

Test Notes

1. All spurious emissions lying in restricted bands specified in §15.205 are below the limit shown in §15.209. All spurious emissions that do not lie in a restricted band are subject to an average limit of -27dBm/MHz. At 3 meters, the field strength limit in dB μ V/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions of 68.2dB μ V/m.
2. All spurious emissions that do not lie in a restricted band are subject to a peak limit not to exceed 20dB of the average limit [68.2dB μ V/m]. If a peak measurement passes the average limit, it was determined no further investigation is necessary.
3. The antenna is manipulated through typical positions, polarity, and length during the tests. The EUT is manipulated through three orthogonal planes.
4. This unit was tested with its standard battery.
5. The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter using CISPR quasi peak detector below 1GHz. Above 1 GHz, average and peak measurements were taken using linearly polarized horn antennas. The worst-case emissions are reported, however emissions whose levels were not within 20dB of the respective limits were not reported.
6. Emissions below 18GHz were measured at a 3-meter test distance while emissions above 18GHz were measured at a 1-meter test distance with the application of a distance correction factor.
7. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. Any emissions found to be within 20dB of the limit are fully investigated and the results are shown in this section.
8. The “-” shown in the following RSE tables are used to denote a noise floor measurement.
9. For radiated measurements, emissions were investigated for the fully-loaded RU configuration and for all of the partially-loaded RU configurations. Among all of the available partially-loaded RU configurations, only the configuration with the worst case emissions is reported.

Sample Calculations

Determining Spurious Emissions Levels

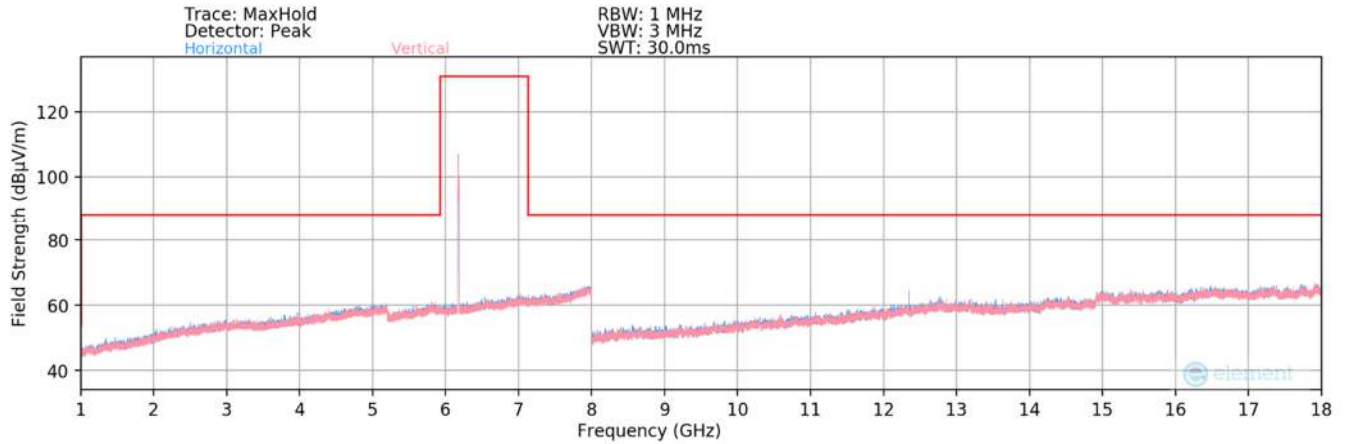
- Field Strength Level [dB μ V/m] = Analyzer Level [dBm] + 107 + AFCL [dB/m]
- AFCL [dB/m] = Antenna Factor [dB/m] + Cable Loss [dB]
- Margin [dB] = Field Strength Level [dB μ V/m] – Limit [dB μ V/m]

Radiated Band Edge Measurement Offset

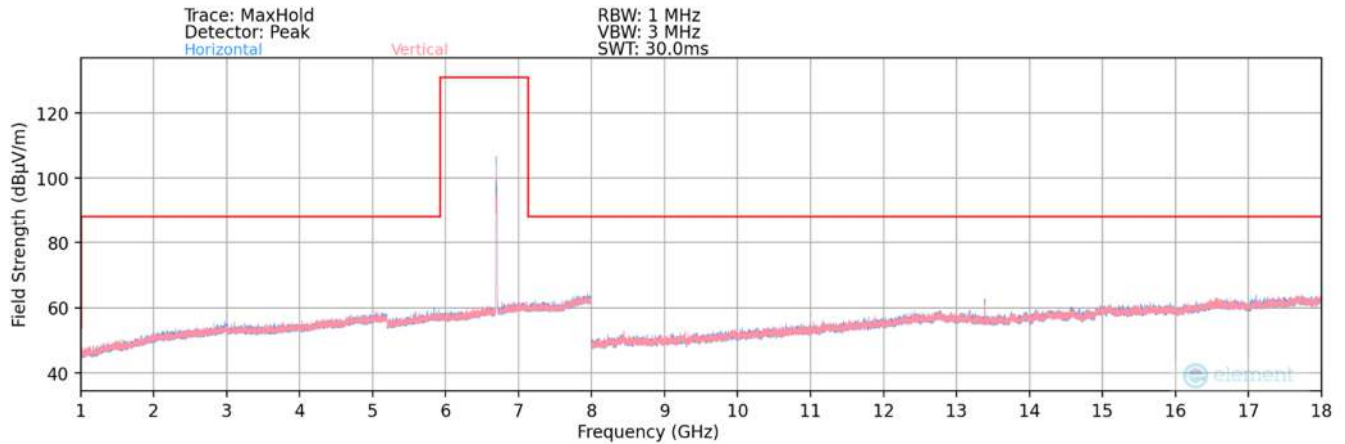
- The amplitude offset shown in the radiated restricted band edge plots was calculated using the formula:
Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

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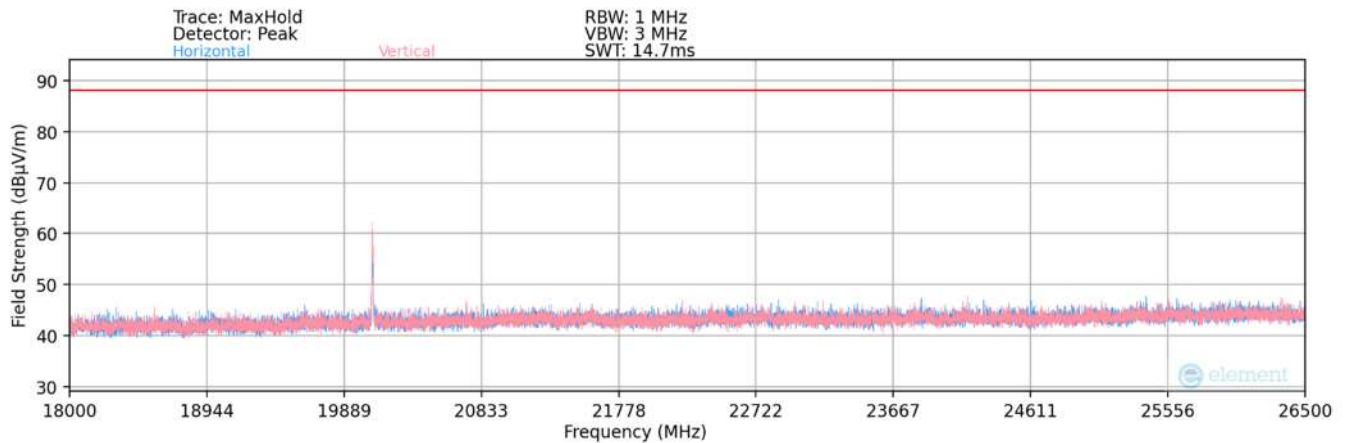
7.6.1 MIMO Radiated Spurious Emission Measurements (26 Tones)



Plot 7-85. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11ax – UNII Band 5 Ch. 45)

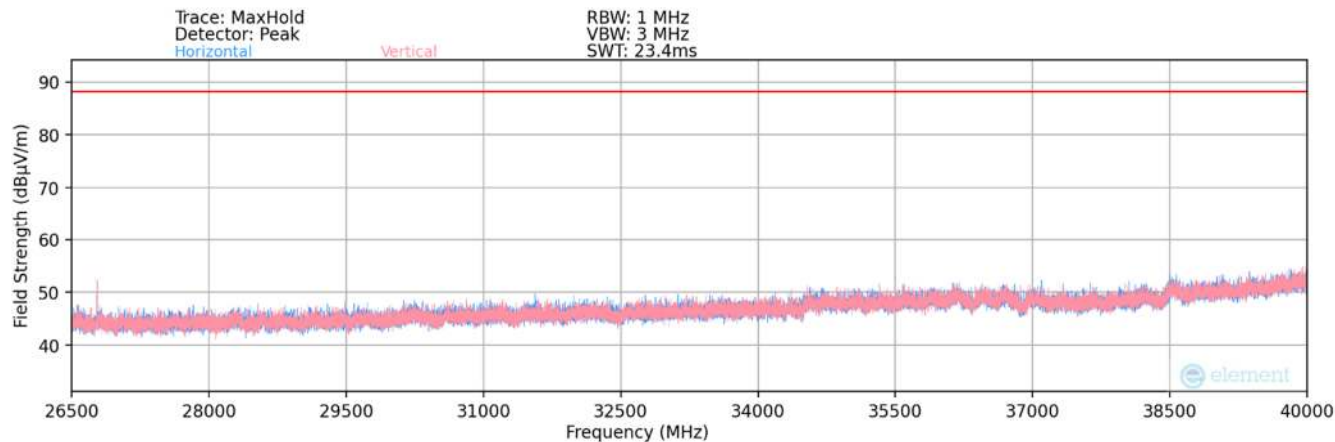


Plot 7-86. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11ax – UNII Band 7 Ch. 149)



Plot 7-87. Radiated Spurious Plot 18GHz - 26.5GHz (802.11ax) – Ch. 149

FCC ID: A3LSMF966JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7-88. Radiated Spurious Plot 26.5GHz - 40GHz (802.11ax) – Ch. 149

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7.6.1.1 MIMO Radiated Spurious Emission Measurements (26 Tones) – UNII Band 5

Mode	Antenna	UNII Band	Channel	Test Channel Freq.	RU Index	Restricted	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degrees]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBuV/m]	Limit [dBuV/m]	Margin [dB]
802.11be RU 26T	MIMO	5	2	5935	4	*	11870.00	Average	H	178	21	-79.65	18.86	0.00	46.21	53.98	-7.77
						*	11870.00	Peak	H	178	21	-68.27	18.86	0.00	57.59	73.98	-16.39
						*	17805.00	Average	H	-	-	-83.16	26.16	0.00	50.00	53.98	-3.98
						*	17805.00	Peak	H	-	-	-72.44	26.16	0.00	60.72	73.98	-13.26
						*	23740.00	Average	V	-	-	-67.44	3.58	-9.54	33.60	53.98	-20.38
						*	23740.00	Peak	V	-	-	-56.68	3.58	-9.54	44.36	73.98	-29.62
			45	6175	4	*	29675.00	Peak	V	-	-	-57.63	5.33	-9.54	45.16	68.20	-23.04
						*	12350.00	Average	H	176	3	-78.35	19.23	0.00	47.88	53.98	-6.10
						*	12350.00	Peak	H	176	3	-64.25	19.23	0.00	61.98	73.98	-12.00
						*	18525.00	Average	V	-	350	-56.17	1.16	-9.54	42.45	53.98	-11.53
						*	18525.00	Peak	V	-	350	-43.74	1.16	-9.54	54.88	73.98	-19.10
						*	24700.00	Peak	V	-	350	-52.88	3.72	-9.54	48.30	68.20	-19.90
			93	6415	4	*	30875.00	Peak	V	-	-	-57.47	6.32	-9.54	46.32	68.20	-21.88
						*	12830.00	Peak	H	178	72	-62.19	20.14	0.00	64.95	68.20	-3.25
						*	19245.00	Average	V	-	350	-53.82	1.84	-9.54	45.48	53.98	-8.50
						*	19245.00	Peak	V	-	350	-41.96	1.84	-9.54	57.34	73.98	-16.64
						*	25660.00	Peak	V	-	350	-55.81	3.90	-9.54	45.55	68.20	-22.65
						*	32075.00	Peak	V	-	-	-56.70	6.64	-9.54	47.40	68.20	-20.80

Table 7-57. Radiated Measurements MIMO (26 Tones)

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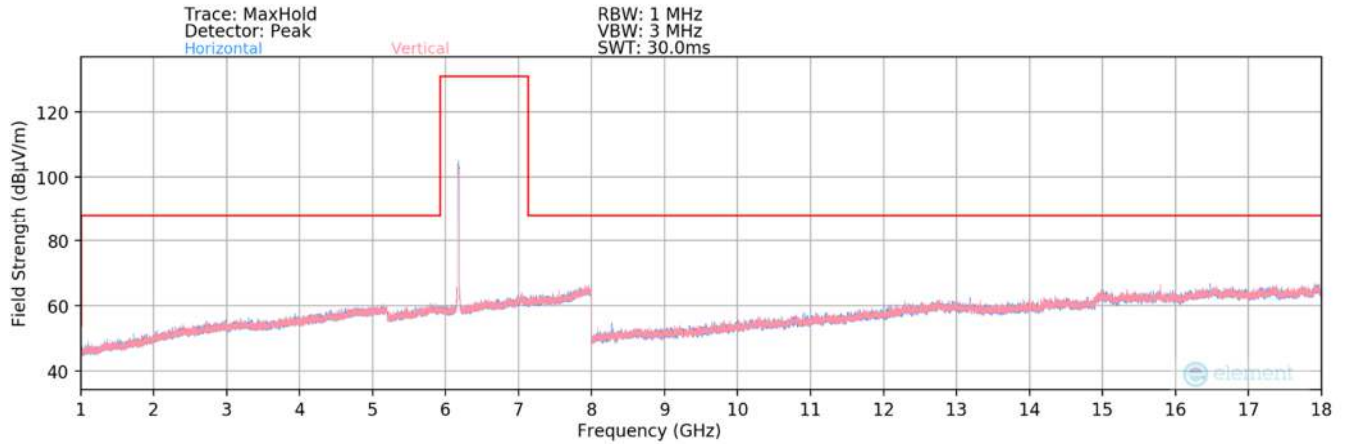
7.6.1.2 MIMO Radiated Spurious Emission Measurements (26 Tones) – UNII Band 7

Mode	Antenna	UNII Band	Channel	Test Channel Name	RU Index	Restricted	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degrees]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
802.11be RU 26T	MIMO	7	117	6535	4		13070.00	Peak	H	222	17	-62.35	20.29	0.00	64.94	68.20	-3.26
						*	19605.00	Average	V	-	340	-50.51	2.38	-9.54	49.32	53.98	-4.65
						*	19605.00	Peak	V	-	340	-36.99	2.38	-9.54	62.84	73.98	-11.14
							26140.00	Peak	V	-	335	-50.62	4.03	-9.54	50.87	68.20	-17.33
							32675.00	Peak	V	-	-	-57.27	6.46	-9.54	46.65	68.20	-21.55
			149	6695	4	*	13390.00	Average	H	136	325	-77.54	20.77	0.00	50.23	53.98	-3.75
						*	13390.00	Peak	H	136	325	-62.94	20.77	0.00	64.83	73.98	-9.15
						*	20085.00	Average	V	-	350	-52.49	2.58	-9.54	47.55	53.98	-6.43
						*	20085.00	Peak	V	-	350	-38.96	2.58	-9.54	61.08	73.98	-12.90
							26780.00	Peak	V	-	340	-46.80	4.33	-9.54	54.99	68.20	-13.21
			185	6875	4		33475.00	Peak	V	-	-	-57.27	6.96	-9.54	47.15	68.20	-21.05
							13750.00	Peak	H	121	76	-63.71	21.34	0.00	64.63	68.20	-3.57
						*	20625.00	Average	V	-	325	-49.96	3.01	-9.54	50.50	53.98	-3.48
						*	20625.00	Peak	V	-	325	-38.57	3.01	-9.54	61.89	73.98	-12.09
							27500.00	Peak	V	-	350	-52.51	3.97	-9.54	48.92	68.20	-19.28
							34375.00	Peak	V	-	-	-57.50	7.33	-9.54	47.29	68.20	-20.91

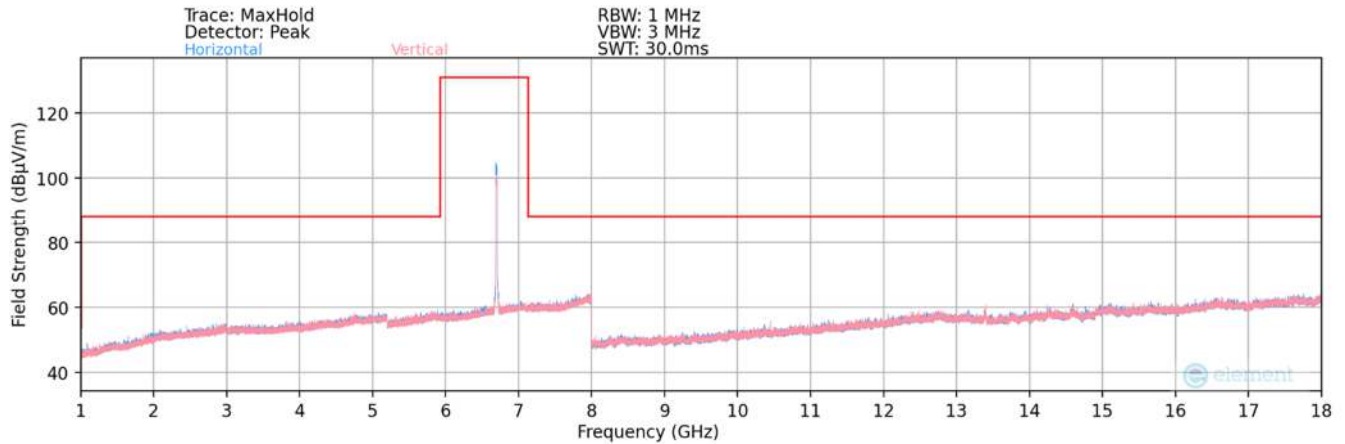
Table 7-58. Radiated Measurements MIMO (26 Tones)

FCC ID: A3LSMF966JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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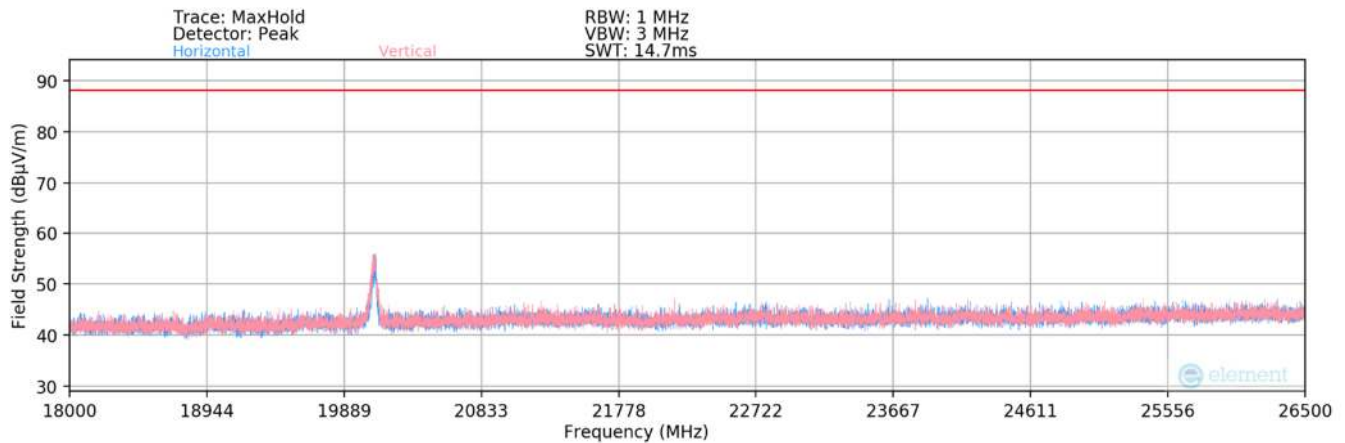
7.6.2 MIMO Radiated Spurious Emission Measurements (242 Tones)



Plot 7-89. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11ax – UNII Band 5 Ch. 45)

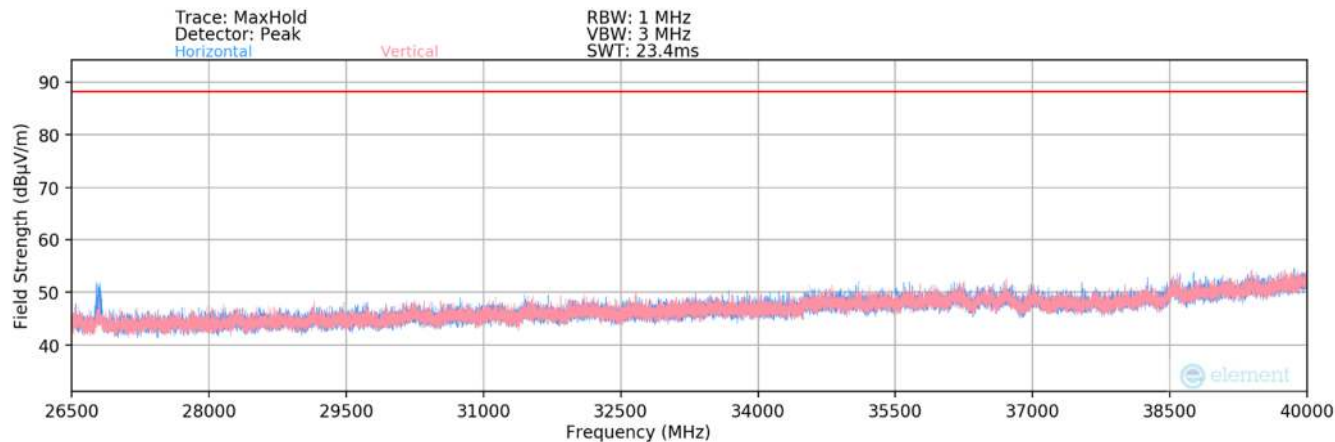


Plot 7-90. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11ax – UNII Band 7 Ch. 149)



Plot 7-91. Radiated Spurious Plot 18GHz - 26.5GHz (802.11ax) – Ch. 149

FCC ID: A3LSMF966JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7-92. Radiated Spurious Plot 26.5GHz - 40GHz (802.11ax) – Ch. 149

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7.6.2.1 MIMO Radiated Spurious Emission Measurements (242 Tones) – UNII Band 5

Mode	Antenna	UNII Band	Channel	Test Channel Freq. [MHz]	RU Index	Restricted	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBuV/m]	Limit [dBuV/m]	Margin [dB]
802.11be RU 242T	MIMO	5	2	5935	61	*	11870.00	Average	H	178	21	-80.68	18.86	0.00	45.18	53.98	-8.80
						*	11870.00	Peak	H	178	21	-70.33	18.86	0.00	55.53	73.98	-18.45
						*	17805.00	Average	H	-	-	-83.08	26.16	0.00	50.08	53.98	-3.90
						*	17805.00	Peak	H	-	-	-72.11	26.16	0.00	61.05	73.98	-12.93
						*	23740.00	Average	H	-	-	-66.98	3.58	-9.54	34.06	53.98	-19.92
						*	23740.00	Peak	H	-	-	-56.32	3.58	-9.54	44.72	73.98	-29.26
			45	6175	61		29675.00	Peak	H	-	-	-55.70	5.33	-9.54	47.08	68.20	-21.12
						*	12350.00	Average	H	176	3	-79.88	19.23	0.00	46.35	53.98	-7.63
						*	12350.00	Peak	H	176	3	-67.80	19.23	0.00	58.43	73.98	-15.55
						*	18525.00	Average	H	-	0	-62.12	1.16	-9.54	36.50	53.98	-17.48
						*	18525.00	Peak	H	-	0	-50.56	1.16	-9.54	48.07	73.98	-25.91
							24700.00	Peak	H	-	-	-57.21	3.72	-9.54	43.97	68.20	-24.23
			93	6415	61		30875.00	Peak	H	-	-	-57.23	6.32	-9.54	46.55	68.20	-21.65
							12830.00	Peak	H	178	72	-65.34	20.14	0.00	61.80	68.20	-6.40
						*	19245.00	Average	H	-	320	-58.03	1.84	-9.54	41.27	53.98	-12.71
						*	19245.00	Peak	H	-	320	-46.43	1.84	-9.54	52.87	73.98	-21.11
							25660.00	Peak	H	-	-	-56.17	3.90	-9.54	45.20	68.20	-23.00
							32075.00	Peak	H	-	-	-55.88	6.64	-9.54	48.22	68.20	-19.98

Table 7-59. Radiated Measurements MIMO (242 Tones)

FCC ID: A3LSMF966JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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7.6.2.2 MIMO Radiated Spurious Emission Measurements (242 Tones) – UNII Band 7

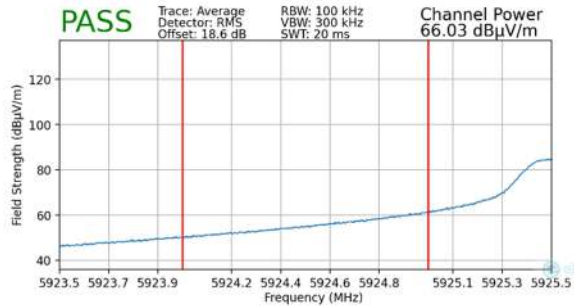
Mode	Antenna	UNII Band	Channel	Test Channel Freq. [MHz]	RU Index	Restricted	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBuV/m]	Limit [dBuV/m]	Margin [dB]
802.11be RU 242T	MIMO	7	117	6535	61		13070.00	Peak	H	222	17	-63.92	20.29	0.00	63.37	68.20	-4.83
						*	19605.00	Average	H	-	325	-54.13	2.38	-9.54	45.70	53.98	-8.27
						*	19605.00	Peak	H	-	325	-43.74	2.38	-9.54	56.10	73.98	-17.88
							26140.00	Peak	H	-	-	-56.31	4.03	-9.54	45.18	68.20	-23.02
							32675.00	Peak	H	-	-	-58.04	6.46	-9.54	45.88	68.20	-22.32
			149	6695	61	*	13390.00	Average	H	136	325	-77.14	20.77	0.00	50.63	53.98	-3.35
						*	13390.00	Peak	H	136	325	-64.96	20.77	0.00	62.81	73.98	-11.17
						*	20085.00	Peak	H	-	320	-54.82	2.58	-9.54	45.22	53.98	-8.76
						*	20085.00	Average	H	-	320	-44.40	2.58	-9.54	55.64	73.98	-18.34
							26780.00	Peak	H	-	320	-51.69	4.33	-9.54	50.10	68.20	-18.10
			185	6875	61		33475.00	Peak	H	-	-	-56.07	6.96	-9.54	48.35	68.20	-19.85
							13750.00	Peak	H	121	76	-67.10	21.34	0.00	61.24	68.20	-6.96
						*	20625.00	Average	H	-	320	-54.66	3.01	-9.54	45.81	53.98	-8.17
						*	20625.00	Peak	H	-	320	-43.38	3.01	-9.54	57.09	73.98	-16.89
							27500.00	Peak	H	-	320	-54.31	3.97	-9.54	47.12	68.20	-21.08
							34375.00	Peak	H	-	-	-56.24	7.33	-9.54	48.55	68.20	-19.65

Table 7-60. Radiated Measurements MIMO (242 Tones)

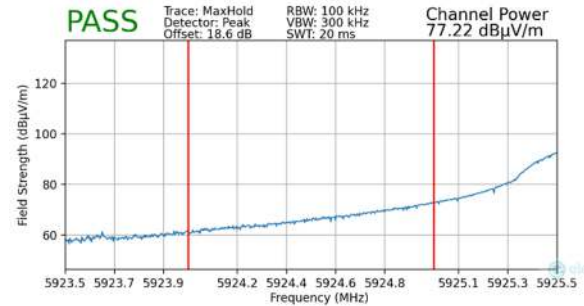
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7.6.3 MIMO Radiated Band Edge Measurements (20MHz BW – Partial Tone – 106T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	53
Distance of Measurements:	3 Meters
Operating Frequency:	5935MHz
Channel:	2

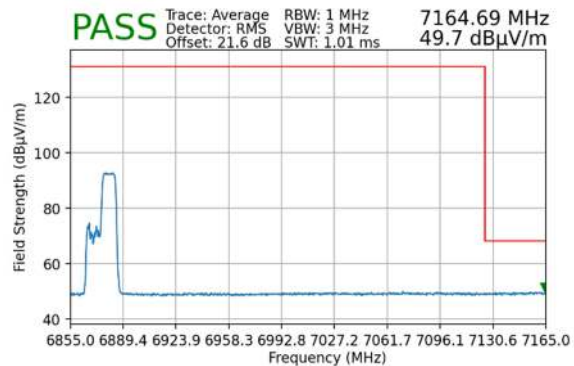


Plot 7-93. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 106T)

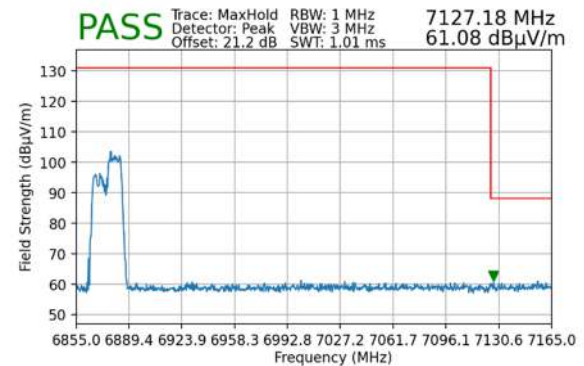


Plot 7-94. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 106T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	54
Distance of Measurements:	3 Meters
Operating Frequency:	6875MHz
Channel:	185



Plot 7-95. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 7 – 106T)



Plot 7-96. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 7 – 106T)

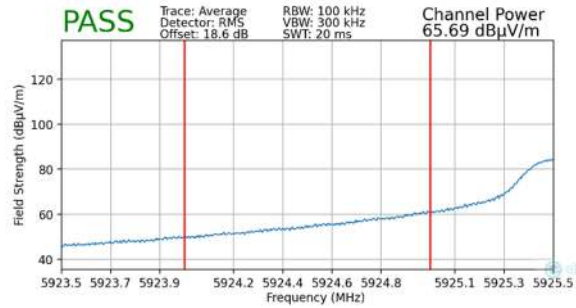
Note:

The highest channel of operation for VLP mode lies within the UNII-7 band (6525 - 6875MHz) which is far from the band edge at 7125MHz. We have investigated the band edge emissions at the upper edge of 7125MHz and are only including the worst-case upper band edge measurements as shown on this page.

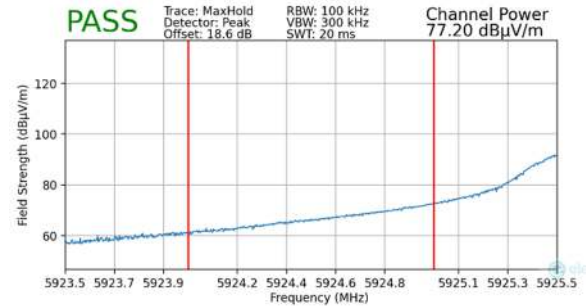
FCC ID: A3LSMF966JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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7.6.4 MIMO Radiated Band Edge Measurements (20MHz BW – MRU – 106+26T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	82
Distance of Measurements:	3 Meters
Operating Frequency:	5935MHz
Channel:	2



**Plot 7-97. Radiated Lower Band Edge Plot MIMO
(Average – UNII Band 5 – 106+26T)**

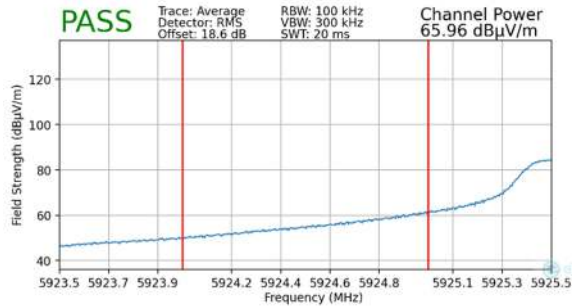


**Plot 7-98. Radiated Lower Band Edge Plot MIMO
(Peak – UNII Band 5 – 106+26T)**

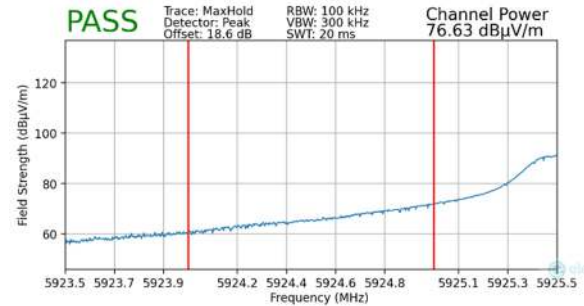
FCC ID: A3LSMF966JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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7.6.5 MIMO Radiated Band Edge Measurements (20MHz BW – Full Tone – 242T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	61
Distance of Measurements:	3 Meters
Operating Frequency:	5935MHz
Channel:	2

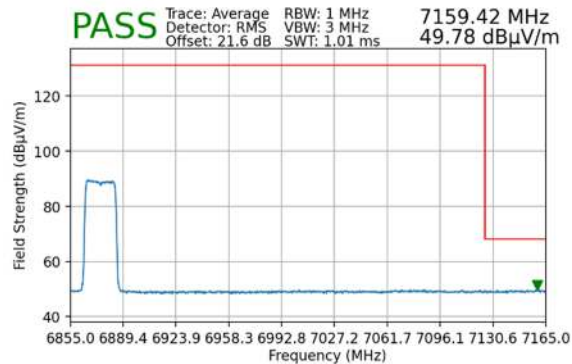


Plot 7-99. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 242T)

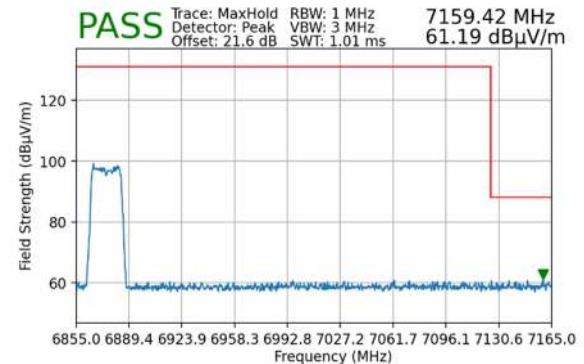


Plot 7-100. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 242T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	61
Distance of Measurements:	3 Meters
Operating Frequency:	6875MHz
Channel:	185



Plot 7-101. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 8 – 242T)

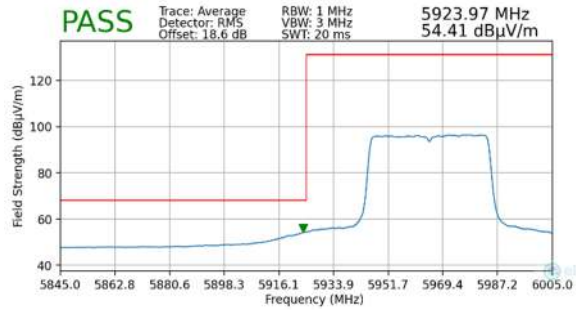


Plot 7-102. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8 – 242T)

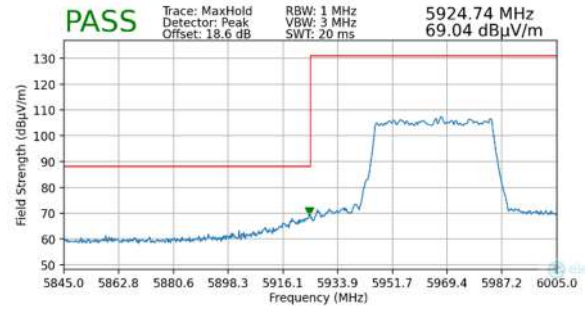
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7.6.6 MIMO Radiated Band Edge Measurements (40MHz BW – Full Tone – 484T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	65
Distance of Measurements:	3 Meters
Operating Frequency:	5965MHz
Channel:	3



**Plot 7-103. Radiated Lower Band Edge Plot MIMO
(Average – UNII Band 5 – 484T)**

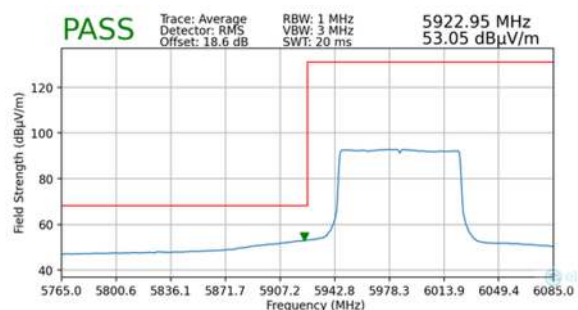


**Plot 7-104. Radiated Lower Band Edge Plot MIMO
(Peak – UNII Band 5 – 484T)**

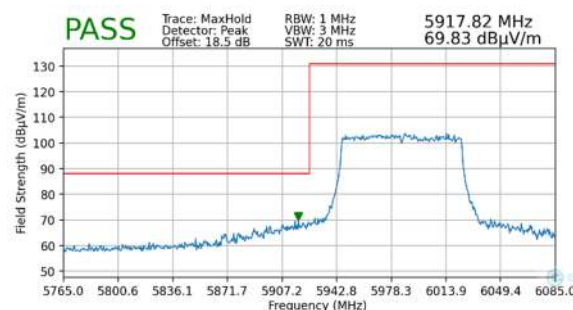
FCC ID: A3LSMF966JPN	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2504070040-12.A3L	Test Dates: 02/24/2025 – 05/05/2025	EUT Type: Portable Handset	Page 100 of 113

7.6.7 MIMO Radiated Band Edge Measurements (80MHz BW – Full Tone – 996T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	67
Distance of Measurements:	3 Meters
Operating Frequency:	5985MHz
Channel:	7



Plot 7-105. Radiated Lower Band Edge Plot MIMO
(Average – UNII Band 5 – 996T)

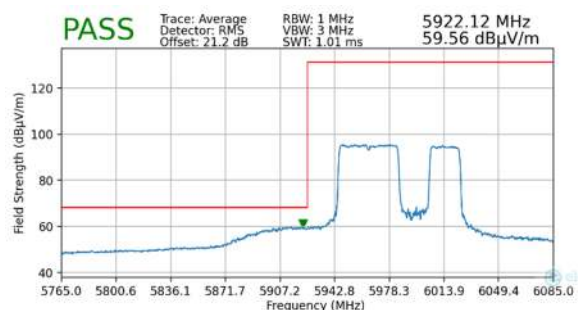


Plot 7-106. Radiated Lower Band Edge Plot MIMO
(Peak – UNII Band 5 – 996T)

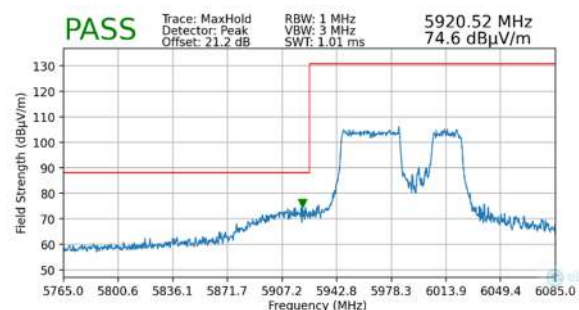
FCC ID: A3LSMF966JPN	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2504070040-12.A3L	Test Dates: 02/24/2025 – 05/05/2025	EUT Type: Portable Handset	Page 101 of 113

7.6.8 MIMO Radiated Band Edge Measurements (80MHz BW – MRU – 484+242T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	92
Distance of Measurements:	3 Meters
Operating Frequency:	5985MHz
Channel:	7



Plot 7-107. Radiated Lower Band Edge Plot MIMO
(Average – UNII Band 5 – 484+242T)

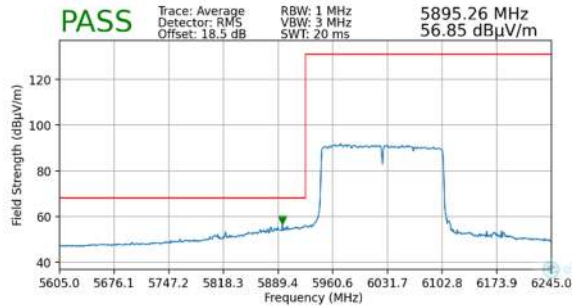


Plot 7-108. Radiated Lower Band Edge Plot MIMO
(Peak – UNII Band 5 – 484+242T)

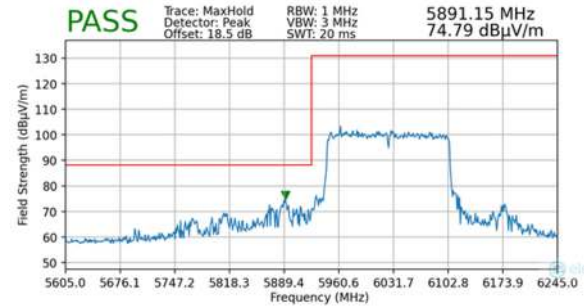
FCC ID: A3LSMF966JPN	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2504070040-12.A3L	Test Dates: 02/24/2025 – 05/05/2025	EUT Type: Portable Handset	Page 102 of 113

7.6.9 MIMO Radiated Band Edge Measurements (160MHz BW – Full Tone – 2x996T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	67
Distance of Measurements:	3 Meters
Operating Frequency:	6025MHz
Channel:	15



Plot 7-109. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 2x996T)

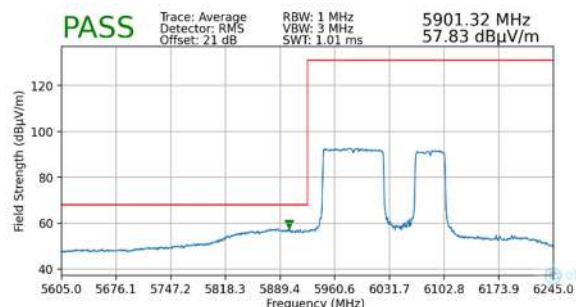


Plot 7-110. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 2x996T)

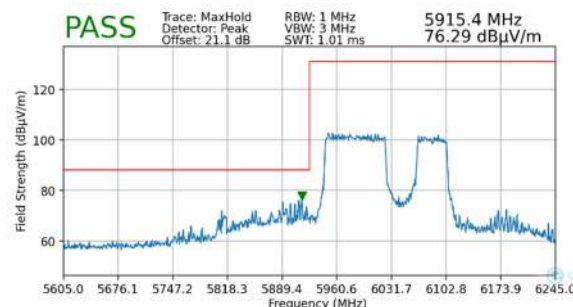
FCC ID: A3LSMF966JPN	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2504070040-12.A3L	Test Dates: 02/24/2025 – 05/05/2025	EUT Type: Portable Handset	Page 103 of 113

7.6.10 MIMO Radiated Band Edge Measurements (160MHz BW – MRU – 996+484T)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
RU Index	1094
Distance of Measurements:	3 Meters
Operating Frequency:	6025MHz
Channel:	15



Plot 7-111. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 996+484T)

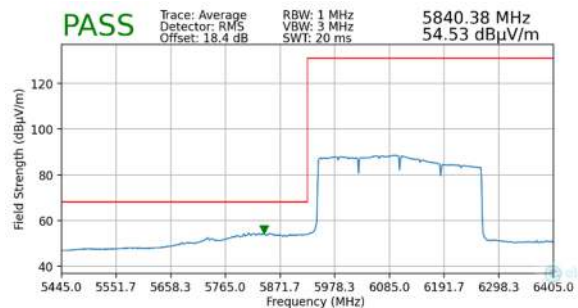


Plot 7-112. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 996+484T)

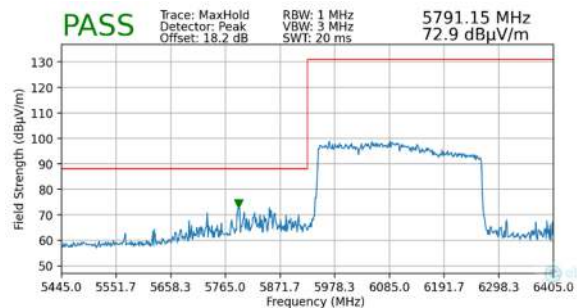
FCC ID: A3LSMF966JPN	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2504070040-12.A3L	Test Dates: 02/24/2025 – 05/05/2025	EUT Type: Portable Handset	Page 104 of 113

7.6.11 MIMO Radiated Band Edge Measurements (320MHz BW – Full Tone – 4*996T)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index	67
Distance of Measurements:	3 Meters
Operating Frequency:	6025MHz
Channel:	15



Plot 7-113. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 4*996T)

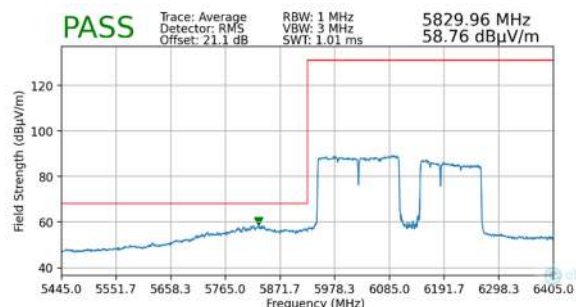


Plot 7-114. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 4*996T)

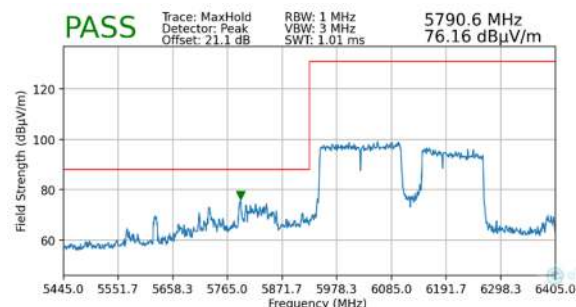
FCC ID: A3LSMF966JPN	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2504070040-12.A3L	Test Dates: 02/24/2025 – 05/05/2025	EUT Type: Portable Handset	Page 105 of 113

7.6.12 MIMO Radiated Band Edge Measurements (320MHz BW – MRU – 3*996+484T)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index	10105
Distance of Measurements:	3 Meters
Operating Frequency:	6025MHz
Channel:	15



Plot 7-115. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 3*996+484T)



Plot 7-116. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 3*996+484T)

FCC ID: A3LSMF966JPN	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2504070040-12.A3L	Test Dates: 02/24/2025 – 05/05/2025	EUT Type: Portable Handset	Page 106 of 113

8 CONCLUSION

The data collected relate only the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSMF966JPN** is in compliance with FCC Part Subpart E (15.407) of the FCC rules for operation as a Very Low Power Device.

FCC ID: A3LSMF966JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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9 APPENDIX A – DATA REFERENCING SPOT-CHECKS

Overview

The spot-check data presented in this section was measured on the variant model following the guidance of the FCC's Data Referencing guidance in KDB 484596 D01 v03. Each spot-check test on the EUT was performed using the same procedure and setting that were used to perform the test on the corresponding reference device. For the worst-case RSE data, the measurement is determined by an actual emission and not by noise floor.

All test cases were performed to verify the variant EUT is still in compliance with the spot-checked results to the reference device and was performed using the guidance of ANSI C63.10-2013.

Notes

1. Each spot check test on the EUT was performed using the same procedure and setting that were used to perform the test on the corresponding reference device.

Conducted Spot-Checks – SC-56F

40MHz BW	Band	Freq [MHz]	Channel	Tones	Average Conducted Power (dBm)		
					RU Index		
					65		
					ANT1	ANT2	MIMO
	5	6165	43	484T	8.76	8.70	11.74
	7	6685	147	484T	8.01	8.49	11.27

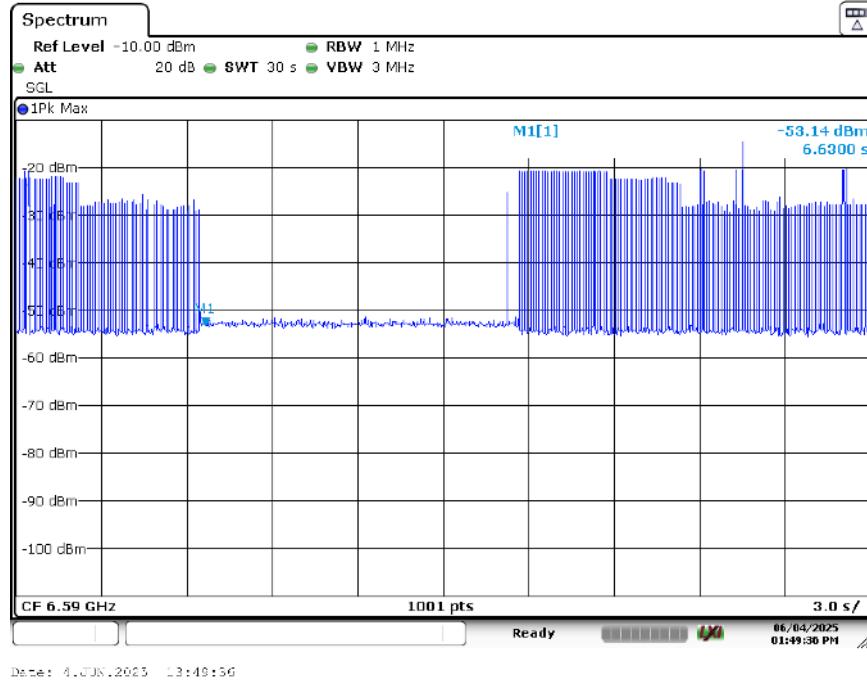
Table 9-1. Conducted Output Power Measurements (Spot-check)

FCC ID: A3LSMF966JPN	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2504070040-12.A3L	Test Dates: 02/24/2025 – 05/05/2025	EUT Type: Portable Handset	Page 108 of 113

Contention Based Protocol Detection Spot-check SC-56F

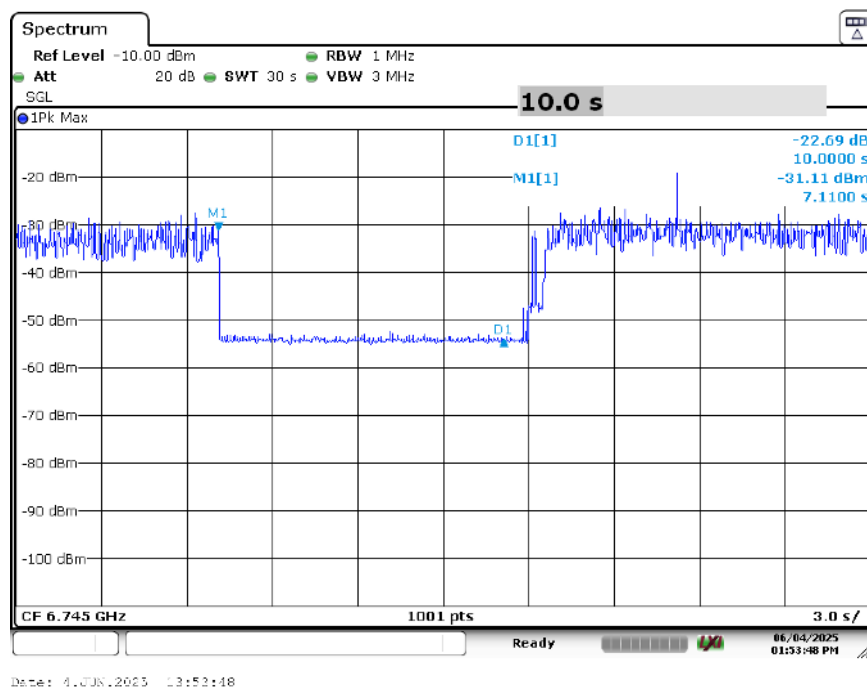
Band	Channel	Channel Freq [MHz]	Channel BW [MHz]	Incumbent Freq [MHz]	Injected (AWGN) [dBm]	Antenna Gain [dBi]	Adjusted Power Level [dBm]	Detection Limit [dBm]	Margin [dB]
UNII Band 7	159	6745	320	6590	-73.44	-11.08	-62.36	-62.0	-0.36
				6745	-74.56	-11.08	-63.48	-62.0	-1.48
				6900	-73.43	-11.08	-62.35	-62.0	-0.35

Table 9-2. Contention Based Protocol – Incumbent Detection – Spot-check (SC-56F)

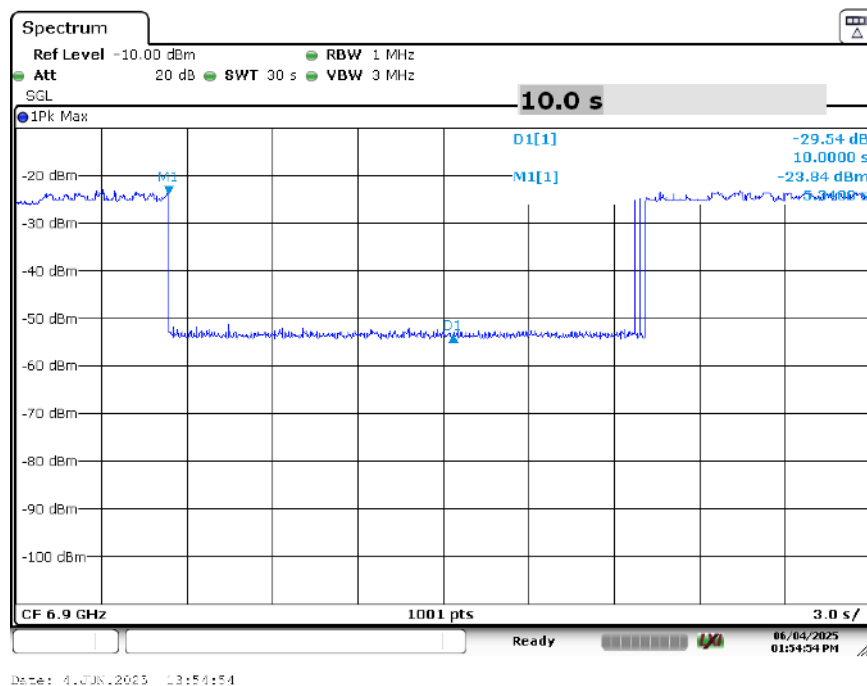


Plot 9-1. Contention Based Protocol Timing Plot (320MHz (UNII Band 5) – Ch.159 Low)

FCC ID: A3LSMF966JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 9-2. Contention Based Protocol Timing Plot (320MHz (UNII Band 5) – Ch.159 Mid)

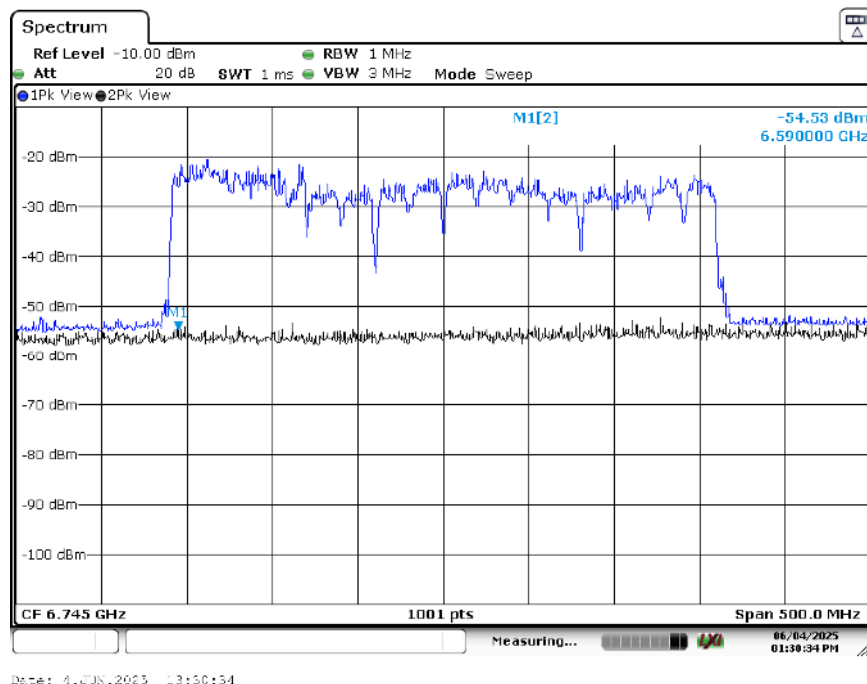


Plot 9-3. Contention Based Protocol Timing Plot (320MHz (UNII Band 5) – Ch.159 High)

FCC ID: A3LSMF966JPN	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2504070040-12.A3L	Test Dates: 02/24/2025 – 05/05/2025	EUT Type: Portable Handset	Page 110 of 113

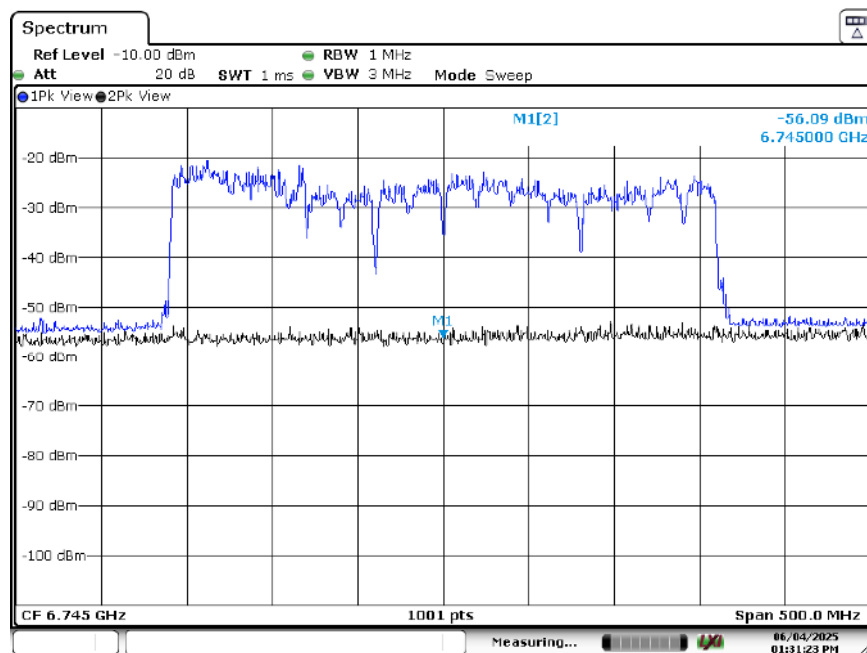
Contention Based Protocol Incumbent Avoidance Spot-Check

- When a 10 MHz AWGN signal centered at 6590 MHz (lower edge of channel) is injected, the channel completely stops transmitting.
- When a 10 MHz AWGN signal centered at 6745 MHz (middle of channel) is injected, the channel completely stops transmitting.
- When a 10 MHz AWGN signal centered at 6900 MHz (upper edge of channel) is injected, the channel completely stops transmitting.



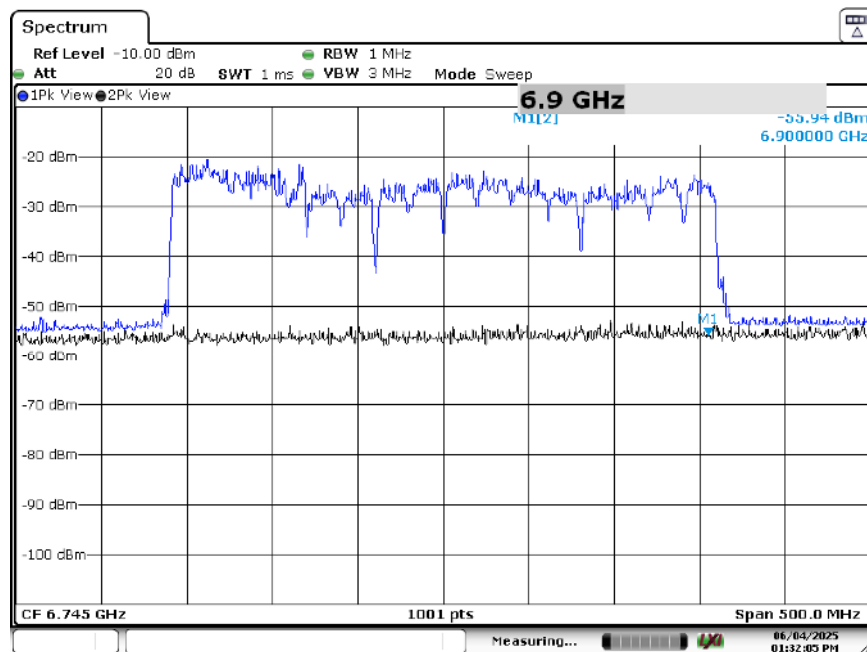
Plot 9-4. CBP 320MHz Channel - Injection Lower Edge – [6590 MHz]

FCC ID: A3LSMF966JPN	MEASUREMENT REPORT		Approved by: Technical Manager
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Date: 4 JUN 2023 13:51:23

Plot 9-5. CBP 320MHz Channel - Injection Center – 6745 MHz]



Date: 4 JUN 2023 13:52:05

Plot 9-6. CBP 320MHz Channel - Injection Upper Edge – [6900 MHz]

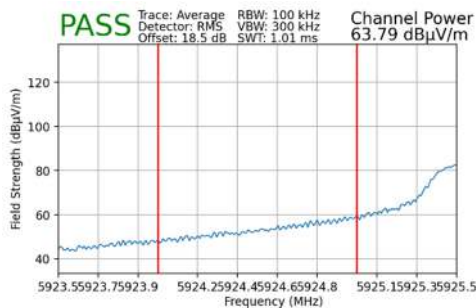
FCC ID: A3LSMF966JPN	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2504070040-12.A3L	Test Dates: 02/24/2025 – 05/05/2025	EUT Type: Portable Handset	Page 112 of 113

Radiated Spot-Checks – SC-56F

Mode	Antenna	UNII Band	Channel	Test Channel Freq. [MHz]	RU Index	Restricted	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
802.11be RU 24T	MIMO	5	2	5935	4	*	17805.00	Average	H	-	-	-86.71	30.16	0.00	50.45	53.98	-3.53

Table 9-3. RSE Measurements (Spot-check)

Worst Case Mode:	802.11be
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5935MHz
Channel:	2
RU:	61



Plot 9-7. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5)

Results

FCC Rules	Test Item	Test Case	Units	Limit	Reference Model: SM-S966U	Variant Model: SC-56F	Deviation (dB)	Max Deviation (dB)	Pass/Fail
2.1046, 15.407(a)(8)	Conducted Output Power	Mid Channel Each UNII Band - 802.11be 40MHz 484T - VLP	dBm	-	11.24	11.74	0.50	1	PASS
15.407(d)(6)	Contention Based Protocol	Ch.95 - 320MHz	dBm	-62	-63.32	-62.38	0.94	2	PASS
15.209	Radiated Spurious Emissions	802.11be 26T MIMO Ch.2 - Average - 17805 MHz	dBμV/m	53.98	50.00	50.45	0.45	3	PASS
15.209	Radiated Band Edge Emissions	802.11be MIMO Ch.2 242T - Average	dBμV/m	68.2	65.96	63.79	-2.17	3	PASS

Table 9-4. Summary of Spot-checks

Conclusion

The spot-check data presented in this section was measured on the variant model following the guidance of the FCC's Data Referencing guidance in KDB 484596 D01 v03 demonstrates that the use of referenced data from A3LSMF966U for the certification of A3LSMF966JPN is acceptable.

FCC ID: A3LSMF966JPN	MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1M2504070040-12.A3L	Test Dates: 02/24/2025 – 05/05/2025	EUT Type: Portable Handset		Page 113 of 113