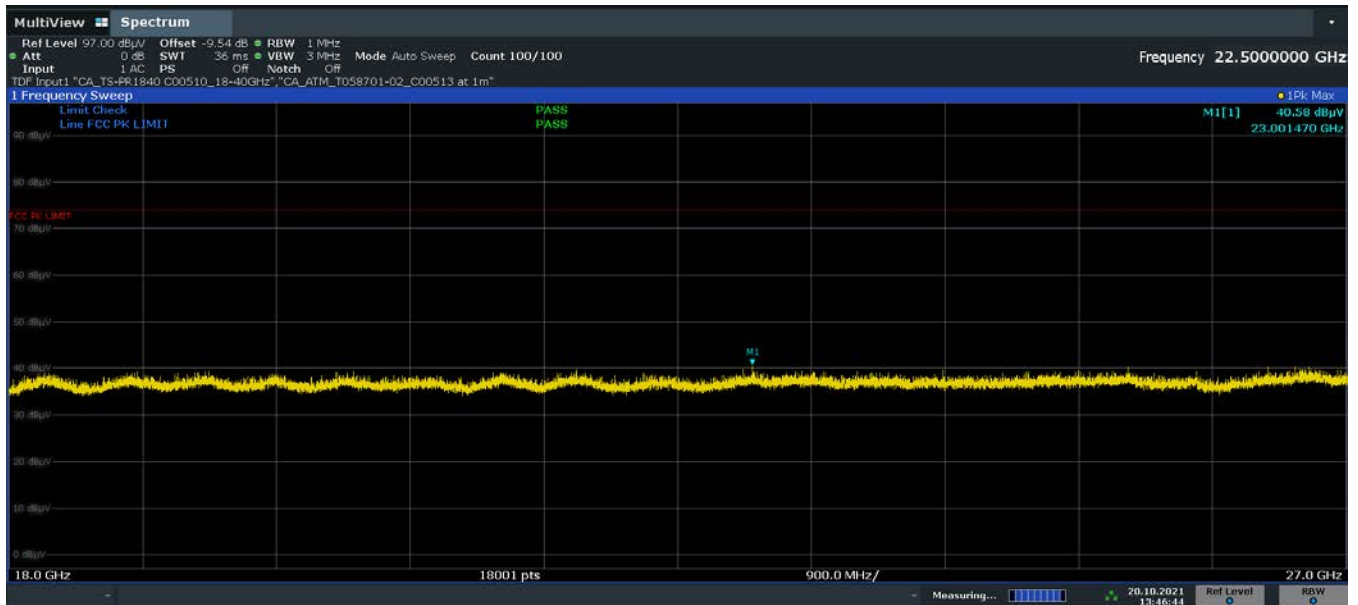


13:52:16 20.10.2021

Plot 7-166. Radiated Spurious Emissions above 18GHz (Bluetooth, 1Mbps- Ch. 78) Dual – Pol. H



13:46:45 20.10.2021

Plot 7-167. Radiated Spurious Emissions above 18GHz (Bluetooth, 1Mbps- Ch. 78) Dual – Pol. V

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset	Page 109 of 131	

Worst Case Mode: Bluetooth
 Worst Case Data Rate: 1 Mbps
 Measurement Distance: 3 Meters
 Operating Frequency: 2402MHz
 Channel: 0

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Duty Cycle Correction [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4804.00	H	233	278	-78.71	6.55	-22.50	12.34	53.98	-41.64
4804.00	H	233	278	-68.75	6.55	0.00	44.80	73.98	-29.18
12010.00	H	-	-	-82.35	16.03	0.00	40.68	53.98	-13.30
12010.00	H	-	-	-71.63	16.03	0.00	51.40	73.98	-22.58

Table 7-11. Radiated Emission Measurements Antenna 1

Worst Case Mode: Bluetooth
 Worst Case Data Rate: 1 Mbps
 Measurement Distance: 3 Meters
 Operating Frequency: 2441MHz
 Channel: 39

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Duty Cycle Correction [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4882.00	H	244	266	-79.67	6.87	-22.50	11.70	53.98	-42.28
4882.00	H	244	266	-68.68	6.87	0.00	45.19	73.98	-28.79
7323.00	H	-	-	-81.82	9.92	0.00	35.10	53.98	-18.88
7323.00	H	-	-	-72.49	9.92	0.00	44.43	73.98	-29.55
12205.00	H	-	-	-82.66	16.32	0.00	40.66	53.98	-13.32
12205.00	H	-	-	-71.42	16.32	0.00	51.90	73.98	-22.08

Table 7-12. Radiated Emission Measurements Antenna 1

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset	Page 110 of 131	

Worst Case Mode: Bluetooth
 Worst Case Data Rate: 1 Mbps
 Measurement Distance: 3 Meters
 Operating Frequency: 2480MHz
 Channel: 78

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Duty Cycle Correction [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4960.00	H	239	269	-80.10	6.96	-22.50	11.36	53.98	-42.62
4960.00	H	239	269	-69.72	6.96	0.00	44.24	73.98	-29.74
7440.00	H	-	-	-82.36	10.39	0.00	35.03	53.98	-18.95
7440.00	H	-	-	-71.85	10.39	0.00	45.54	73.98	-28.44
12400.00	H	-	-	-83.58	16.20	0.00	39.62	53.98	-14.36
12400.00	H	-	-	-72.56	16.20	0.00	50.64	73.98	-23.34

Table 7-13. Radiated Emission Measurements Antenna 1

Worst Case Mode: Bluetooth
 Worst Case Data Rate: 1 Mbps
 Measurement Distance: 3 Meters
 Operating Frequency: 2402MHz
 Channel: 0

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4804.00	Avg	H	-	-	-81.26	7.71	33.45	53.98	-20.53
4804.00	Peak	H	-	-	-69.81	7.71	44.90	73.98	-29.08
12010.00	Avg	H	-	-	-83.69	17.55	40.86	53.98	-13.12
12010.00	Peak	H	-	-	-72.47	17.55	52.08	73.98	-21.90

Table 7-14. Radiated Emission Measurements Antenna 1 with WCP

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset	Page 111 of 131	

Worst Case Mode: Bluetooth
 Worst Case Data Rate: 1 Mbps
 Measurement Distance: 3 Meters
 Operating Frequency: 2402MHz
 Channel: 0

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4804.00	Avg	H	-	-	-76.84	6.55	36.71	53.98	-17.27
4804.00	Peak	H	-	-	-65.95	6.55	47.60	73.98	-26.38
12010.00	Avg	H	-	-	-82.41	16.03	40.62	53.98	-13.36
12010.00	Peak	H	-	-	-71.89	16.03	51.14	73.98	-22.84

Table 7-15. Radiated Emission Measurements Antenna 2

Worst Case Mode: Bluetooth
 Worst Case Data Rate: 1 Mbps
 Measurement Distance: 3 Meters
 Operating Frequency: 2441MHz
 Channel: 39

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Duty Cycle Correction [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4882.00	Avg	H	192	357	-79.60	6.87	-22.50	11.77	53.98	-42.21
4882.00	Peak	H	192	357	-68.52	6.87	0.00	45.35	73.98	-28.63
7323.00	Avg	H	-	-	-81.83	9.92	0.00	35.09	53.98	-18.89
7323.00	Peak	H	-	-	-70.76	9.92	0.00	46.16	73.98	-27.82
12205.00	Avg	H	-	-	-82.70	16.32	0.00	40.62	53.98	-13.36
12205.00	Peak	H	-	-	-71.81	16.32	0.00	51.51	73.98	-22.47

Table 7-16. Radiated Emission Measurements Antenna 2

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset	Page 112 of 131	

Worst Case Mode:	<u>Bluetooth</u>
Worst Case Data Rate:	<u>1 Mbps</u>
Measurement Distance:	<u>3 Meters</u>
Operating Frequency:	<u>2480MHz</u>
Channel:	<u>78</u>

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Duty Cycle Correction [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
4960.00	Avg	H	184	3	-78.31	6.96	-22.50	13.15	53.98	-40.83
4960.00	Peak	H	184	3	-69.30	6.96	0.00	44.66	73.98	-29.32
7440.00	Avg	H	-	-	-82.45	10.39	0.00	34.94	53.98	-19.04
7440.00	Peak	H	-	-	-71.27	10.39	0.00	46.12	73.98	-27.86
12400.00	Avg	H	-	-	-83.11	16.20	0.00	40.09	53.98	-13.89
12400.00	Peak	H	-	-	-72.23	16.20	0.00	50.97	73.98	-23.01

Table 7-17. Radiated Emission Measurements Antenna 2

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset	Page 113 of 131	

Worst Case Mode: Bluetooth
 Worst Case Data Rate: 1 Mbps
 Measurement Distance: 3 Meters
 Operating Frequency: 2402MHz
 Channel: 0

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
4804.00	Avg	V	-	-	-82.10	7.71	32.61	53.98	-21.37
4804.00	Peak	V	-	-	-70.81	7.71	43.90	73.98	-30.08
12010.00	Avg	V	-	-	-85.05	17.55	39.50	53.98	-14.48
12010.00	Peak	V	-	-	-73.82	17.55	50.73	73.98	-23.25

Table 7-18. Radiated Emission Measurements Dual

Worst Case Mode: Bluetooth
 Worst Case Data Rate: 1 Mbps
 Measurement Distance: 3 Meters
 Operating Frequency: 2441MHz
 Channel: 39

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
4882.00	Avg	V	-	-	-82.01	8.03	33.02	53.98	-20.96
4882.00	Peak	V	-	-	-70.63	8.03	44.40	73.98	-29.58
7323.00	Avg	V	-	-	-83.79	11.43	34.64	53.98	-19.34
7323.00	Peak	V	-	-	-72.77	11.43	45.66	73.98	-28.32
12205.00	Avg	V	-	-	-84.10	17.79	40.69	53.98	-13.29
12205.00	Peak	V	-	-	-72.68	17.79	52.11	73.98	-21.87

Table 7-19. Radiated Emission Measurements Dual

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset	Page 114 of 131	

Worst Case Mode: Bluetooth
Worst Case Data Rate: 1 Mbps
Measurement Distance: 3 Meters
Operating Frequency: 2480MHz
Channel: 78

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
4960.00	Avg	V	-	-	-81.81	7.89	33.08	53.98	-20.90
4960.00	Peak	V	-	-	-70.45	7.89	44.44	73.98	-29.54
7440.00	Avg	V	-	-	-84.45	12.38	34.93	53.98	-19.05
7440.00	Peak	V	-	-	-72.86	12.38	46.52	73.98	-27.46
12400.00	Avg	V	-	-	-84.80	18.27	40.47	53.98	-13.51
12400.00	Peak	V	-	-	-73.93	18.27	51.34	73.98	-22.64

Table 7-20. Radiated Emission Measurements Dual

Worst Case Mode: Bluetooth
Worst Case Data Rate: 1 Mbps
Measurement Distance: 3 Meters
Operating Frequency: 2480MHz
Channel: 78

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
4960.00	Avg	V	-	-	-81.32	7.89	33.57	53.98	-20.41
4960.00	Peak	V	-	-	-70.24	7.89	44.65	73.98	-29.33
7440.00	Avg	V	-	-	-83.62	12.38	35.76	53.98	-18.22
7440.00	Peak	V	-	-	-72.44	12.38	46.94	73.98	-27.04
12400.00	Avg	V	-	-	-84.06	18.27	41.21	53.98	-12.77
12400.00	Peak	V	-	-	-72.47	18.27	52.80	73.98	-21.18

Table 7-21. Radiated Emission Measurements Dual with WCP

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset	Page 115 of 131	

7.10 Radiated Restricted Band Edge Measurements

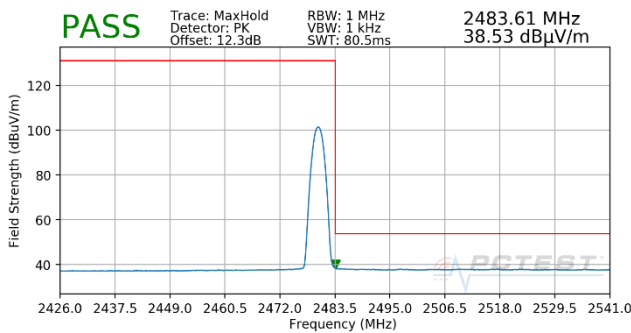
§15.205 §15.209 §15.247 (d); RSS-Gen [8.9]

The radiated restricted band edge measurements are measured with an EMI test receiver connected to the receive antenna while the EUT is transmitting. Two different amplitude offsets were used depending on whether peak or average measurements were measured. The average measurements use a duty cycle correction factor (DCCF).

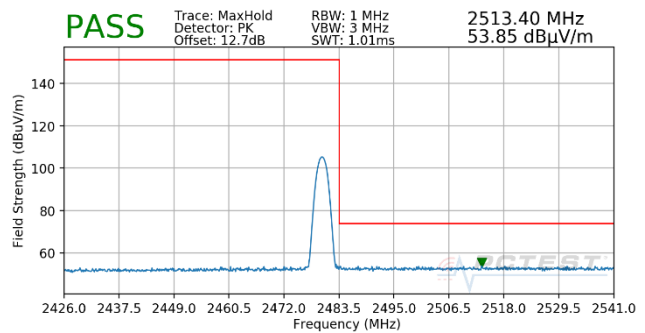
The amplitude offset shown in the following plots for average measurements was calculated using the formula:

$$\text{Offset (dB)} = (\text{Antenna Factor} + \text{Cable Loss} + \text{Attenuator}) - \text{Preamplifier Gain} + \text{DCCF}$$

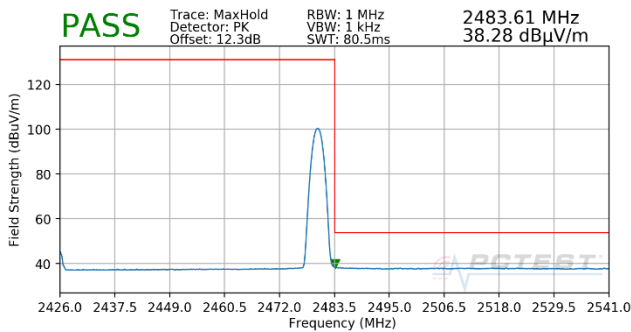
Worst Case Mode:	Bluetooth
Worst Case Data Rate:	3 Mbps
Measurement Distance:	3 Meters
Operating Frequency:	2480MHz
Channel:	78



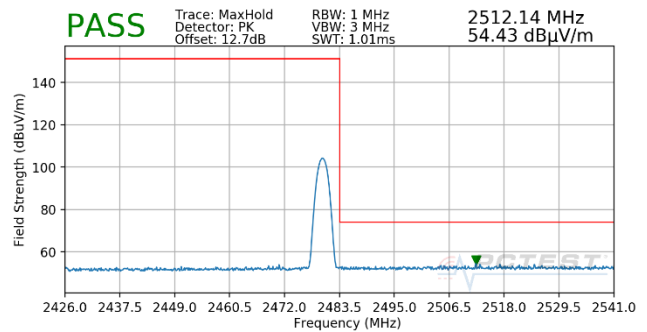
Plot 7-168. Radiated Restricted Upper Band Edge Measurement (Average) – Antenna 1



Plot 7-169. Radiated Restricted Upper Band Edge Measurement (Peak) – Antenna 1



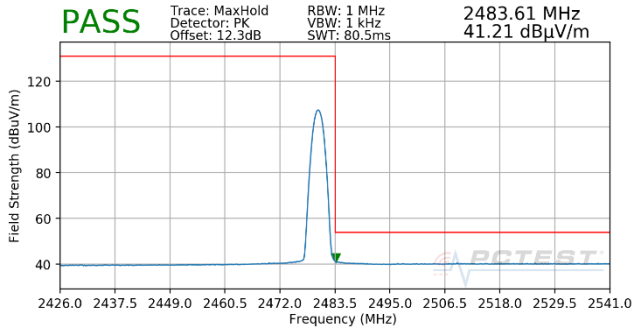
Plot 7-170. Radiated Restricted Upper Band Edge Measurement with WCP (Average) – Antenna 1



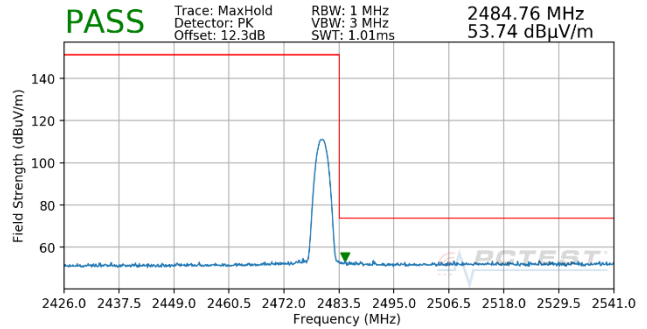
Plot 7-171. Radiated Restricted Upper Band Edge Measurement with WCP (Peak) – Antenna 1

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset		Page 116 of 131

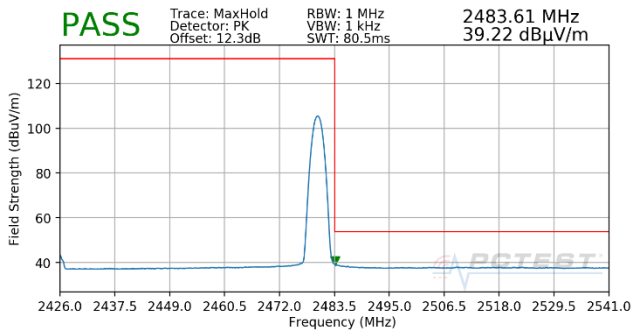
Worst Case Mode:	Bluetooth
Worst Case Data Rate:	2 Mbps
Measurement Distance:	3 Meters
Operating Frequency:	2480MHz
Channel:	78



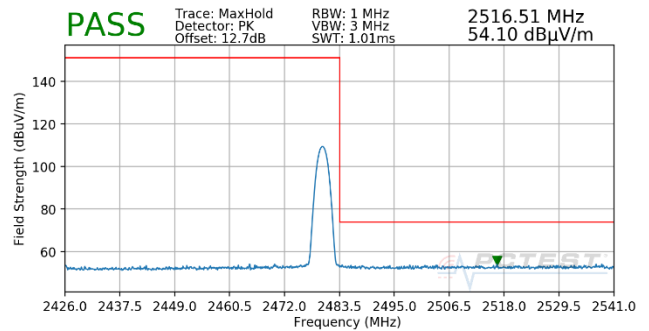
Plot 7-172. Radiated Restricted Upper Band Edge Measurement (Average) – Antenna 2



Plot 7-173. Radiated Restricted Upper Band Edge Measurement (Peak) – Antenna 2



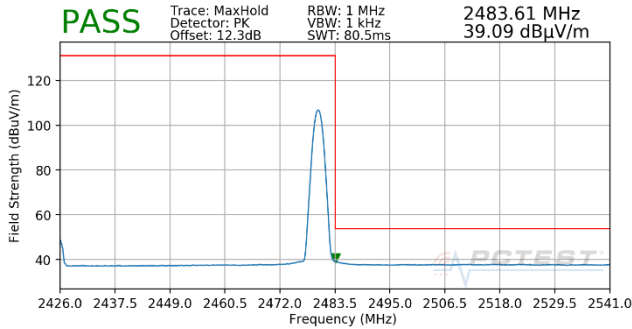
Plot 7-174. Radiated Restricted Upper Band Edge Measurement with WCP (Average) – Antenna 2



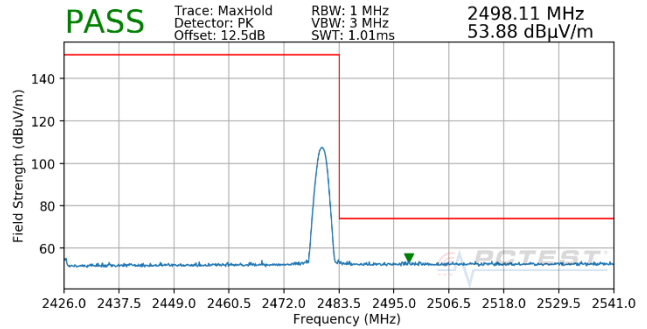
Plot 7-175. Radiated Restricted Upper Band Edge Measurement with WCP (Peak) – Antenna 2

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset		Page 117 of 131

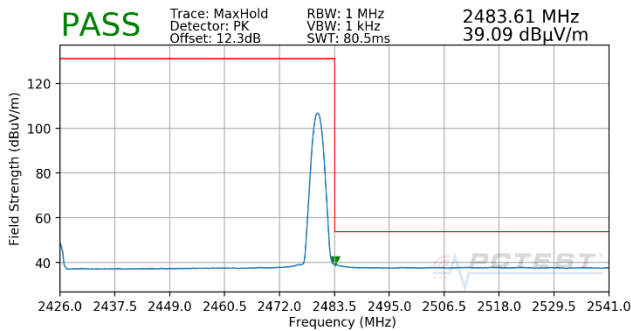
Worst Case Mode:	Bluetooth
Worst Case Data Rate:	1 Mbps
Measurement Distance:	3 Meters
Operating Frequency:	2480MHz
Channel:	78



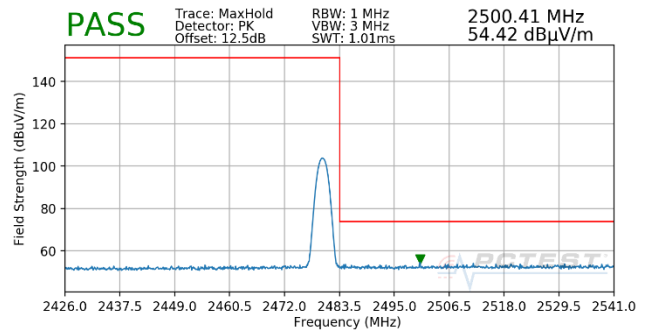
Plot 7-176. Radiated Restricted Upper Band Edge Measurement (Average) – Dual



Plot 7-177. Radiated Restricted Upper Band Edge Measurement (Peak) – Dual



Plot 7-178. Radiated Restricted Upper Band Edge Measurement with WCP (Average) – Dual



Plot 7-179. Radiated Restricted Upper Band Edge Measurement with WCP (Peak) – Dual

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset		Page 118 of 131

7.11 Radiated Spurious Emissions Measurements – Below 1GHz

§15.209; RSS-Gen [8.9]

Test Overview and Limit

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for radiated spurious emissions. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR and Table 7 of RSS-Gen (8.10) must not exceed the limits shown in Table 7-22 per Section 15.209 and RSS-Gen (8.9).

Frequency	Field Strength [μ V/m]	Measured Distance [Meters]
0.009 – 0.490 MHz	2400/F (kHz)	300
0.490 – 1.705 MHz	24000/F (kHz)	30
1.705 – 30.00 MHz	30	30
30.00 – 88.00 MHz	100	3
88.00 – 216.0 MHz	150	3
216.0 – 960.0 MHz	200	3
Above 960.0 MHz	500	3

Table 7-22. Radiated Limits

Test Procedures Used

ANSI C63.10-2013

Test Settings

Quasi-Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 120kHz (for emissions from 30MHz – 1GHz)
3. Detector = quasi-peak
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 120kHz (for emissions from 30MHz – 1GHz)
3. VBW = 300kHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset	Page 119 of 131	

Test Setup

The EUT and measurement equipment were set up as shown in the diagrams below.

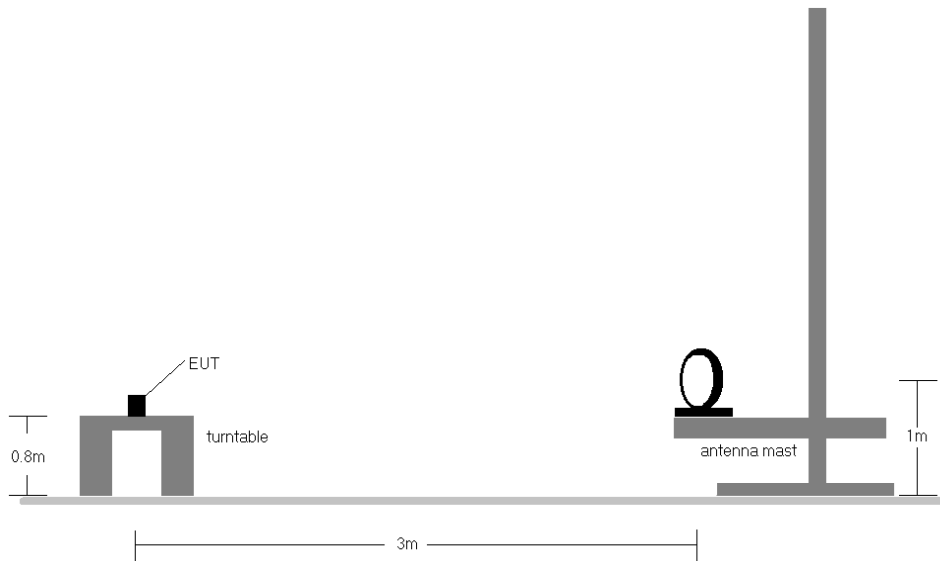


Figure 7-9. Radiated Test Setup < 30MHz

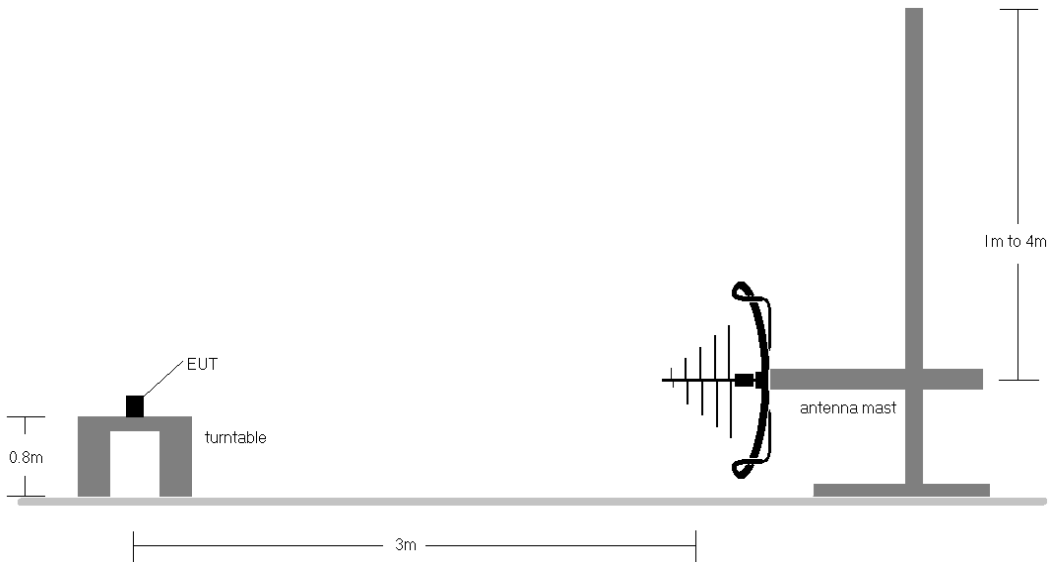


Figure 7-10. Radiated Test Setup < 1GHz

<p>FCC ID: A3LSMS908E</p>		<p>MEASUREMENT REPORT (CERTIFICATION)</p>		<p>Approved by: Technical Manager</p>
<p>Test Report S/N: 1M2109220110-14-R1.A3L</p>	<p>Test Dates: 10/8/2021 - 10/20/2021</p>	<p>EUT Type: Portable Handset</p>	<p>Page 120 of 131</p>	

Test Notes

1. All emissions lying in restricted bands specified in §15.205 and RSS-Gen (8.10) are below the limit shown in Table 7-10.
2. The broadband receive antenna is manipulated through vertical and horizontal polarizations during the tests. The EUT is manipulated through three orthogonal planes. For below 30MHz the loop antenna was positioned in 3 orthogonal planes (X front, Y side, Z top) to determine the orientation resulting in the worst case emissions.
3. This unit was tested with its standard battery.
4. The spectrum is investigated using a peak detector and final measurements are recorded using CISPR quasi peak detector on emissions that were within 6dB of the limit.
5. Emissions were measured at a 3 meter test distance.
6. Emissions are investigated while operating on the center channel of the mode, band, and modulation that produced the worst case results during the transmitter spurious emissions testing.
7. No spurious emissions were detected within 20dB of the limit below 30MHz.
8. The results recorded using the broadband antenna is known to correlate with the results obtained by using a tuned dipole with an acceptable degree of accuracy. The VSWR for the measurement antenna was found to be less than 2:1.
9. All supported modulation and power schemes have been tested on the unit and only the worst-case configuration is reported.

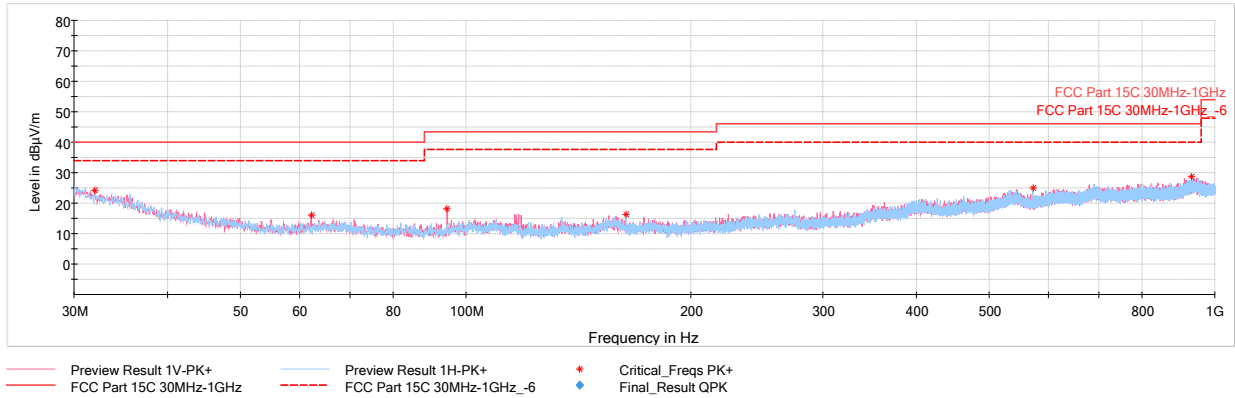
Sample Calculation

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

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset	Page 121 of 131	

Radiated Spurious Emissions Measurements (Below 1GHz)

§15.209; RSS-Gen [8.9]

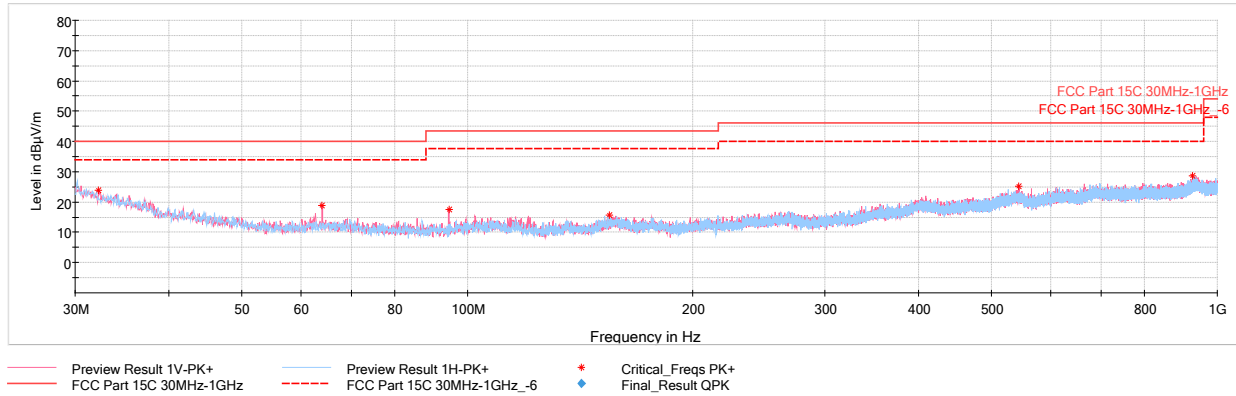


Plot 7-180. Radiated Spurious Plot Below 1GHz - Antenna 1

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
31.99	Max- Peak	V	100	236	-69.64	-13.18	24.18	40.00	-15.82
62.20	Max- Peak	V	250	268	-70.14	-20.71	16.15	40.00	-23.85
94.46	Max- Peak	V	100	91	-68.49	-20.42	18.09	43.52	-25.43
163.67	Max- Peak	H	100	13	-73.79	-16.88	16.33	43.52	-27.19
571.55	Max- Peak	H	100	21	-76.14	-5.81	25.05	46.02	-20.97
930.40	Max- Peak	H	100	277	-78.69	0.37	28.68	46.02	-17.34

Table 7-23. Radiated Spurious Emissions Below 1GHz - Antenna 1

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset		Page 122 of 131

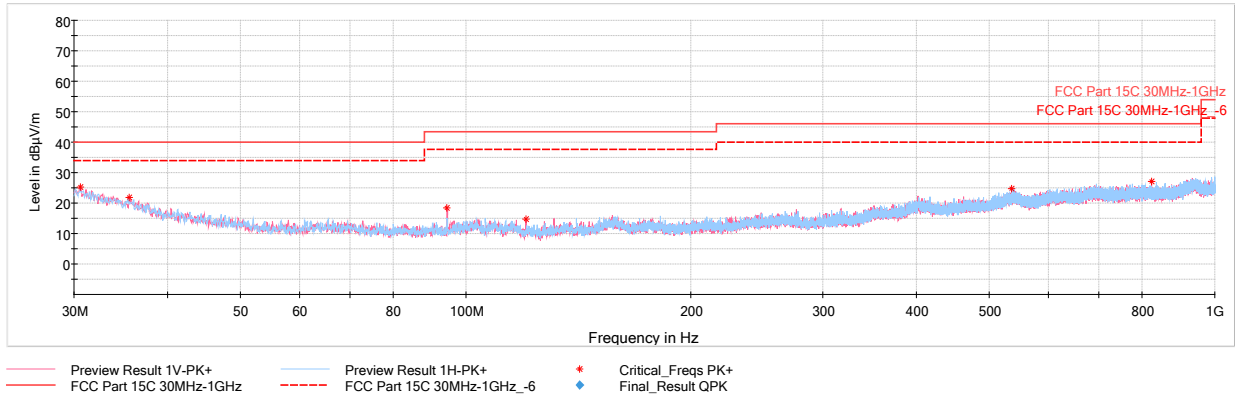


Plot 7-181. Radiated Spurious Plot Below 1GHz - Antenna 2

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
32.23	Max- Peak	V	250	125	-69.83	-13.37	23.80	40.00	-16.20
64.05	Max- Peak	V	100	45	-67.65	-20.60	18.75	40.00	-21.25
94.51	Max- Peak	V	100	237	-69.08	-20.39	17.53	43.52	-25.99
154.79	Max- Peak	H	250	125	-75.40	-16.00	15.60	43.52	-27.92
543.81	Max- Peak	V	100	75	-77.42	-4.37	25.21	46.02	-20.81
927.64	Max- Peak	H	100	180	-78.66	0.23	28.57	46.02	-17.45

Table 7-24. Radiated Spurious Emissions Below 1GHz - Antenna 2

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset	Page 123 of 131	



Plot 7-182. Radiated Spurious Plot Below 1GHz - Dual

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
30.63	Max- Peak	V	250	43	-69.60	-12.03	25.37	40.00	-14.63
35.53	Max- Peak	H	250	18	-70.62	-14.50	21.88	40.00	-18.12
94.46	Max- Peak	V	100	16	-68.24	-20.42	18.34	43.52	-25.18
120.40	Max- Peak	V	100	22	-72.74	-19.51	14.75	43.52	-28.77
535.95	Max- Peak	H	100	293	-77.72	-4.54	24.74	46.02	-21.28
822.78	Max- Peak	V	250	160	-78.13	-1.71	27.16	46.02	-18.86

Table 7-25. Radiated Spurious Emissions Below 1GHz - Dual

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset	Page 124 of 131	

7.12 AC Line Conducted Emissions Measurement

§15.207; RSS-Gen [8.8]

Test Overview and Limit

All AC line conducted spurious emissions are measured with a receiver connected to a grounded LISN while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for AC line conducted spurious emissions. Only the conducted emissions of the configuration that produced the worst case emissions are reported in this section.

All conducted emissions must not exceed the limits shown in the table below, per Section 15.207 and RSS-Gen (8.8).

Frequency of emission (MHz)	Conducted Limit (dBμV)	
	Quasi-peak	Average
0.15 – 0.5	66 to 56*	56 to 46*
0.5 – 5	56	46
5 – 30	60	50

Table 7-26. Conducted Limits

*Decreases with the logarithm of the frequency.

Test Procedures Used

ANSI C63.10-2013, Section 6.2

Test Settings

Quasi-Peak Measurements

1. Analyzer center frequency was set to the frequency of the spurious emission of interest
2. RBW = 9kHz (for emissions from 150kHz – 30MHz)
3. Detector = quasi-peak
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

Average Measurements

1. Analyzer center frequency was set to the frequency of the spurious emission of interest
2. RBW = 9kHz (for emissions from 150kHz – 30MHz)
3. Detector = RMS
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset	Page 125 of 131	

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

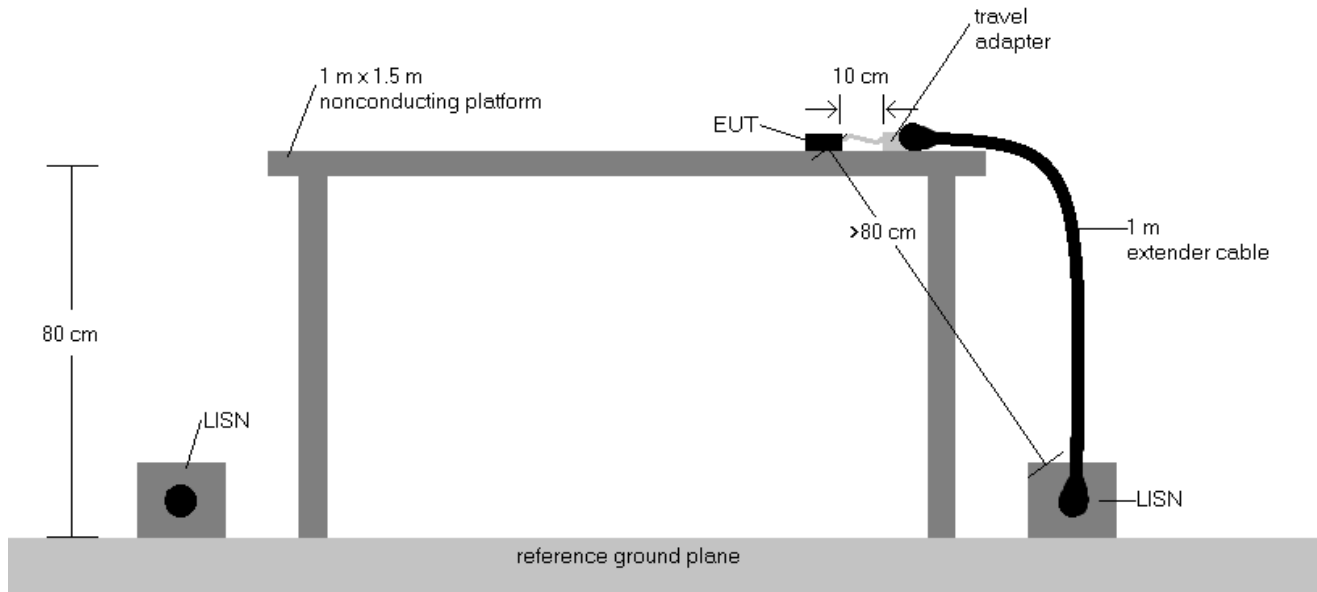
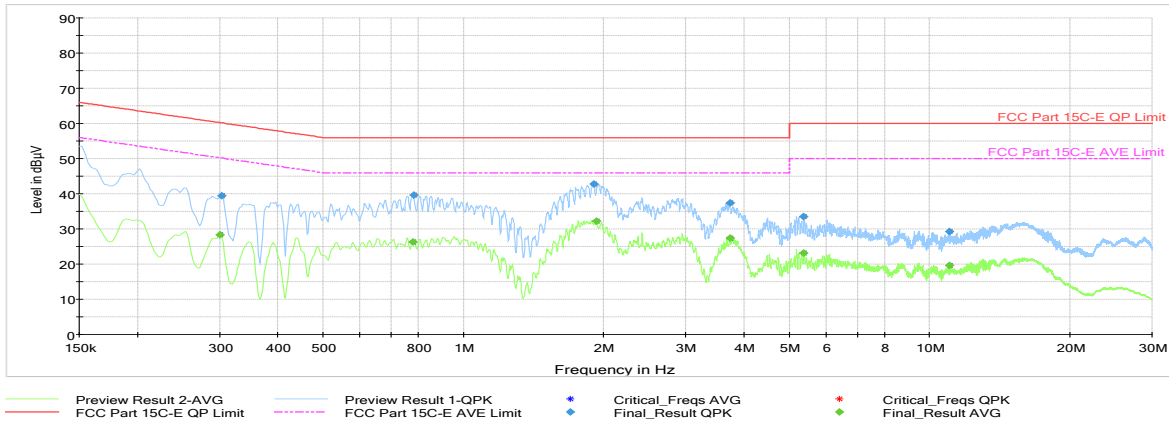


Figure 7-11. Test Instrument & Measurement Setup

Test Notes

1. All modes of operation were investigated and the worst-case emissions are reported using mid channel. The emissions found were not affected by the choice of channel used during testing.
2. The limit for an intentional radiator from 150kHz to 30MHz are specified in 15.207 and RSS-Gen (8.8).
3. $\text{Corr. (dB)} = \text{Cable loss (dB)} + \text{LISN insertion factor (dB)}$
4. $\text{QP/AV Level (dB}\mu\text{V)} = \text{QP/AV Analyzer/Receiver Level (dB}\mu\text{V)} + \text{Corr. (dB)}$
5. $\text{Margin (dB)} = \text{QP/AV Level (dB}\mu\text{V)} - \text{QP/AV Limit (dB}\mu\text{V)}$
6. Traces shown in plot are made using quasi-peak and average detectors.
7. Deviations to the Specifications: None.

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset		Page 126 of 131

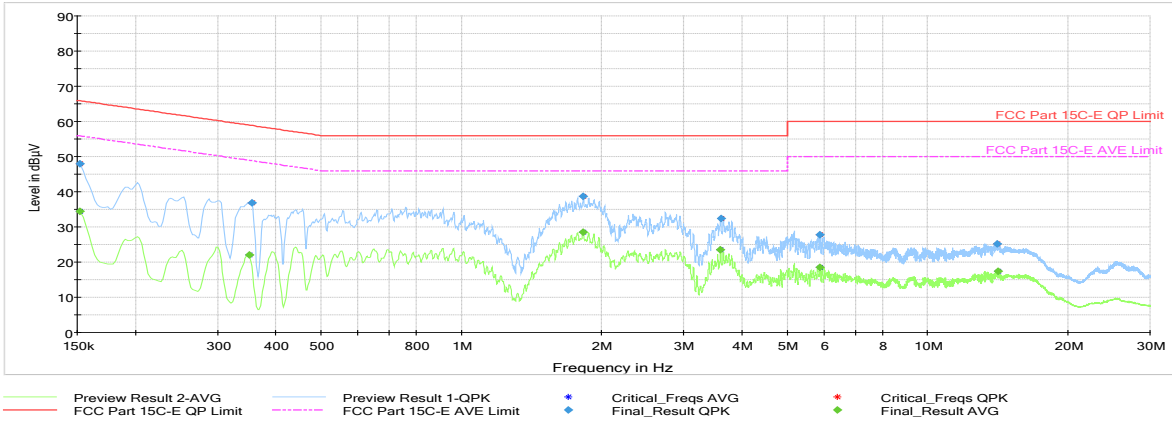


Plot 7-183. AC Line-Conducted Emissions (L1)

Frequency [MHz]	Process State	QuasiPeak [dBµV]	Average [dBµV]	Limit [dBµV]	Margin [dB]	Line	PE
0.301	FINAL	---	28.31	50.22	-21.91	L1	GND
0.303	FINAL	39.5	---	60.16	-20.63	L1	GND
0.780	FINAL	---	26.29	46.00	-19.71	L1	GND
0.782	FINAL	39.5	---	56.00	-16.46	L1	GND
1.901	FINAL	42.8	---	56.00	-13.20	L1	GND
1.928	FINAL	---	32.18	46.00	-13.82	L1	GND
3.725	FINAL	37.4	---	56.00	-18.63	L1	GND
3.728	FINAL	---	27.39	46.00	-18.61	L1	GND
5.370	FINAL	---	23.17	50.00	-26.83	L1	GND
5.370	FINAL	33.6	---	60.00	-26.44	L1	GND
11.038	FINAL	---	19.65	50.00	-30.35	L1	GND
11.045	FINAL	29.3	---	60.00	-30.69	L1	GND

Table 7-27. AC Line-Conducted Emissions Data (L1)

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset	Page 127 of 131	

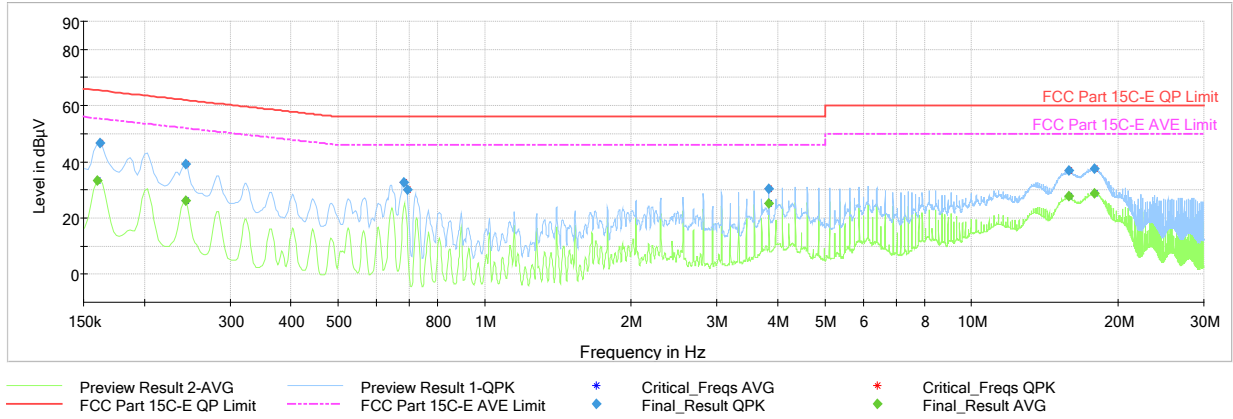


Plot 7-184. AC Line-Conducted Emissions (N)

Frequency [MHz]	Process State	QuasiPeak [dBµV]	Average [dBµV]	Limit [dBµV]	Margin [dB]	Line	PE
0.152	FINAL	48.0	---	65.88	-17.90	N	GND
0.152	FINAL	---	34.37	55.88	-21.51	N	GND
0.350	FINAL	---	22.09	48.96	-26.86	N	GND
0.355	FINAL	36.8	---	58.85	-22.08	N	GND
1.826	FINAL	---	28.56	46.00	-17.44	N	GND
1.826	FINAL	38.6	---	56.00	-17.36	N	GND
3.595	FINAL	---	23.48	46.00	-22.52	N	GND
3.604	FINAL	32.4	---	56.00	-23.56	N	GND
5.881	FINAL	---	18.48	50.00	-31.52	N	GND
5.883	FINAL	27.9	---	60.00	-32.15	N	GND
14.082	FINAL	25.2	---	60.00	-34.85	N	GND
14.138	FINAL	---	17.32	50.00	-32.68	N	GND

Table 7-28. AC Line-Conducted Emissions Data (N)

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset	Page 128 of 131	

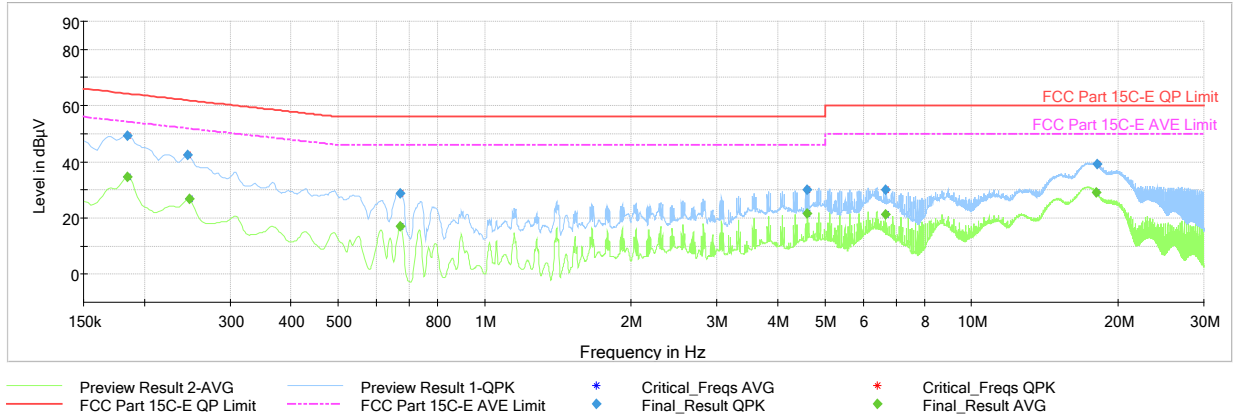


Plot 7-185. AC Line-Conducted Emissions (L1) with WCP

Frequency [MHz]	Process State	QuasiPeak [dBµV]	Average [dBµV]	Limit [dBµV]	Margin [dB]	Line	PE
0.160	FINAL	---	33.36	55.48	-22.12	L1	GND
0.162	FINAL	46.8	---	65.36	-18.58	L1	GND
0.243	FINAL	---	26.13	51.99	-25.86	L1	GND
0.243	FINAL	39.2	---	61.99	-22.82	L1	GND
0.682	FINAL	32.8	---	56.00	-23.22	L1	GND
0.693	FINAL	30.2	---	56.00	-25.83	L1	GND
3.834	FINAL	---	25.05	46.00	-20.95	L1	GND
3.834	FINAL	30.3	---	56.00	-25.67	L1	GND
15.845	FINAL	---	27.77	50.00	-22.23	L1	GND
15.845	FINAL	36.9	---	60.00	-23.12	L1	GND
17.888	FINAL	---	28.66	50.00	-21.34	L1	GND
17.890	FINAL	37.5	---	60.00	-22.54	L1	GND

Table 7-29. AC Line-Conducted Emissions Data (L1) with WCP

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset	Page 129 of 131	



Plot 7-186. AC Line-Conducted Emissions (N) with WCP

Frequency [MHz]	Process State	QuasiPeak [dBµV]	Average [dBµV]	Limit [dBµV]	Margin [dB]	Line	PE
0.185	FINAL	---	34.74	54.28	-19.54	N	GND
0.185	FINAL	49.4	---	64.28	-14.92	N	GND
0.245	FINAL	42.5	---	61.92	-19.37	N	GND
0.248	FINAL	---	26.69	51.84	-25.15	N	GND
0.671	FINAL	---	17.10	46.00	-28.90	N	GND
0.671	FINAL	28.7	---	56.00	-27.27	N	GND
4.601	FINAL	29.9	---	56.00	-26.09	N	GND
4.601	FINAL	---	21.69	46.00	-24.31	N	GND
6.644	FINAL	30.0	---	60.00	-30.00	N	GND
6.644	FINAL	---	21.23	50.00	-28.77	N	GND
18.029	FINAL	---	29.22	50.00	-20.78	N	GND
18.144	FINAL	39.3	---	60.00	-20.69	N	GND

Table 7-30. AC Line-Conducted Emissions Data (N) with WCP

FCC ID: A3LSMS908E		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset	Page 130 of 131	

8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSMS908E** is in compliance with Part 15 Subpart C (15.247) of the FCC Rules and RSS-247 of the Innovation, Science and Economic Development Canada Rules.

FCC ID: A3LSMS908E	 Proud to be part of  element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2109220110-14-R1.A3L	Test Dates: 10/8/2021 - 10/20/2021	EUT Type: Portable Handset		Page 131 of 131