

EVALUATION REPORT

Applicant Name:
SAMSUNG Electronics Co., Ltd.

Date of Issue:
February 20, 2024

Address:
129, Samsung-ro, Yeongtong-gu,
Suwon-si, Gyeonggi-do, 16677, Rep. of Korea

Location:
HCT CO., LTD.,
74, Seoicheon-ro 578beon-gil, Majang-myeon,
Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA

FCC ID: A3LSMP620

APPLICANT: SAMSUNG Electronics Co., Ltd.

Equipment Class(es) : DSS, DTS, UNII, DCD
Rule Part(s) : 15
Application's Statement : The applicant takes full responsibility that the test data referenced below represents compliance for this FCC ID.
Test Reference : KDB 484596 D01 Reference Test Data v02r01

Reference Device	Variant Device	Key differences
FCC ID A3LSMP625	FCC ID A3LSMP620	1. Product dimension & PCB layout is same. 2. BT/WLAN/Digitizer parts are same. 3. AP/CP/PMIC are same. 4. RF (2G/3G/4G) components are removed and related antenna segments are also removed. 5. The operational description includes detailed information about the changes between the devices.

The data from that application has been verified through appropriate spot checks to demonstrate compliance for this device as shown in the summary table below.

The detail test data can be found in this documents, Appendix A.

Equipment Class	Report Title	Rule Part	Test item	Data Referencing	Comments
DSS	[BT] FCC Test Report	15.247(a)(1)	20 dB Bandwidth	Y	-
		N/A	Occupied Bandwidth	Y	-
		15.247(b)(1)	Conducted Maximum Peak	Y	-
		15.247(a)(1)	Carrier Frequency	Y	-
		15.247(a)(1)(iii)	Number of Hopping Frequencies	Y	-
		15.247(a)(1)(iii)	Time of Occupancy	Y	-
		15.247(d)	Conducted Spurious Emissions	Y	-
		15.247(d)	Band Edge (Out of Band	Y	-
		15.207(a)	AC Power line Conducted	Y	-
		15.247(d),	Radiated Spurious Emissions	Y	Spot-check
		15.247(d),	Radiated Restricted Band Edge	Y	Spot-check
DTS	[BT LE 5.3] FCC Test Report, [DTS] FCC Test Report	15.247(a)(2)	6 dB Bandwidth	Y	-
		15.247(b)(3)	Conducted Maximum output	Y	-
		15.247(e).	Power Spectral Density	Y	-
		15.247(d)	Band Edge (Out of Band	Y	-
		15.207	AC Power line conducted	Y	-
		15.247(d)	Radiated Spurious Emissions	Y	Spot-check
		15.247(d)	Radiated Restricted Band Edge	Y	Spot-check
DCD	[Digitizer] FCC Test Report	2.1049	Emission bandwidth.	Y	-
		15.209	Radiated emission	Y	Spot-check
		15.207	AC Power Line Conducted	Y	-

Equipment Class	Report Title	Rule Part	Test item	Data Referencing	Comments
NII	[UNII] FCC Test Report	15.407	26 dB Bandwidth	Y	-
		15.407(e)	6 dB Bandwidth	Y	-
		15.407(a)	Maximum Conducted output	Y	-
		15.407(a)	Maximum EIRP Output Power	Y	-
		15.407(a)	Maximum Power Spectral Density	Y	-
		15.207	AC conducted Emission	Y	-
		15.407(g)	Frequency Stability	Y	-
		15.407(b)	Undesirable Emissions	Y	Spot-check
		15.205	General Field Strength	Y	Spot-check
		15.407(h)	DFS	Y	-



Report prepared by : Jeong Ho Kim

Engineer of Telecommunication testing center



Approved by : Jong Seok Lee

Manager of Telecommunication testing center

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	February 20, 2024	Initial Release

Appendix A. The Spot check test data

1. Summary of the spot check for Unlicensed EMC

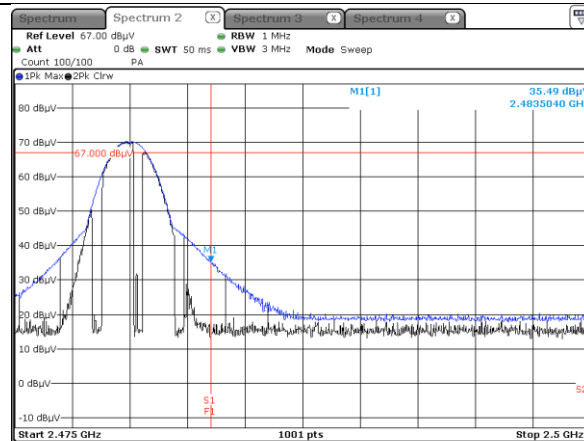
Report	Test Item	Mod/Channel	Measured Frequency [MHz]	A3LSMP625 Result [dBμV/m]		A3LSMP620 Result [dBμV/m]		Deviation (dB)	
				Peak	Average	Peak	Average	Peak	Average
BT	Band Edge	2-DH5/ch.78	2483.5 MHz~2500 MHz	71.61	46.88	71.08	46.35	-0.53	-0.53
	RSE	DH5/ch.78	7440 MHz	52.46	27.72	51.02	26.28	-1.44	-1.44
BT(LE)	Band Edge	LE 2M 37byte/ch.39	2483.5 MHz~2500 MHz	71.22	49.18	72.00	51.03	0.78	1.85
	RSE	LE 2M 37byte/ch.39	7440 MHz	52.69	40.12	50.76	38.43	-1.93	-1.69
DTS	Band Edge (ANT ALL)	802.11n20_ MCS8/ch.13	#2483.5 MHz~2500 MHz	59.69	51.12	61.43	51.77	1.74	0.65
	RSE (ANT.0)	802.11b 1Mbps/ch.6	4874 MHz	54.24	50.57	53.92	49.50	-0.32	-1.07
UNII	Band Edge (ANT ALL)	802.11ac(80M)_ MCS0/ch.106	5350 MHz~5460 MHz	65.41	51.60	62.83	49.94	-2.58	-1.66
	RSE (ANT ALL)	802.11ac_ MCS0/ch.165	11650 MHz	53.66	40.88	52.89	40.33	-0.77	-0.55
WPT (S-pen digitizer)	Field Strength	Fundamental(S-pen digitizer Writing)	562.5 kHz	11.21	-	10.82	-	-0.39	-
	RSE	S-pen digitizer Writing	670 kHz ~ 30 MHz	-0.47	-	0.56	-	1.03	-

2. Test Plot

BT Band Edge (2-DH5/ch.78)

Frequency	Measured Value	A.F+C.L+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
2483.5	35.49	35.59	H	0	71.08	73.98	2.90	PK
2483.5	35.49	35.59	H	-24.73	46.35	53.98	7.63	AV
2483.5	34.98	35.59	V	0	70.57	73.98	3.41	PK
2483.5	34.98	35.59	V	-24.73	45.84	53.98	8.14	AV

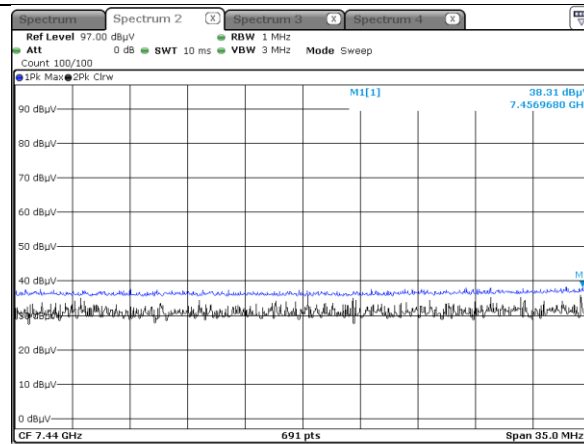
[Peak & Average Result]



BT R.S.E Harmonic(DH5/ch.78)

Frequency	Measured Value	A.F+C.L -A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
7440	38.06	12.71	V	0.00	50.77	73.98	23.21	PK
7440	38.06	12.71	V	-24.73	26.03	53.98	27.95	AV
7440	38.31	12.71	H	0.00	51.02	73.98	22.96	PK
7440	38.31	12.71	H	-24.73	26.28	53.98	27.70	AV

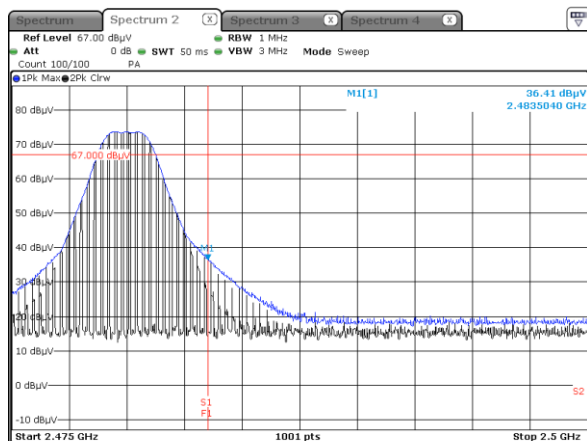
[Peak & Average Result]



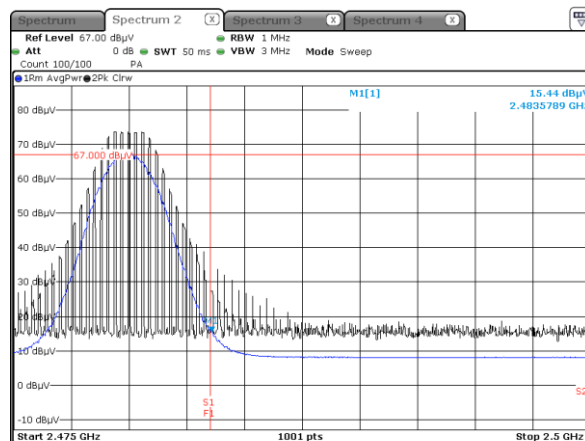
BT LE Band Edge (LE 2M 37byte/ch.39)

Frequency	Measured Value	A.F+C.L+D.F	ANT. POL.	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
2483.5	36.41	35.59	H	72.00	73.98	1.98	PK
2483.5	15.44	35.59	H	51.03	53.98	2.95	AV
2483.5	35.74	35.59	V	71.33	73.98	2.65	PK
2483.5	14.72	35.59	V	50.31	53.98	3.67	AV

[Peak Result]



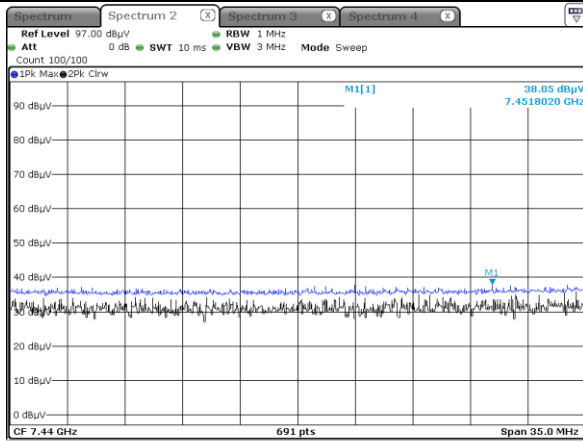
[Average Result]



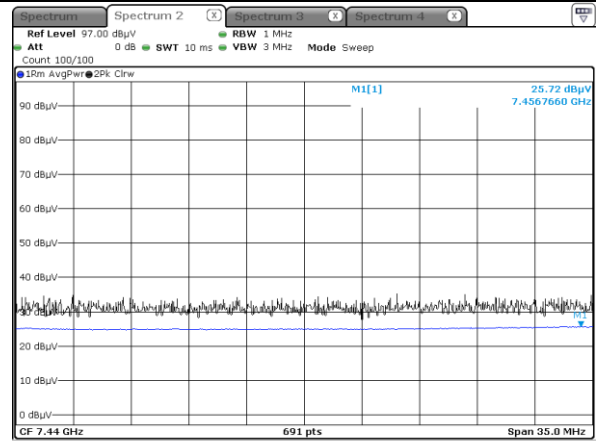
BT LE R.S.E Harmonic (LE 2M 37byte/ch.39)

Frequency	Measured Value	A.F+C.L -A.G+D.F	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
7440	37.94	12.71	V	50.65	73.98	23.33	PK
7440	25.42	12.71	V	38.13	53.98	15.85	AV
7440	38.05	12.71	H	50.76	73.98	23.22	PK
7440	25.72	12.71	H	38.43	53.98	15.55	AV

[Peak Result]



[Average Result]

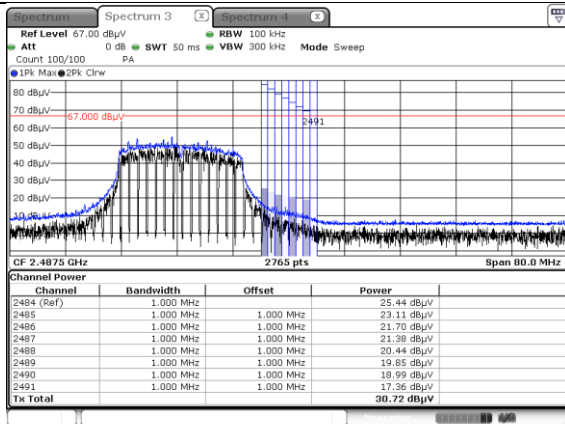


DTS Band Edge (802.11n20_ MCS8 / ch.13 ANT ALL)

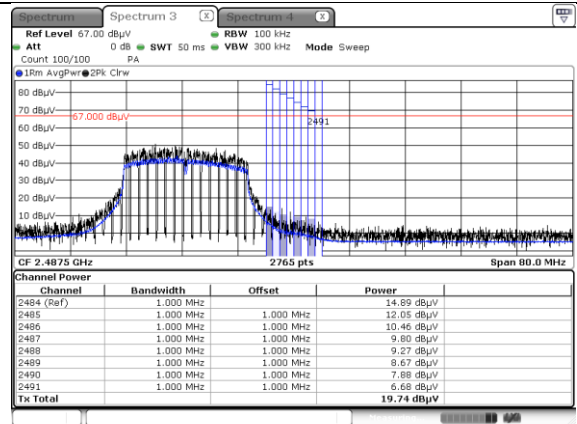
Frequency	Measured Value	Duty Cycle Factor	A.F.+C.L+D.F	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
# 2483.5	25.44	0.00	35.99	H	61.43	73.98	12.55	PK
# 2483.5	14.89	0.89	35.99	H	51.77	53.98	2.21	AV
# 2483.5	25.02	0.00	35.99	V	61.01	73.98	12.97	PK
# 2483.5	14.51	0.89	35.99	V	51.39	53.98	2.59	AV

Note : integration method Used (ANSI C63.10 Section11.13.3)

[Peak Result]



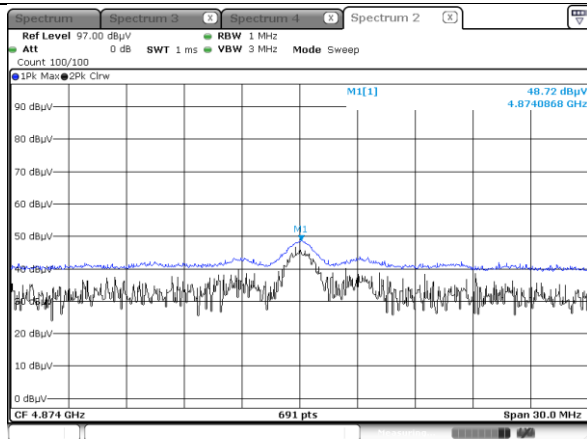
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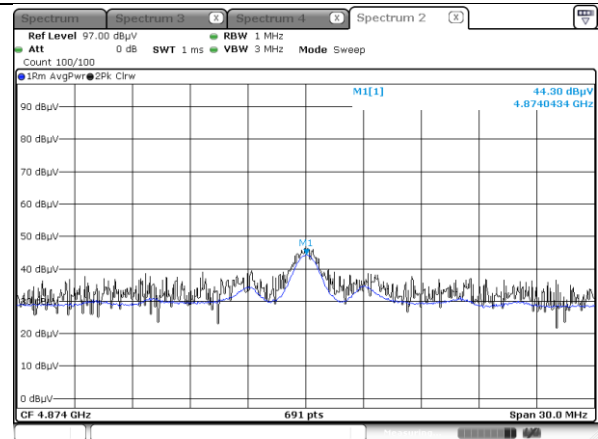
DTS R.S.E Harmonic (802.11b 1Mbps / ch.6 ANT.0)

Frequency	Measured Value	CL+AF+DF-AG	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dB μ V]	[dB/m]	[H/V]	[dB μ V/m]	[dB μ V/m]	[dB]	
4874	47.95	5.20	V	53.15	73.98	20.83	PK
4874	43.75	5.20	V	48.95	53.98	5.03	AV
4874	48.72	5.20	H	53.92	73.98	20.06	PK
4874	44.30	5.20	H	49.50	53.98	4.48	AV

[Peak Result]



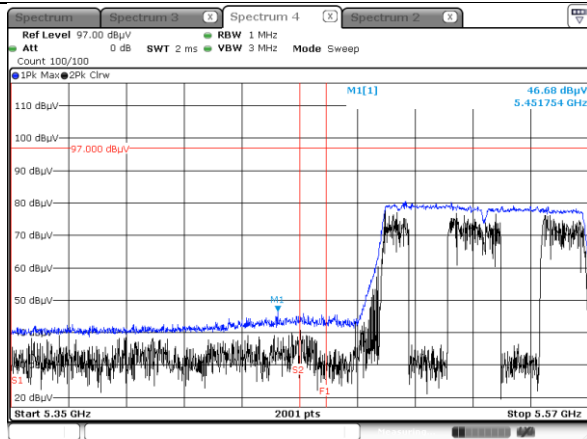
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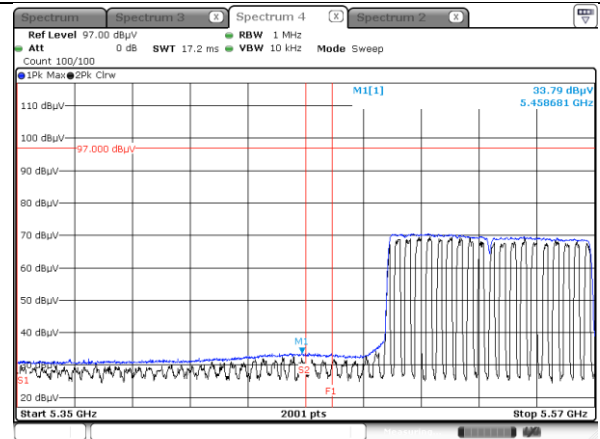
UNII Band Edge (802.11ac(80M)_ MCS0 / ch.106 ANT ALL)

Frequency	Measured Value	CL+AF+DF -AG+ATT	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
5460	46.68	16.15	H	62.83	73.98	11.15	PK
5460	33.79	16.15	H	49.94	53.98	4.04	AV
5460	46.32	16.15	V	62.47	73.98	11.51	PK
5460	33.41	16.15	V	49.56	53.98	4.42	AV

[Peak Result]



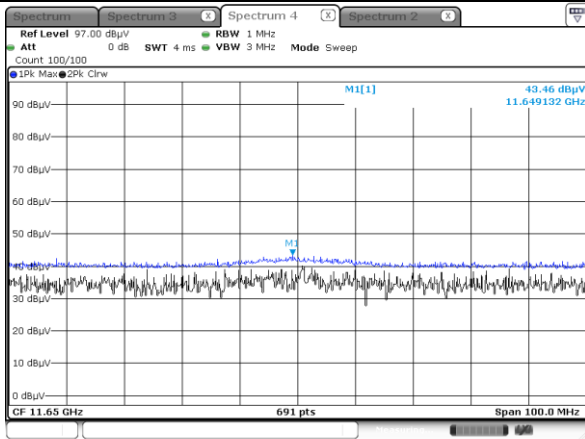
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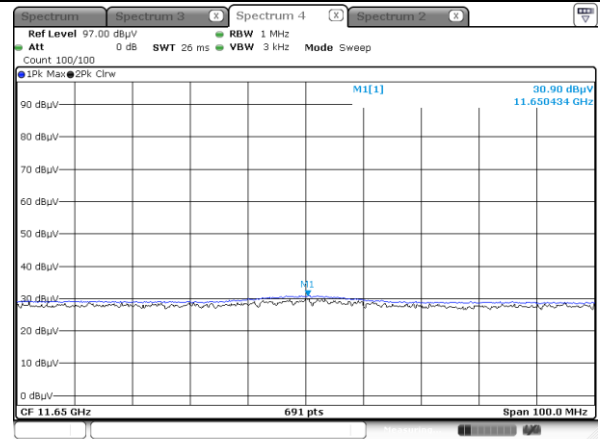
UNII R.S.E Harmonic (802.11ac_ MCS0 / ch.165 ANT ALL)

Frequency	Measured Value	CL+AF+DF-AG	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
11650	43.46	9.43	V	52.89	73.98	21.09	PK
11650	30.90	9.43	V	40.33	53.98	13.65	AV
11650	43.02	9.43	H	52.45	73.98	21.53	PK
11650	30.71	9.43	H	40.14	53.98	13.84	AV

[Peak Result]



[Average Result]



WPT Fundamental(S-pen digitizer Writing)

Fundamental

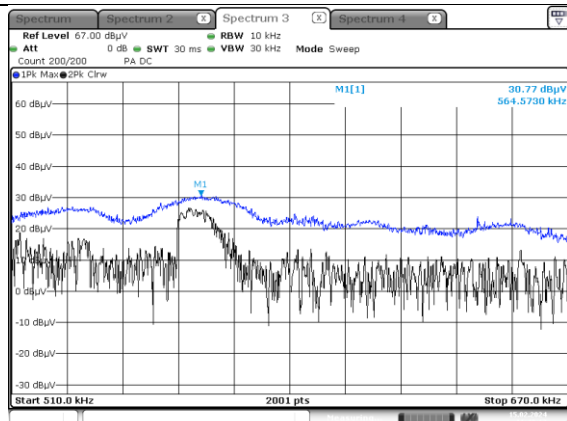
Frequency	Reading Value	Ant.Factor	Cable Loss	Distance Correction	Result Level	Limit	Margin
(kHz)	(dBμV/m)@3m	(dB/m)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
39.751	65.270	19.60	0.39	-80.00	5.260	35.62	30.36
163.980	34.230	19.60	0.54	-80.00	-25.630	23.31	48.94
#564.573	30.770	19.50	0.55	-40.00	10.820	32.57	21.75
850.800	20.510	19.50	0.55	-40.00	0.560	29.01	28.45

Note

1. Mode: Writing
2. “#”: Fundamental Frequency
3. EUT state: Stand alone + AC adapter
4. 30 MHz – 1GHz : No Critical peaks found

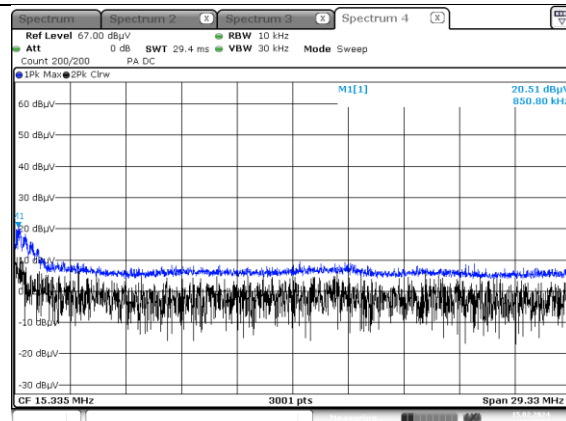
Test Plot

Frequency Range : 510 kHz – 670 kHz



Date: 15.FEB.2024 11:43:17

Frequency Range : 670 kHz – 3000 kHz



Date: 15.FEB.2024 11:45:07

3. List of test equipment

Radiated Test

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
Controller(Antenna mast)	CO3000	Innco system	CO3000-4p	N/A	N/A
Antenna Position Tower	MA4640/800-XP-EP	Innco system	S1AM	08/03/2025	Biennial
Antenna Position Tower	MA4640/800-XP-EP	Innco system	S3AM	08/03/2025	Biennial
LISN	ENV216	Rohde &Schwarz	102245	08/02/2024	Annual
EM1000 / Controller	EM1000	Audix	060520	N/A	N/A
Controller	EM2090	Emco	060520	N/A	N/A
EMI Test Receiver	ESR	Rohde &Schwarz	101910	05/26/2024	Annual
Turn Table	N/A	Audix	N/A	N/A	N/A
Turn Table	N/A	Ets	N/A	N/A	N/A
Amp & Filter Bank Switch Controller	FBSM-01B	T&M system	TM19050002	N/A	N/A
Loop Antenna	1513	Schwarzbeck	1513-333	03/17/2024	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	02299	03/24/2024	Biennial
Hybrid Antenna	VULB 9168	Schwarzbeck	760	02/24/2025	Biennial
Hybrid Antenna	VULB 9168	Schwarzbeck	9168-0895	08/16/2024	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	9120D-1300	01/03/2026	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	9120D-2296	05/18/2024	Biennial
Horn Antenna(15 GHz ~ 40 GHz)	BBHA9170	Schwarzbeck	BBHA9170342	09/29/2024	Biennial
Spectrum Analyzer	FSV40	Rohde &Schwarz	100901	03/27/2024	Annual
Spectrum Analyzer	FSV40 (9 kHz ~ 40 GHz)	Rohde &Schwarz	100900	12/06/2024	Annual
Signal Analyzer	N9030A	Agilent	MY52350879	04/13/2024	Annual
Signal Analyzer	N9030A	Keysight	MY55410508	09/04/2024	Annual
Spectrum Analyzer	FSV(10 Hz ~ 40 GHz)	Rohde & Schwarz	101055	05/12/2024	Annual
Band Reject Filter	WRCJV2400/2483.5-2370/2520-60/12SS	Wainwright Instruments	2	01/02/2025	Annual
Band Reject Filter	WRCJV12-4900-5100-5900-6100-50SS	Wainwright Instruments	5	06/12/2024	Annual
Band Reject Filter	WRCJV12-4900-5100-5900-6100-50SS	Wainwright Instruments	6	06/12/2024	Annual
Band Reject Filter	WRCJV5100/5850-40/50-8EEK	Wainwright Instruments	1	02/14/2025	Annual
High Pass Filter(7 GHz ~ 18 GHz)	WHKX10-7150-8000-18000-50SS	Wainwright Instruments	1	03/02/2024	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/17/2024	Annual
Power Amplifier	CBL26405040	CERNEX	25956	03/02/2024	Annual
Bluetooth Tester	TC-3000C	TESCOM	3000C000175	03/28/2024	Annual

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
RF Switching System	FMSR-05B (HPF(3~18GHz) + LNA1(1~18GHz))	T&M system	S1L1	01/02/2025	Annual
RF Switching System	FMSR-05B (ATT(10dB) + LNA1(1~18GHz))	T&M system	S1L2	01/02/2025	Annual
RF Switching System	FMSR-05B (ATT(3dB) + LNA1(1~18GHz))	T&M system	S1L3	01/02/2025	Annual
RF Switching System	FMSR-05B (LNA1(1~18GHz))	T&M system	S1L4	01/02/2025	Annual
RF Switching System	FMSR-05B (HPF(7~18GHz) + LNA2(6~18GHz))	T&M system	S1L5	01/02/2025	Annual
RF Switching System	FMSR-05B (Thru(30MHz ~ 18GHz))	T&M system	S1L6	01/02/2025	Annual
RF Switching System	FMSR-04B (3G HPF+LNA)	T&M SYSTEM	S2L1	12/27/2024	Annual
RF Switching System	FMSR-04B (10dB ATT+LNA)	T&M SYSTEM	S2L2	12/27/2024	Annual
RF Switching System	FMSR-04B (3dB ATT+LNA)	T&M SYSTEM	S2L3	12/27/2024	Annual
RF Switching System	FMSR-04B (LNA)	T&M SYSTEM	S2L4	12/27/2024	Annual
RF Switching System	FMSR-04B (7G HPF+LNA)	T&M SYSTEM	S2L5	12/27/2024	Annual

Note:

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.
3. Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5(Version : 2017).