

EVALUATION REPORT

Applicant Name:
SAMSUNG Electronics Co., Ltd.

Date of Issue:
December 03, 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, Republic of Korea

FCC ID: A3LSMS931JPN

APPLICANT: SAMSUNG Electronics Co., Ltd.

Equipment Class(es) : DSS(Dual BT), DTS(WLAN), UNII, DCD, 6CD, 6VL
FCC 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 v02r03

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

Category	Spot Check	Verdict
Unlicensed EMC	Band Edge	Share
	Spurious Emissions	Share
	Field Strength	Share

The data from that application has been verified through appropriate spot checks to demonstrate compliance for this device as shown in the Cross Reference Table. The detail test data can be found in this documents, Appendix A.



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	December 03, 2024	Initial Release

1. Cross Reference Table (Unlicensed EMC)

1) Data referencing

- [Dual BT], [UNII], [UNII ax, be], [UNII 6G], [DTS], [DTS ax, be], [WPT], [DFS] Test Report

2) Full test

- [NFC] Test Report
- [BT LE 5.4] Test Report

3) Additional test

- [BT] → SISO Data (Ant1, Ant2)
- [DTS] Test Report → 802.11b Ch.1 ~ 13, 802.11g,n,ac Ch.12~Ch.13 .
- [DTS ax, be] Test Report → 802.11ax, be Ch.12~Ch.13 .

Equipment Class	Rule Part	Test item	Data Referencing	Comments
DSS	15.247(a)(1)	20 dB Bandwidth	Y	-
	N/A	Occupied Bandwidth	Y	-
	15.247(b)(1)	Conducted Maximum Peak Output Power	Y	-
	15.247(a)(1)	Carrier Frequency Separation	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 Emissions)	Y	-
	15.207(a)	AC Power line Conducted Emissions	Y	-
	15.247(d), 15.205, 15.209	Radiated Spurious Emissions	Y	Spot-check
	15.247(d), 15.205, 15.209	Radiated Restricted Band Edge	Y	Spot-check

Equipment Class	Rule Part	Test item	Data Referencing	Comments
DTS	15.247(a)(2)	6 dB Bandwidth	Y	
	15.247(b)(3)	Conducted Maximum output power	Y	
	15.247(e).	Power Spectral Density	Y	
	15.247(d)	Band Edge (Out of Band Emissions)	Y	
	15.207	AC Power line conducted Emissions	Y	
	15.247(d) 15.205 15.209	Radiated Spurious Emissions	Y	Spot-check
	15.247(d) 15.205 15.209	Radiated Restricted Band Edge	Y	Spot-check

Equipment Class	Rule Part	Test item	Data Referencing	Comments
DCD	2.1049	Emission bandwidth.	Y	-
	15.209	Radiated emission	Y	Spot-check
	15.207	AC Power Line Conducted Emission	Y	-

Equipment Class	Rule Part	Test item	Data Referencing	Comments
NII	§ 15.407 (for Power Measurement)	26 dB Bandwidth	Y	-
	15.407(e)	6 dB Bandwidth	Y	-
	§ 15.407(a)(1),(2),(3)	Maximum Conducted output power	Y	-
	§ 15.407(a)(3)(iii)	Maximum EIRP Output Power	Y	-
	§ 15.407(a)(1),(2),(3)	Maximum Power Spectral Density	Y	-
	15.207 15.407(b)(8)	AC conducted Emission	Y	-
	§ 15.407(g) § 2.1055	Frequency Stability	Y	-
	§ 15.407(b) (1),(2),(3),(4) § 15.407(b)(5)(ii),(iii) § 15.35(b)	Undesirable Emissions	Y	Spot-check
	15.205, 15.407(b)(9),(10)	General Field Strength (Restricted bands and Radiated emission)	Y	Spot-check
	15.407(h)	DFS	Y	-

Equipment Class	Rule Part	Test item	Data Referencing	Comments
6CD & 6VL	§ 15.407(a)(11)	Maximum transmitter channel bandwidth	Y	-
	§ 15.407(a)(7)	Output Power Maximum EIRP	Y	-
	§ 15.407(a)(8)			
	§ 15.407(a)(9)			
	§ 15.407(a)(7)	Output Power Maximum EIRP Power Spectral Density	Y	-
	§ 15.407(a)(8)			
	§ 15.407(a)(9)			
	15.407 (b)(9)	AC Conducted Emissions	Y	-
	§ 15.407(d)(6)	Contention Based Protocol	Y	-
	§ 15.407(g) § 2.1055	Frequency Stability	Y	-
	§ 15.407(a)(7)	Proper Power Adjustment, Client Devices Connected to a Standard Power Access Point	Y	-
	§ 15.407(a)(7) § 15.407(a)(8)	Dual Client Test, Demonstration of Proper Power Adjustment based on Associated AP	Y	-
	§ 15.407(d)(10)	TPC mechanism (VLP Device)	Y	-
	§ 15.407(b)(7)	In-Band Emissions (Emissions Mask)	Y	-
	§ 15.407(b) § 15.35(b)	Undesirable Emissions	Y	Spot-check
	15.205, 15.407(b)(9),(10)	General Field Strength Limits(Restricted Bands and Radiated Emission Limits)	Y	Spot-check

Appendix A. The Spot check test data

1. Summary of the spot check for Unlicensed EMC

Report	Test Item	Mod/Channel	Measured Frequency [MHz]	A3LSMS931U Result [dBμV/m]		A3LSMS931JPN Result [dBμV/m]		Deviation (dB)	
				Peak	Average	Peak	Average	Peak	Average
BT(Dual BT)	Band Edge	Dual BT/DH5/Ch.78	2483.5 MHz~2500 MHz	58.78	34.05	62.36	37.63	3.58	3.58
	RSE	Dual BT/DH5/Ch.39	7323 MHz (3rd Harmonic)	51.04	26.31	50.27	25.54	-0.77	-0.77
DTS	Band Edge (ANT ALL)	802.11ac(20M) MCS0/ch.11	#2483.5 MHz~2500 MHz	61.60	51.77	61.95	51.84	0.35	0.07
	RSE (ANT ALL)	802.11g 6 Mbps/ch. 11	7386 MHz (3rd Harmonic)	54.22	42.08	53.94	42.04	-0.28	-0.04
DTS(ax, be)	Band Edge (ANT ALL)	802.11be(EHT20)_242T_RU61_MCS0/ch. 11	#2483.5 MHz~2500 MHz	62.87	51.86	62.52	51.83	-0.35	-0.03
	RSE (ANT ALL)	802.11be(EHT20)_26T RU4 MCS0/ch. 11	7386 MHz (3rd Harmonic)	55.18	42.16	54.28	41.99	-0.90	-0.17
UNII	Band Edge (ANT ALL)	802.11ac(80M)_ MCS0/ch.106	5350 MHz ~ 5460 MHz	64.07	51.91	61.09	49.06	-2.98	-2.85
	RSE (ANT ALL)	802.11a 6Mbps/ch.48	10480 MHz (2nd Harmonic)	60.12	-	56.91	-	-3.21	-
UNII(ax, be)	Band Edge (ANT ALL)	802.11be(EHT20)_242T RU61 MCS0/ch.64	5350 MHz ~ 5460 MHz	69.66	51.45	66.82	48.60	-2.84	-2.85
	RSE (ANT ALL)	802.11be(EHT20)_242T RU61 MCS0/ch.60	10600 MHz (2nd Harmonic)	57.61	44.59	54.82	41.65	-2.79	-2.94
UNII 6G(ax, be)	Band Edge (ANT ALL)	802.11be EHT20(52T_RU37)_MCS0/Ch.2	# 5924.5 MHz	77.20	66.01	75.48	64.37	-1.72	-1.64
	RSE (ANT ALL)	802.11be EHT80(26T_RU19)_MCS0/Ch.7	17955 MHz (3rd Harmonic)	55.48	44.21	55.87	43.75	0.39	-0.46
WPT	Field Strength	Power Sharing	110 - 148 kHz	7.89		7.25		-0.64	
	RSE		1.705 MHz - 30 MHz	11.44		8.86		-2.58	

Note : DTS integration method Used (ANSI C63.10 Section11.13.3), UNII integration method Used (KDB 789033 D02 v02r01 Section 3) d) (ii)

2 TEST RESULT

BT Band Edge (Dual BT/DH5/Ch.78)

Frequency	Measured Value	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
2483.5	62.36	H	0.00	62.36	73.98	11.62	PK
2483.5	62.36	H	-24.73	37.63	53.98	16.35	AV

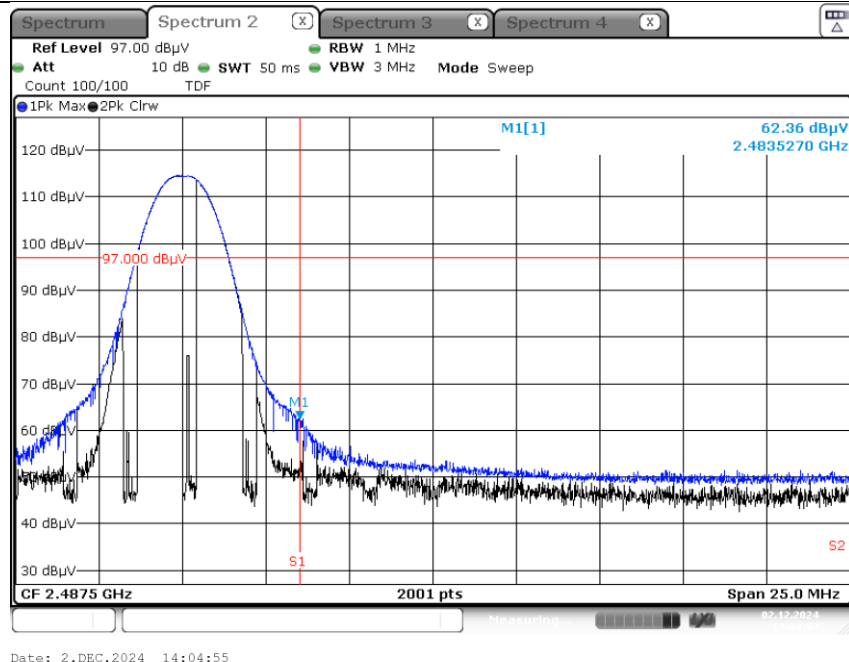
Note:

- We apply to the offset in range 1 GHz - 18 GHz

The offset = Antenna Factor(A.F) + Cable Loss(C.L) – Amp. Gain(A.G) + Distance Factor(D.F)

Test Plot

[Peak & Average Result]

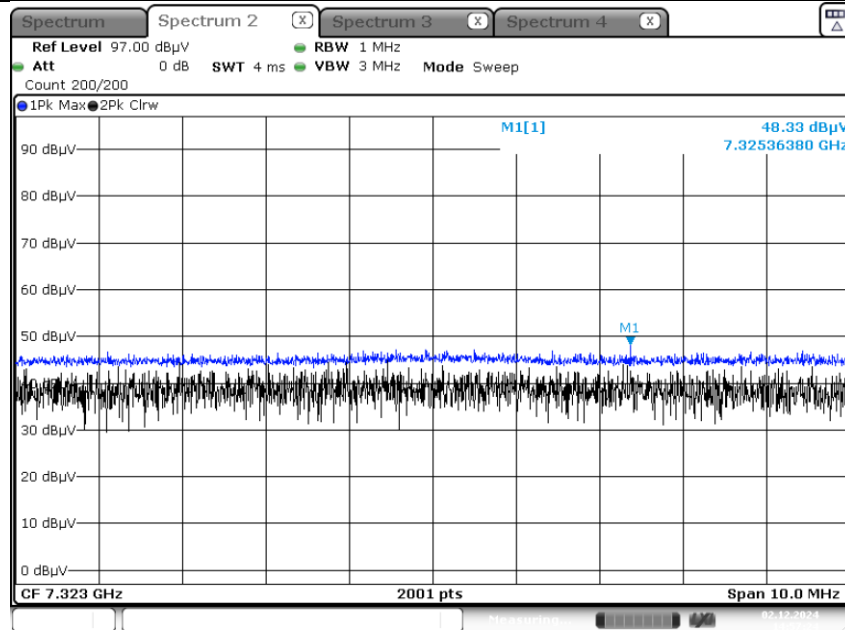


BT R.S.E Harmonic(Dual BT/DH5/Ch.39)

Frequency	Measured Value	A.F+C.L-A.G	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4882	51.87	-5.18	V	0.00	46.69	73.98	27.29	PK
4882	51.87	-5.18	V	-24.73	21.96	53.98	32.02	AV
7323	47.65	1.94	V	0.00	49.59	73.98	24.39	PK
7323	47.65	1.94	V	-24.73	24.86	53.98	29.12	AV
4882	52.03	-5.18	H	0.00	46.85	73.98	27.13	PK
4882	52.03	-5.18	H	-24.73	22.12	53.98	31.86	AV
7323	48.33	1.94	H	0.00	50.27	73.98	23.71	PK
7323	48.33	1.94	H	-24.73	25.54	53.98	28.44	AV

■ Test Plot

[Peak & Average Result]



Date: 2.DEC.2024 14:57:25

DTS Band Edge (ANT ALL) (MIMO(CDD) 802.11ac(20M) MCS0/Ch. 11)

Frequency	Measured Value	Duty Cycle Factor	A.F.+C.L+D.F	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB]	[dB]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
#2483.5	61.95	0.00	-	H	61.95	73.98	12.03	PK
#2483.5	51.48	0.36	-	H	51.84	53.98	2.14	AV

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

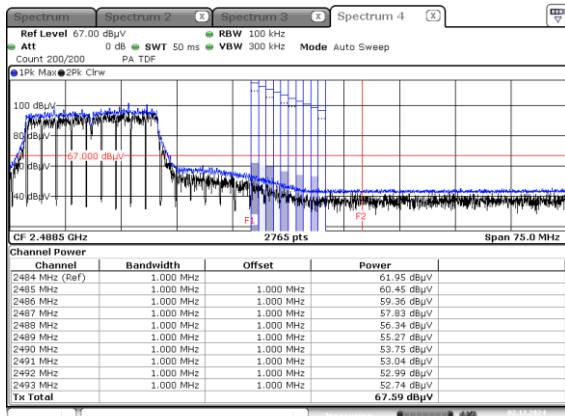
Note:

- We apply to the offset in range 1 GHz - 18 GHz

The offset = Antenna Factor(A.F) + Cable Loss(C.L) + Distance Factor(D.F)

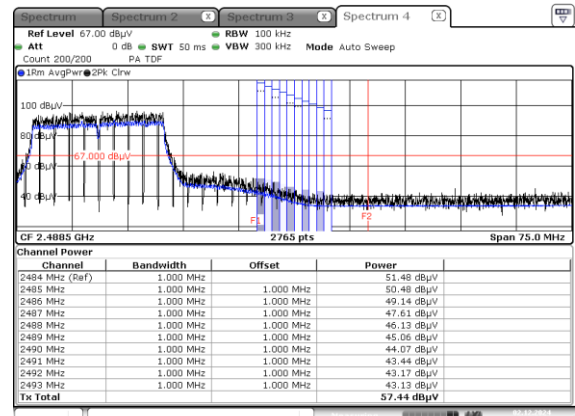
Test Plot

[Peak Result]



Date: 2.DEC.2024 17:20:36

[Average Result]



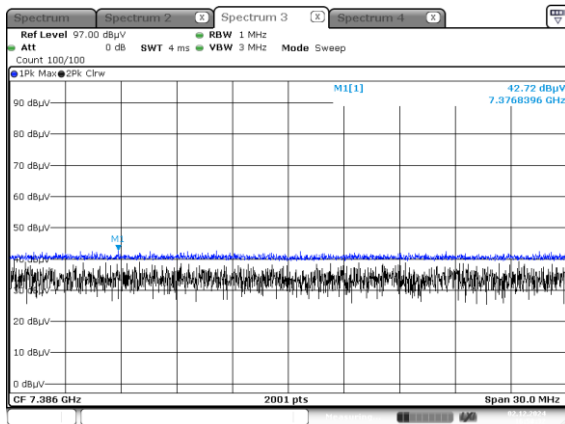
Date: 2.DEC.2024 17:18:39

DTS R.S.E Harmonic (ANT ALL) (MIMO(CDD) (802.11g 6 Mbps/ch. 11)

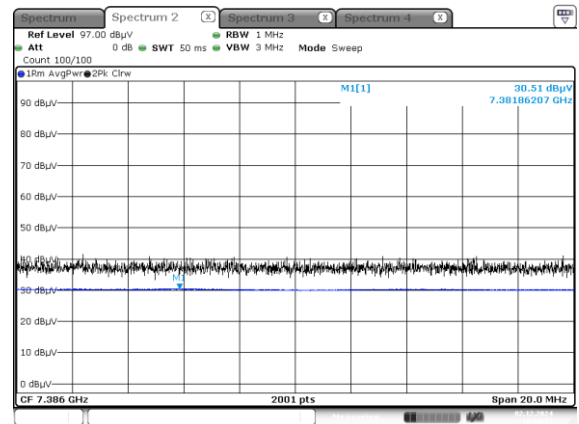
Band :	DTS			Operation Mode : 802.11g				
CH.11	2462		MHz	Transfer Rate : 6 Mbps				
Frequency	Measured value	D.C.F	CL+AF+DF-AG	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	[dBμV]	[dB]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	Type
4924	43.38	0.00	3.45	V	46.83	73.98	27.15	PK
4924	31.42	0.31	3.45	V	35.18	53.98	18.80	AV
7386	42.72	0.00	11.22	V	53.94	73.98	20.04	PK
7386	30.51	0.31	11.22	V	42.04	53.98	11.94	AV
4924	43.16	0.00	3.45	H	46.61	73.98	27.37	PK
4924	31.21	0.31	3.45	H	34.97	53.98	19.01	AV
7386	42.54	0.00	11.22	H	53.76	73.98	20.22	PK
7386	30.44	0.31	11.22	H	41.97	53.98	12.01	AV

Test Plot

[Peak Result]



[Average Result]



DTS ax, be Band Edge (ANT ALL) (MIMO(CDD) 802.11be(EHT20) 242T RU61 MCS0 /ch.11)

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	62.52	-	H	62.52	73.98	11.46	PK
#2483.5	51.83	-	H	51.83	53.98	2.15	AV

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

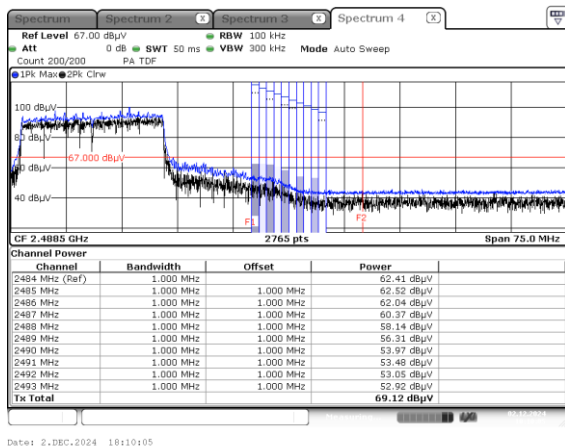
Note:

- We apply to the offset in range 1 GHz - 18 GHz

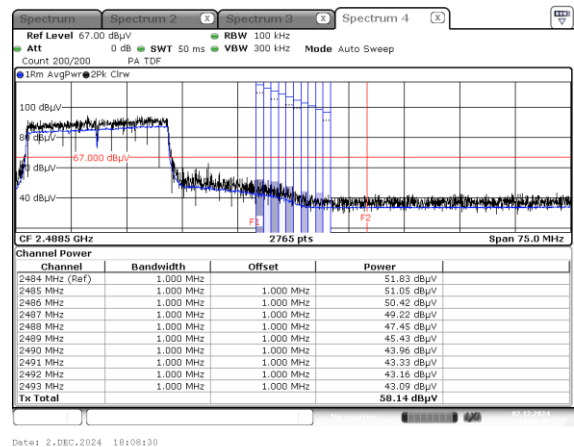
The offset = Antenna Factor(A.F) + Cable Loss(C.L) + Distance Factor(D.F)

Test Plot

[Peak Result]



[Average Result]

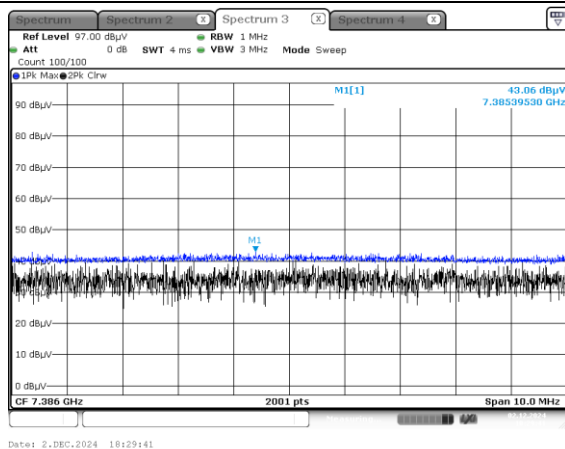


DTS ax, be R.S.E Harmonic (ANT ALL) (MIMO(CDD) 802.11be(EHT20) 26T RU4 MCS0 /ch.11)

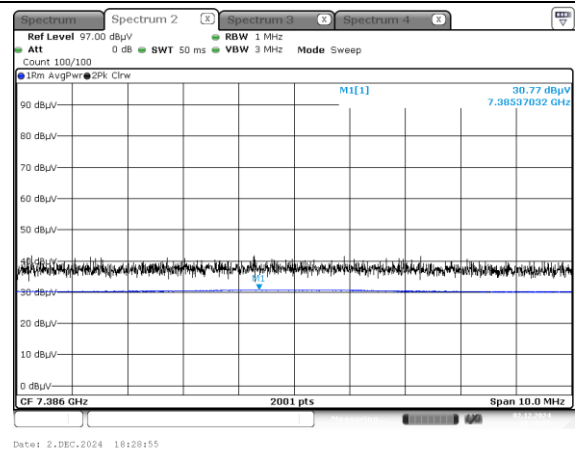
Band :	DTS		Operation Mode : 802.11be(EHT20)			RU Tone&offset	
CH.11	2462	MHz	Transfer Rate : MCS 0			26T	4
Frequency	Measured value	CL+AF+DF-AG	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	[dBμV]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	Type
4924	44.65	3.45	V	48.10	73.98	25.88	PK
4924	31.72	3.45	V	35.17	53.98	18.81	AV
7386	43.06	11.22	V	54.28	73.98	19.70	PK
7386	30.77	11.22	V	41.99	53.98	11.99	AV
4924	44.60	3.45	H	48.05	73.98	25.93	PK
4924	31.56	3.45	H	35.01	53.98	18.97	AV
7386	42.87	11.22	H	54.09	73.98	19.89	PK
7386	30.65	11.22	H	41.87	53.98	12.11	AV

Test Plot

[Peak Result]



[Average Result]



UNII Band Edge (ANT ALL) (MIMO(CDD) 802.11ac(80M) MCS 0 / Ch. 106)

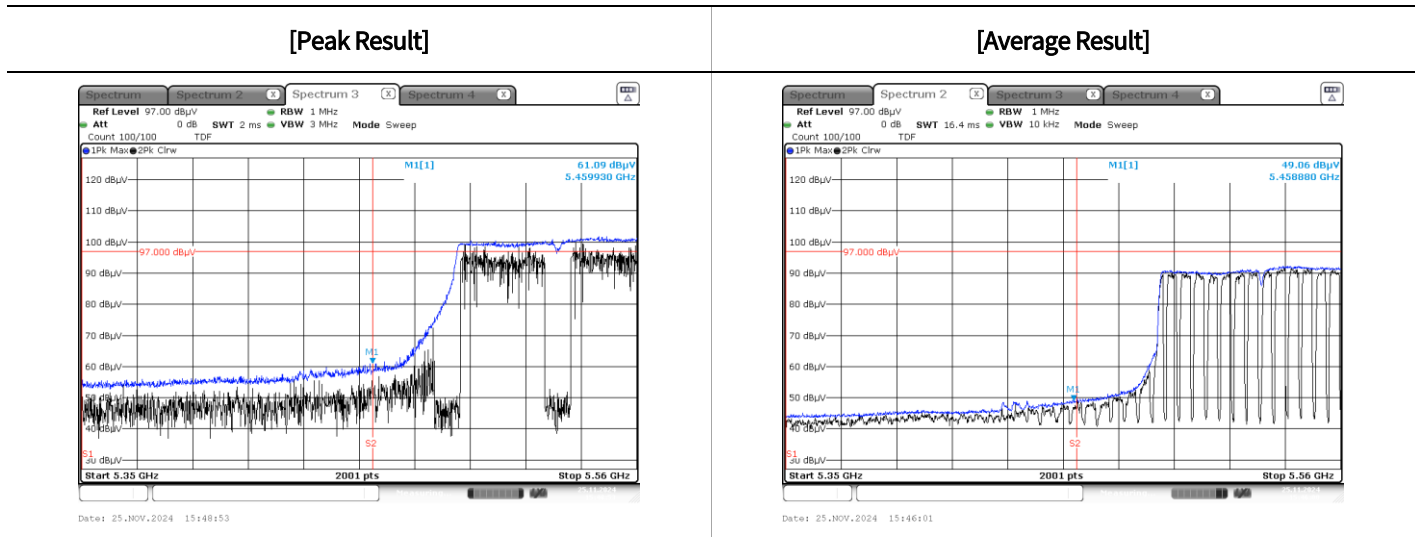
Frequency	Measured Value	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
5460	61.09	H	61.09	73.98	12.89	PK
5460	49.06	H	49.06	53.98	4.92	AV

Note:

- We apply to the offset in range 1 GHz - 18 GHz

The offset = Antenna Factor(A.F) + Cable Loss(C.L) + Distance Factor(D.F)– Amp. Gain(A.G) + Attenuator (ATT)

Test Plot

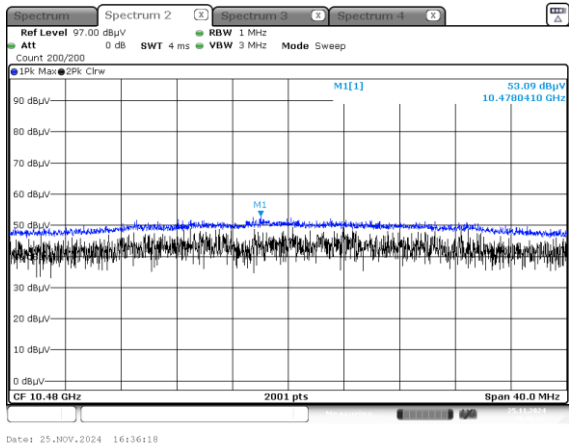


UNII R.S.E Harmonic (ANT ALL) (MIMO(CDD) 802.11a, 6 Mbps/ Ch. 48)

Band :	UNII 1		Operation Mode :		802.11a		
CH.48	5240	MHz	Transfer Rate :		6M		
Frequency	Measured value	CL+AF+DF-AG	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	[dBμV]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	Type
10480	53.09	3.82	V	56.91	68.20	11.29	PK
15720	48.05	3.66	V	51.71	73.98	22.27	PK
15720	34.36	3.66	V	38.02	53.98	15.96	AV
10480	51.88	3.82	H	55.70	68.20	12.50	PK
15720	48.02	3.66	H	51.68	73.98	22.30	PK
15720	34.32	3.66	H	37.98	53.98	16.00	AV

Test Plot

[Peak Result]

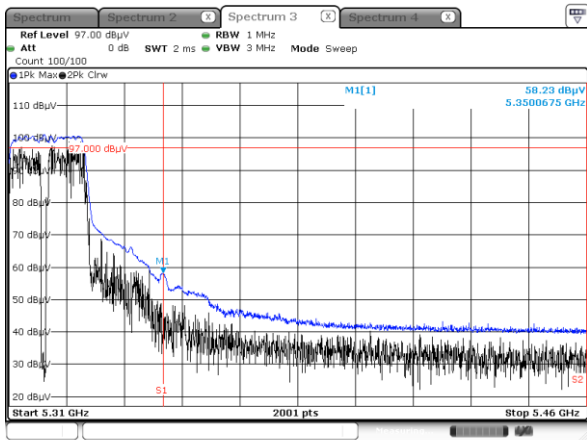


UNII ax, be Band Edge (ANT ALL) (MIMO(CDD) 802.11be(EHT20)_242T RU61 MCS0/ch.64)

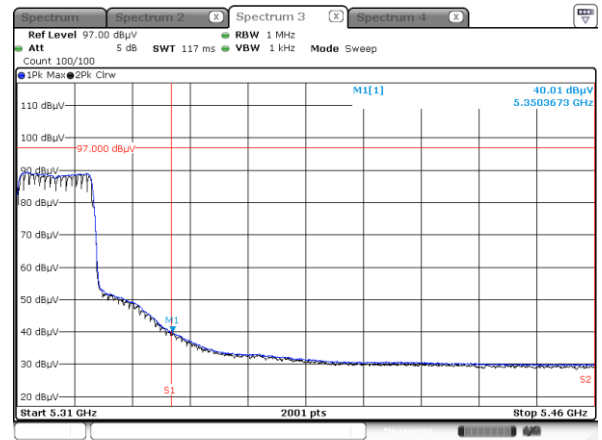
Frequency	Measured Value	CL+AF+DF-AG	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
5350	58.23	8.59	H	66.82	73.98	7.16	PK
5350	40.01	8.59	H	48.60	53.98	5.38	AV

▣ Test Plot

[Peak Result]



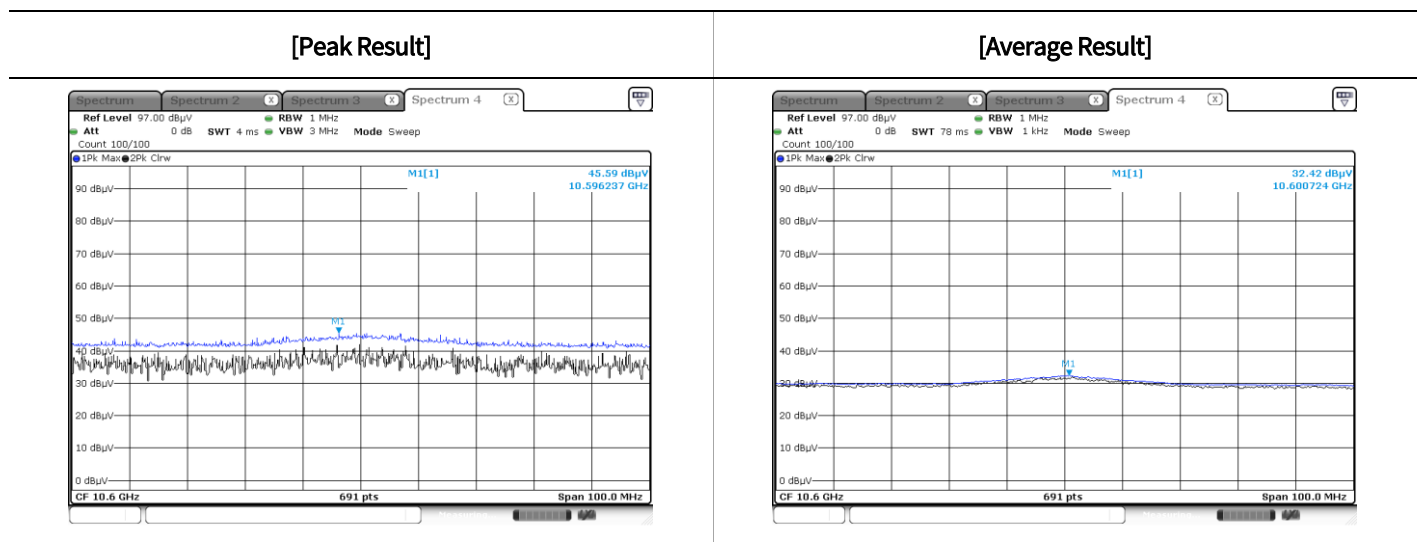
[Average Result]



UNII ax, be R.S.E Harmonic (ANT ALL) (MIMO(CDD) 802.11be(EHT20)_242T RU61, MCS0/ch.60)

Band :	UNII 2A	Operation Mode : 802.11be(EHT20)				RU Tone&offset	
CH.60	5300	MHz	Transfer Rate :		MCS0	242T	61
Frequency	Measured value	CL+AF+DF-AG	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	[dBμV]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	Type
10600	45.39	9.23	V	54.62	73.98	19.36	PK
10600	32.37	9.23	V	41.60	53.98	12.38	AV
15900	41.77	12.90	V	54.67	73.98	19.31	PK
15900	27.79	12.90	V	40.69	53.98	13.29	AV
10600	45.59	9.23	H	54.82	73.98	19.16	PK
10600	32.42	9.23	H	41.65	53.98	12.33	AV
15900	41.81	12.90	H	54.71	73.98	19.27	PK
15900	27.89	12.90	H	40.79	53.98	13.19	AV

■ Test Plot



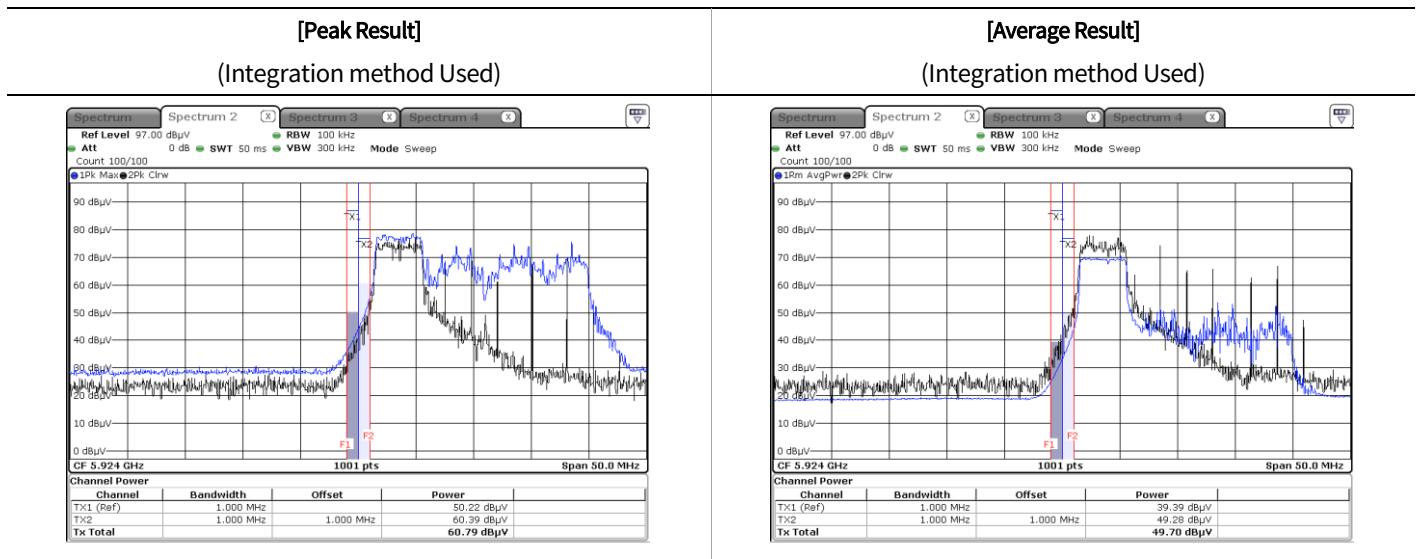
UNII 6G Band Edge (ANT ALL) (MIMO(CDD) 802.11be(EHT20) 52T RU37 MCS0/ch.2)

[Standard Client]

Frequency	Measured Value	Duty Cycle Factor	A.F+C.L+D.F -A.G+ATT	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
#5924.5	60.39	0.00	15.09	H	75.48	88.23	12.75	PK
#5924.5	49.28	0.00	15.09	H	64.37	68.23	3.86	AV
#5923.5	50.22	0.00	15.09	H	65.31	88.23	22.92	PK
#5923.5	39.39	0.00	15.09	H	54.48	68.23	13.75	AV
5460 - 5923	54.22	0.00	15.09	H	69.31	88.23	18.92	PK
5460 - 5923	34.33	0.00	15.09	H	49.42	68.23	18.81	AV
5350 - 5460	43.32	0.00	11.91	H	55.23	73.98	18.75	PK
5350 - 5460	31.48	0.00	11.91	H	43.39	53.98	10.59	AV

Note : # integration method Used (KDB 789033 D02 v02r01 Section 3) d) (ii)

Test Plot

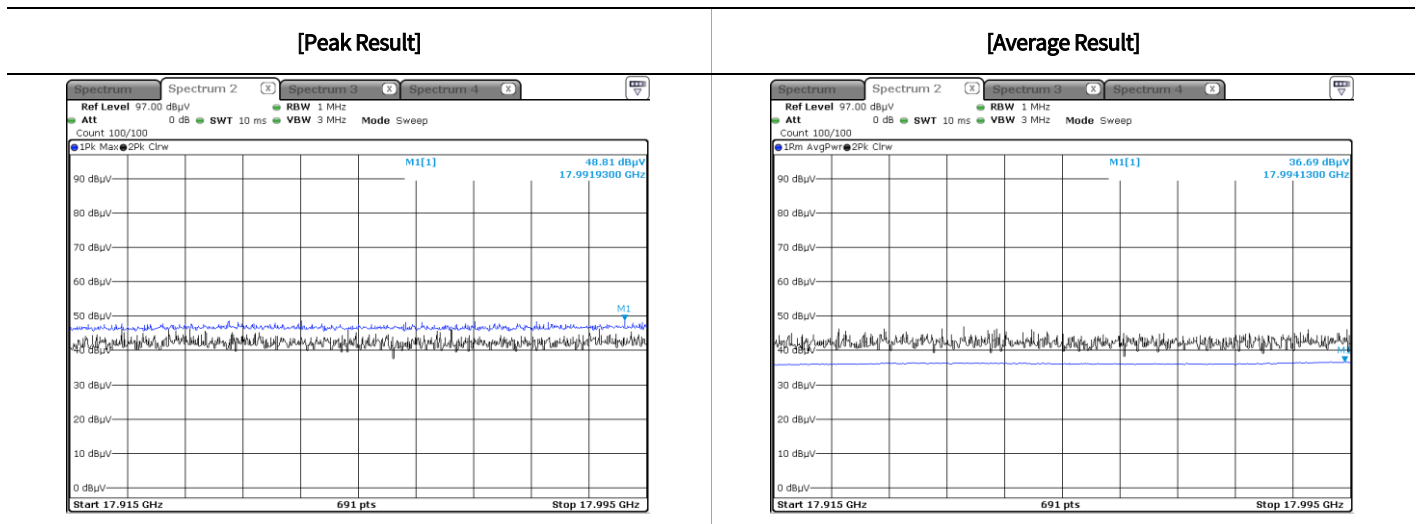


UNII 6G R.S.E Harmonic (ANT ALL) (MIMO(CDD) 802.11be(EHT80) 26T RU19 MCS0/ch.7)

[Standard Client]

Frequency	Measured Value	Duty Cycle Factor	A.F+C.L-A.G+D.F	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
11970	50.04	0.00	0.08	V	50.12	73.98	23.86	PK
11970	39.36	0.00	0.08	V	39.44	53.98	14.54	AV
17955	48.29	0.00	7.06	V	55.35	73.98	18.63	PK
17955	36.24	0.00	7.06	V	43.30	53.98	10.68	AV
11970	50.83	0.00	0.08	H	50.91	73.98	23.07	PK
11970	39.42	0.00	0.08	H	39.50	53.98	14.48	AV
17955	48.81	0.00	7.06	H	55.87	73.98	18.11	PK
17955	36.69	0.00	7.06	H	43.75	53.98	10.23	AV

■ Test Plot



WPT Fundamental(Power Sharing)

Fundamental

Mode : Power Sharing (Only EUT) Mode 1_Case 1

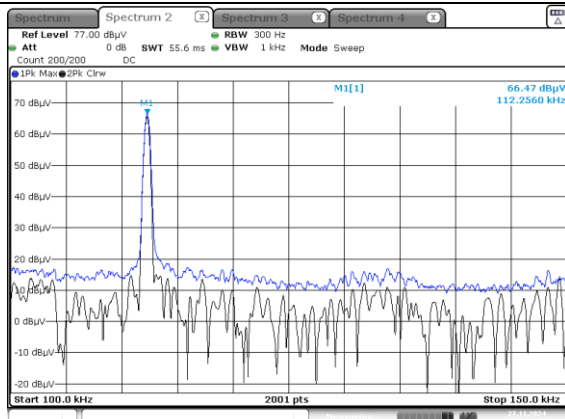
Frequency	Measured Value	Ant.Factor	Cable Loss	Distance Correction	ANT. Pol	Total Value	Limit	Margin
(kHz)	(dBμV/m)@3m	(dB/m)	(dB)	(dB)	(H/V)	(dBμV/m)	(dBμV/m)	(dB)
#112.256	66.47	20.20	0.58	-80.00	H	7.247	26.60	19.35
556.000	33.64	20.20	0.58	-40.00	H	14.417	32.70	18.29
1765.700	28.18	20.10	0.58	-40.00	H	8.857	29.54	20.68

Note :

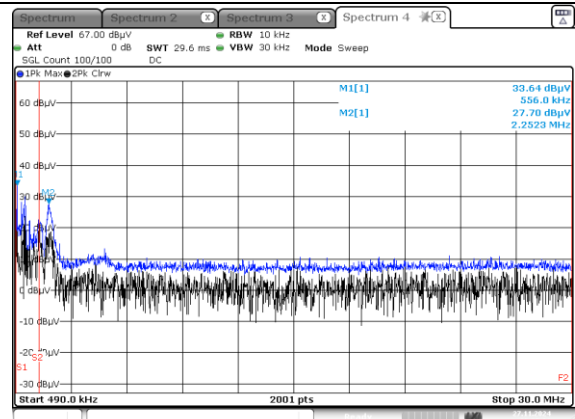
1. “#” : Fundamental Frequency
2. 30 MHz - 1 GHz : No Critical peaks found

Test Plot

Frequency Range : 110 kHz - 148 kHz
Power Sharing (Only EUT)



Frequency Range : 1.705 MHz – 30 MHz
Power Sharing (Only EUT)



3. List of test equipment(Unlicensed)

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
Controller (Antenna mast & Turn Table)	CO3000	Innco system	CO3000/ 15421/57580623/G	N/A	N/A
Controller(Antenna mast)	CO3000	Innco system	CO3000-4p	N/A	N/A
Controller	EM2090	Emco	060520	N/A	N/A
Controller	EM1000	Audix	060520	N/A	N/A
Antenna Position Tower	MA4640	Innco system	9320422	04/05/2025	Biennial
Antenna Position Tower	MA4640/800-XP-EP	Innco system	S1AM	07/30/2025	Annual
Antenna Position Tower	MA4640/800-XP-EP	Innco system	S3AM	07/30/2025	Annual
Antenna Position Tower	MA4640/800-XP-EP	Innco system	N/A	N/A	N/A
LISN	ENV216	Rohde & Schwarz	102245	07/17/2025	Annual
EMI Test Receiver	ESR	Rohde & Schwarz	101910	07/02/2025	Annual
Turn Table	N/A	Innco system	5930623	N/A	N/A
Turn Table	N/A	Ets	N/A	N/A	N/A
Turn Table	N/A	Audix	N/A	N/A	N/A
Turn Table	DS2000-S-1t	Innco system	DS2000/572/54610422/P	N/A	N/A
Loop Antenna	FMZB 1513	Schwarzbeck	1513-175	01/16/2025	Biennial
Loop Antenna	FMZB 1513	Rohde & Schwarz	1513-333	03/07/2026	Biennial
Hybrid Antenna	VULB 9168	Schwarzbeck	9168-1135	08/19/2026	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	9120D-1151	07/14/2025	Biennial
Hybrid Antenna	VULB 9168	Schwarzbeck	9168-0895	08/28/2026	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	9120D-1191	11/07/2025	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	9120D-1300	01/03/2026	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	9120D-2296	05/16/2026	Biennial
Hybrid Antenna	VULB 9168	Schwarzbeck	760	02/24/2025	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	02299	01/29/2026	Biennial
Horn Antenna (15 GHz ~ 40 GHz)	BBHA9170	Schwarzbeck	BBHA9170124	03/28/2025	Biennial
Horn Antenna(15 GHz ~ 40 GHz)	BBHA9170	Schwarzbeck	BBHA9170342	09/20/2026	Biennial
Amp & Filter Bank Switch Controller	FBSM-01B	T&M system	TM2009001	N/A	N/A
Amp & Filter Bank Switch Controller	FBSM-01A	TNM system	0	N/A	N/A
Amp & Filter Bank Switch Controller	FBSM-01B	T&M system	TM19050002	N/A	N/A
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	06/04/2025	Annual
Band Reject Filter	WRCJV12-4900-5100-5900- 6100-50SS	Wainwright Instruments	6	06/04/2025	Annual
Band Reject Filter	WRCJV5100/5850-40/50- 8EEK	Wainwright Instruments	1	02/14/2025	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
RF Switching System	FBSR-03A (3G HPF+LNA)	T&M SYSTEM	S3L1	10/31/2025	Annual
RF Switching System	FBSR-03A (10dB ATT+LNA)	T&M SYSTEM	S3L2	10/31/2025	Annual
RF Switching System	FBSR-03A (7G HPF+LNA)	T&M SYSTEM	S3L3	10/31/2025	Annual
RF Switching System	FBSR-03A (3dB ATT+LNA)	T&M SYSTEM	S3L4	10/31/2025	Annual
RF Switching System	FMSR-05B (HPF(3~18GHz) + LNA1(1~18GHz))	T&M system	S5L1	03/12/2025	Annual
RF Switching System	FMSR-05B (ATT(10dB) + LNA1(1~18GHz))	T&M system	S5L2	03/12/2025	Annual
RF Switching System	FMSR-05B (ATT(3dB) + LNA1(1~18GHz))	T&M system	S5L3	03/12/2025	Annual
RF Switching System	FMSR-05B (LNA1(1~18GHz))	T&M system	S5L4	03/12/2025	Annual
RF Switching System	FMSR-05B (HPF(7~18GHz) + LNA2(6~18GHz))	T&M system	S5L5	03/12/2025	Annual
RF Switching System	FMSR-05B (Thru(30MHz ~ 18GHz))	T&M system	S5L6	03/12/2025	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/07/2025	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/26/2025	Annual
Bluetooth Tester	TC-3000C	TESCOM	3000C000175	03/19/2025	Annual
Spectrum Analyzer	FSW (2 Hz ~ 67 GHz)	Rohde & Schwarz	101736	05/23/2025	Annual
Spectrum Analyzer	FSV40 (9 kHz ~ 40 GHz)	Rohde & Schwarz	101510	03/28/2025	Annual
Spectrum Analyzer	FSV40 (9 kHz ~ 40 GHz)	Rohde & Schwarz	100900	08/27/2025	Annual
Power Amplifier	310N	SONOMA INSTRUMENT	186169	02/14/2025	Annual
Attenuator(3 dB)	18B-03	Api tech.	1	05/02/2025	Annual
Signal Analyzer	N9030A	Agilent	MY52350879	04/05/2025	Annual
Power Amplifier	310N	SONOMA INSTRUMENT	186169	02/14/2025	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 Especially, all antenna for measurement