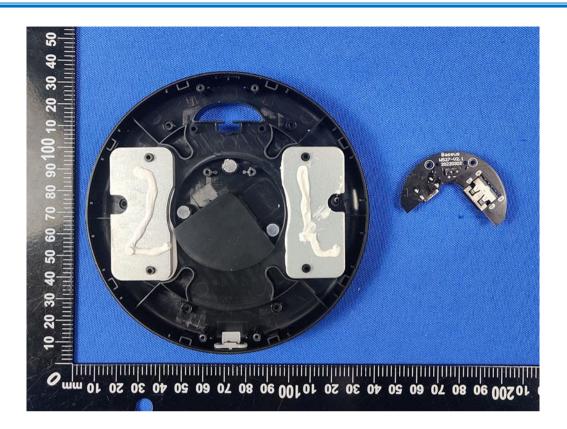


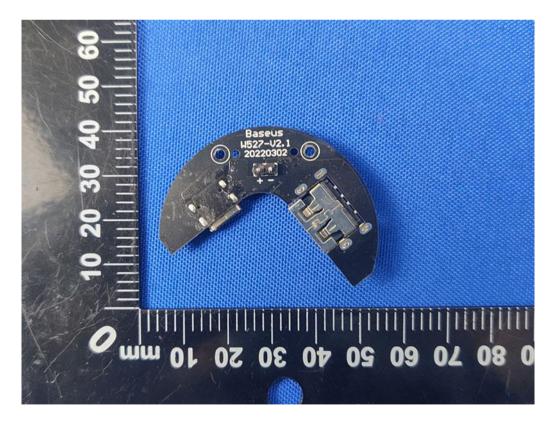




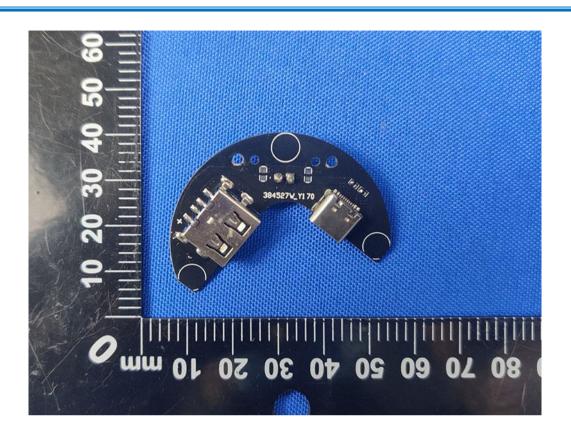
















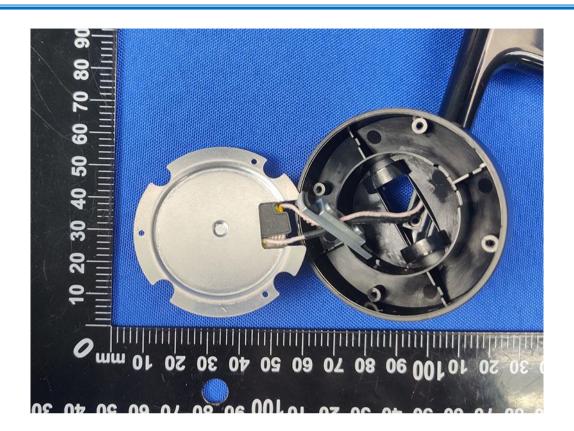












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