



# CERTIFICATION TEST REPORT

**Report Number.** : 4790577225-FR5V4

**Applicant** : SAMSUNG ELECTRONICS CO., LTD.  
129 SAMSUNG-RO, YEONGTONG-GU, SUWON-SI,  
GYEONGGI-DO, 16677, KOREA

**Model** : EP-P9500

**FCC ID** : A3LEPP9500

**EUT Description** : SmartThings Station with BLE, DTS/UNII a/b/g/n/ac, Zigbee and WPT

**Test Standard(s)** : FCC 47 CFR PART 15 SUBPART C

**Date Of Issue:**

2022-11-23

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Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
V1	2022-11-10	Initial issue	Hyunsik(Dexter) Yun
V2	2022-11-21	Updated to address TCB's Question	Hyunsik(Dexter) Yun
V3	2022-11-22	Updated to address TCB's Question	Hyunsik(Dexter) Yun
V4	2022-11-23	Updated to address TCB's Question	Hyunsik(Dexter) Yun

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# 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** SAMSUNG ELECTRONICS CO., LTD.  
**EUT DESCRIPTION:** SmartThings Station with BLE, DTS/UNII a/b/g/n/ac, Zigbee and WPT  
**MODEL NUMBER:** EP-P9500  
**SERIAL NUMBER:** R37T90007XR3S (RADIATED);  
**DATE TESTED:** 2022-10-16 ~ 2022-11-23;

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Complies

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

**Note:** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For  
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UL Korea, Ltd.

Tested By:



Hyunsik(Dexter) Yun  
Suwon Lab Engineer  
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## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with following methods.

1. FCC CFR 47 Part 2.
2. FCC CFR 47 Part 15.
3. ANSI C63.10-2013.
4. 680106 D01 RF Exposure Wireless Charging Apps v03r01.

## 3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea. Line conducted emissions are measured only at the 218 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

218 Maeyeong-ro	
<input type="checkbox"/>	Chamber 1(3m semi-anechoic chamber)
<input checked="" type="checkbox"/>	Chamber 2(3m semi-anechoic chamber)
<input type="checkbox"/>	Chamber 3(3m semi-anechoic chamber)
<input type="checkbox"/>	Chamber 4(3m Full-anechoic chamber)
<input type="checkbox"/>	Chamber 5(3m Full-anechoic chamber)

UL Korea, Ltd. is accredited by IAS, Laboratory Code TL-637. The full scope of accreditation can be viewed at <https://www.iasonline.org/wp-content/uploads/2017/05/TL-637-cert-New.pdf>.

## 4. CALIBRATION AND UNCERTAINTY

### 4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

### 4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$$\begin{aligned} \text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamp Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m} \end{aligned}$$

### 4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.02 dB
Radiated Disturbance, 9 kHz to 30 MHz	1.72 dB
Radiated Disturbance, 30 MHz to 1 GHz	4.05 dB

Uncertainty figures are valid to a confidence level of 95%.

### 4.4. DECISION RULE

Decision rule for statement(s) of conformity is based on Procedure 2, Clause 4.4.3 in IEC Guide 115:2021.

## 5. EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF EUT

The EUT is a SmartThings Station with BLE, DTS/UNII a/b/g/n/ac, Zigbee and WPT. This test report addresses the wireless low power transmitter(DCD) operational mode.

### 5.2. MAXIMUM E-FIELD STRENGTH

- **Power sharing mode**

Fundamental Frequency [kHz]	Mode	E-field (300m distance) FCC[dBuV/m]
126.2 ~ 129.2	Charging Bluetooth Headset(2 Watt)	-6.37
	Wireless Charging Test Module(4.5 Watt)	1.03
	Wireless Charging Test Module(7.5 Watt)	0.53
	<b>Charging Phone(15 Watt)</b>	<b>5.43</b>
119.0 ~ 122.0	<b>Specific Mobile – Charging Phone(4.5 Watt)</b>	<b>3.23</b>

Worst case:

- 126.2 ~ 129.2 kHz range: Charging Phone mode(15 Watt)
- 119.0 ~ 122.0 kHz range: Specific Mobile – Charging Phone(4.5 Watt)

### 5.3. PRELIMINARY TEST CONFIGURATIONS

The Power Sharing mode of the EUT was investigated in three orthogonal orientations X, Y and Z it was determined that X orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in X orientation.

#### 5.4. WORST-CASE CONFIGURATION AND MODE

Mode	Test Case	Description
Wireless charging mode	1	Charging from EUT to 2 Watt device
	2	Charging from EUT to 4.5 Watt device
	3	Charging from EUT to 7.5 Watt device
	4	Charging from EUT to 15 Watt device
	5	Charging from EUT to 4.5 Watt device(specific Mobile)

For wireless charging mode(126.2 ~ 129.2 kHz range), test results of case 4 is worst, so this test report described test case 4. In addition, the 119.0 ~ 122.0 kHz range was tested separately because the frequency range was different.



## 5.5. MODIFICATIONS

No modifications were made during testing.

## 5.6. DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Charger	SAMSUNG	EP-TA800	-	N/A
Data Cable	SAMSUNG	EP-DN980	-	N/A
Mobile Phone	SAMSUNG	SM-S906U	R3CR90DJT6M	A3LS906U
Intelligent Wireless Charging Full-function Test Module	Shenzhen Xiangyou Technology Co.LTD	wireless charger PCB PCBA	-	-
Mobile Phone	SAMSUNG	SM-N970U	R38M60CBLFF	A3LSMN970V
Bluetooth Headset	SAMSUNG	SM-R190	RF2NC0CM6ZH	A3LSMR190L

### I/O CABLE

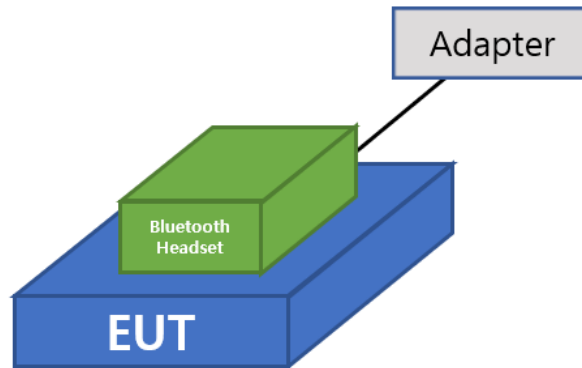
I/O Cable List						
Cable No.	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC Power	1	C Type	Shielded	1.0 m	N/A

**TEST SETUP**

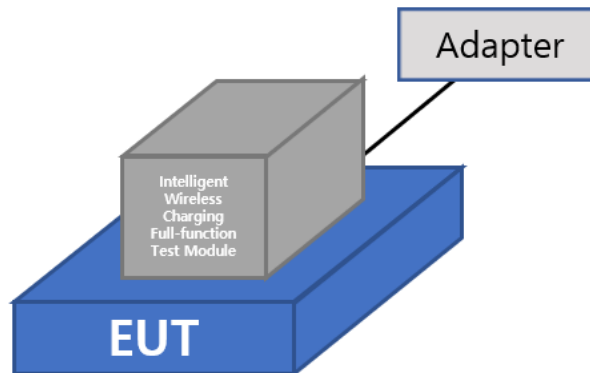
The EUT is installed in a typical configuration. Charging from EUT.

**TEST SETUP DIAGRAM**

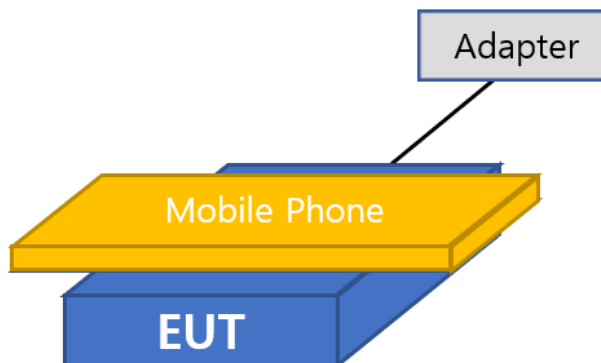
- Test Case 1 : Charging Bluetooth Headset(2 Watt)



- Test Case 2 & 3 : Intelligent Wireless Charging Full-function Test Module(4.5 & 7.5 Watt)



- Test Case 4 & 5 : Charging Phone(15 Watt & 4.5 Watt)



## 6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Test Equipment List				
Description	Manufacturer	Model	S/N	Cal Due
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	845	2024-08-15
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	749	2024-08-15
Preamplifier, 1000 MHz	Sonoma	310N	341282	2023-08-02
Preamplifier, 1000 MHz	Sonoma	310N	351741	2023-08-02
EMI Test Receive, 40 GHz	R&S	ESU40	100457	2023-07-29
EMI Test Receive, 3 GHz	R&S	ESR3	101832	2023-08-01
Spectrum Analyzer, 7 GHz	Agilent / HP	N9010A	MY54200580	2023-08-01
LISN	R&S	ENV-216	101837	2023-08-04
Antenna, Loop, 9kHz-30MHz	R&S	HFH2-Z2	100418	2023-10-06
UL Software				
Description	Manufacturer	Model	Version	
Radiated software	UL	UL EMC	Ver 9.5	
AC Line Conducted software	UL	UL EMC	Ver 9.5	

## 7. APPLICABLE LIMITS AND TEST RESULTS

### 7.1. RADIATED EMISSIONS

#### TEST PROCEDURE

ANSI C63.10: 2013

The highest clock frequency generated or used in the EUT is 48 MHz therefore the frequency range were investigated from 9 kHz to 30 MHz and 30 MHz to 1 GHz.

#### LIMIT

FCC §15.209 (a)  
ICES-001 Section 6.2, IC RSS-216 6.2.2, and IC RSS-GEN Sections 8.9 and 8.10.

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (m)
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 to 216	150	3
216 to 960	200	3
Above 960 MHz	500	3

Note: The lower limit shall apply at the transition frequency.

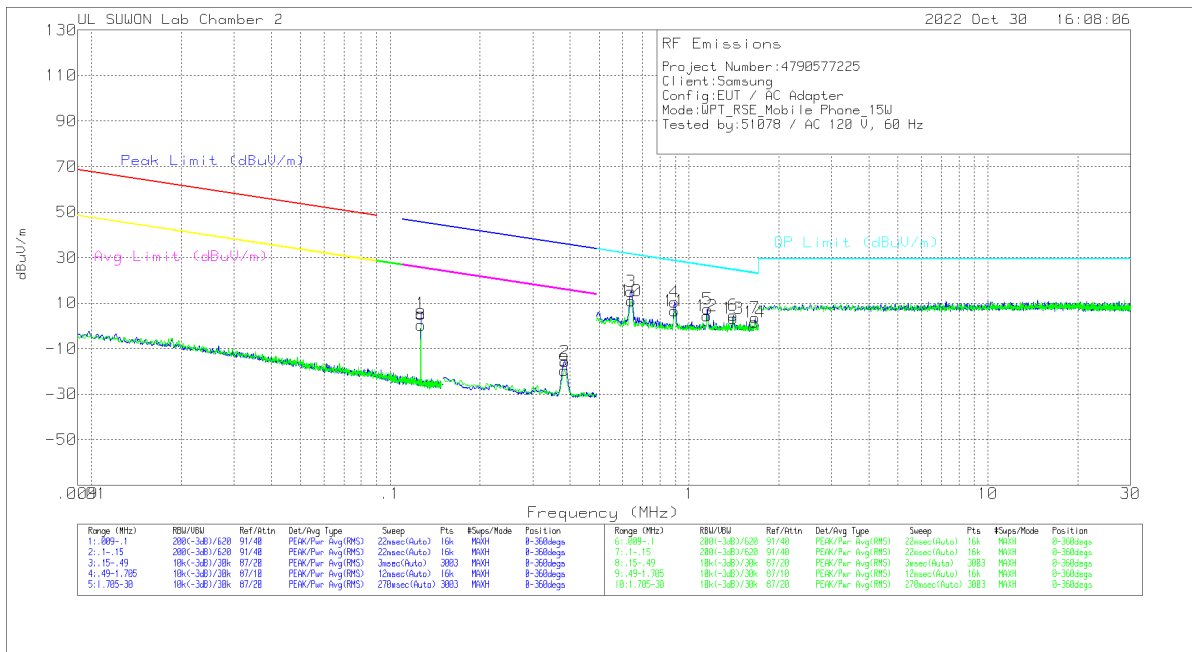
#### RESULTS

The EUT belongs to Test Case 4(126.2 ~ 129.2 kHz range) & 5(119.0 ~ 122.0 kHz range).

Although these tests were performed other than open field test site, adequate comparison measurements were confirmed against 300 m open field test site.

Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788 D01.

**RADIATED EMISSIONS 9 KHz to 30 MHz(Charging Phone mode Test Case 4)**



**Trace Markers**

[Face On]

Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	HFH2-Z2_Loop Antenna	Cable Loss	Dist Corr 300m	Corrected Reading dBUV/m	Peak Limit (dBUV/m)	Margin (dB)	Avg Limit (dBUV/m)	Margin (dB)	Azimuth (Degs)
**1	.12667	65.52	Pk	19.8	.1	-80	5.42	45.57	-40.15	25.57	-20.15	0-360
2	.38351	44.44	Pk	19.7	.1	-80	-15.76	35.93	-51.69	15.93	-31.69	0-360

Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	HFH2-Z2_Loop Antenna	Cable Loss	Dist Corr 30m	Corrected Reading dBUV/m	QP Limit (dBUV/m)	Margin (dB)	Azimuth (Degs)
3	.63907	35.41	Pk	19.7	.1	-40	15.21	31.5	-16.29	0-360
4	.89459	30.48	Pk	19.8	.2	-40	10.48	28.59	-18.11	0-360
5	1.15207	27.4	Pk	19.8	.2	-40	7.4	26.4	-19	0-360
6	1.40401	24.65	Pk	19.8	.2	-40	4.65	24.68	-20.03	0-360
7	1.66409	23.61	Pk	19.8	.2	-40	3.61	23.21	-19.6	0-360

[Face Off]

Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	HFH2-Z2_Loop Antenna	Cable Loss	Dist Corr 300m	Corrected Reading dBUV/m	Peak Limit (dBUV/m)	Margin (dB)	Avg Limit (dBUV/m)	Margin (dB)	Azimuth (Degs)
**8	.12667	60.52	Pk	19.8	.1	-80	.42	45.57	-45.15	25.57	-25.15	0-360
9	.38318	40.77	Pk	19.7	.1	-80	-19.43	35.94	-55.37	15.94	-35.37	0-360

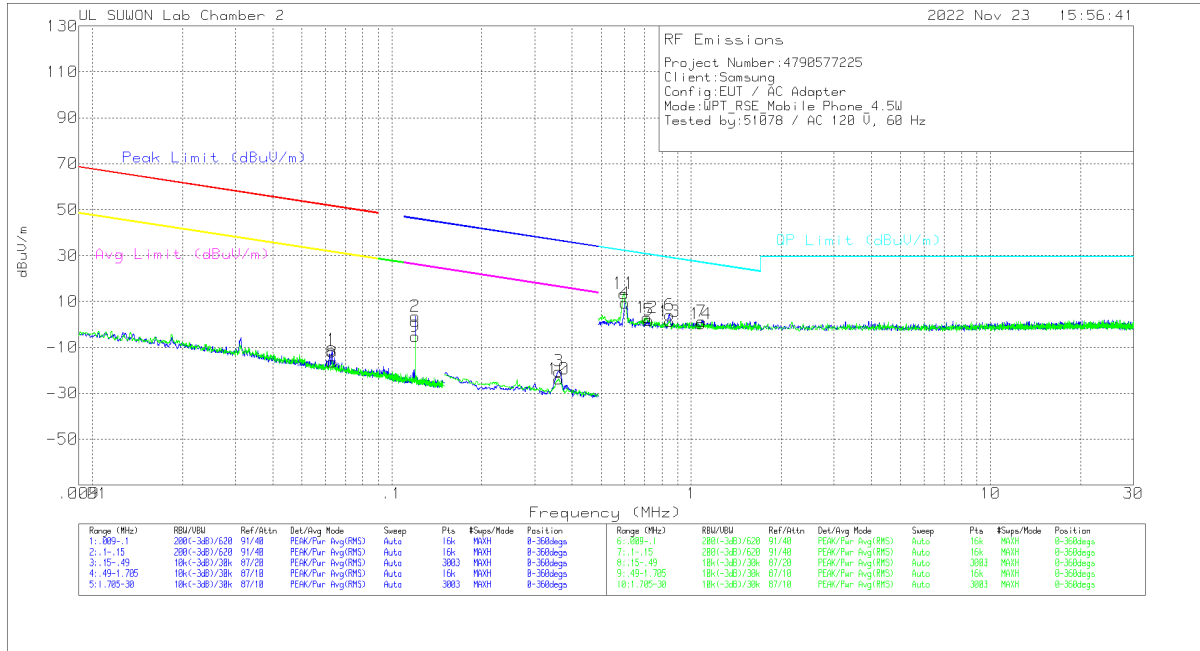
Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	HFH2-Z2_Loop Antenna	Cable Loss	Dist Corr 30m	Corrected Reading dBUV/m	QP Limit (dBUV/m)	Margin (dB)	Azimuth (Degs)
10	.63983	31.12	Pk	19.7	.1	-40	10.92	31.49	-20.57	0-360
11	.89504	26.57	Pk	19.8	.2	-40	6.57	28.58	-22.01	0-360
12	1.14903	24.3	Pk	19.8	.2	-40	4.3	26.42	-22.12	0-360
13	1.40759	23.26	Pk	19.8	.2	-40	3.26	24.66	-21.4	0-360
14	1.6593	21.68	Pk	19.8	.2	-40	1.68	23.24	-21.56	0-360

Pk - Peak detector

\*\* Fundamental

Note : Radiated test were investigated with three receiving antenna axes: Face-on, Face-off and horizontal (parallel to the ground plane) and the worse orientations of Face-on and Face-off were set for final test.

**RADIATED EMISSIONS 9 KHz to 30 MHz(Charging Phone mode Test Case 5)**



**Trace Markers**

[Face On]

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	HFH2-Z2_Loop Antenna	Cable Loss	Dist Corr 300m	Corrected Reading dBuV/m	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.06311	48.92	Pk	19.9	.1	-80	-11.08	51.58	-62.66	31.58	-42.66	0-360
**2	.11969	63.62	Pk	19.8	.1	-80	3.52	46.07	-42.55	26.07	-22.55	0-360
3	.36091	39.84	Pk	19.7	.1	-80	-20.36	36.46	-56.82	16.46	-36.82	0-360

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	HFH2-Z2_Loop Antenna	Cable Loss	Dist Corr 30m	Corrected Reading dBuV/m	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
4	.6021	29.47	Pk	19.7	.1	-40	9.27	32.02	-22.75	0-360
5	.72313	21.98	Pk	19.7	.1	-40	1.78	30.43	-28.65	0-360
6	.8472	24.12	Pk	19.8	.2	-40	4.12	29.06	-24.94	0-360
7	1.08455	21.25	Pk	19.8	.2	-40	1.25	26.92	-25.67	0-360

[Face Off]

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	HFH2-Z2_Loop Antenna	Cable Loss	Dist Corr 300m	Corrected Reading dBuV/m	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
8	.0632	43.53	Pk	19.9	.1	-80	-16.47	51.57	-68.04	31.57	-48.04	0-360
**9	.11969	55.02	Pk	19.8	.1	-80	-5.08	46.07	-51.15	26.07	-31.15	0-360
10	.3608	36.39	Pk	19.7	.1	-80	-23.81	36.46	-60.27	16.46	-40.27	0-360

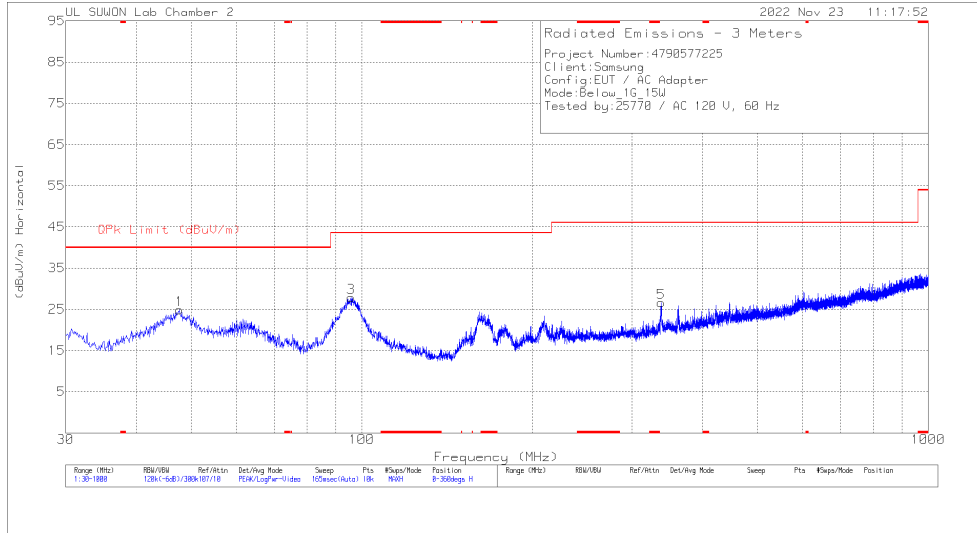
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	HFH2-Z2_Loop Antenna	Cable Loss	Dist Corr 30m	Corrected Reading dBuV/m	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
11	.59636	33.72	Pk	19.7	.1	-40	13.52	32.1	-18.58	0-360
12	.71241	23.25	Pk	19.7	.1	-40	3.05	30.56	-27.51	0-360
13	.84731	21.33	Pk	19.8	.2	-40	1.33	29.06	-27.73	0-360
14	1.08033	20.39	Pk	19.8	.2	-40	.39	26.95	-26.56	0-360

Pk - Peak detector

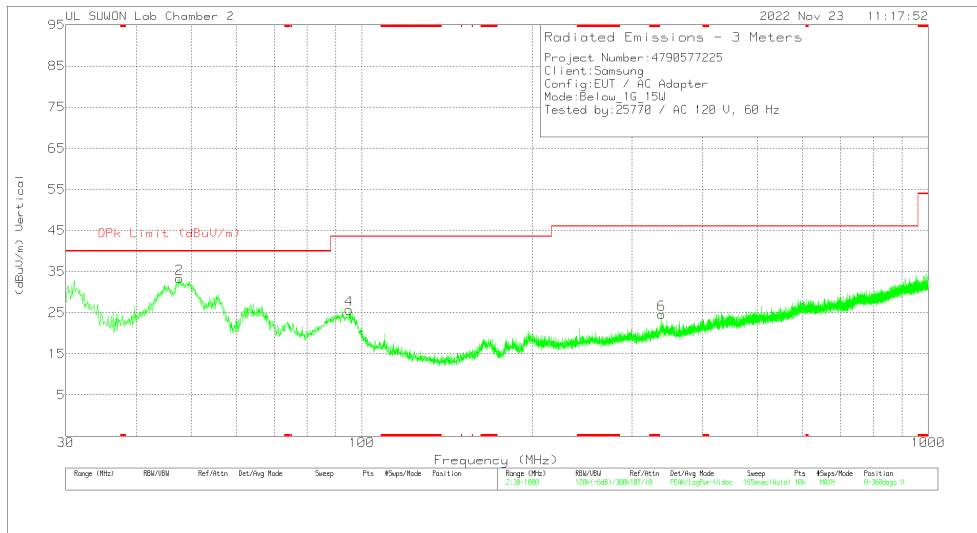
\*\* Fundamental

Note : Radiated test were investigated with three receiving antenna axes: Face-on, Face-off and horizontal (parallel to the ground plane) and the worse orientations of Face-on and Face-off were set for final test.

**RADIATED EMISSIONS 30 MHz to 1 GHz(Charging Phone mode Test Case 4)**



**HORIZONTAL**



**VERTICAL**

**Below 1GHz DATA**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Below 1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	47.654	35.99	Pk	20.1	-31.2	24.89	40	-15.11	0-360	200	H
3	95.669	41.71	Pk	16.7	-30.6	27.81	43.52	-15.71	0-360	200	H
5	337.587	35.26	Pk	20.2	-28.8	26.66	46.02	-19.36	0-360	100	H
2	47.654	44.46	Pk	20.1	-31.2	33.36	40	-6.64	0-360	100	V
4	94.99	39.58	Pk	16.6	-30.5	25.68	43.52	-17.84	0-360	100	V
6	338.654	33.18	Pk	20.2	-28.8	24.58	46.02	-21.44	0-360	100	V

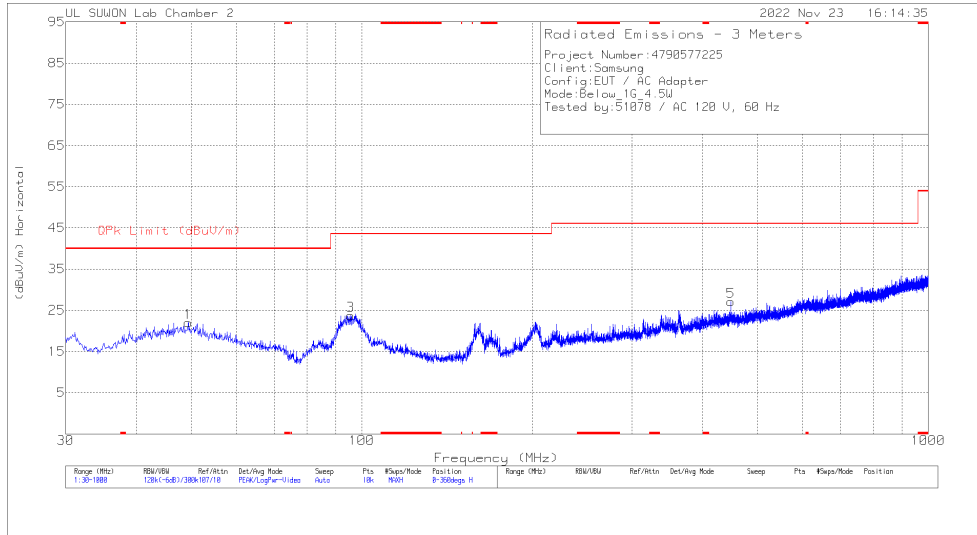
Pk - Peak detector

**Radiated Emissions**

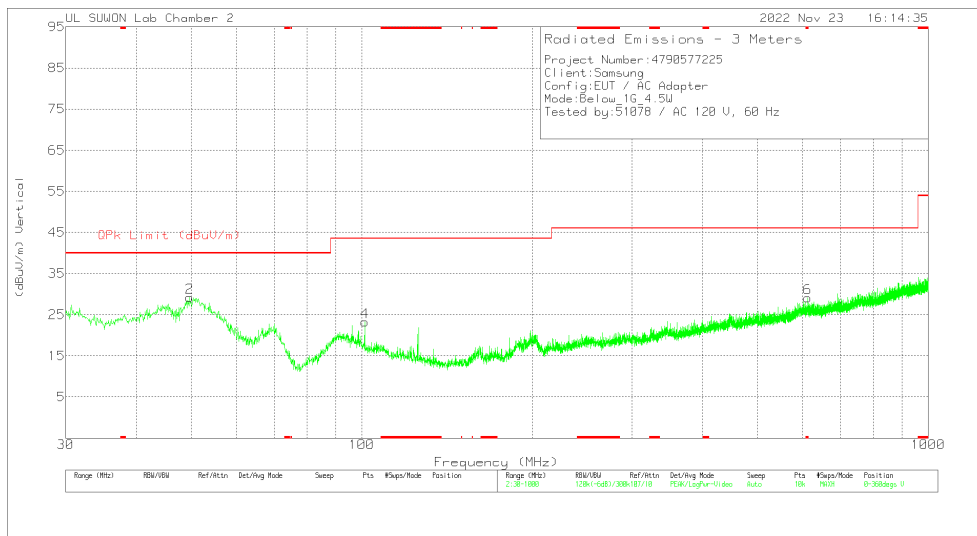
Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Below 1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
47.654	41.21	Qp	20.1	-31.2	30.11	40	-9.89	228	115	V

Qp - Quasi-Peak detector

**RADIATED EMISSIONS 30 MHz to 1 GHz(Charging Phone mode Test Case 5)**



**HORIZONTAL**



**VERTICAL**

**Below 1GHz DATA**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Below 1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	49.4	33.15	Pk	20.1	-31.2	22.05	40	-17.95	0-360	100	H
3	95.572	37.62	Pk	16.7	-30.6	23.72	43.52	-19.8	0-360	200	H
5	448.555	33.42	Pk	21.9	-28.2	27.12	46.02	-18.9	0-360	100	H
2	49.691	40.38	Pk	20.1	-31.2	29.28	40	-10.72	0-360	100	V
4	101.198	36.4	Pk	17.5	-30.6	23.3	43.52	-20.22	0-360	100	V
6	* 613.358	31.67	Pk	24.9	-27.5	29.07	46.02	-16.95	0-360	100	V

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 Pk - Peak detector



## 7.2. AC MAINS LINE CONDUCTED EMISSIONS

### TEST PROCEDURE

ANSI C63.10: 2013

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

### LIMIT

FCC §15.207 (a)

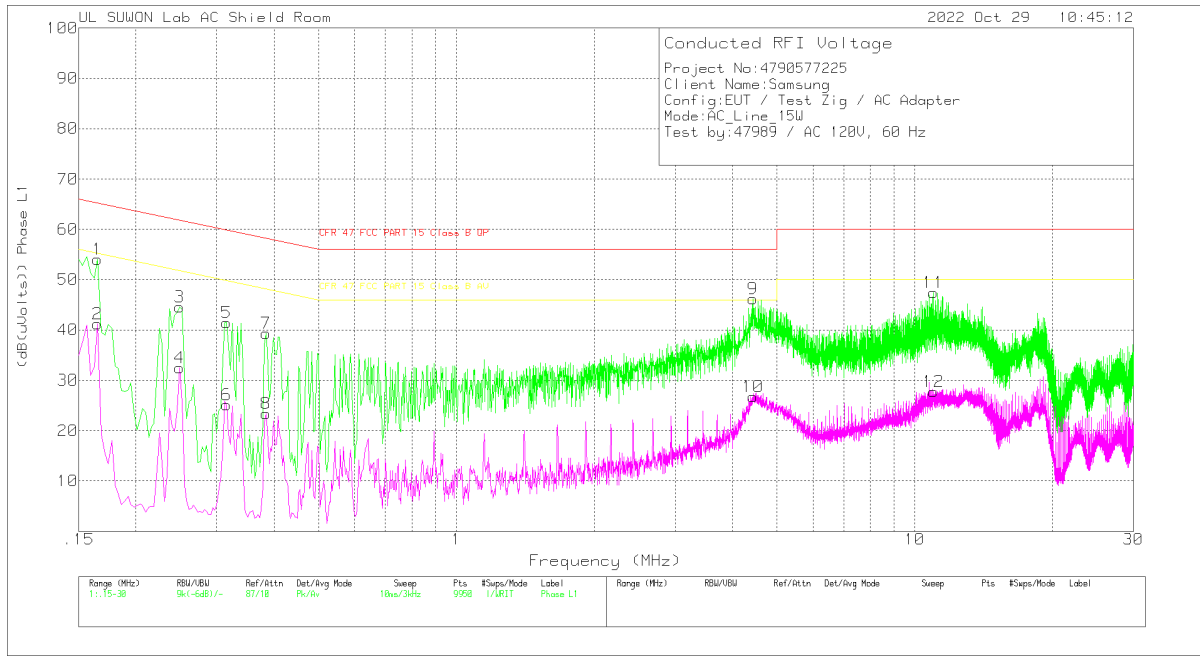
Frequency range (MHz)	Limits (dB $\mu$ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

\*Decreases with the logarithm of the frequency.

### RESULTS

The EUT belongs to Test Case 4 & 5.

**WORST EMISSIONS(Charging Phone mode Test Case 4)**

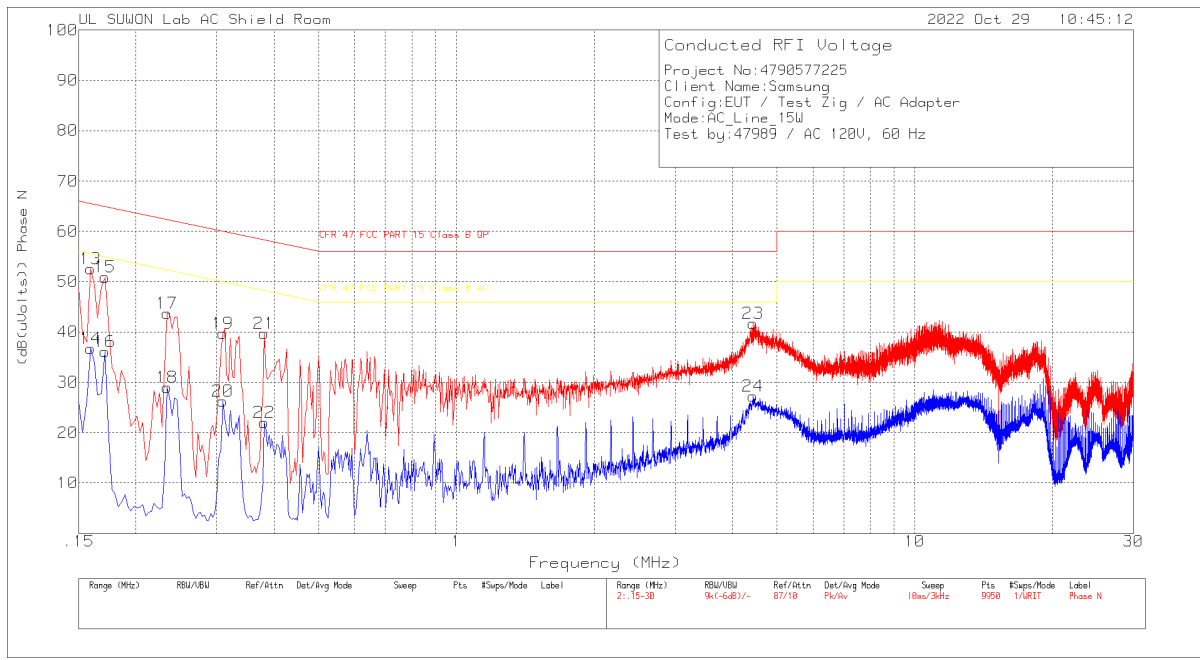


**LINE 1 RESULTS**

Range 1: Phase L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101836_Wit h EX_L1[dB]	CABLELOS S(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
1	.165	44.01	Pk	9.9	.1	54.01	65.21	-11.2	-	-
2	.165	31.23	Av	9.9	.1	41.23	-	-	55.21	-13.98
3	.249	34.83	Pk	9.6	.2	44.63	61.79	-17.16	-	-
4	.249	22.68	Av	9.6	.2	32.48	-	-	51.79	-19.31
5	.315	31.6	Pk	9.7	.2	41.5	59.84	-18.34	-	-
6	.315	15.25	Av	9.7	.2	25.15	-	-	49.84	-24.69
7	.384	29.36	Pk	9.8	.2	39.36	58.19	-18.83	-	-
8	.384	13.41	Av	9.8	.2	23.41	-	-	48.19	-24.78
9	4.431	36.19	Pk	9.7	.3	46.19	56	-9.81	-	-
10	4.431	16.78	Av	9.7	.3	26.78	-	-	46	-19.22
11	10.998	37.27	Pk	9.9	.3	47.47	60	-12.53	-	-
12	10.98	17.55	Av	9.9	.3	27.75	-	-	50	-22.25

Pk - Peak detector  
 Av - Average detection



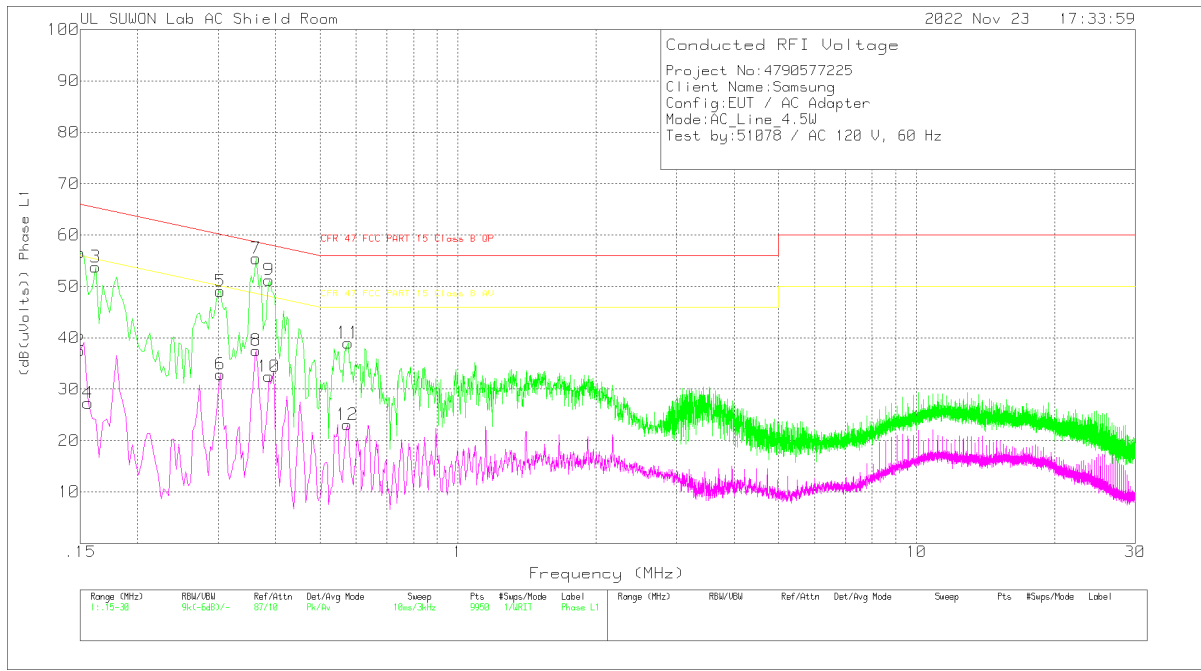
**LINE 2 RESULTS**

Range 2: Phase N .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101836_Wit h EX_N[dB]	CABLELOS S(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
13	.159	42.67	Pk	9.8	.1	52.57	65.52	-12.95	-	-
14	.159	26.78	Av	9.8	.1	36.68	-	-	55.52	-18.84
15	.171	40.67	Pk	10	.2	50.87	64.91	-14.04	-	-
16	.171	25.88	Av	10	.2	36.08	-	-	54.91	-18.83
17	.234	33.81	Pk	9.7	.2	43.71	62.31	-18.6	-	-
18	.234	19.09	Av	9.7	.2	28.99	-	-	52.31	-23.32
19	.309	29.85	Pk	9.7	.2	39.75	60	-20.25	-	-
20	.309	16.33	Av	9.7	.2	26.23	-	-	50	-23.77
21	.381	29.71	Pk	9.8	.2	39.71	58.26	-18.55	-	-
22	.381	12.05	Av	9.8	.2	22.05	-	-	48.26	-26.21
23	4.434	31.75	Pk	9.7	.3	41.75	56	-14.25	-	-
24	4.434	17.3	Av	9.7	.3	27.3	-	-	46	-18.7

Pk - Peak detector  
 Av - Average detection

**WORST EMISSIONS(Charging Phone mode Test Case 5)**



**LINE 1 RESULTS**

Range 1: Phase L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101836_Wit h EX_L1[dB]	CABLELOS S(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
1	.15	46.84	Pk	9.7	.1	56.64	66	-9.36	-	-
2	.15	27.71	Av	9.7	.1	37.51	-	-	56	-18.49
3	.162	43.8	Pk	9.9	.1	53.8	65.36	-11.56	-	-
4	.156	17.42	Av	9.8	.1	27.32	-	-	55.67	-28.35
5	.303	39.18	Pk	9.7	.2	49.08	60.16	-11.08	-	-
6	.303	23.02	Av	9.7	.2	32.92	-	-	50.16	-17.24
7	.363	45.45	Pk	9.8	.2	55.45	58.66	-3.21	-	-
8	.363	27.54	Av	9.8	.2	37.54	-	-	48.66	-11.12
9	.387	41.26	Pk	9.8	.2	51.26	58.13	-6.87	-	-
10	.387	22.48	Av	9.8	.2	32.48	-	-	48.13	-15.65
11	.576	29	Pk	9.8	.2	39	56	-17	-	-
12	.573	13.09	Av	9.8	.2	23.09	-	-	46	-22.91

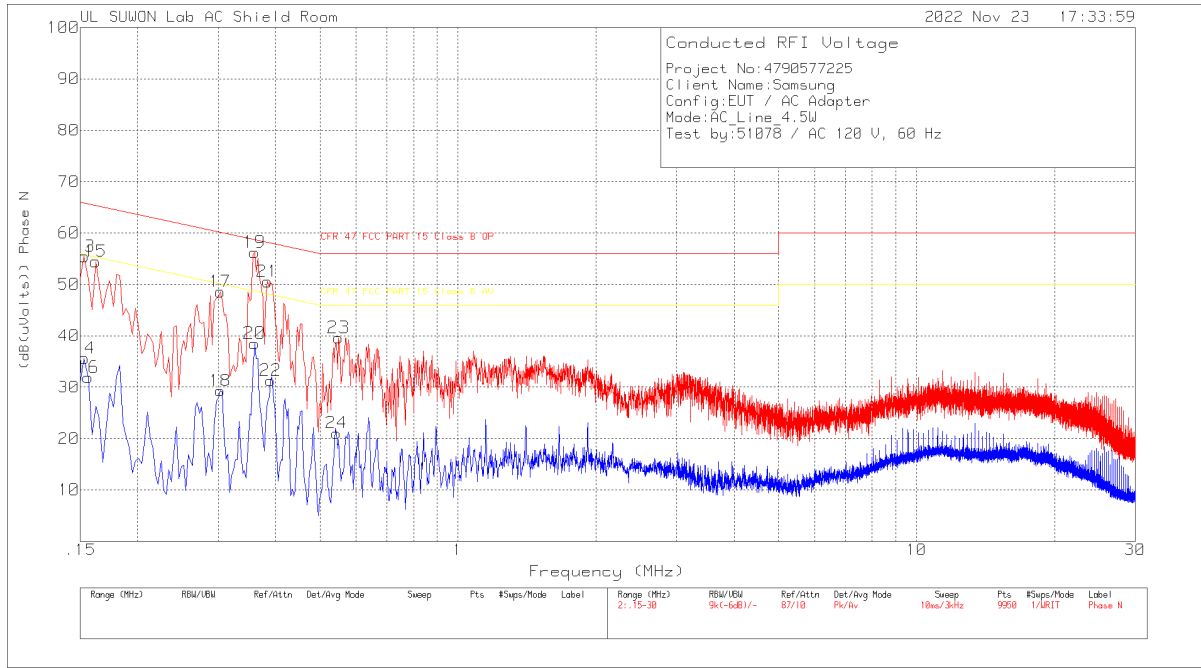
Pk - Peak detector  
 Av - Average detection

**Quasi-Peak Emissions**

Range 1: Phase L1 .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	101836_Wit h EX_L1[dB]	CABLELOS S(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
.15	44.63	Qp	9.7	.1	54.43	66	-11.57	-	-
.36225	44.08	Qp	9.8	.2	54.08	58.68	-4.6	-	-
.38775	38.3	Qp	9.8	.2	48.3	58.11	-9.81	-	-

Qp - Quasi-Peak detector



**LINE 2 RESULTS**

Range 2: Phase N .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101836_Wit h EX_N[dB]	CABLELOS S(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
13	.153	45.55	Pk	9.8	.1	55.45	65.84	-10.39	-	-
14	.153	25.72	Av	9.8	.1	35.62	-	-	55.84	-20.22
15	.162	44.45	Pk	9.9	.1	54.45	65.36	-10.91	-	-
16	.156	22	Av	9.8	.1	31.9	-	-	55.67	-23.77
17	.303	38.68	Pk	9.7	.2	48.58	60.16	-11.58	-	-
18	.303	19.42	Av	9.7	.2	29.32	-	-	50.16	-20.84
19	.36	46.23	Pk	9.8	.2	56.23	58.73	-2.5	-	-
20	.36	28.52	Av	9.8	.2	38.52	-	-	48.73	-10.21
21	.384	40.56	Pk	9.8	.2	50.56	58.19	-7.63	-	-
22	.39	21.28	Av	9.8	.2	31.28	-	-	48.06	-16.78
23	.549	29.53	Pk	9.9	.2	39.63	56	-16.37	-	-
24	.543	10.96	Av	9.9	.2	21.06	-	-	46	-24.94

Pk - Peak detector  
 Av - Average detection

**Quasi-Peak Emissions**

Range 2: Phase N .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	101836_Wit h EX_N[dB]	CABLELOS S(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
.36075	44.18	Qp	9.8	.2	54.18	58.71	-4.53	-	-
.38475	35.93	Qp	9.8	.2	45.93	58.18	-12.25	-	-

Qp - Quasi-Peak detector

**END OF TEST REPORT**