

# RF TEST REPORT

## FCC

APPLICANT

**Nike, Inc.**

MODEL NAME

**WC-04**

FCC ID

**QYU-WC04**

REPORT NUMBER

**HA220214-GGC-002-R01**

# TEST REPORT

**Date of Issue**  
April 29, 2022

**Test Site**  
Hyundai C-Tech, Inc. dba HCT America, Inc.  
1726 Ringwood Ave, San Jose, CA 95131, USA

<b>Applicant</b>	Nike, Inc.
<b>Applicant Address</b>	One Bowerman Drive Beaverton, OR 97005, USA
<b>FCC ID</b>	QYU-WC04
<b>Model Name</b>	WC-04
<b>EUT Type</b>	Wireless Charger
<b>FCC Classification</b>	Part15 Low Power Transmitter Below 1705 kHz (DCD)
<b>FCC Rule Part(s)</b>	Part 15.209
<b>Test Procedure</b>	ANSI C63.10-2013, KDB 558074 D01 v05r02

The device bearing the trade name and model specified above, has been shown to comply with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures required. The results of testing in this report apply only to the product which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

Hyundai C-Tech, Inc. dba HCT America, Inc. certifies that no party to application has been denied the FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C 862

**Tested By**

Yongsoo Park

Test Engineer

**Reviewed By**

Sunwoo Kim

Technical Manager

## REVISION HISTORY

*The revision history for this document is shown in table.*

TEST REPORT NO.	DATE	DESCRIPTION
HA220214-GGC-002-R01	April 29, 2022	Initial Issue

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## 1. GENERAL INFORMATION

### EUT DESCRIPTION

<b>Model</b>	WC-04
<b>EUT Type</b>	Wireless Charger
<b>Power Supply</b>	5 V d.c.
<b>Travel Adapter Information</b>	Model : ASUC88a-P20W12 Manufacturer : SHENZHEN AQUILSTAR TECHNOLOGY CO., LTD. Input : 100-240 V~, 50/60 Hz, 0.7 A Output : 5 V d.c. 3.0 A or 9 V d.c., 2.22 A
<b>RF Specification</b>	Wireless Power Transfer
<b>Operating Environment</b>	Indoor
<b>Operating Temperature</b>	0 °C ~ 45 °C

### RF SPECIFICATION SUBJECT TO THE REPORT

<b>RF Specification</b>	Wireless Power Transfer
<b>Transmitter Chain</b>	1 each left and right
<b>Frequency Range</b>	131 kHz
<b>Max. Transmit Power</b>	13.4 dBuV/m @300 m
<b>Number of Channels</b>	1 Channel
<b>Antenna Specification <sup>1)</sup></b>	Loop antenna
<b>Firmware Version <sup>2)</sup></b>	1.3
<b>Hardware Version <sup>2)</sup></b>	WC-04
<b>Date(s) of Tests</b>	March 7, 2022 ~ March 18, 2022

#### Note(s) :

1. Antenna information is based on the document provided.
2. Firmware and Hardware Versions are provided by the client.

## 2. METHODOLOGY

The measurement procedure described in the American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Device (ANSI C63.10-2013) is used in the measurement of the test device.

### EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

### EUT EXERCISE

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. According to its specifications, the EUT must comply with the requirements of the Section 15.207 and 15.209 under the FCC Rule Part 15 Subpart C.

## GENERAL TEST PROCEDURES

### Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 6.2 of ANSI C63.10. (Version :2013) Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

### Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane below 1GHz. Above 1GHz with 1.5m using absorbers between the EUT and receive antenna. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3 m away from the receiving antenna, which varied from 1 m to 4 m to find out the highest emission. Also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emission, the relative positions of this hand-held transmitter (EUT) were rotated through three orthogonal axes according to the requirements in Section 8 of ANSI C63.10. (Version: 2013)

## DESCRIPTION OF TEST MODES

The EUT has been tested at normal mode. The test was conducted using the shoes provided by the manufacturer as a wireless power receiver

## 3. INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment's, which is traceable to recognized national standards. Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5 (Version : 2017).

## 4. FACILITIES AND ACCREDITATIONS

### FACILITIES

The SAC (Semi-Anechoic Chamber) and conducted measurement facility used to collect the radiated data are located at 1726 Ringwood Avenue, San Jose, California 95131, USA.

The site is constructed in conformance with the requirements of ANSI C63.4. (Version :2014) and CISPR Publication 22.



### EQUIPMENT

Radiated emissions are measured with one or more of the following types of Linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers. Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

## 5. ANTENNA REQUIREMENTS

**According to FCC 47 CFR §15.203:**

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can 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.”

- (1) The antenna of this E.U.T is permanently attached and there is no provision for connection to an external antenna.
- (2) The E.U.T Complies with the requirement of §15.203



## 6. MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10-2013.

All measurement uncertainty values are shown with a coverage factor of  $k = 2$  to indicate a 95 % level of confidence. The measurement data shown herein meets or exceeds the  $U_{CISPR}$  measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Parameter	Expanded Uncertainty
Occupied Bandwidth	$\pm 12.4$ kHz
Radiated Emissions (below 1 GHz)	$\pm 6.09$ dB

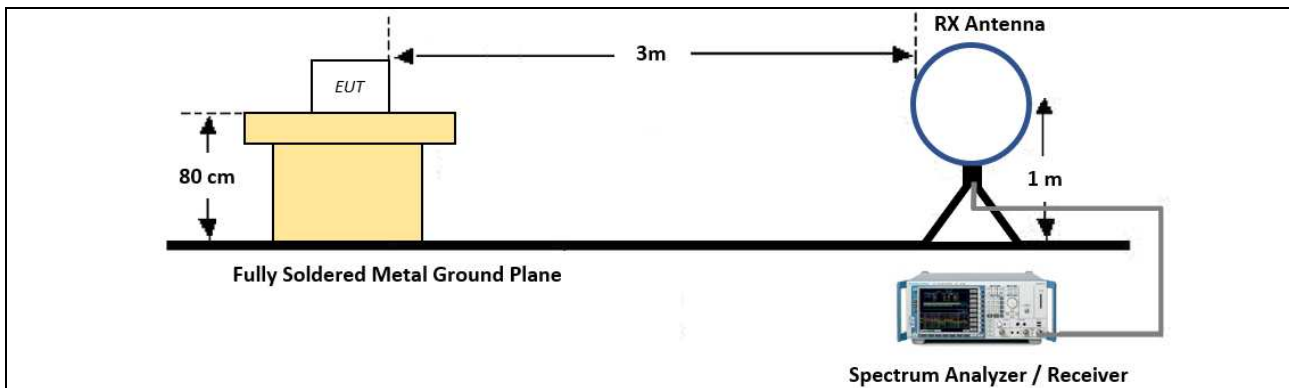
## 7. DESCRIPTION OF TESTS

### 7.1. 26 dB BANDWIDTH / 99 % OCCUPIED BANDWIDTH

#### LIMIT

N/A  
(For reporting purposes only)

#### TEST SETUP



#### TEST PROCEDURE (6 dB BANDWIDTH)

Subclause 11.8 in ANSI 63.10-2013

The transmitter output is connected to the Spectrum Analyzer.  
The Spectrum Analyzer setting :

- RBW = 200 Hz  
(Because the measured signal is CW, adjusting the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW.)
- VBW  $\geq 3 \times$  RBW
- Detector = Peak
- Trace mode = max hold
- Sweep = auto couple
- Allow the trace to stabilize
- Use X dB bandwidth measurement function from the spectrum analyzer by setting X dB to 26 dB

#### TEST PROCEDURE (99% Bandwidth) for ISED

The transmitter output is connected to the spectrum analyzer.

- RBW = 200 Hz  
(Because the measured signal is CW, adjusting the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW.)
- VBW  $\approx 3 \times$  RBW
- Detector = Peak
- Trace mode = max hold
- Sweep = auto couple
- Allow the trace to stabilize

#### Note(s) :

We tested OBW using the automatic bandwidth measurement capability of a spectrum analyzer.

## 7.2. RADIATED EMISSIONS

### RADIATION EMISSION LIMIT

FCC : 47 CFR § 15.209		
Frequency (MHz)	Field Strength (uV/m)	Measurement Distance (m)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

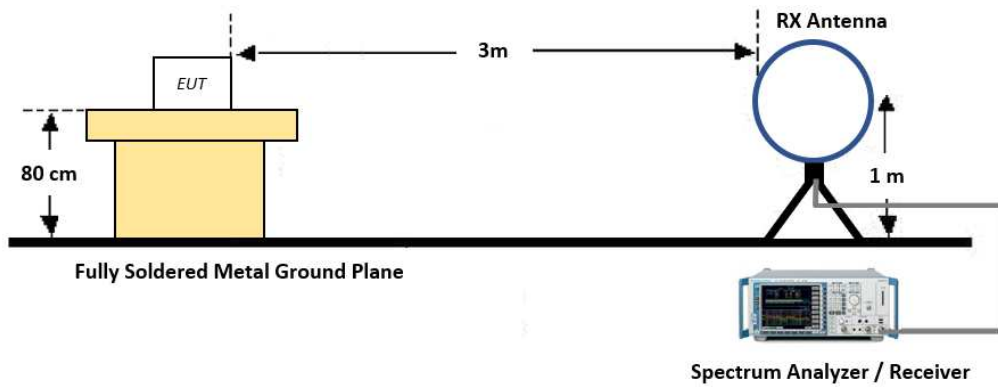
ISED : RSS-GEN Section 8.9		
Frequency (MHz)	Field Strength (uV/m)	Measurement Distance (m)
0.009 – 0.490	6.37/F(kHz)	300
0.490 – 1.705	63.7/F(kHz)	30
1.705 – 30	0.08	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

### RECEIVER RADIATED EMISSION LIMIT

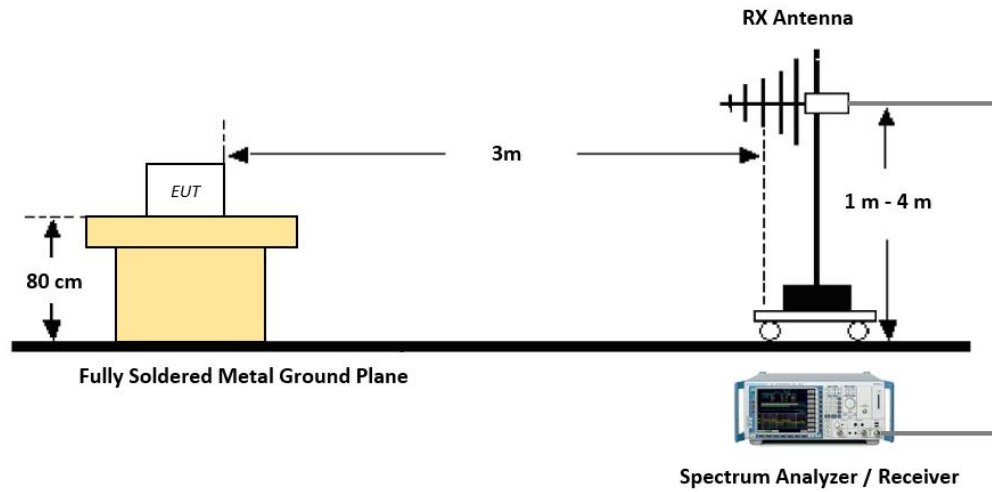
ISED : RSS-GEN Section 7.3		
Frequency (MHz)	Field Strength (uV/m)	Measurement Distance (m)
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

**TEST SETUP**

**Below 30 MHz**



**30 MHz - 1 GHz**



### TEST PROCEDURE OF RADIATED SPURIOUS EMISSION (BELOW 30 MHz)

1. The EUT was placed on a non-conductive table located on semi-anechoic chamber.
2. The loop antenna was placed at a location 3m from the EUT
3. The EUT is placed on a turntable, which is 0.8m above ground plane.
4. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
5. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
6. Distance Correction Factor (0.009 MHz – 0.490 MHz) =  $40 \cdot \log(3 \text{ m}/300 \text{ m}) = - 80 \text{ dB}$   
Measurement Distance: 3 m
7. Distance Correction Factor (0.490 MHz – 30 MHz) =  $40 \cdot \log(3 \text{ m}/30 \text{ m}) = - 40 \text{ dB}$   
Measurement Distance: 3 m
8. Spectrum Setting
  - Frequency Range = 9 kHz ~ 30 MHz
  - Detector = Peak
  - Trace = Max hold
  - RBW = 9 kHz
  - VBW  $\geq 3 \cdot \text{RBW}$
9. Total = Reading Value + Antenna Factor (A.F) + Cable Loss (C.L)
10. There is a comparison data both open-field test site and alternative test site – semi-Anechoic chamber according to 414788 D01. And the results are properly calibrated.

### TEST PROCEDURE OF RADIATED SPURIOUS EMISSION (30 MHz – 1 GHz)

1. The EUT was placed on a non-conductive table located on semi-anechoic chamber.
2. The EUT is placed on a turntable, which is 0.8 m above ground plane.
3. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
4. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
5. Spectrum Setting
  - (1) Measurement Type (Peak):
    - Measured Frequency Range: 30 MHz – 1 GHz
    - Detector = Peak
    - Trace = Max hold
    - RBW = 100 kHz
    - VBW  $\geq 3 \cdot \text{RBW}$
  - (2) Measurement Type(Quasi-peak):
    - Measured Frequency Range: 30 MHz – 1 GHz
    - Detector = Quasi-Peak
    - RBW = 120 kHz
6. Total = Reading Value + Antenna Factor (A.F) + Cable Loss (C.L)

### 7.3. AC POWER LINE CONDUCTED EMISSIONS

#### LIMIT

#### 47 CFR § 15.207, RSS-GEN Section 8.8

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN).

Frequency Range (MHz)	Limits (dBμV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

\*Decreases with the logarithm of the frequency.

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

#### TEST SETUP

See test photographs attached in Annex A for the actual connections between EUT and support equipment.

#### TEST PROCEDURE

1. The EUT is placed on a wooden table 80 cm above the reference ground plane.
2. The EUT is connected via LISN to a test power supply.
3. The measurement results are obtained as described below:
4. Detectors : Quasi Peak and Average Detector.

According to FCC KDB 174176 D01 Line Conducted FAQ v01r01 :

#### Devices Operating Above 30 MHz

For a device with a permanent or detachable antenna operating above 30 MHz, measurements must be performed with the antenna connected as specified in clause 6.2 of ANSI C63.10-2013.

#### Devices Operating Below 30 MHz

For a device with a permanent or detachable antenna operating at or below 30 MHz, the FCC will accept measurements performed with a suitable dummy load in lieu of the antenna under the following conditions:

- (1) Perform the AC power-line conducted tests with the antenna connected to determine compliance with Section 15.207 limits outside the transmitter's fundamental emission band;
- (2) Retest with a dummy load in lieu of the antenna to determine compliance with Section 15.207 limits within the transmitter's fundamental emission band. For a detachable antenna, remove the antenna and connect a suitable dummy load to the antenna connector. For a permanent antenna, remove the antenna and terminate the RF output with a dummy load or network which simulates the antenna in the fundamental frequency band. All measurements must be performed as specified in clause 6.2 of ANSI C63.10-2013.

#### Sample Calculation

Quasi-peak(Final Result) = Reading Value + Correction Factor

## 8. SUMMARY OF TEST RESULTS

Test Description	FCC Part Section(s)	Test Limit	Test Condition	Test Result
26 dB Bandwidth	§2.1049	N/A (Reporting only)	Conducted	-
Occupied Bandwidth	-	N/A (Reporting only)		-
AC Power line Conducted Emissions	§15.207	cf. Section 7.3		PASS
Radiated Spurious Emissions	§15.209	cf. Section 7.2	Radiated	PASS

**Note(s) :**

1. For reporting purposes only

## WORST CASE CONFIGURATION

### RADIATED TEST

#### 1. EUT Axis

- All X, Y, and Z positions for horizontal / vertical antenna polarization were investigated to find the worst-case position.
  - X position was selected for the final evaluation.

2. The test was performed under the condition that the left and right sides operate simultaneously with the shoes provided by the manufacturer.

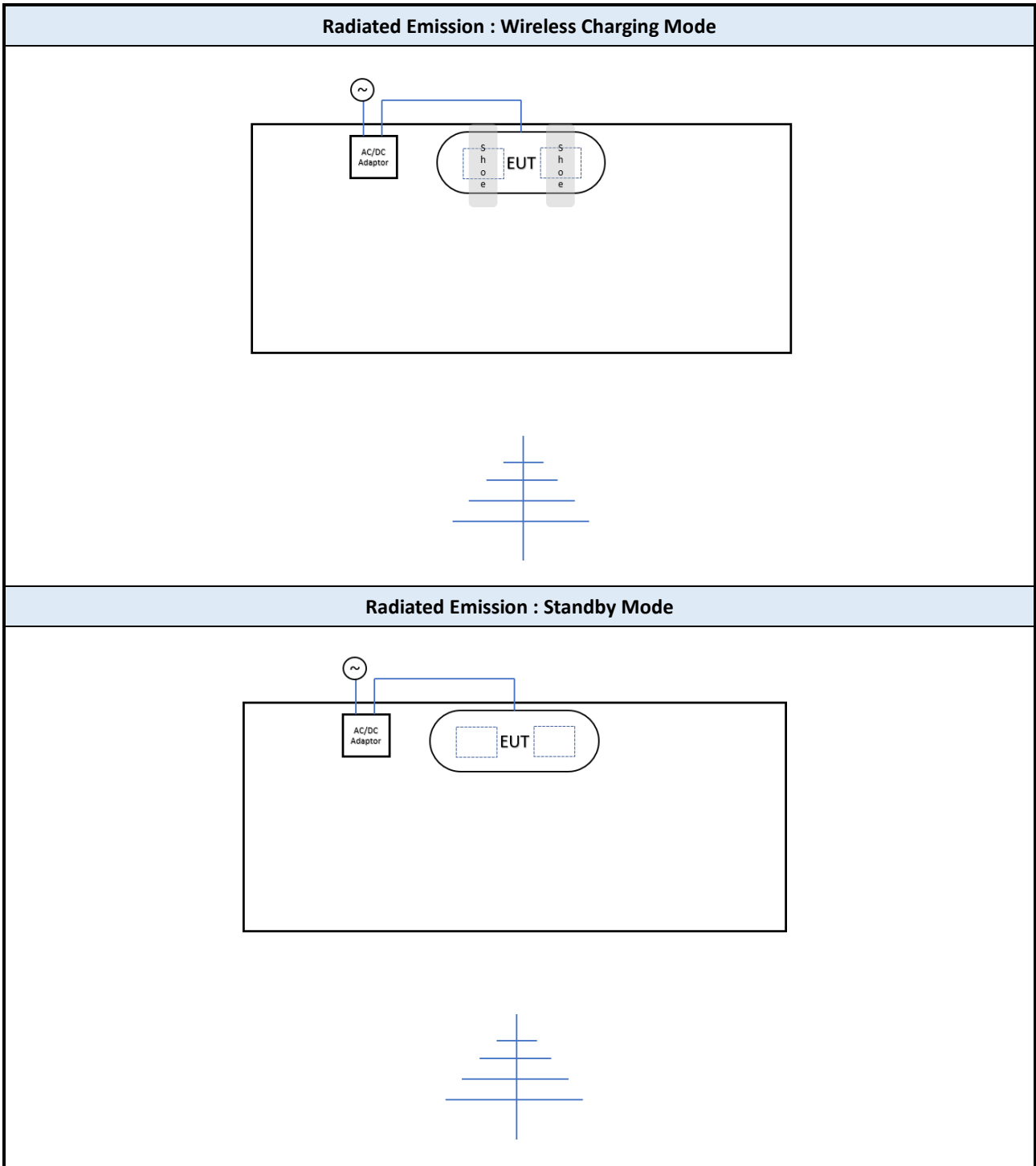
### RADIATED TEST

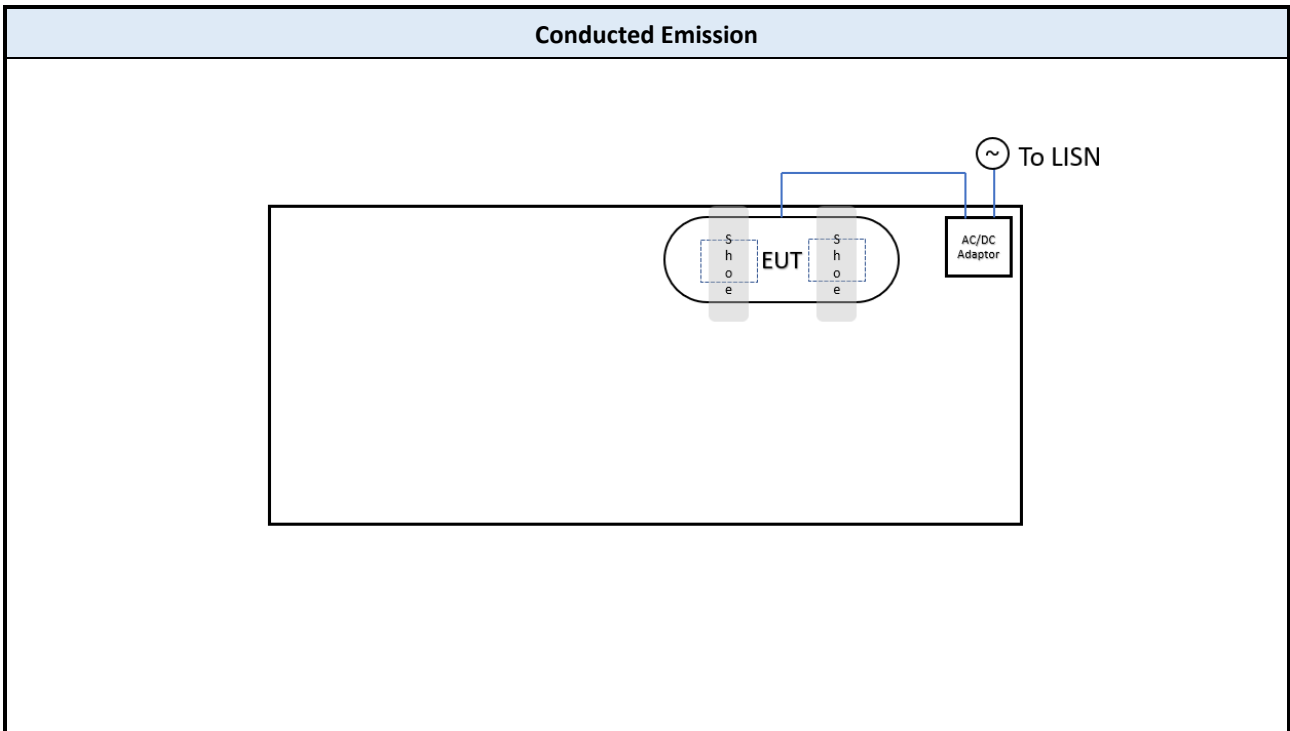
AC Line conducted emission test was performed in two modes because the EUT operates below 30 MHz.

- Antenna connected to the EUT
- Antenna removed from the EUT



**TEST CONFIGURATION**





**LIST OF SUPPORT EQUIPMENT**

Equipment Type	Model No.	Serial Number	Manufacturer	Qty	Note
AC/DC Adaptor	ASUC88a-P20W12	2152	Shenzhen Aquilstar Technology	1	100-240 V~, 1.5 A, 50-60 Hz

## 9. TEST RESULT

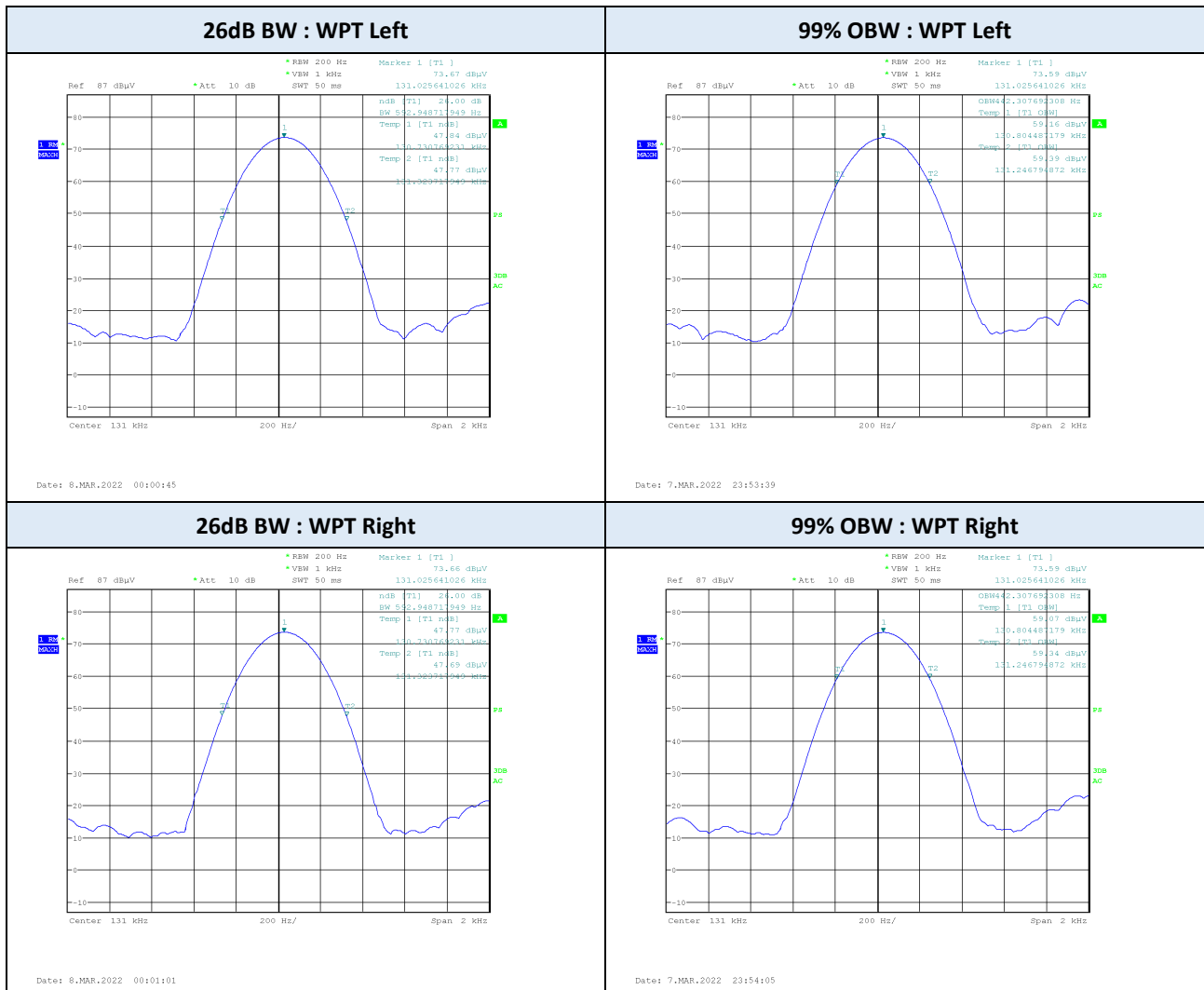
### 9.1 26 dB BANDWIDTH / 99 % OCCUPIED BANDWIDTH

Position	Frequency (kHz)	99% Bandwidth (Hz)	26 dB Bandwidth (Hz)
		Result	Result
WPT Left	131	442.308	592.949
WPT Right	131	442.308	592.949

#### Note(s) :

- For reporting purposes only

#### TEST PLOTS



## 9.2. RADIATED SPURIOUS EMISSIONS

Frequency Range : 9 kHz – 30 MHz

Test Mode WPT  
 Operating Frequency 131 kHz

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. <sup>1)</sup> (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
0.012	90 °	15.2	19.8	35.0	126.0	91.0	QP
0.022	180 °	9.1	19.1	28.2	120.6	92.4	QP
0.037	90 °	24.3	19.4	43.7	116.2	72.5	QP
0.101	180 °	9.8	19.4	29.2	107.5	78.3	QP
0.131	90 °	59.4	19.4	78.8	105.3	26.5	QP
0.131	180 °	74.0	19.4	93.4	105.3	11.9	QP
0.138	180 °	6.5	19.4	25.9	104.8	78.9	QP
0.295	90 °	19.6	19.3	38.9	98.2	59.3	QP
0.151	180 °	19.9	19.4	39.3	104.1	64.8	QP

Frequency Range : 30 MHz – 1 GHz

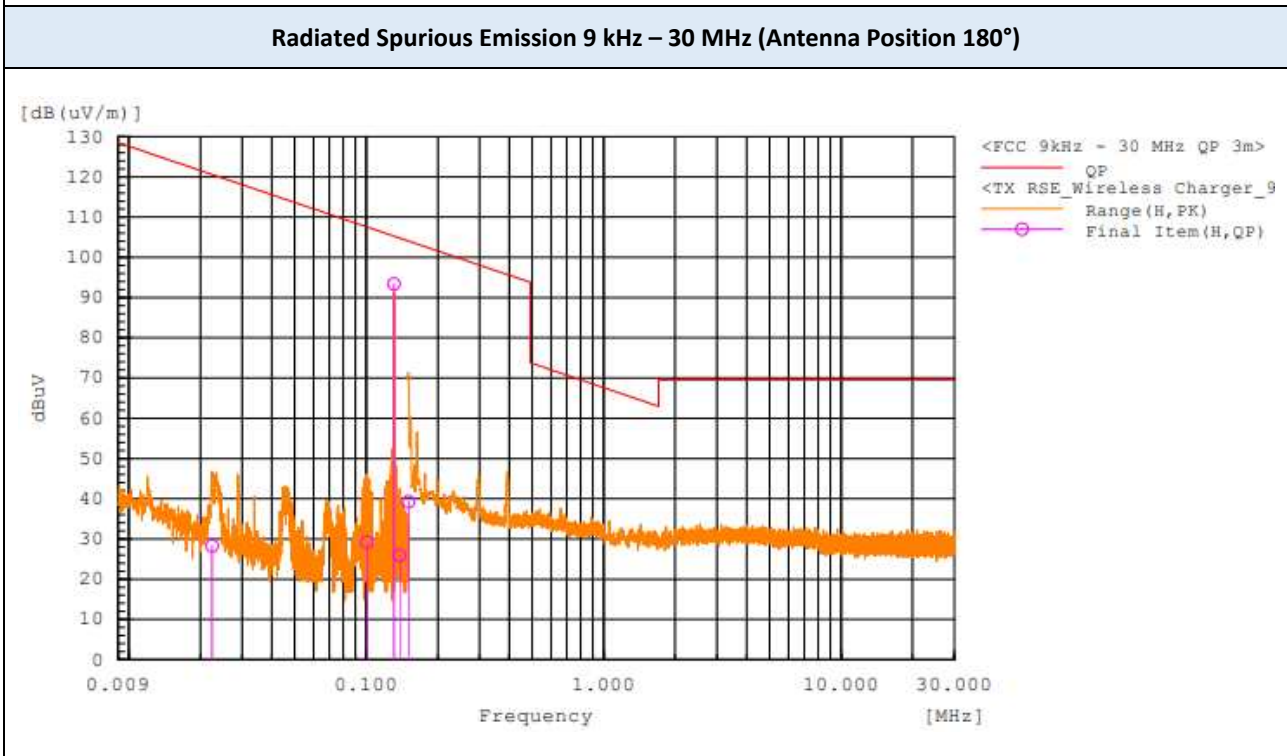
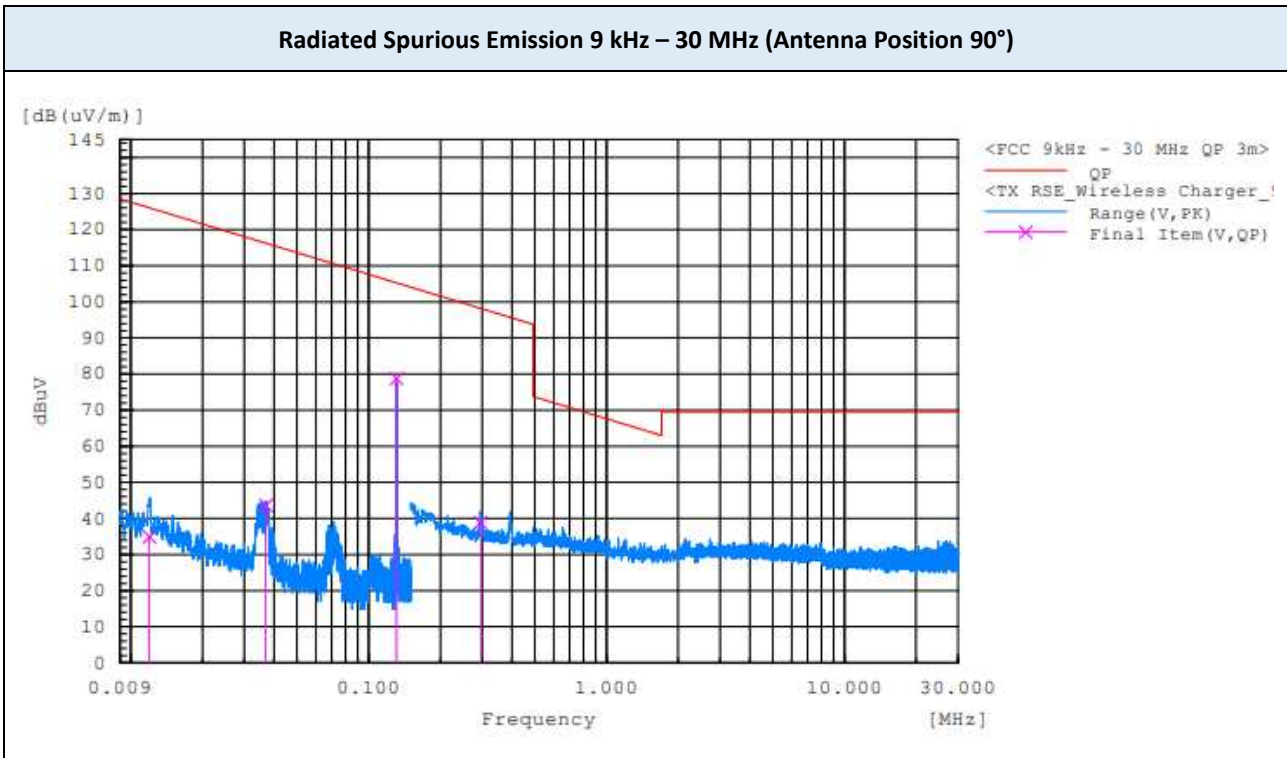
Test Mode WPT  
 Operating Frequency 131 kHz

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. <sup>1)</sup> (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
41.800	V	39.3	-8.4	30.9	40.0	9.1	QP
66.197	V	35.9	-12.8	23.1	40.0	16.9	QP
215.433	H	37.3	-8.9	28.4	43.5	15.1	QP
223.239	V	35.3	-8.6	26.7	46.0	19.3	QP
520.038	H	33.8	-1.8	32.0	46.0	14.0	QP
680.063	H	31.8	1.1	32.9	46.0	13.1	QP

**Note(s) :**

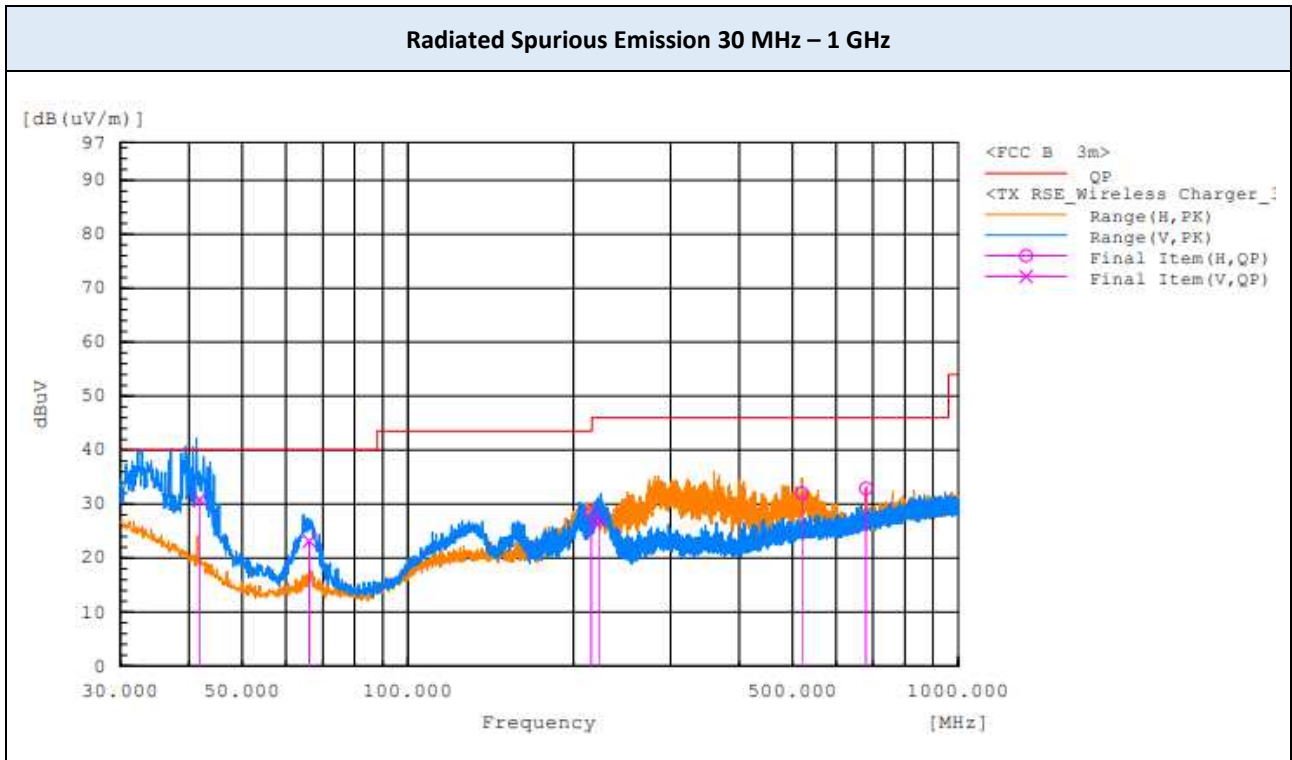
1. Correction Factor: Antenna Factor + Cable loss + Pre-amplifier Gain

▣ TEST PLOTS



Note(s):

▣ TEST PLOTS



Note(s):

-

### 9.3. POWERLINE CONDUCTED EMISSIONS

AC Main : TX mode

Frequency (MHz)	Line	Reading (dBμV)		Corr. <sup>1)</sup> (dB)	Level (dBμV)		Limit (dBμV)		Margin (dB)	
		QP	CAV		QP	CAV	QP	CAV	QP	CAV
0.161	L1	31.7	16.0	9.7	41.4	25.7	65.4	55.4	24.0	29.7
0.394	L1	29.9	22.0	9.7	39.6	31.7	58	48	18.4	16.3
0.475	L1	26.0	13.2	9.6	35.6	22.8	56.4	46.4	20.8	23.6
0.519	L1	37.6	27.1	9.6	47.2	36.7	56	46	8.8	9.3
0.655	L1	31.0	23.0	9.6	40.6	32.6	56	46	15.4	13.4
3.275	L1	28.0	20.2	9.8	37.8	30.0	56	46	18.2	16.0
15.855	L1	25.7	18.7	10.2	35.9	28.9	60	50	24.1	21.1
24.765	L1	37.7	25.5	10.4	48.1	35.9	60	50	11.9	14.1
25.027	L1	38.2	26.2	10.4	48.6	36.6	60	50	11.4	13.4
26.075	L1	39.0	27.5	10.3	49.3	37.8	60	50	10.7	12.2
26.338	L1	40.1	28.0	10.4	50.5	38.4	60	50	9.5	11.6

Frequency (MHz)	Line	Reading (dBμV)		Corr. <sup>1)</sup> (dB)	Level (dBμV)		Limit (dBμV)		Margin (dB)	
		QP	CAV		QP	CAV	QP	CAV	QP	CAV
0.157	N	32.8	20.1	9.7	42.5	29.8	65.6	55.6	23.1	25.8
0.392	N	27.1	21.3	9.7	36.8	31.0	58	48	21.2	17.0
0.476	N	27.5	16.9	9.6	37.1	26.5	56.4	46.4	19.3	19.9
0.516	N	36.5	27.7	9.6	46.1	37.3	56	46	9.9	8.7
1.703	N	29.8	25.7	9.7	39.5	35.4	56	46	16.5	10.6
19.786	N	29.1	23.4	10.3	39.4	33.7	60	50	20.6	16.3
27.910	N	40.1	30.7	10.4	50.5	41.1	60	50	9.5	8.9
28.434	N	40.4	30.6	10.4	50.8	41.0	60	50	9.2	9.0
28.696	N	40.3	30.3	10.5	50.8	40.8	60	50	9.2	9.2

**Note :**

1. Quasi-peak(Final Result) = Reading Value + Correction Factor

AC Main : : RF output terminated with dummy load

Frequency (MHz)	Line	Reading (dB $\mu$ V)		Corr. <sup>1)</sup> (dB)	Level (dB $\mu$ V)		Limit (dB $\mu$ V)		Margin (dB)	
		QP	CAV		QP	CAV	QP	CAV	QP	CAV
0.392	L1	26.7	16.5	9.7	36.4	26.2	58	48	21.6	21.8
0.500	L1	30.4	17.3	9.6	40.0	26.9	56	46	16.0	19.1
0.517	L1	34.8	21.1	9.6	44.4	30.7	56	46	11.6	15.3
1.966	L1	26.6	16.3	9.7	36.3	26.0	56	46	19.7	20.0
10.614	L1	22.6	11.7	10.0	32.6	21.7	60	50	27.4	28.3
20.834	L1	32.0	19.9	10.3	42.3	30.2	60	50	17.7	19.8
22.668	L1	34.8	20.9	10.3	45.1	31.2	60	50	14.9	18.8
26.337	L1	38.3	23.5	10.4	48.7	33.9	60	50	11.3	16.1
28.957	L1	40.6	23.6	10.5	51.1	34.1	60	50	8.9	15.9
29.482	L1	40.8	23.9	10.5	51.3	34.4	60	50	8.7	15.6

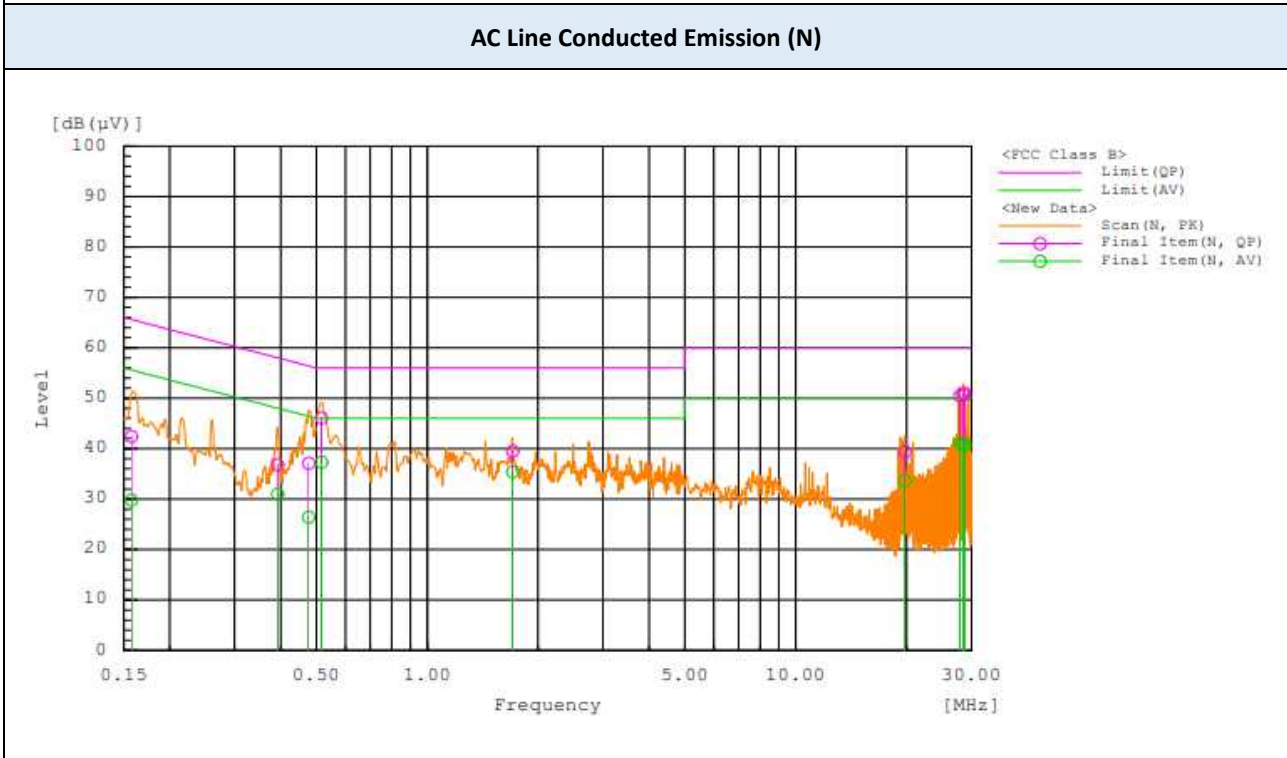
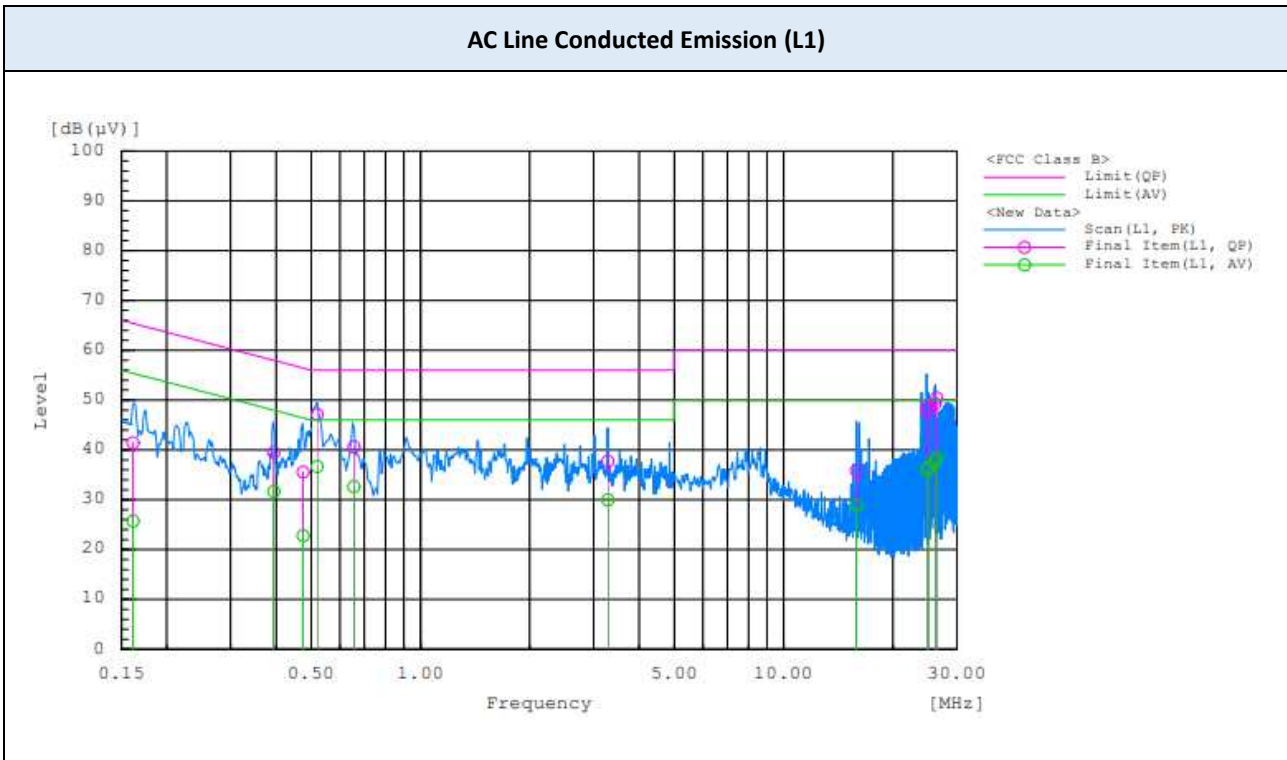
Frequency (MHz)	Line	Reading (dB $\mu$ V)		Corr. <sup>1)</sup> (dB)	Level (dB $\mu$ V)		Limit (dB $\mu$ V)		Margin (dB)	
		QP	CAV		QP	CAV	QP	CAV	QP	CAV
0.389	N	24.0	14.7	9.7	33.7	24.4	58.1	48.1	24.4	23.7
0.500	N	30.7	20.4	9.6	40.3	30.0	56	46	15.7	16.0
0.518	N	34.5	24.0	9.6	44.1	33.6	56	46	11.9	12.4
0.917	N	25.9	18.0	9.7	35.6	27.7	56	46	20.4	18.3
22.930	N	30.0	20.7	10.3	40.3	31.0	60	50	19.7	19.0
27.124	N	36.0	23.8	10.4	46.4	34.2	60	50	13.6	15.8
28.434	N	36.7	23.0	10.4	47.1	33.4	60	50	12.9	16.6

**Note :**

1. Quasi-peak(Final Result) = Reading Value + Correction Factor



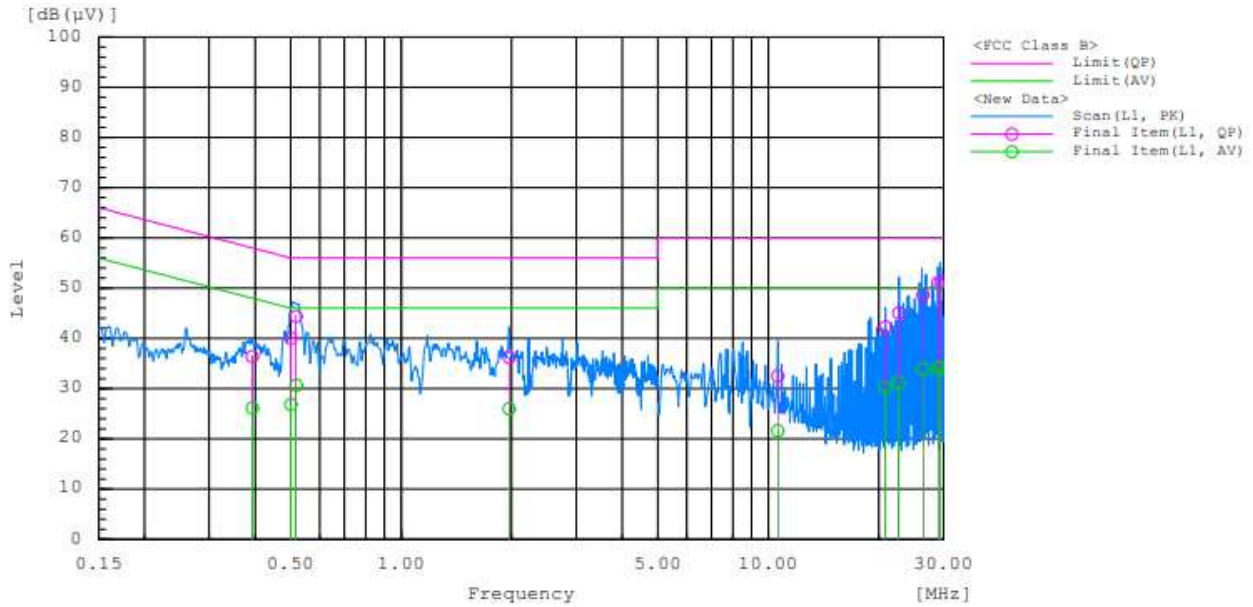
▣ TEST PLOTS



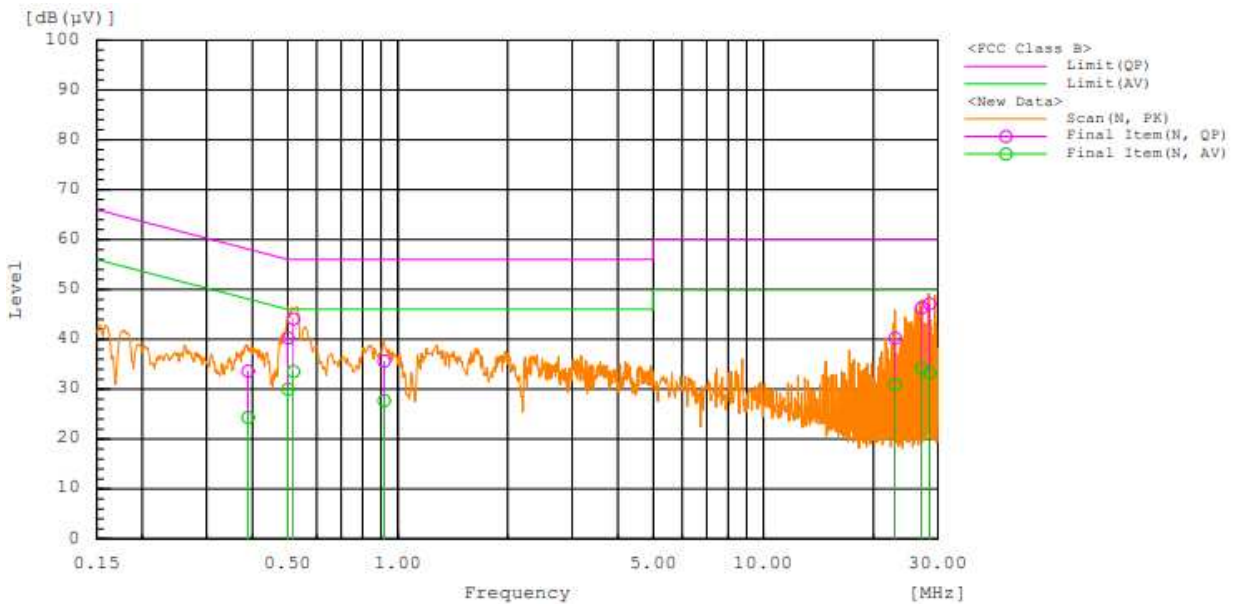
Note(s):

▣ TEST PLOTS

**AC Line Conducted Emission (L1) : RF output terminated with dummy load**



**AC Line Conducted Emission (N) : RF output terminated with dummy load**



Note(s):

## 10. LIST OF TEST EQUIPMENT

No.	Instrument	Model No.	Calibration Due (mm/dd/yy)	Manufacture	Serial No.
<input checked="" type="checkbox"/>	Signal Analyzer (20 Hz ~ 40.0 GHz)	ESU40	12/03/2022	Rohde & Schwarz	100529
<input type="checkbox"/>	Signal Analyzer (1 Hz ~ 40.0 GHz)	ESW44	10/25/2022	Rohde & Schwarz	102015
<input type="checkbox"/>	Signal Analyzer (10 Hz ~ 26.5 GHz)	N9020A	11/04/2022	Keysight	MY52091291
<input type="checkbox"/>	Attenuator (20 dB, DC ~ 26.5 GHz)	CFADC262002	01/13/2023	CERNEX	-
<input type="checkbox"/>	Attenuator (10 dB, DC ~ 26.5 GHz)	CFADC261002	01/13/2023	CERNEX	-
<input checked="" type="checkbox"/>	Loop Antenna (0.009 ~ 30 MHz)	HLA 6121	09/15/2023	TESEQ	43964
<input checked="" type="checkbox"/>	BI-LOG Antenna (30 MHz ~ 6 GHz)	JB6	10/26/2022	Sunol	A071116
<input checked="" type="checkbox"/>	LNA (30 MHz ~ 1GHz)	8447D	07/26/2022	HP	2443A03587
<input type="checkbox"/>	Horn Antenna (1 GHz ~ 18 GHz)	DRH-118	10/21/2022	Sunol	A070516
<input type="checkbox"/>	LNA (1 GHz ~ 18 GHz)	PAM-118A	07/06/2022	Com-Power	18040074
<input type="checkbox"/>	Horn Antenna (18 GHz ~ 40 GHz)	DRH-1840	02/16/2023	Sunol	17121
<input type="checkbox"/>	LNA (18 GHz ~ 40 GHz)	CBL18405045-01	02/10/2023	CERNEX, Inc.	27973
<input type="checkbox"/>	High Pass Filter	WHK10-2520-3000-18000-40EF	01/13/2023	Wainwright	9
<input type="checkbox"/>	High Pass Filter	WHKX8-6090-7000-18000-40SS	01/13/2023	Wainwright	23
<input checked="" type="checkbox"/>	EMI Test Receiver	ESR3	12/03/2022	Rohde & Schwarz	102363
<input checked="" type="checkbox"/>	LISN	ENV216	01/19/2023	Rohde & Schwarz	101349

**Note(s):**

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

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## APPENDIX A. TEST SETUP PHOTOS

*The setup photos are provided as a separate document.*

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## **APPENDIX B. PHOTOGRAPHS OF EUT**

### **B.1. EXTERNAL PHOTOS**

*The external photos are provided as a separate document.*

### **B.2. INTERNAL PHOTOS**

*The internal photos are provided as a separate document.*

**END OF TEST REPORT**