CERTIFICATION TEST REPORT

Report Number. : S-4792232010-E11V2

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

Model : SM-X848U

FCC ID : A3LSMX848U

EUT Description : WCDMA/LTE/5G NR Tablet + BT/BLE, DTS/UNII a/b/g/n/ac/ax and Digitizer

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

Date Of Issue:
2026-06-29

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IAS ACCREDITED
Testing Laboratory
TL-637

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	2026-06-19	Initial issue	Dexter(Hyunsik) Yun
V2	2026-06-29	Updated to address TCB's question	Dexter(Hyunsik) Yun

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TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS 4

2. TEST METHODOLOGY 5

3. FACILITIES AND ACCREDITATION 5

4. CALIBRATION AND UNCERTAINTY 6

4.1. MEASURING INSTRUMENT CALIBRATION 6

4.2. SAMPLE CALCULATION 6

4.3. MEASUREMENT UNCERTAINTY 6

4.4. DECISION RULE 6

5. EQUIPMENT UNDER TEST 7

5.1. DESCRIPTION OF EUT 7

5.2. MAXIMUM E-FIELD STRENGTH 7

5.3. PRELIMINARY TEST CONFIGURATIONS 7

5.4. WORST-CASE CONFIGURATION AND MODE 7

5.5. MODIFICATIONS 8

5.6. DESCRIPTION OF TEST SETUP 8

6. TEST AND MEASUREMENT EQUIPMENT 10

7. 99% BANDWIDTH 11

8. APPLICABLE LIMITS AND TEST RESULTS 12

8.1. RADIATED EMISSIONS 12

8.2. AC MAINS LINE CONDUCTED EMISSIONS 14

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: SAMSUNG ELECTRONICS CO., LTD.

EUT DESCRIPTION: WCDMA/LTE/5G NR Tablet + BT/BLE, DTS/UNII a/b/g/n/ac/ax and Digitizer

MODEL NUMBER: SM-X848U

SERIAL NUMBER: R3GL40GJ5MZ (RADIATED);

DATE TESTED: 2026-06-01 ~ 2026-06-19

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

UL KOREA LTD. 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 KOREA LTD. 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 KOREA LTD. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL KOREA LTD. 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 IAS, any agency of the Federal Government, or any agency of any government.

Approved & Released For
UL KOREA LTD. By:

Seokhwan Hong
Suwon Lab Engineer
UL KOREA LTD.

Tested By:

Dexter(Hyunsik) Yun
Suwon Lab Engineer
UL KOREA LTD.

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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 C63.10-2020.

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
☐ Chamber 1(3m semi-anechoic chamber)
☒ Chamber 2(3m semi-anechoic chamber)
☐ Chamber 3(3m semi-anechoic chamber)
☐ Chamber 4(3m Full-anechoic chamber)
☐ 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.

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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:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)
36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

Corrected Reading (dBuV) = Meter Reading (dBuV) + External Cable (dB) + Cableloss (dB)
46.62 dBuV + 9.8 dB + 0.1 dB = 56.52 dBuV

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Conducted Disturbance, 9 kHz to 30 MHz	1.84 dB
Radiated Disturbance, 9 kHz to 30 MHz	2.41 dB
Radiated Disturbance, 30 MHz to 1 GHz	3.78 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 Clause 4.4.3 in IEC Guide 115:2023.

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5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a WCDMA/LTE/5G NR Tablet + BT/BLE, DTS/UNII a/b/g/n/ac/ax and Digitizer.
This test report addresses the DCD(Digitizer) operational mode.

5.2. MAXIMUM E-FIELD STRENGTH

Fundamental Frequency (kHz)	Test Case	E-Field (30m distance) FCC (dBuV/m)
531 - 656	1	6.67

Test was performed at the worst margin among the fundamental output levels(531, 562, 593, 656 kHz).

5.3. PRELIMINARY TEST CONFIGURATIONS

Worst case of antenna axis: Z

5.4. WORST-CASE CONFIGURATION AND MODE

Mode 1	Test Case	Description
Digitizer	**1**	**Display Scan(without TA)**
	2	Display Scan(with TA)

During the radiated test (Test Case 1), the EUT was not connected to the AC adapter, whereas during the AC line conducted test (Test Case 2), it was connected to the AC adapter.

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5.5. MODIFICATIONS

No modifications were made during testing.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT & PERIPHERALS

Support Equipment List				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
Charger	SAMSUNG	EP-TA845	R37L12BFWW1DKA	N/A
Data Cable	SAMSUNG	N/A	N/A	N/A

I/O CABLES

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 a stand-alone unit during the tests.
Test software in hidden command exercised the EUT to enable digitizer mode.

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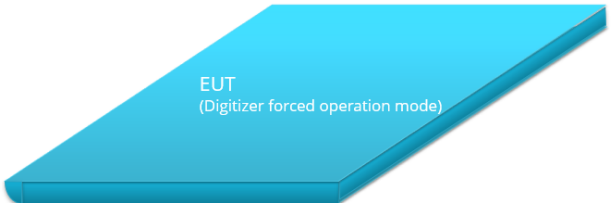
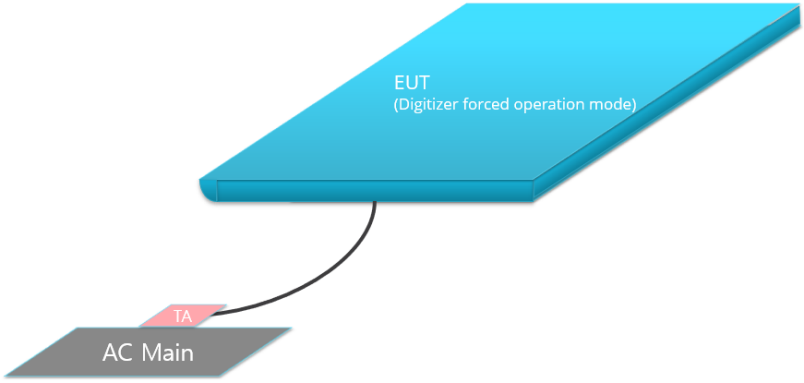
TEST SETUP DIAGRAM

NOTE : Test case 1, EUT did not connected with Travel adapter(AC Main) in below set-up diagram for radiated test.

- Test case 1 : Digitizer without TA



- Test case 2 : Digitizer with TA



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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	VULB 9163	845	2026-07-30
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB 9163	749	2026-08-12
Preamplifier, 1000 MHz	Sonoma	310N	341282	2026-07-21
Preamplifier, 1000 MHz	Sonoma	310N	351741	2026-07-21
Spectrum Analyzer, 7 GHz	Agilent / HP	N9010A	MY54200580	2026-07-21
Spectrum Analyzer, 44 GHz	KEYSIGHT	N9030A	MY54170614	2026-07-21
EMI Test Receiver, 40 GHz	R&S	ESU40	100439	2026-07-21
EMI Test Receiver, 40 GHz	R&S	ESU40	100457	2026-07-21
EMI Test Receiver, 3 GHz	R&S	ESR 3	101832	2026-11-11
DC Power Supply	Agilent / HP	E3640A	MY54226395	2026-07-23
Temperature Chamber	ESPEC	SH-642	93001109	2026-07-21
LISN	R&S	ENV216	101836	2026-07-22
LISN	R&S	ENV216	101837	2026-07-22
Antenna, Loop, 9kHz-30MHz	R&S	HFH2-Z2E	101308	2027-10-27
UL Software				
Description	**Manufacturer**	**Model**	**Version**	
Radiated software	UL	UL EMC	Ver 9.5	
AC Line Conducted software	UL	UL EMC	Ver 9.5	

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7. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

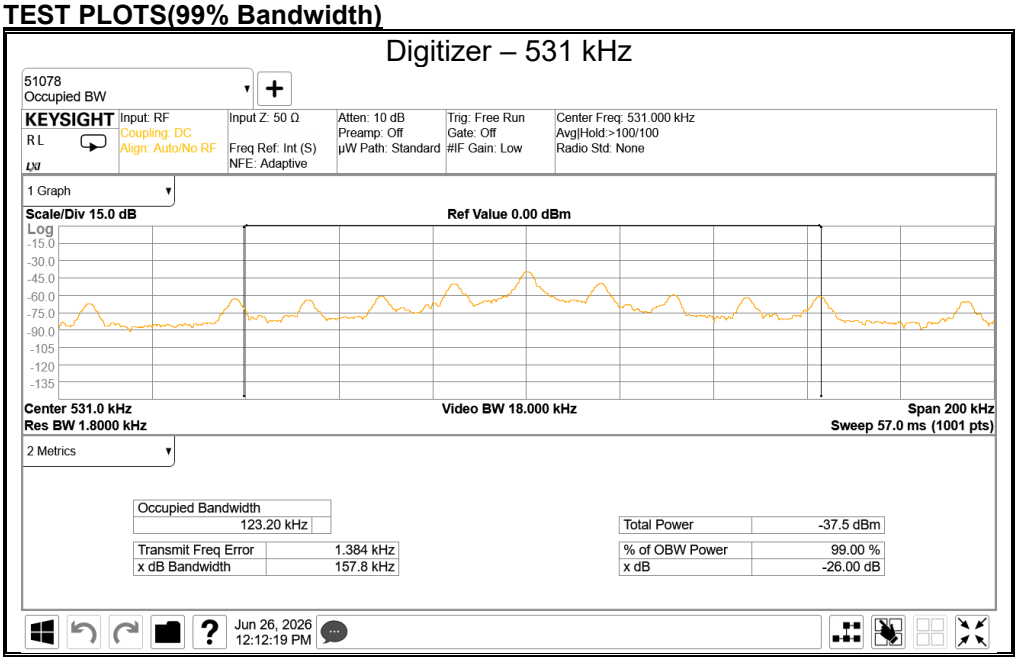
- 99% Bandwidth
RBW: 1 ~ 5% of 99% Bandwidth, VBW >= 3 x RBW, sample detector.

RESULTS

Test Mode	Frequency [kHz]	99% Bandwidth [kHz]
Digitizer	531	123.20
	562	119.71
	593	93.91
	656	109.71

TEST PLOTS(99% Bandwidth)

Digitizer – 531 kHz



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8. APPLICABLE LIMITS AND TEST RESULTS

8.1. RADIATED EMISSIONS

TEST PROCEDURE

ANSI C63.10: 2020

The EUT was tested from 9 kHz up to 30MHz.

a) Set the RBW = 100 Hz for the emissions below 150kHz
9 kHz for the emissions between 150kHz and 30MHz
(The minimum RBW setting value for the Spectrum analyzer is 10 kHz)
b) Set VBW ≥ 3 × RBW;
c) Sweep time = Auto;
d) Detector = Peak;
e) Trace mode = Max Hold;

LIMIT

FCC §15.209 (a)

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 1.

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.

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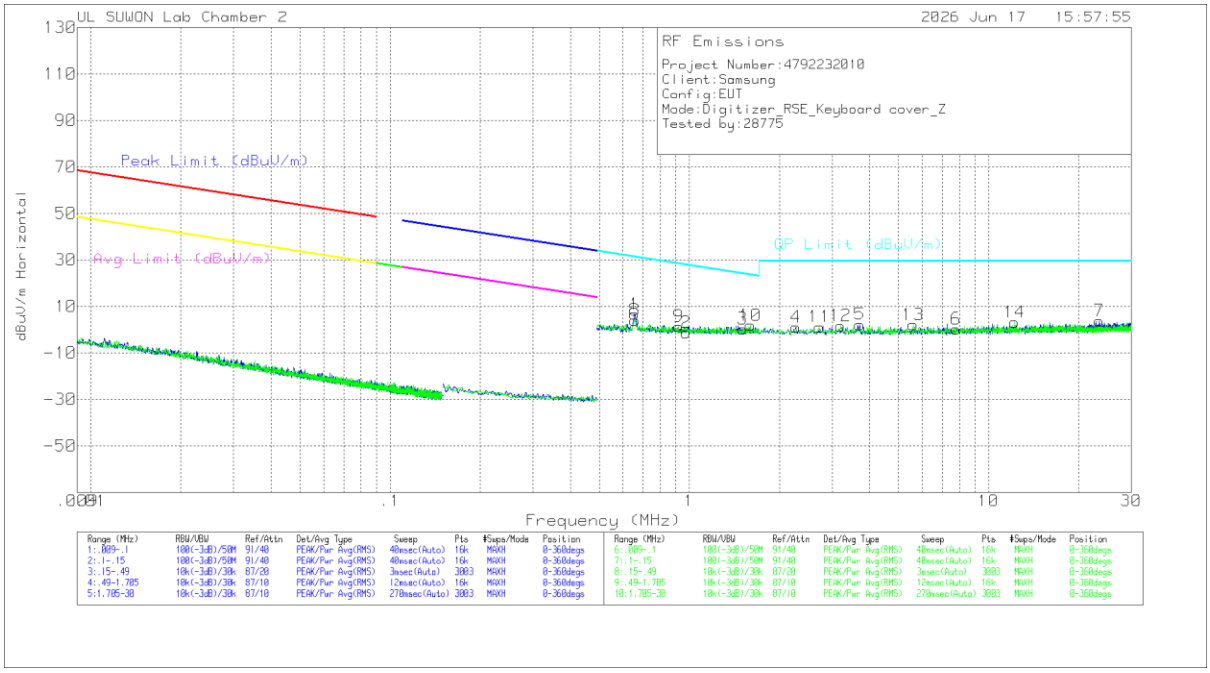
RADIATED EMISSIONS 9 kHz to 30 MHz(Digitizer mode Test Case 1)



TEST DATA

Trace Markers

Face on

Marker	Frequency [MHz]	Meter Reading [dBuV]	Det	Antenna Factor[dB/m]	Cable Loss [dB]	Dist Corr 30m [dB]	Corrected Reading [dBuV/m]	QP Limit [dBuV/m]	Margin [dB]	Azimuth (Degs)
**1	.65621	25.87	Pk	20.5	.3	-40	6.67	31.27	-24.6	0-360
2	.97549	18.01	Pk	20.5	.3	-40	-1.19	27.84	-29.03	0-360
3	1.50886	19.54	Pk	20.5	.3	-40	.34	24.06	-23.72	0-360
4	2.2705	20.07	Pk	20.6	.4	-40	1.07	29.5	-28.43	0-360
5	3.71253	21.27	Pk	20.6	.4	-40	2.27	29.5	-27.23	0-360
6	7.78413	18.96	Pk	20.8	.5	-40	.26	29.5	-29.24	0-360
7	23.4579	21.37	Pk	21.6	.8	-40	3.77	29.5	-25.73	0-360

Face off

Marker	Frequency [MHz]	Meter Reading [dBuV]	Det	Antenna Factor[dB/m]	Cable Loss [dB]	Dist Corr 30m [dB]	Corrected Reading [dBuV/m]	QP Limit [dBuV/m]	Margin [dB]	Azimuth (Degs)
**8	.65762	23.33	Pk	20.5	.3	-40	4.13	31.25	-27.12	0-360
9	.91921	20.61	Pk	20.5	.3	-40	1.41	28.35	-26.94	0-360
10	1.60131	20.96	Pk	20.5	.4	-40	1.86	23.54	-21.68	0-360
11	2.7229	20.19	Pk	20.6	.4	-40	1.19	29.5	-28.31	0-360
12	3.20358	20.67	Pk	20.6	.4	-40	1.67	29.5	-27.83	0-360
13	5.59753	21.13	Pk	20.6	.4	-40	2.13	29.5	-27.37	0-360
14	12.19503	21.55	Pk	21	.6	-40	3.15	29.5	-26.35	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.

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8.2. AC MAINS LINE CONDUCTED EMISSIONS

TEST PROCEDURE

ANSI C63.10: 2020

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 (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.		

RESULTS

The EUT belongs to Test Case 2.

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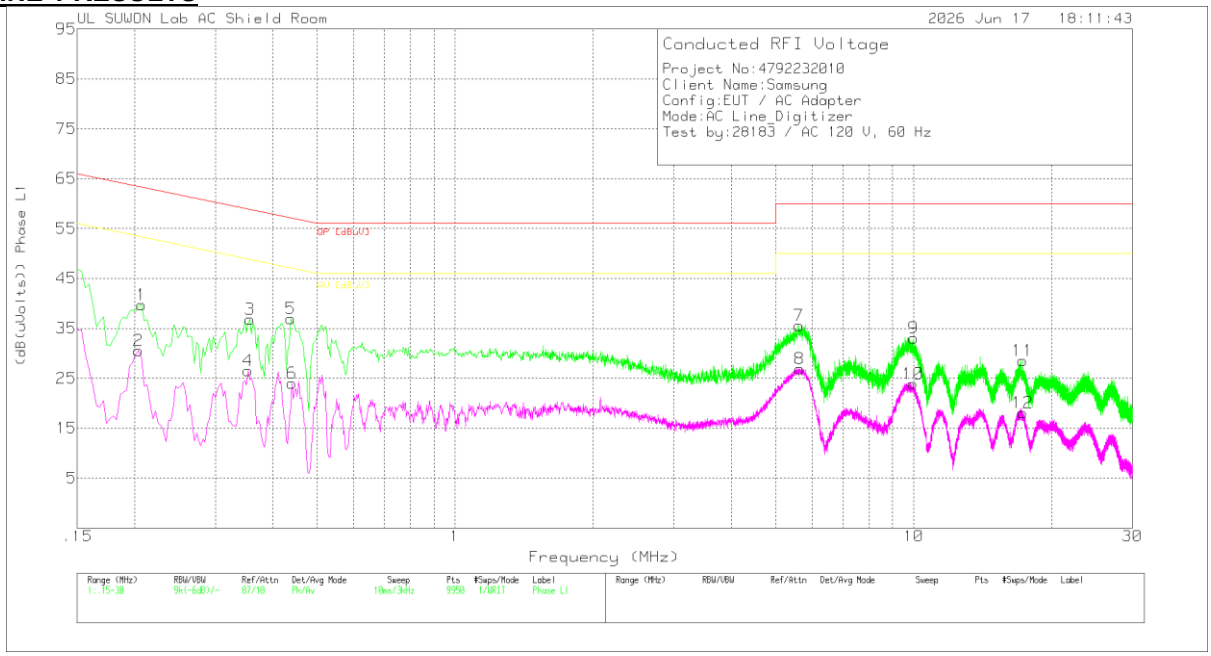
WORST EMISSIONS (Digitizer mode Test Case 2)

Line-L1 .15 - 30MHz

LINE 1 RESULTS



Trace Markers

Range 1: Phase L1 .15 - 30MHz

Marker	Frequency [MHz]	Meter Reading [dBuV]	Det	101836_With EX_L1 [dB]	Cable Loss [dB]	Corrected Reading [dBuV]	QP [dBuV]	Margin [dB]	AV [dBuV]	Margin [dB]
1	.207	29.81	Pk	9.8	.1	39.71	63.32	-23.61	-	-
2	.204	20.61	Av	9.8	.1	30.51	-	-	53.45	-22.94
3	.357	26.9	Pk	9.8	.1	36.8	58.8	-22	-	-
4	.354	16.59	Av	9.8	.1	26.49	-	-	48.87	-22.38
5	.438	27.01	Pk	9.8	.1	36.91	57.1	-20.19	-	-
6	.441	14.14	Av	9.8	.1	24.04	-	-	47.04	-23
7	5.625	25.61	Pk	9.8	.2	35.61	60	-24.39	-	-
8	5.646	16.92	Av	9.8	.2	26.92	-	-	50	-23.08
9	9.993	22.91	Pk	9.9	.2	33.01	60	-26.99	-	-
10	9.984	13.84	Av	9.9	.2	23.94	-	-	50	-26.06
11	17.295	18.11	Pk	10.1	.3	28.51	60	-31.49	-	-
12	17.292	7.69	Av	10.1	.3	18.09	-	-	50	-31.91

Pk - Peak detector
Av - Average detection

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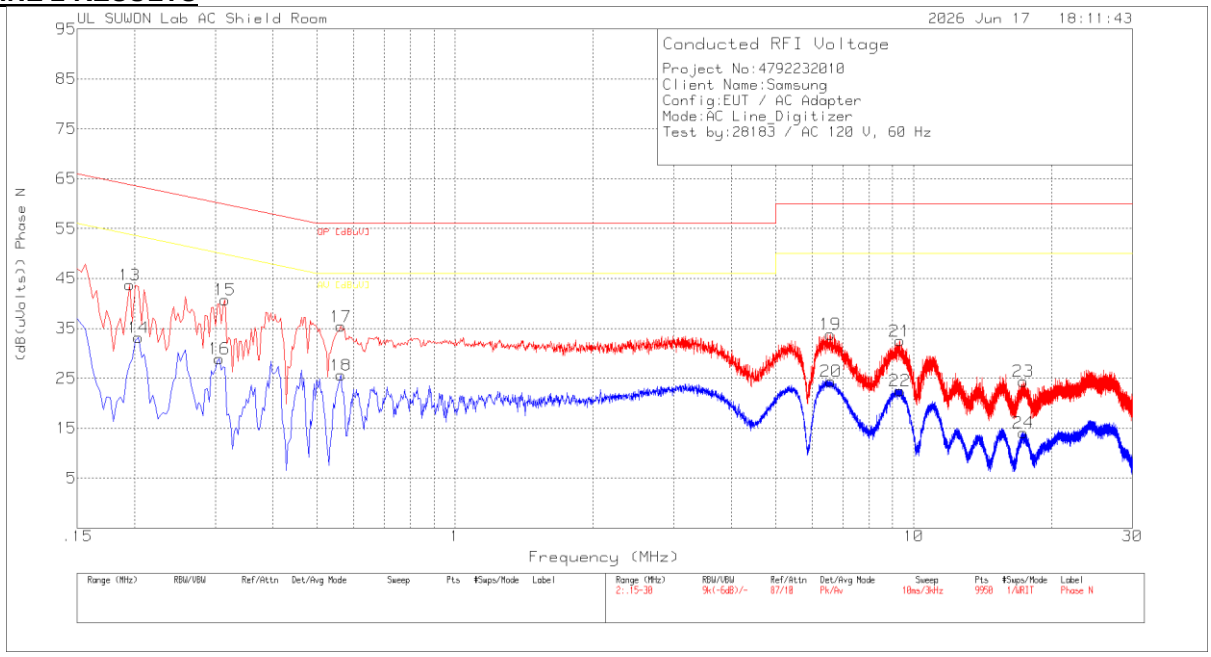
Line-L2 .15 - 30MHz

LINE 2 RESULTS



Trace Markers

Range 2: Phase N .15 - 30MHz

Marker	Frequency [MHz]	Meter Reading [dBuV]	Det	101836_With EX_N [dB]	Cable Loss [dB]	Corrected Reading [dBuV]	QP [dBuV]	Margin [dB]	AV [dBuV]	Margin [dB]
13	.195	33.68	Pk	9.9	.1	43.68	63.82	-20.14	-	-
14	.204	23.23	Av	9.8	.1	33.13	-	-	53.45	-20.32
15	.315	30.91	Pk	9.7	.1	40.71	59.84	-19.13	-	-
16	.306	19.13	Av	9.7	.1	28.93	-	-	50.08	-21.15
17	.564	25.48	Pk	9.8	.1	35.38	56	-20.62	-	-
18	.564	15.69	Av	9.8	.1	25.59	-	-	46	-20.41
19	6.591	23.82	Pk	9.8	.2	33.82	60	-26.18	-	-
20	6.609	14.39	Av	9.8	.2	24.39	-	-	50	-25.61
21	9.33	22.39	Pk	9.9	.2	32.49	60	-27.51	-	-
22	9.33	12.41	Av	9.9	.2	22.51	-	-	50	-27.49
23	17.346	13.86	Pk	10.2	.3	24.36	60	-35.64	-	-
24	17.364	3.54	Av	10.2	.3	14.04	-	-	50	-35.96

Pk - Peak detector
Av - Average detection

END OF TEST REPORT

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