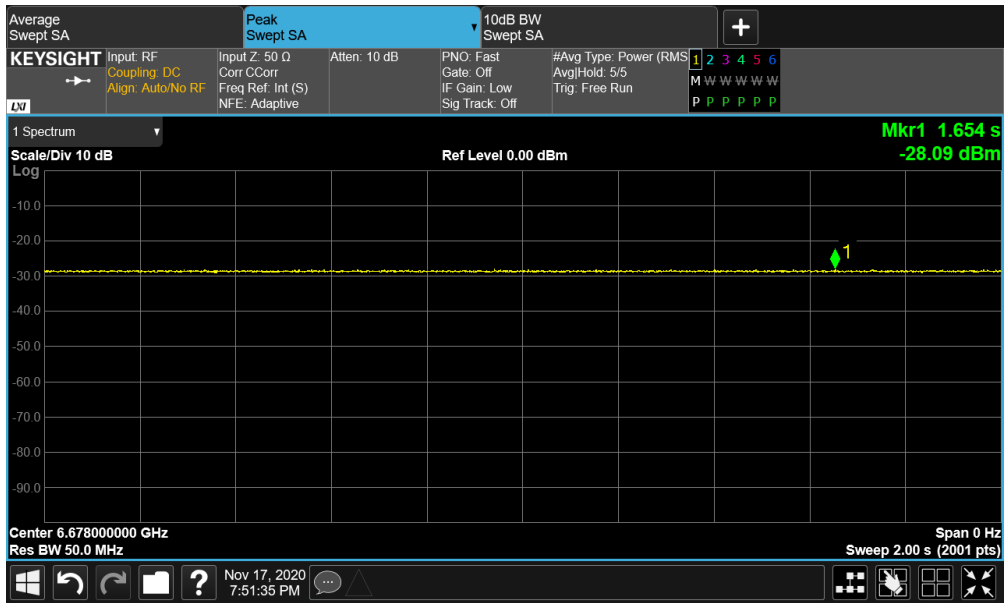
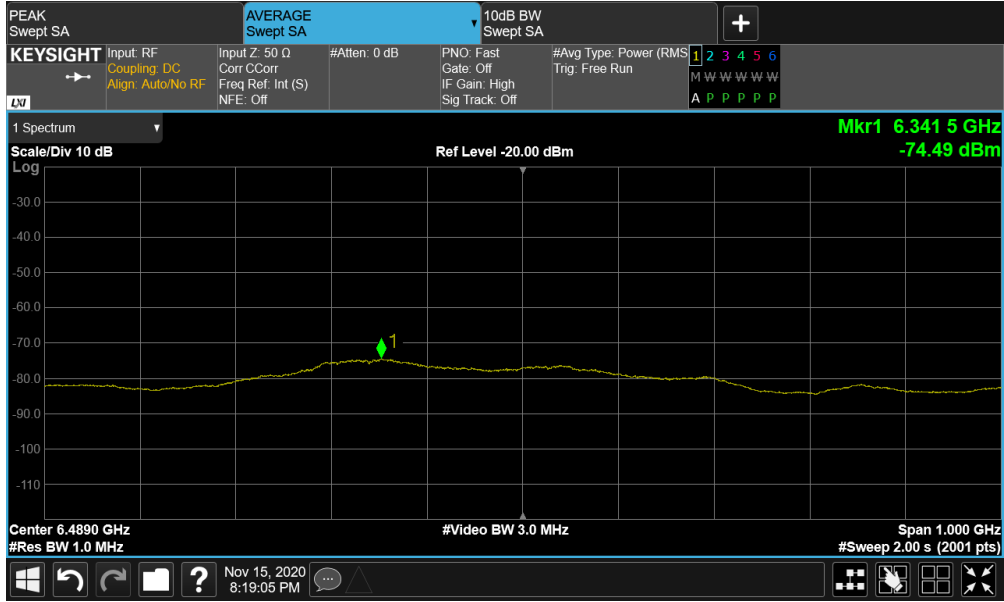


Plot 7-147. UWB Average Power Measurement - ANT 1 - CH.5 – SP3 – BPRF

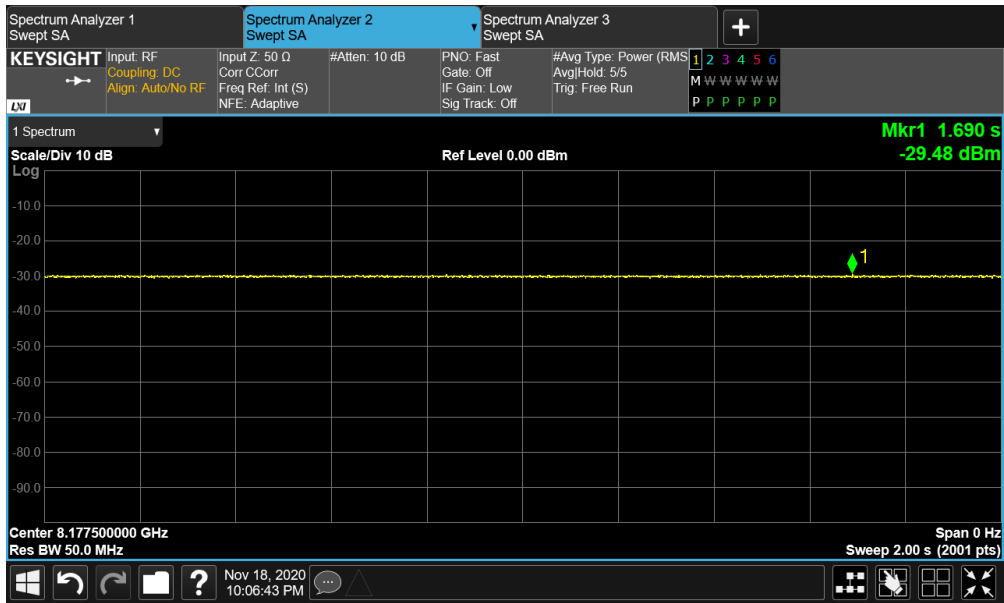


Plot 7-148. UWB Peak Power Measurement - ANT 2 - CH.5 – SP1 – BPRF

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-28.A3L	Test Dates: 9/28/2020-12/04/2020	EUT Type: Portable Handset		Page 90 of 120

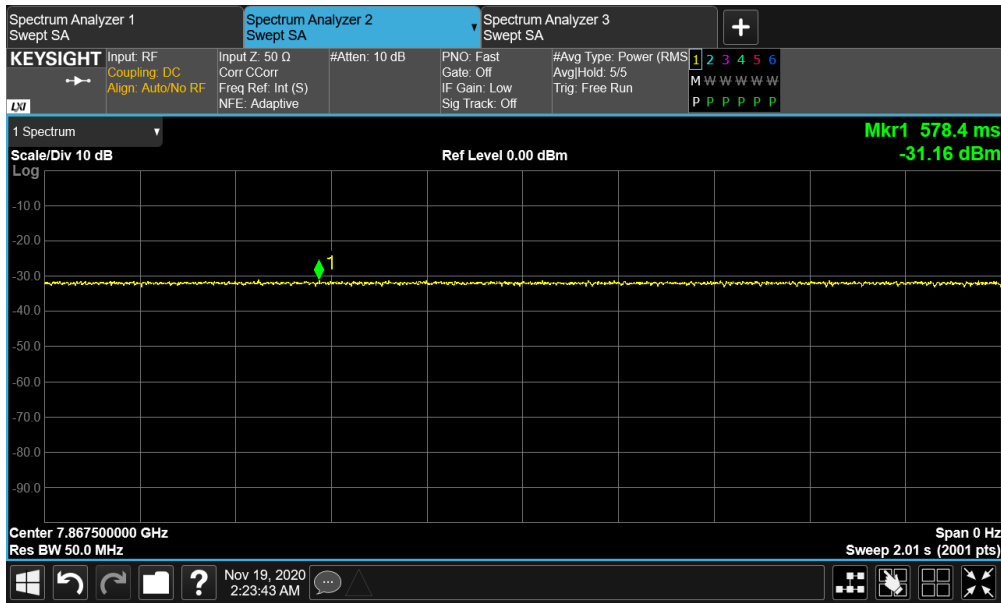
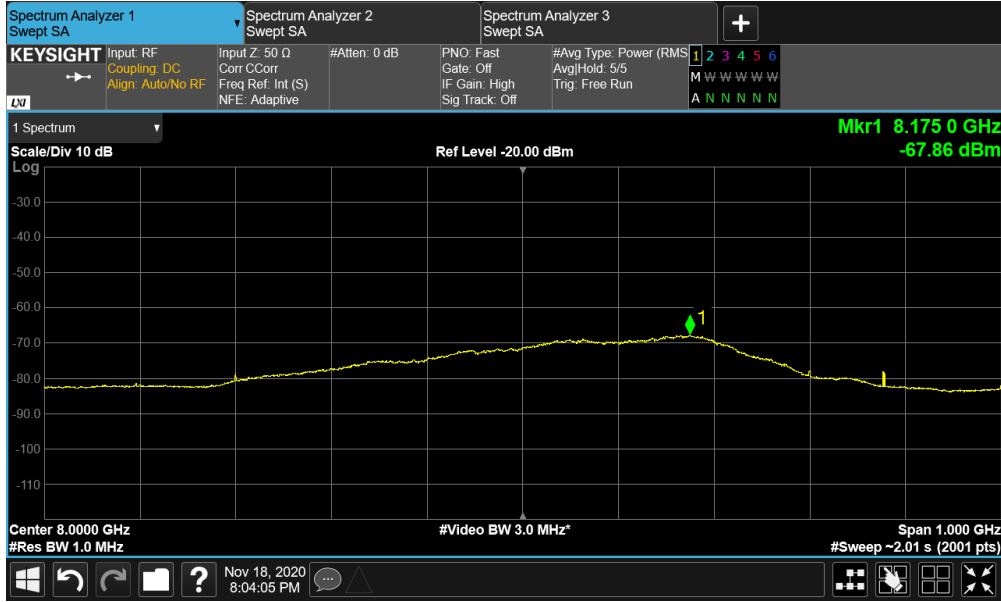


Plot 7-149. UWB Average Power Measurement - ANT 2 - CH.5 – SP3 - BPRF

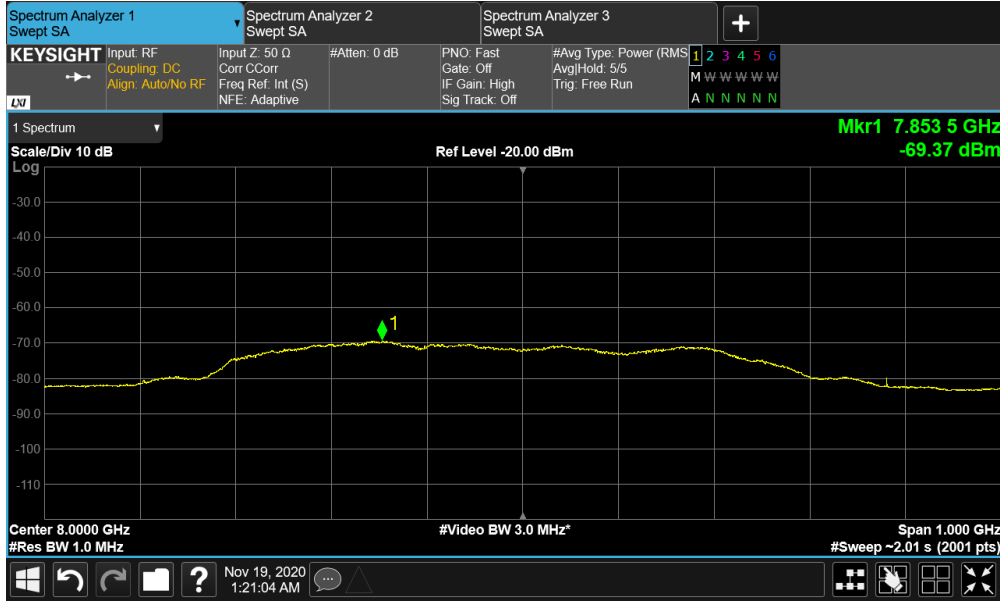


Plot 7-150. UWB Peak Power Measurement - ANT 1 - CH.9 – SP0 – BPRF

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-28.A3L	Test Dates: 9/28/2020-12/04/2020	EUT Type: Portable Handset		Page 91 of 120



FCC ID: A3LSMG998B	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-28.A3L	Test Dates: 9/28/2020-12/04/2020	EUT Type: Portable Handset		Page 92 of 120



Plot 7-153. UWB Average Power Measurement - ANT 2 - CH.9 – SP3 - BPRF

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-28.A3L	Test Dates: 9/28/2020-12/04/2020	EUT Type: Portable Handset	Page 93 of 120	

RESULTS – HPRF

ANT	CH	MODE	Preamble	Meas. Ant.	FM [GHz]	Peak Power (dBm/50MHz)	Peak Limit (dBm/50MHz)	Margin [dB]
1	5	SP1	26	H	6.365	-12.86	0	-12.86
2	5	SP1	27	H	6.647	-7.29	0	-7.29
1	9	SP1	28	V	8.175	-10.70	0	-10.70
2	9	SP0	28	H	7.863	-8.50	0	-8.50

Table 7-6. HPRF Highest Peak Power Results

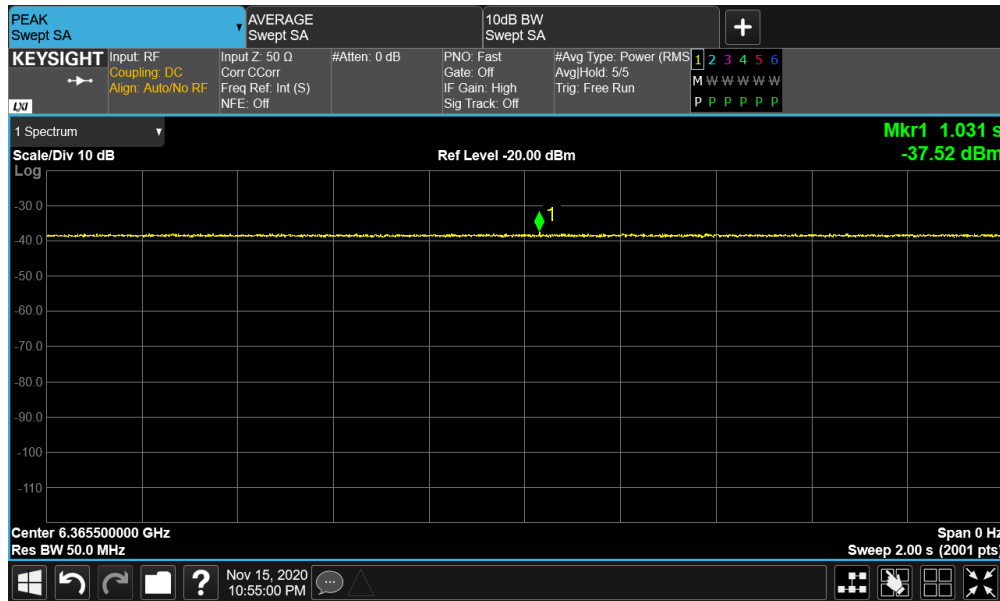
ANT	CH	MODE	Preamble	Meas. Ant.	FM [GHz]	Average Power (dBm)	Average Limit (dBm)	Margin [dB]
1	5	SP3	25	H	6.310	-47.05	-41.3	-5.75
2	5	SP3	30	H	6.664	-44.54	-41.3	-3.24
1	9	SP1	31	V	8.167	-43.70	-41.3	-2.40
2	9	SP1	31	H	7.838	-45.94	-41.3	-4.64

Table 7-7. HPRF Highest Average Power Results

Sample Calculation

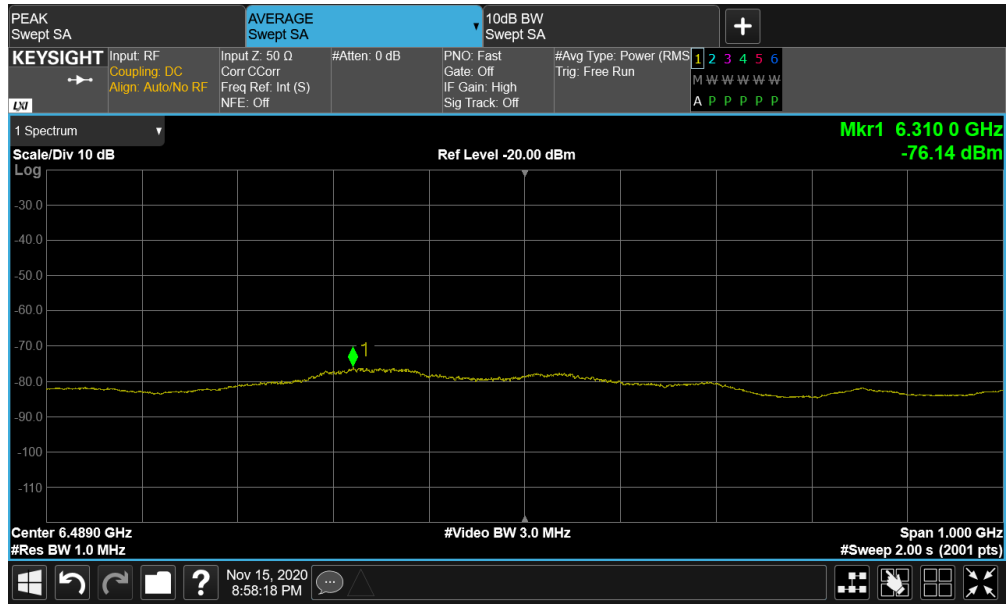
The raw radiated spurious level is converted to field strength in dBuV/m. Then, the EIRP level is calculated by applying the additional factors shown below for a test distance of 3 meter

$$RSE \text{ EIRP (dBm)} = \text{Analyzer Level (dBm)} + 107 + AFCL \text{ (dB/m)} + 20\text{Log(Dm)} - 104.8$$

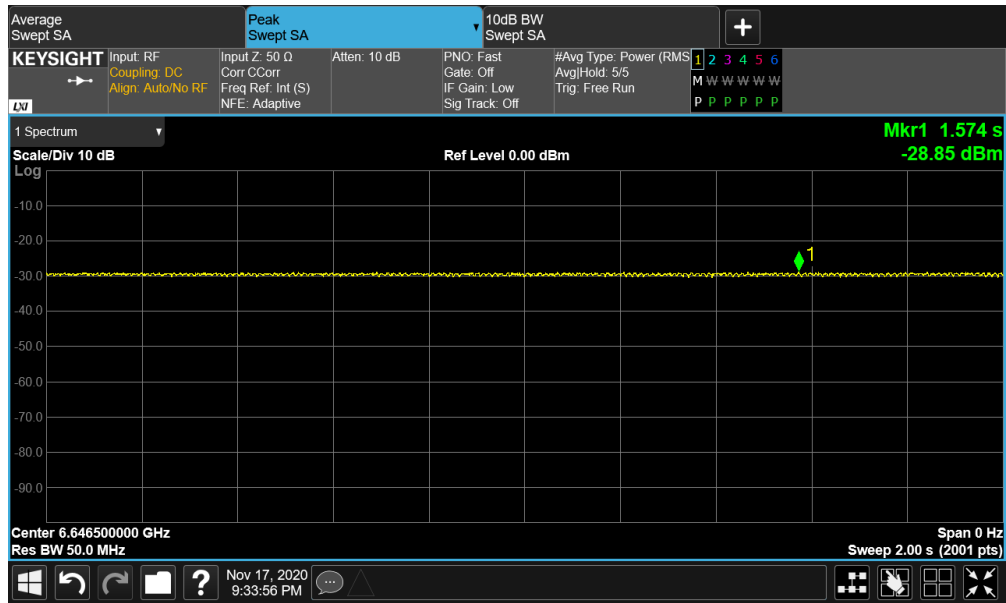


Plot 7-154. UWB Peak Power Measurement - ANT 1 - CH.5 – SP1 – HPRF

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-28.A3L	Test Dates: 9/28/2020-12/04/2020	EUT Type: Portable Handset		Page 94 of 120

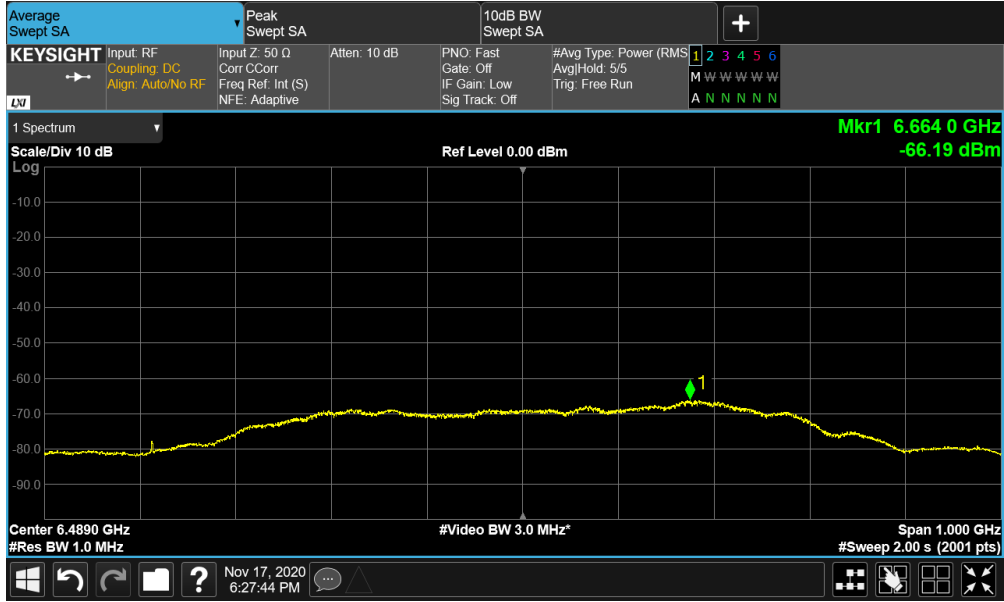


Plot 7-155. UWB Average Power Measurement - ANT 1 - CH.5 – SP3 – HPRF

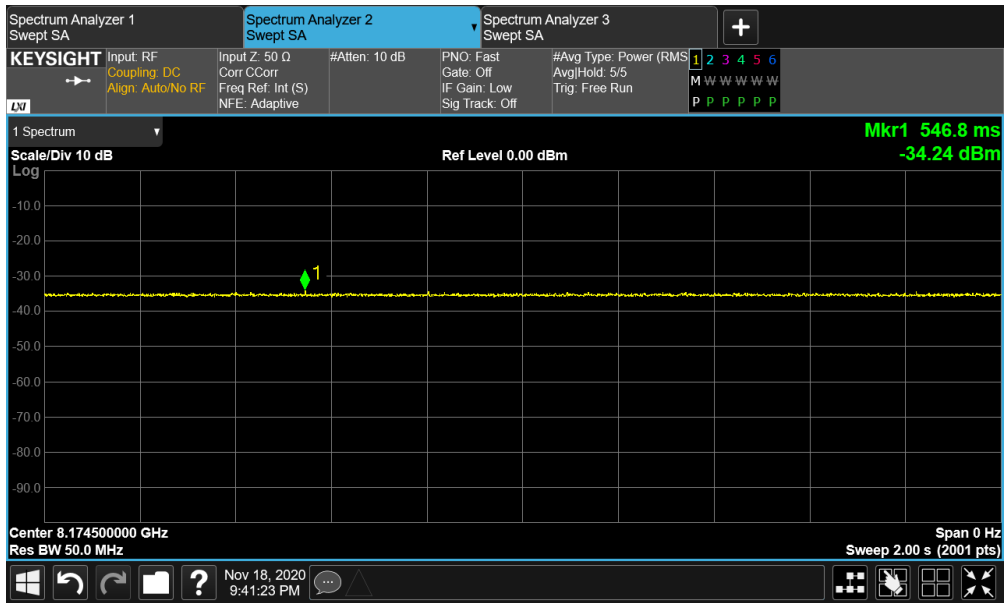


Plot 7-156. UWB Peak Power Measurement - ANT 2 - CH.5 – SP1 – HPRF

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-28.A3L	Test Dates: 9/28/2020-12/04/2020	EUT Type: Portable Handset		Page 95 of 120

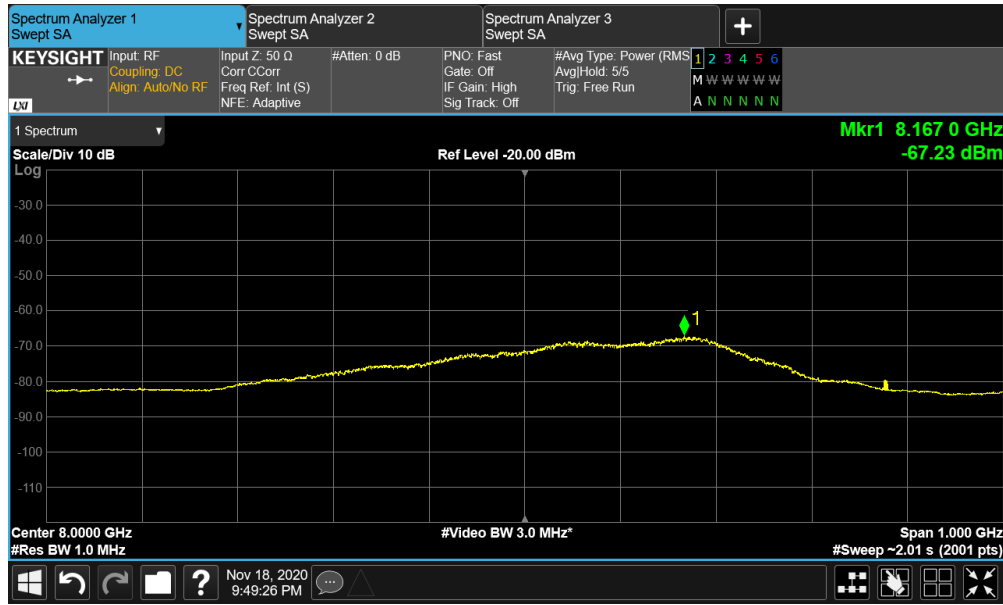


Plot 7-157. UWB Average Power Measurement - ANT 2 - CH.5 – SP3 - HPRF

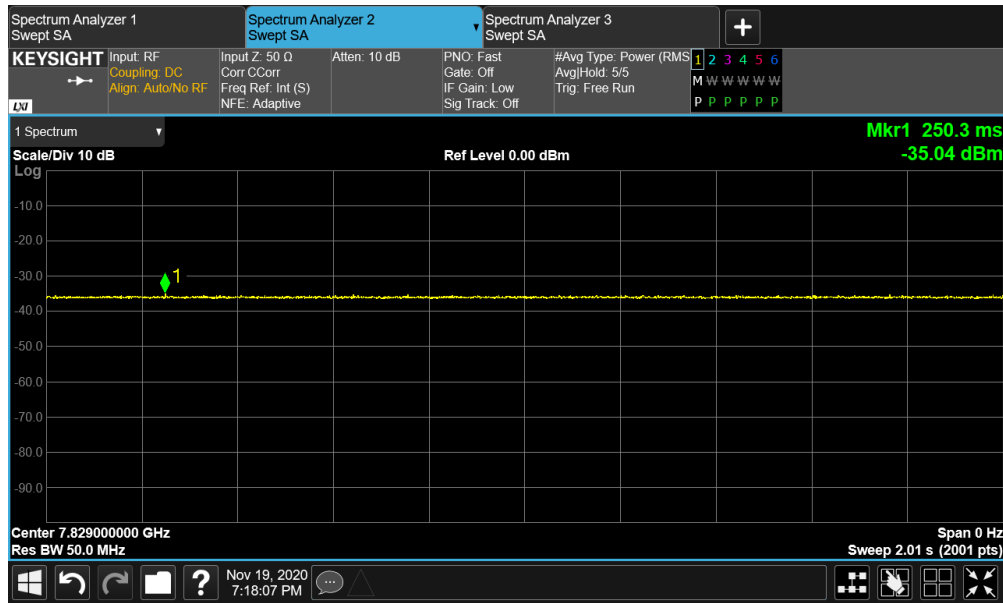


Plot 7-158. UWB Peak Power Measurement - ANT 1 - CH.9 – SP1 – HPRF

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-28.A3L	Test Dates: 9/28/2020-12/04/2020	EUT Type: Portable Handset		Page 96 of 120

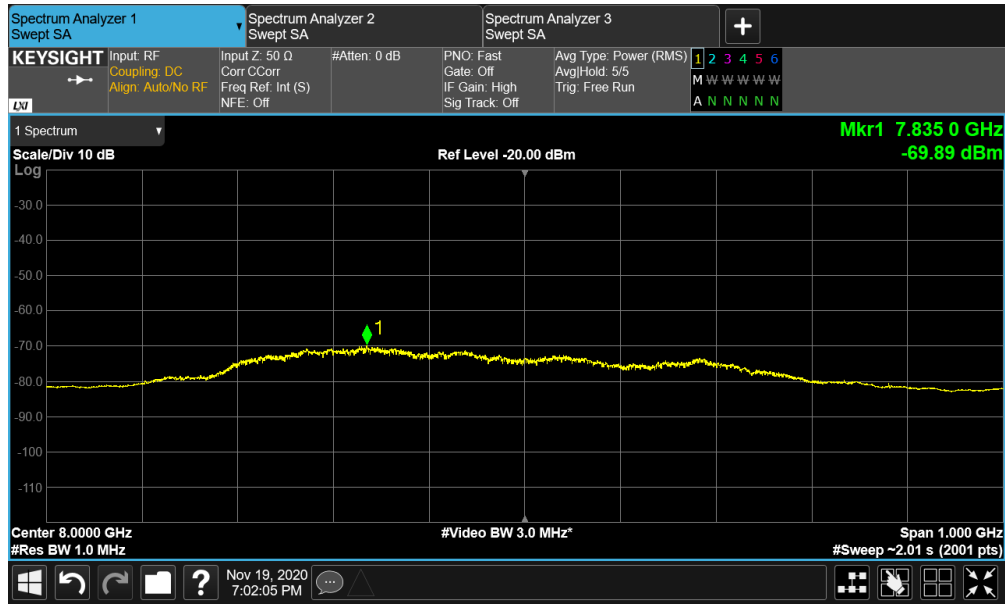


Plot 7-159. UWB Average Power Measurement - ANT 1 - CH.9 – SP1 - HPRF



Plot 7-160. UWB Peak Power Measurement - ANT 2 - CH.9 - SP0 – HPRF

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-28.A3L	Test Dates: 9/28/2020-12/04/2020	EUT Type: Portable Handset		Page 97 of 120



Plot 7-161. UWB Average Power Measurement - ANT 2 - CH.9 – SP1 - HPRF

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-28.A3L	Test Dates: 9/28/2020-12/04/2020	EUT Type: Portable Handset	Page 98 of 120	

7.5 Radiated Measurement Data above 960MHz

§15.519 (c), §15.519(d), §15.209(a)

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 maximum power and at the appropriate frequencies. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

§15.519(c)

Frequency in MHz	EIRP in dBm
960-1610	-75.3
1610-1990	-63.3
1990-3100	-61.3
3100-10600	-41.3
Above 10600	-61.3

Table 7-8. Above 960MHz Average Limits

§15.519(d)

Frequency in MHz	EIRP in dBm
1164-1240	-85.3
1559-1610	-85.3

Table 7-9. Above 960MHz Average Limits

Test Procedures Used

ANSI C63.10-2013

Test Settings

Average EIRP Measurements

1. Analyzer frequency set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz (3kHz for emissions in the GPS bands)
3. VBW = 3MHz (30kHz for the emissions in the GPS bands)
4. Detector = RMS
5. Sweep time = auto couple
6. Trace mode = trace averaging
7. Trace was allowed to stabilize

Test Setup

The EUT and measurement equipment were set up as shown test setup photos provided.

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-28.A3L	Test Dates: 9/28/2020-12/04/2020	EUT Type: Portable Handset		Page 99 of 120

Test Notes

1. All modes of operation and settings (Preamble, Packet Type, etc) were investigated and the worst-case emissions are reported.
2. The RBW for measurements in the GPS Bands were reduced to 3kHz in order to show compliance.
3. Pre-scan plots that are included are not corrected for antenna factors, cable losses, or pre-amplifier gains. The plots are only for the purpose of spurious emission identification.
4. All readings are calibrated by a signal generator with accuracy traceable to the National Institute of Standards and Technology (NIST).
5. AFCL (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

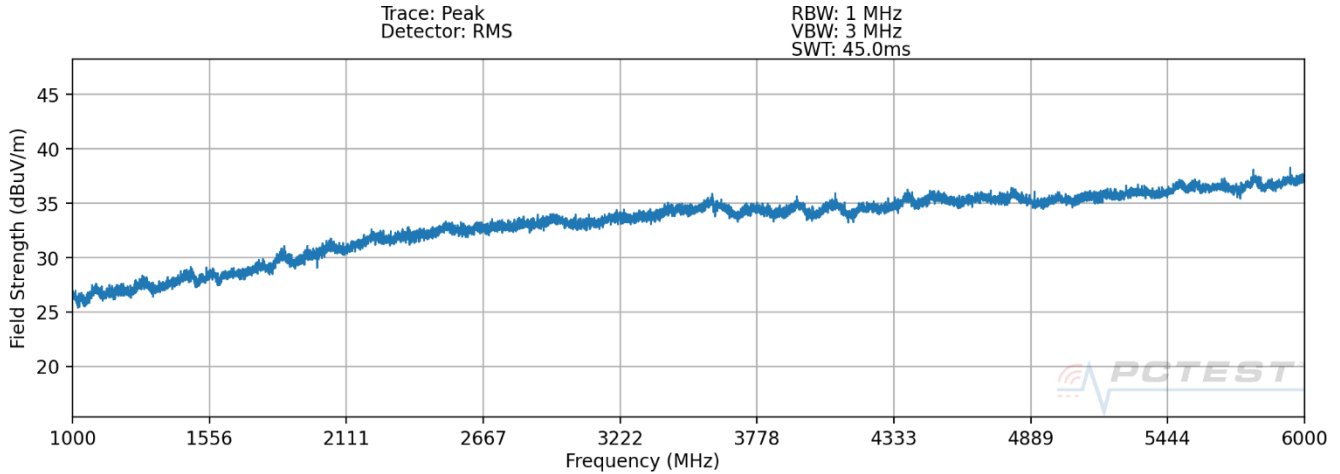
Sample Calculation

The raw radiated spurious level is converted to field strength in dBuV/m. Then, the EIRP RSE level is calculated by applying the additional factors shown below for a test distance of 3 meter

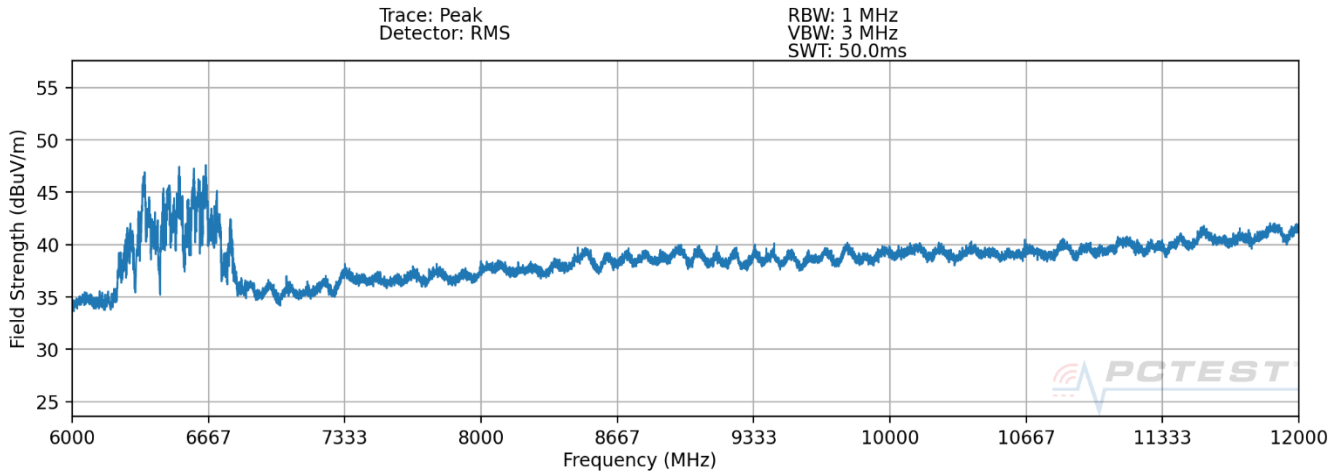
$$\text{RSE EIRP (dBm)} = \text{Analyzer Level (dBm)} + 107 + \text{AFCL (dB/m)} + 20\text{Log(Dm)} - 104.8$$

FCC ID: A3LSMG998B	 <small>Proud to be part of </small>	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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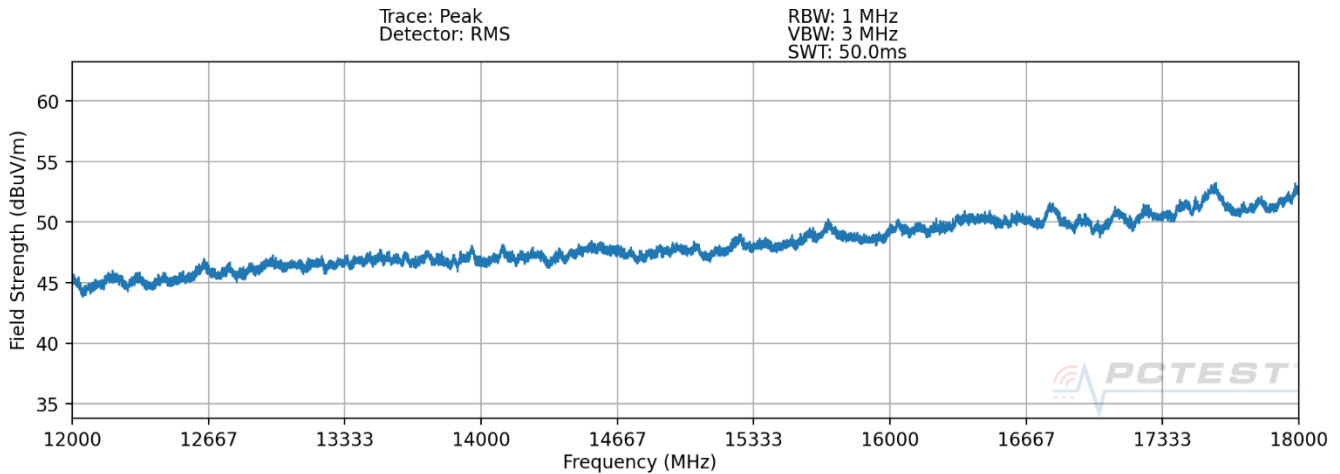
Channel 5 ANTENNA 1:



Plot 7-162. Radiated Spurious Pre-Scan 960 - 6000 MHz - CH.5 - ANT 1

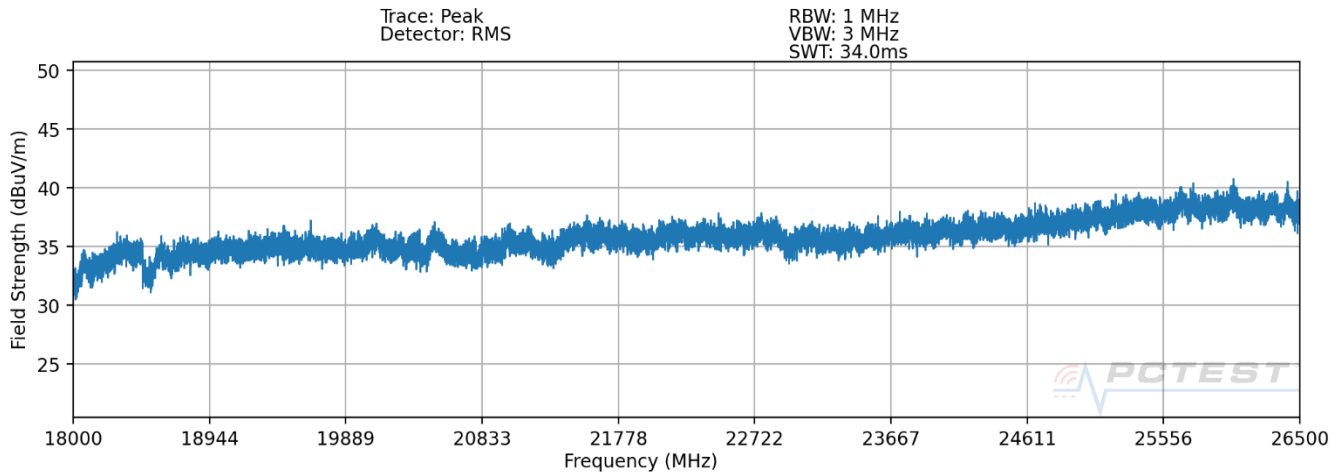


Plot 7-163. Radiated Spurious Pre-Scan 6000 - 12000 MHz - CH.5 - ANT 1

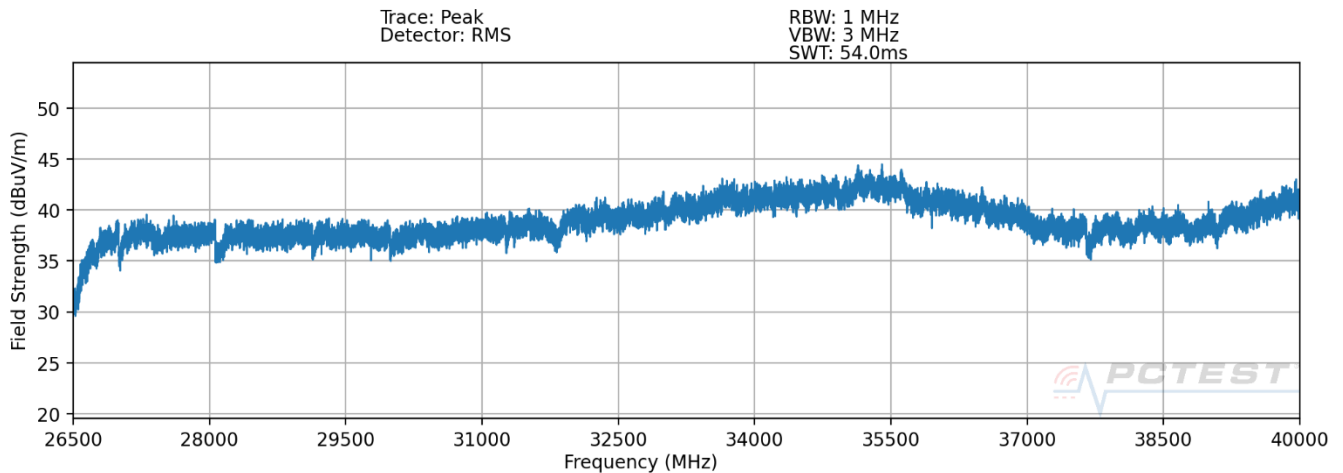


Plot 7-164. Radiated Spurious Pre-Scan 12000 - 18000 MHz - CH.5 - ANT 1

FCC ID: A3LSMG998B	 Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 Approved by: Technical Manager
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Plot 7-165. Radiated Spurious Pre-Scan 18 – 26.5 GHz - CH.5 - ANT 1



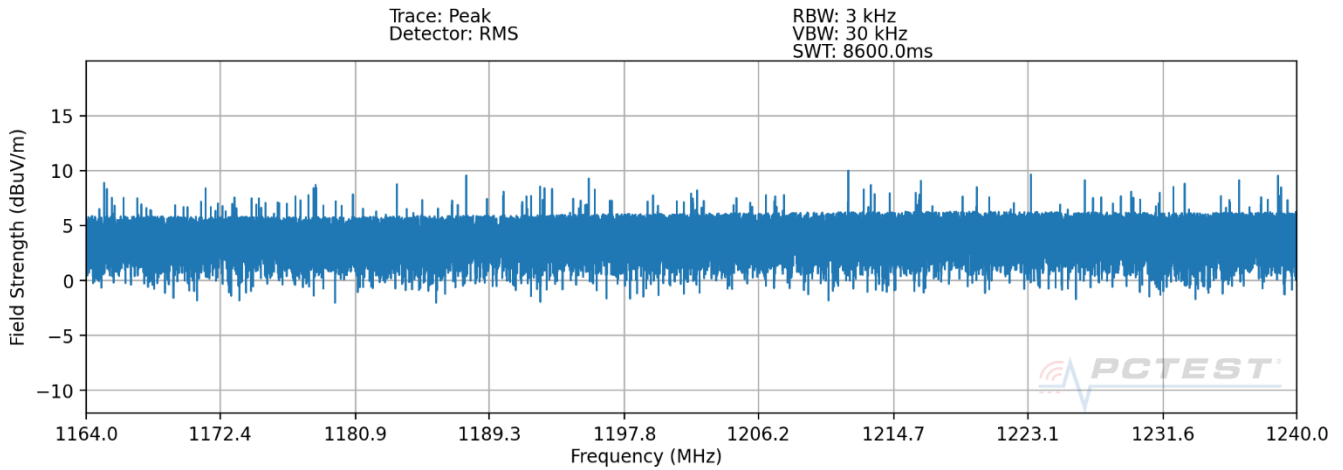
Plot 7-166. Radiated Spurious Pre-Scan 26.5 – 40.0 GHz - CH.5 - ANT 1

Channel:	5
Frequency (MHz):	6500
Preamble id:	29
Config	SP3

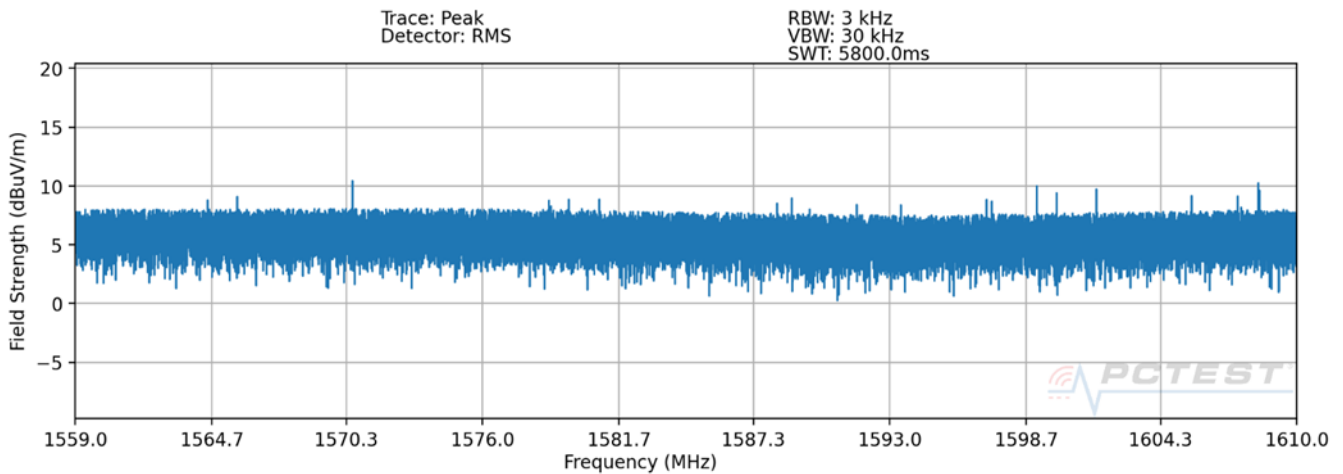
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5460	Avg	V	-	-	-80.21	14.28	-54.09	-41.30	-12.79
10200	Avg	V	-	-	-83.01	21.55	-49.62	-41.30	-8.32
10600	Avg	V	-	-	-83.69	21.51	-50.34	-41.30	-9.04
8000	Avg	V	-	-	-81.49	19.35	-50.30	-41.30	-9.00

Table 7-10. Radiated Spurious Emissions CH. 5 – ANT1

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Plot 7-167. Radiated Spurious Pre-Scan 1164 - 1240 MHz - CH.5 - ANT 1



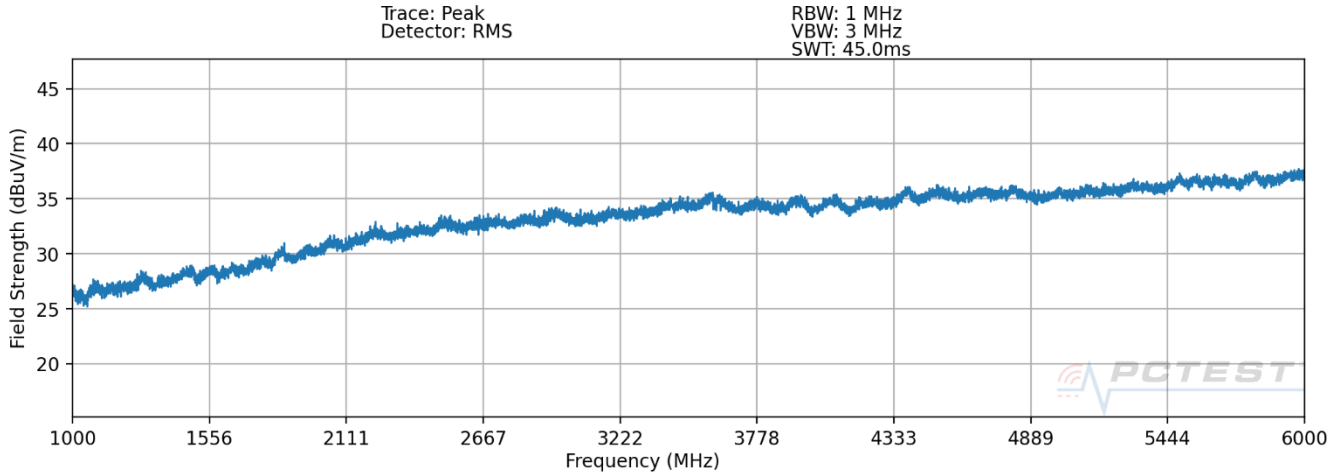
Plot 7-168. Radiated Spurious Pre-Scan 1559 - 1610 MHz - CH.5 - ANT 1

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1184	Avg	V	-	-	-104.84	2.08	-90.92	-75.30	-15.62
1192	Avg	V	-	-	-103.18	2.12	-89.22	-75.30	-13.92
1204	Avg	V	-	-	-103.88	2.16	-89.87	-75.30	-14.57
1560	Avg	V	-	-	-105.69	3.54	-90.31	-75.30	-15.01
1601	Avg	V	-	-	-103.44	3.51	-88.08	-75.30	-12.78
1604	Avg	V	-	-	-104.64	3.48	-89.31	-75.30	-14.01

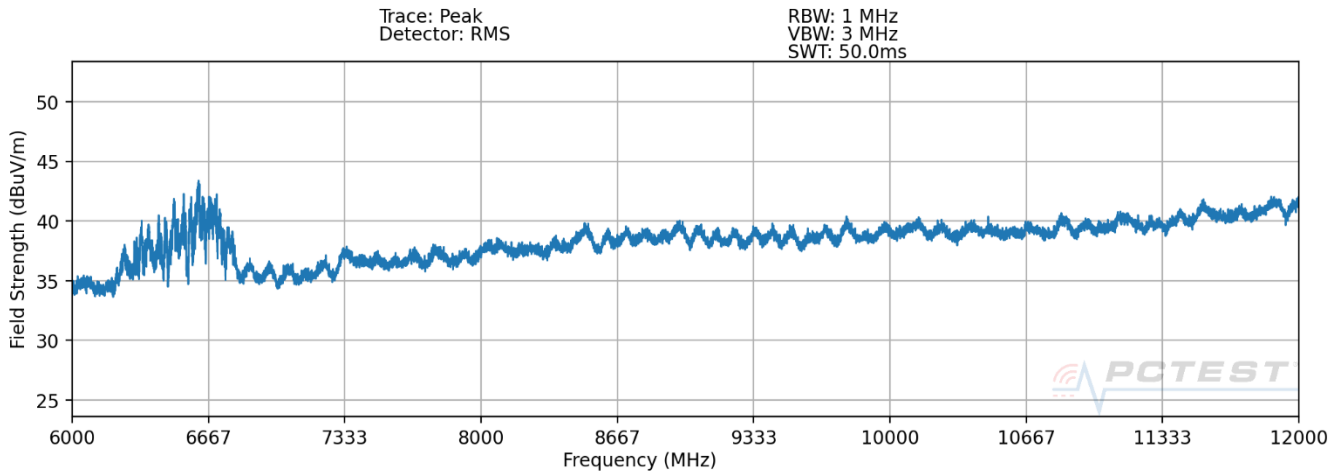
Table 7-11. Radiated Spurious Emissions CH. 5 – ANT1 – GPS BANDS

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-28.A3L	Test Dates: 9/28/2020-12/04/2020	EUT Type: Portable Handset		Page 103 of 120

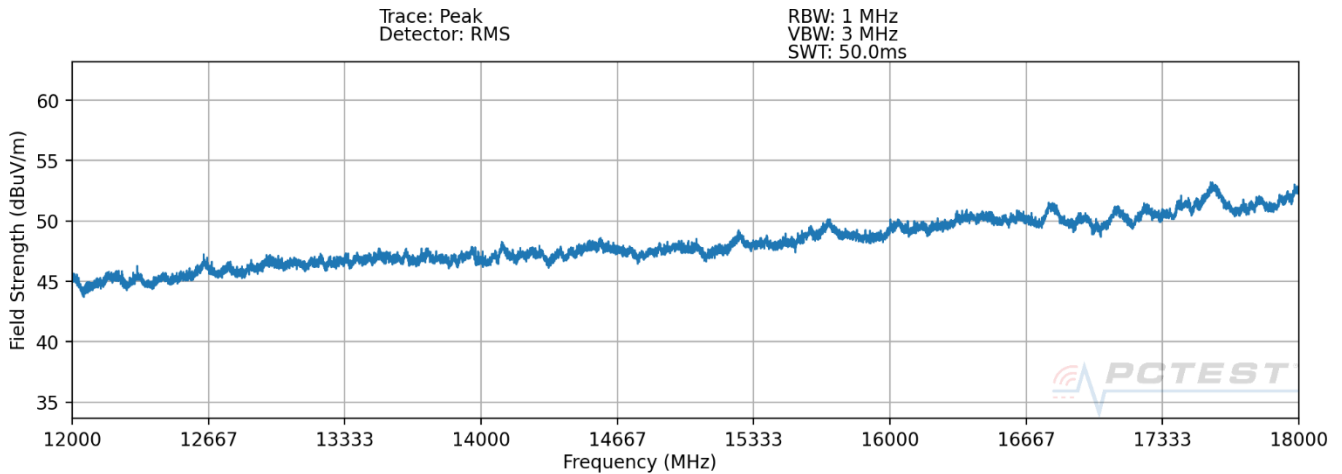
Channel 5 ANTENNA 2:



Plot 7-169. Radiated Spurious Pre-Scan 960 - 6000 MHz - CH.5 - ANT 2

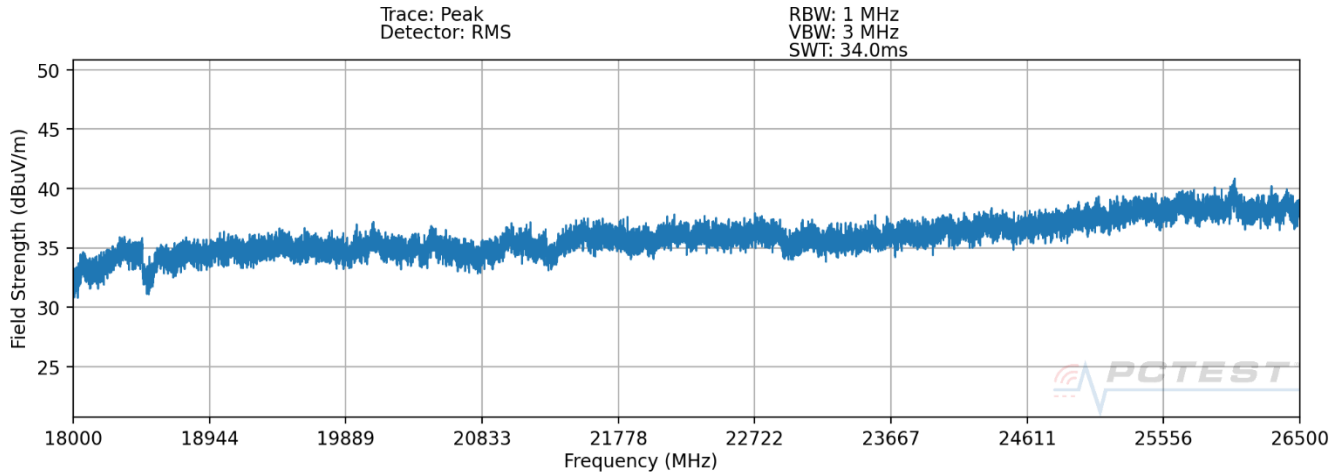


Plot 7-170. Radiated Spurious Pre-Scan 6000 - 12000 MHz - CH.5 - ANT 2

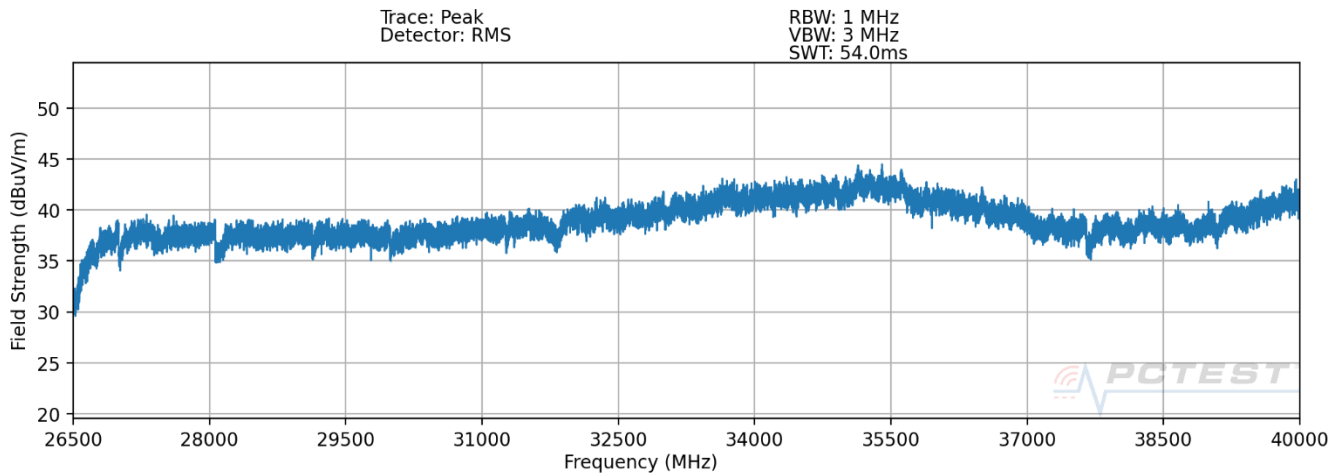


Plot 7-171. Radiated Spurious Pre-Scan 12000 - 18000 MHz - CH.5 - ANT 2

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Plot 7-172. Radiated Spurious Pre-Scan 18 – 26.5 GHz - CH.5 - ANT 2



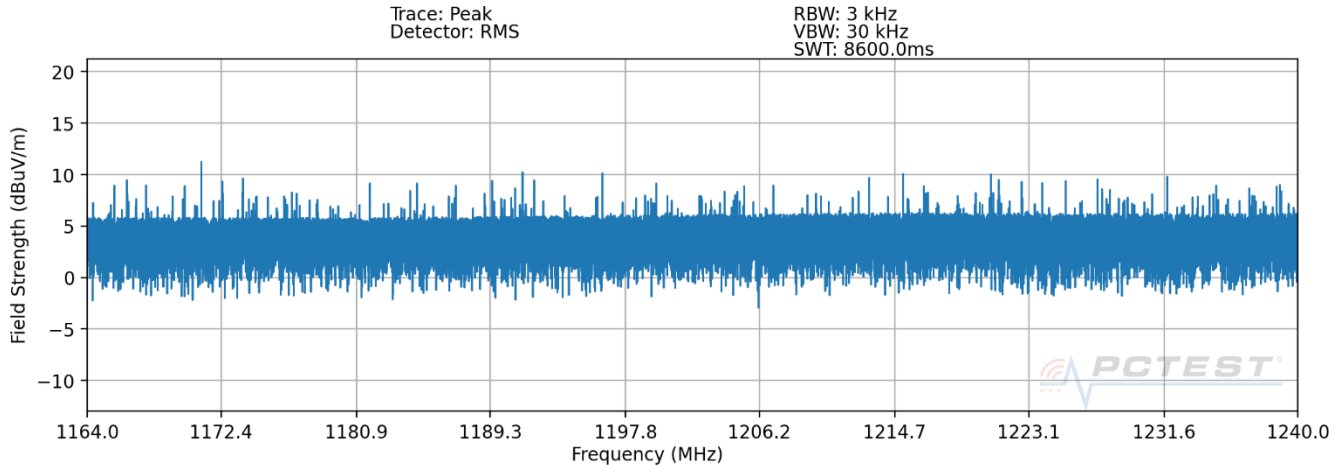
Plot 7-173. Radiated Spurious Pre-Scan 26.5 – 40.0 GHz - CH.5 - ANT 2

Channel:	5
Frequency (MHz):	6500
Preamble id:	10
Config	SP3

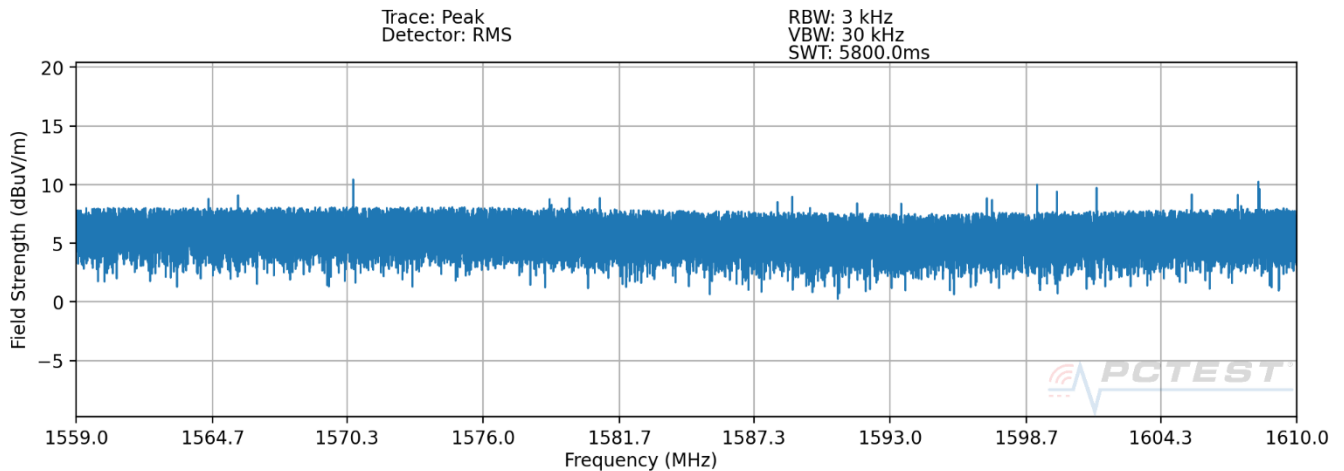
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5460	Avg	H	-	-	-79.83	14.28	-53.71	-41.30	-12.41
10200	Peak	H	-	-	-82.65	21.55	-49.26	-41.30	-7.96
10600	Avg	H	-	-	-82.35	21.51	-49.00	-41.30	-7.70
8000	Peak	H	-	-	-82.22	19.35	-51.03	-41.30	-9.73

Table 7-12. Radiated Spurious Emissions CH. 5 – ANT2

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Plot 7-174. Radiated Spurious Pre-Scan 1164 - 1240 MHz - CH.5 - ANT 2



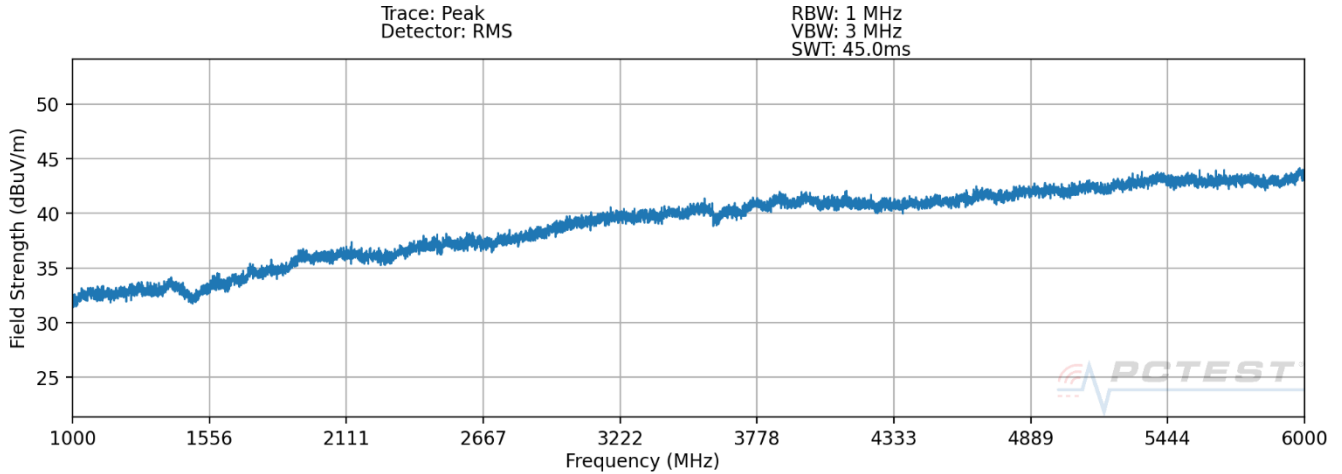
Plot 7-175. Radiated Spurious Pre-Scan 1559 - 1610 MHz - CH.5 - ANT 2

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1168	Avg	H	-	-	-104.36	1.86	-90.66	-75.30	-15.36
1185	Peak	H	-	-	-104.63	2.08	-90.71	-75.30	-15.41
1200	Avg	H	-	-	-105.81	2.16	-91.80	-75.30	-16.50
1565	Peak	H	-	-	-104.20	3.60	-88.76	-75.30	-13.46
1590	Avg	H	-	-	-103.22	3.60	-87.78	-75.30	-12.48
1600	Peak	H	-	-	-106.18	3.52	-90.81	-75.30	-15.51

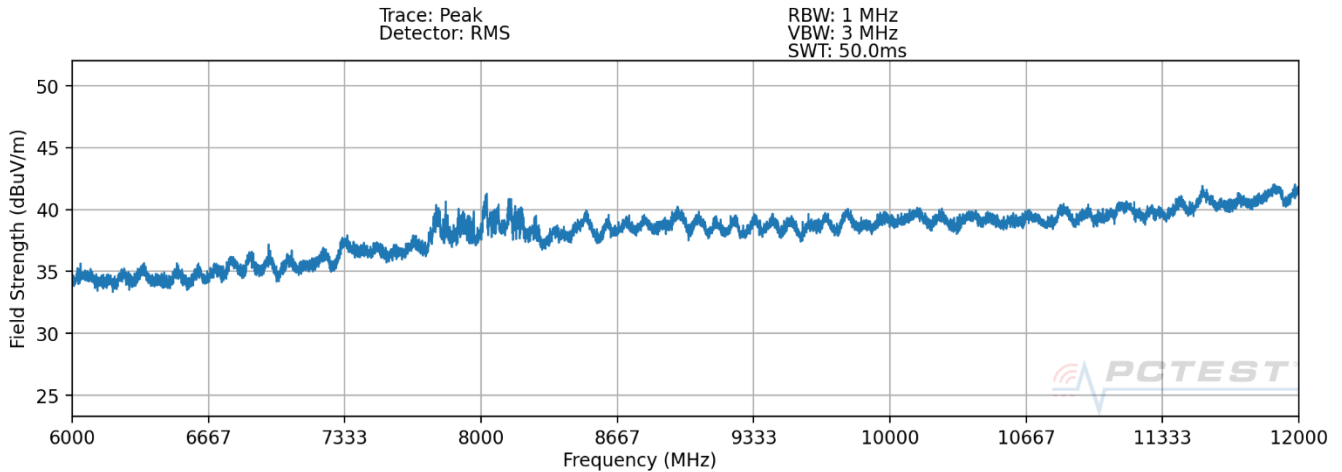
Table 7-13. Radiated Spurious Emissions CH. 5 – ANT2 – GPS BANDS

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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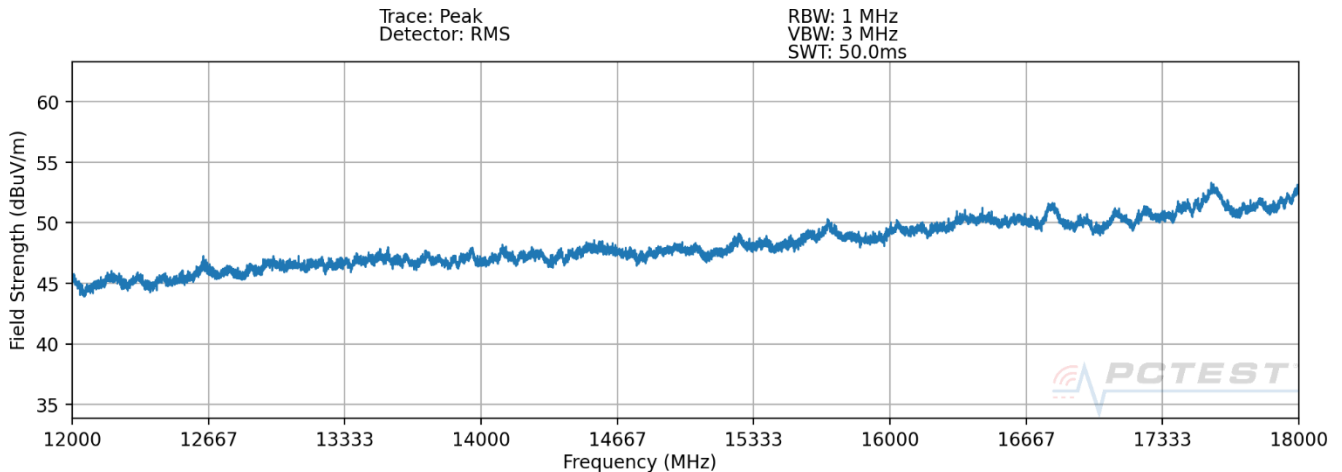
Channel 9 ANTENNA 1:



Plot 7-176. Radiated Spurious Pre-Scan 960 - 6000 MHz - CH.9 - ANT 1

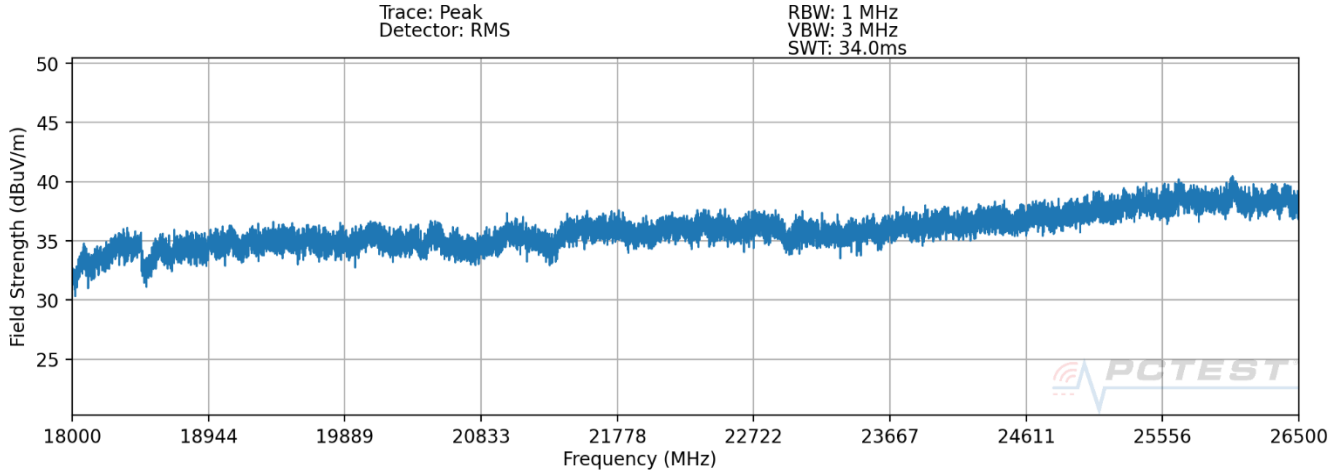


Plot 7-177. Radiated Spurious Pre-Scan 6000 - 12000 MHz - CH.9 - ANT 1

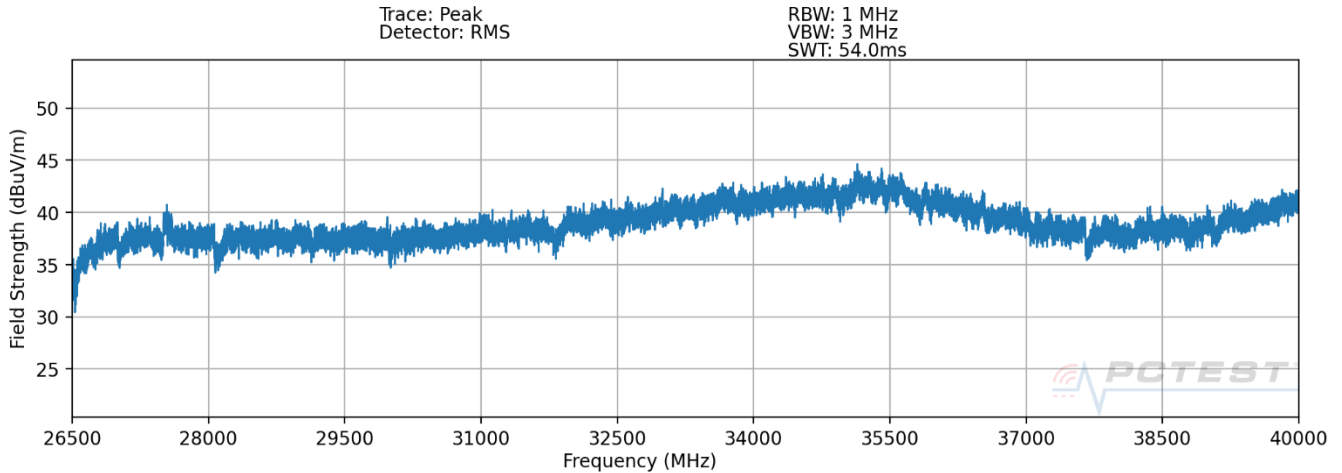


Plot 7-178. Radiated Spurious Pre-Scan 12000 - 18000 MHz - CH.9 - ANT 1

FCC ID: A3LSMG998B	 Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 Approved by: Technical Manager
Test Report S/N: 1M2009280154-28.A3L	Test Dates: 9/28/2020-12/04/2020	EUT Type: Portable Handset	Page 107 of 120



Plot 7-179. Radiated Spurious Pre-Scan 18 – 26.5 GHz - CH.9 - ANT 1



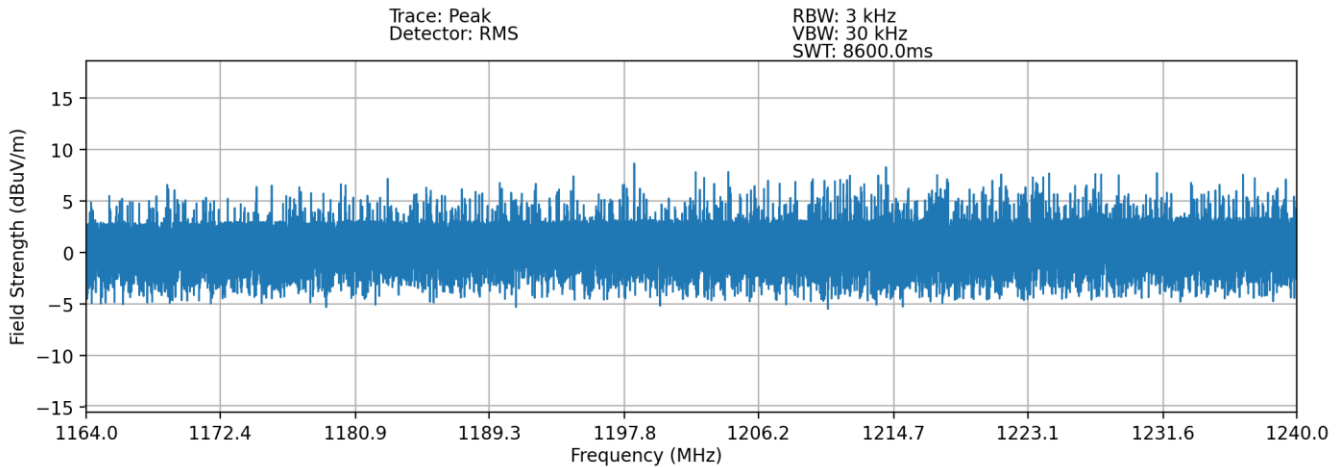
Plot 7-180. Radiated Spurious Pre-Scan 26.5 – 40.0 GHz - CH.9 - ANT 1

Channel:	9
Frequency (MHz):	8000
Preamble id:	10
Config	SP3

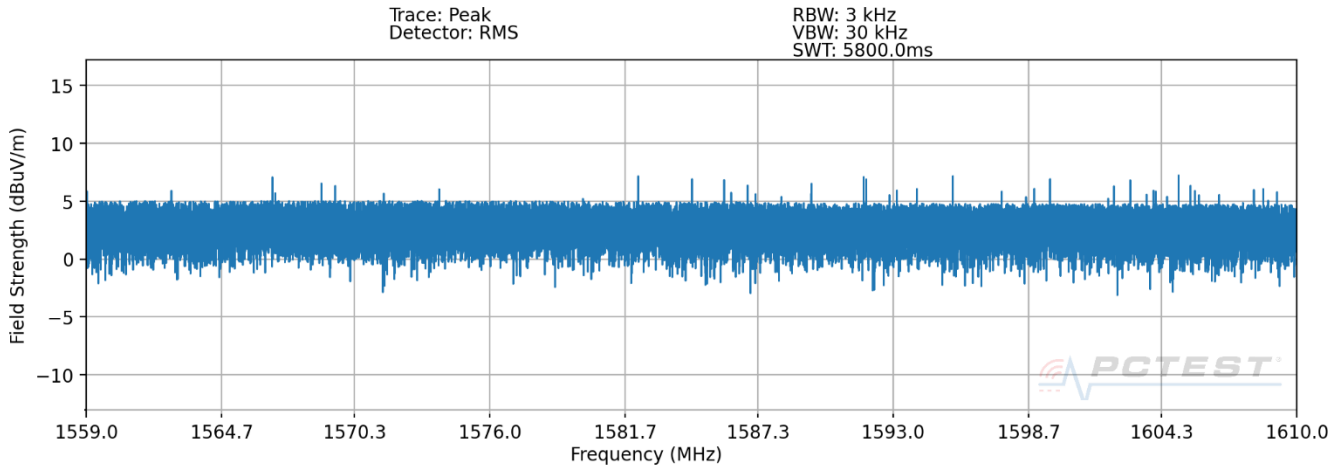
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1173	Avg	H	-	-	-109.69	1.94	-95.91	-85.30	-10.61
1189	Avg	H	-	-	-106.34	2.10	-92.39	-75.30	-17.09
1210	Avg	H	-	-	-109.14	2.16	-95.13	-75.30	-19.83
1564	Avg	H	-	-	-112.80	3.58	-97.37	-75.30	-22.07
1595	Avg	H	-	-	-107.84	3.56	-92.43	-75.30	-17.13
1601	Avg	H	-	-	-108.31	3.51	-92.95	-75.30	-17.65

Table 7-14. Radiated Spurious Emissions CH. 9 – ANT1

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Plot 7-181. Radiated Spurious Pre-Scan 1164 - 1240 MHz - CH.9 - ANT 1



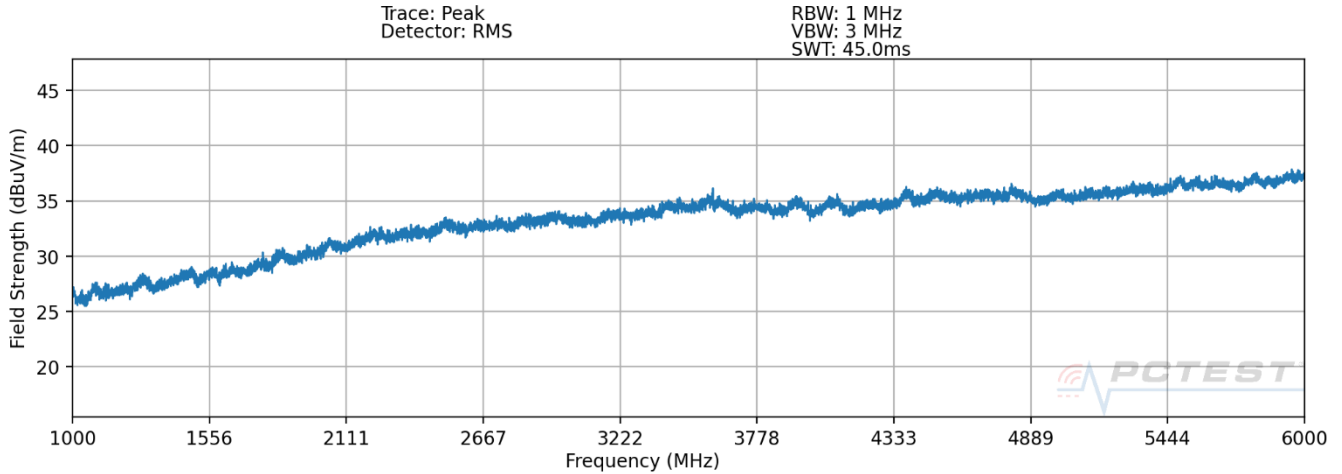
Plot 7-182. Radiated Spurious Pre-Scan 1559 - 1610 MHz - CH.9 - ANT 1

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
2461	Avg	H	-	-	-85.36	6.84	-66.68	-61.30	-5.38
2510	Avg	H	-	-	-82.34	6.96	-63.54	-61.30	-2.24
6245	Avg	H	-	-	-80.69	15.87	-52.98	-41.30	-11.68
16000	Avg	H	-	-	-97.33	22.20	-63.29	-61.30	-1.99
17500	Avg	H	-	-	-83.60	28.30	-43.46	-41.30	-2.16

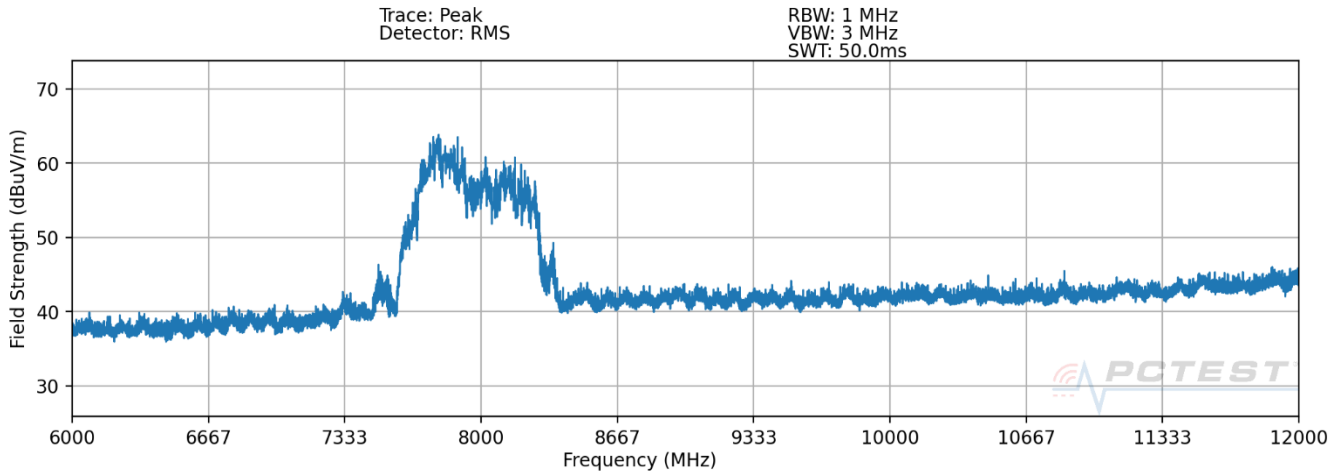
Table 7-15. Radiated Spurious Emissions CH. 9 – ANT1 – GPS BANDS

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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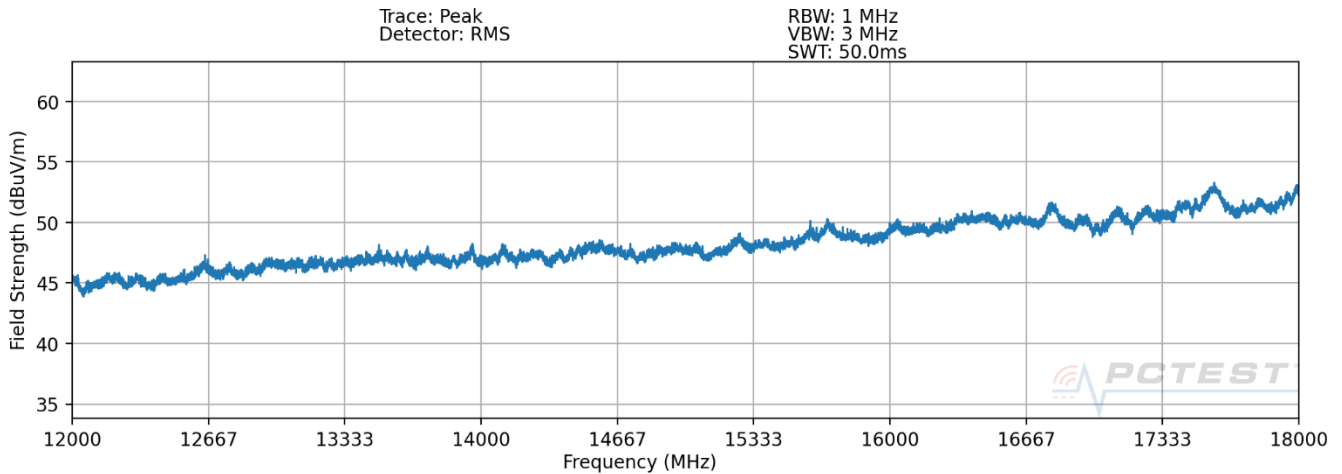
Channel 9 ANTENNA 2:



Plot 7-183. Radiated Spurious Pre-Scan 960 - 6000 MHz - CH.9 - ANT 2

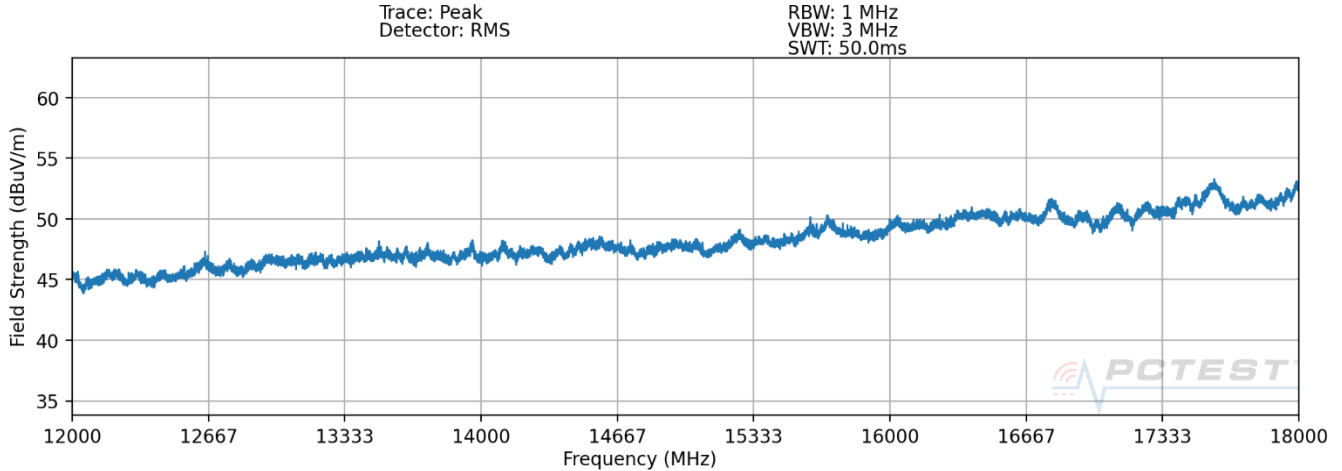


Plot 7-184. Radiated Spurious Pre-Scan 6000 - 12000 MHz - CH.9 - ANT 2

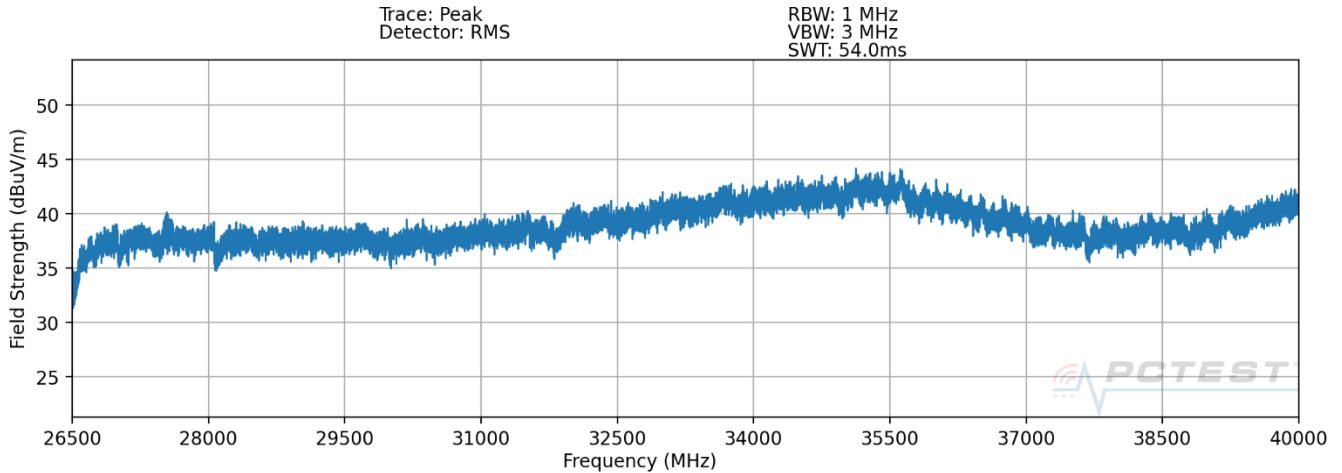


Plot 7-185. Radiated Spurious Pre-Scan 12000 - 18000 MHz - CH.9 - ANT 2

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)	 Approved by: Technical Manager
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Plot 7-186. Radiated Spurious Pre-Scan 18 – 26.5 GHz - CH.9 - ANT 2



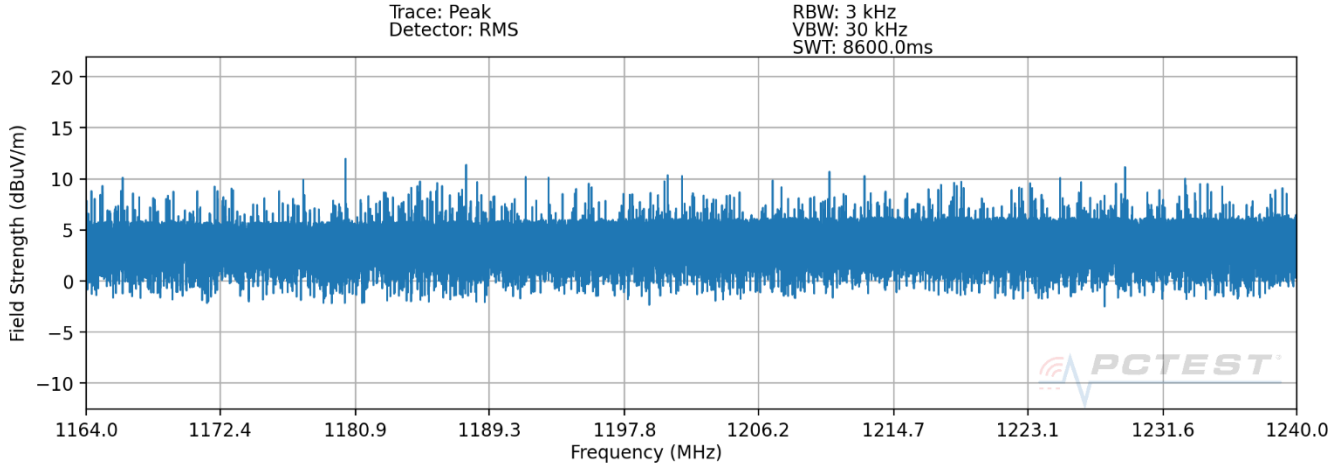
Plot 7-187. Radiated Spurious Pre-Scan 26.5 – 40.0 GHz - CH.9 - ANT 2

Channel:	9
Frequency (MHz):	8000
Preamble id:	12
Config	SP3

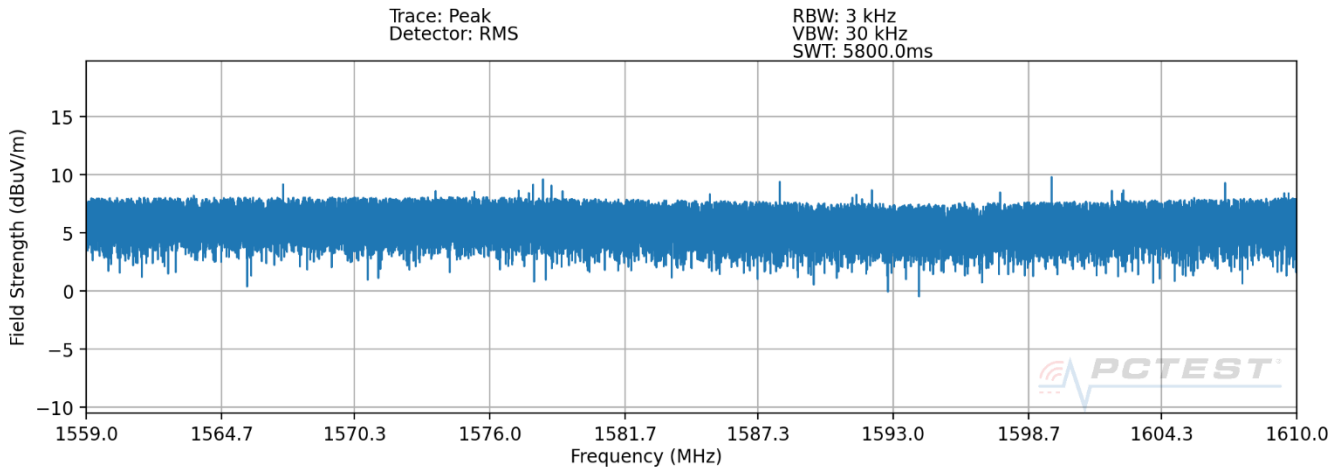
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1183	Avg	V	-	-	-109.76	2.07	-95.85	-75.30	-20.55
1196	Avg	V	-	-	-110.21	2.14	-96.22	-75.30	-20.92
1210	Avg	V	-	-	-108.43	2.16	-94.42	-75.30	-19.12
1574	Avg	V	-	-	-112.27	3.70	-96.73	-75.30	-21.43
1590	Avg	V	-	-	-112.21	3.60	-96.77	-75.30	-21.47
1608	Avg	V	-	-	-111.44	3.44	-96.15	-75.30	-20.85

Table 7-16. Radiated Spurious Emissions CH. 9 – ANT2

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Plot 7-188. Radiated Spurious Pre-Scan 1164 - 1240 MHz - CH.9 - ANT 2



Plot 7-189. Radiated Spurious Pre-Scan 1559 - 1610 MHz - CH.9 - ANT 2

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
6040	Avg	V	-	-	-79.77	15.68	-52.25	-41.30	-10.95
7026	Avg	V	-	-	-80.66	16.73	-52.09	-41.30	-10.79
9000	Avg	V	-	-	-81.21	20.99	-48.38	-41.30	-7.08
10200	Avg	V	-	-	-83.61	21.55	-50.22	-41.30	-8.92

Table 7-17. Radiated Spurious Emissions CH. 9 – ANT2 – GPS BANDs

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
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7.6 Radiated Spurious Emissions Measurements – Below 1GHz §15.209(a), §15.519(c); 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 6 of RSS-Gen (8.10) must not exceed the limits shown in Table 7-18 per Section 15.209 and RSS-Gen (8.9).

Frequency	Field Strength [$\mu\text{V/m}$]	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 7-18. 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

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Test Setup

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

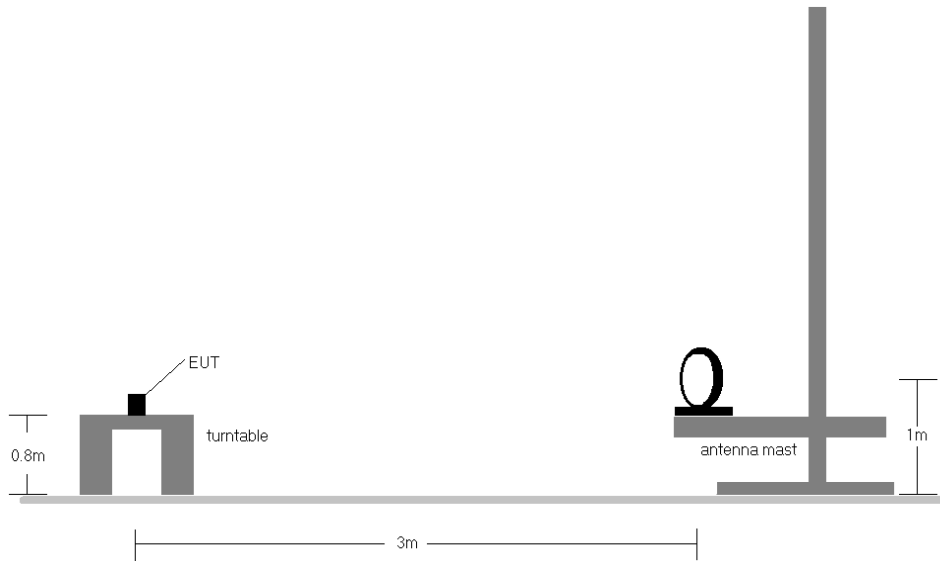


Figure 7-3. Radiated Test Setup < 30Mhz

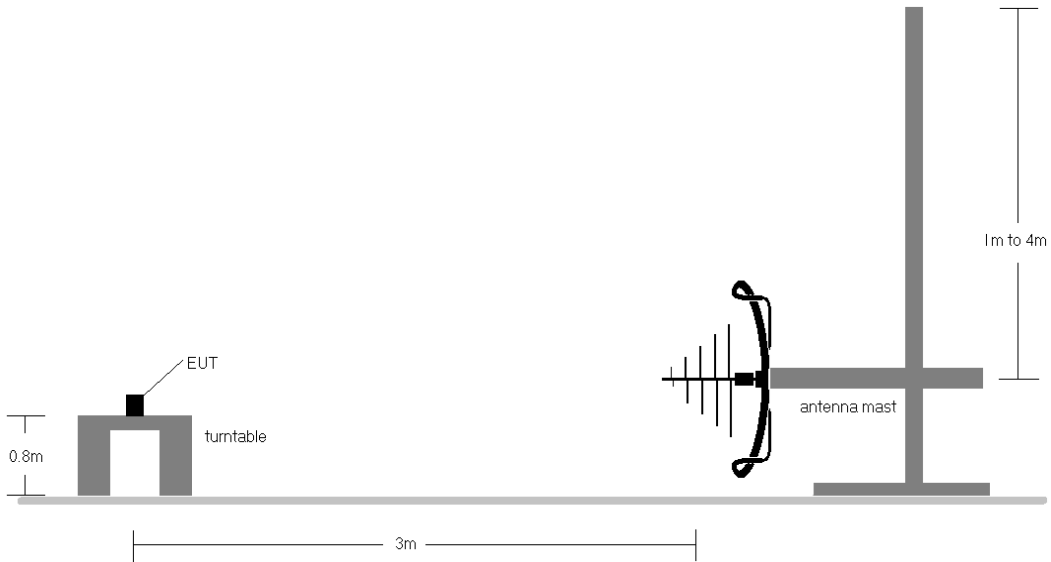


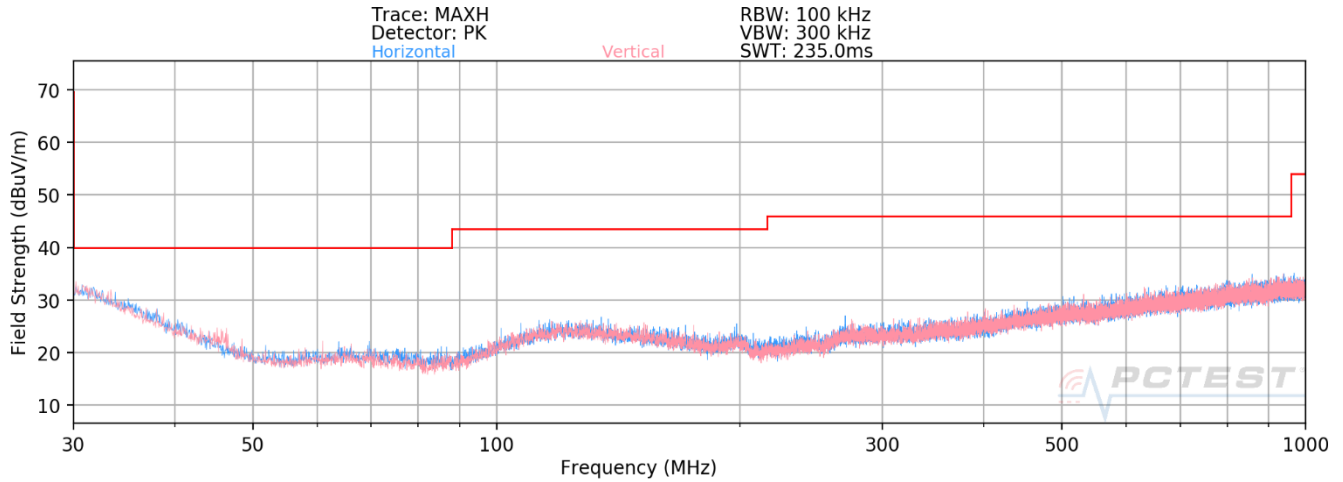
Figure 7-4. Radiated Test Setup < 1GHz

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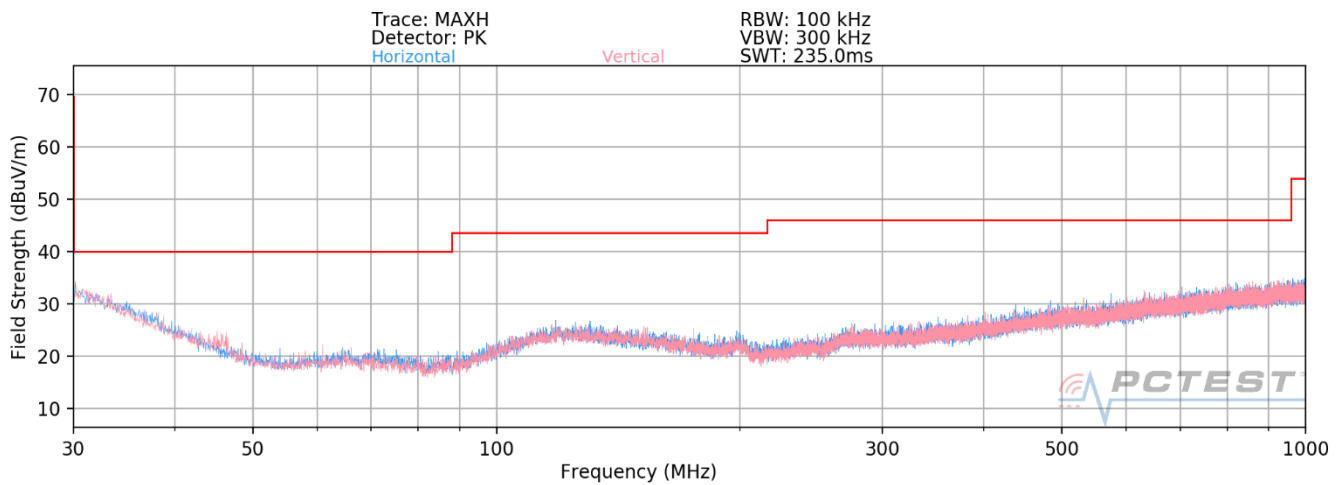
Test Notes

1. All emissions lying in restricted bands specified in §15.205 and RSS-Gen(8.10) are below the limit shown in Table 7-18 .
2. The broadband receive antenna is manipulated through vertical and horizontal polarizations during the tests. The EUT is manipulated through three orthogonal planes.
3. The spectrum is investigated using a peak detector and final measurements are recorded using CISPR quasi peak detector. The worst-case emissions are reported however emissions whose levels were not within 20dB of the respective limits were not reported.
4. Emissions were measured at a 3 meter test distance.
5. 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.
6. No spurious emissions were detected within 20dB of the limit below 30MHz.
7. 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.
8. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. There were no emissions detected in the 30MHz – 1GHz frequency range, as shown in the subsequent plots.

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Plot 7-190. 30MHz - 1 GHz Pre-Scan Plots ANT1



Plot 7-191. 30MHz - 1 GHz Pre-Scan Plots ANT2

<p>FCC ID: A3LSMG998B</p>	<p>PCTEST Proud to be part of element</p>	<p>MEASUREMENT REPORT (CERTIFICATION)</p>	<p>Approved by: Technical Manager</p>
<p>Test Report S/N: 1M2009280154-28.A3L</p>	<p>Test Dates: 9/28/2020-12/04/2020</p>	<p>EUT Type: Portable Handset</p>	<p>Page 116 of 120</p>

7.7 Line Conducted Measurement Data

§15.207

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 conducted spurious emissions. Only the conducted 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 RSS-Gen (8.9).

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

Table 7-19. Conducted Limits

*Decreases with the logarithm of the frequency.

Test Procedures Used

ANSI C63.4-2014

Test Settings

Quasi-Peak Field Strength 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 Field Strength 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

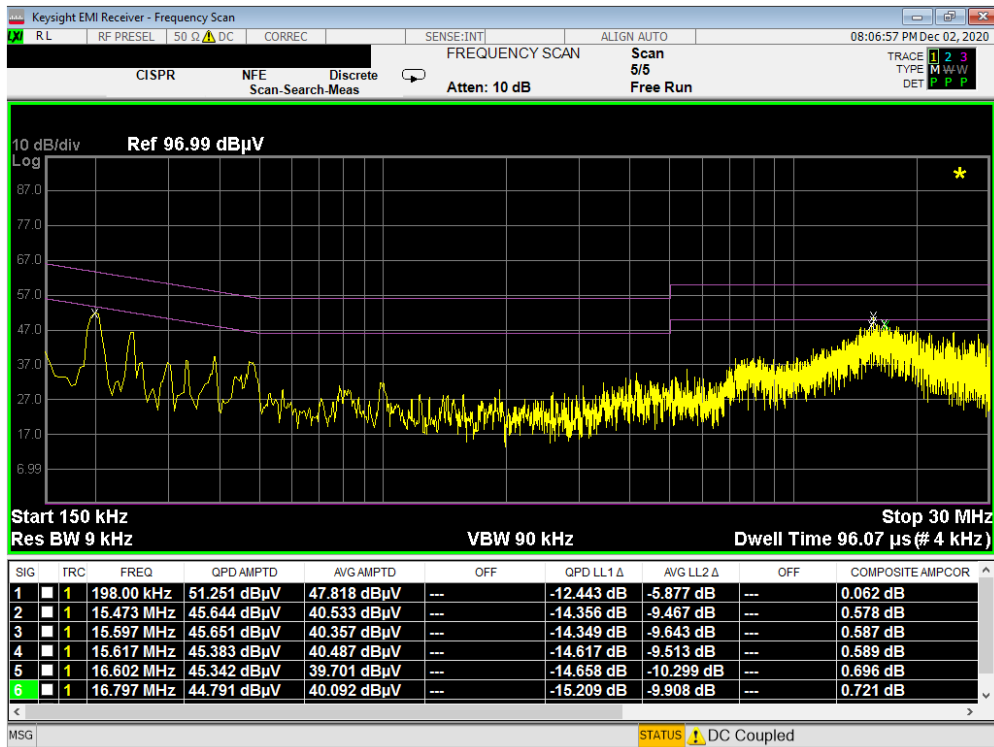
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Test Setup

The EUT and measurement equipment were set up as shown in the test setup photos provided.

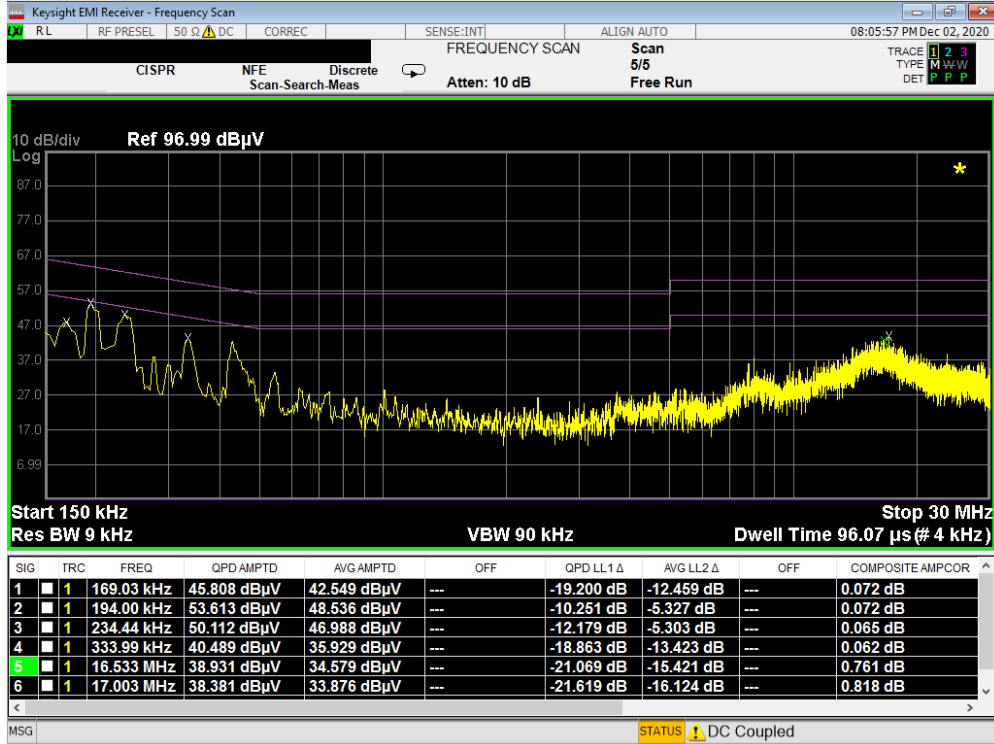
Test Notes

1. All Modes of operation were investigated and the worst-case emissions are reported.
2. The limit for Class B device(s) from 150kHz to 30MHz are specified in Section 15.107 and ICES-003.
3. L1 = Phase; N = Neutral
4. Corr. (dB) = Cable loss (dB) + LISN insertion factor (dB)
5. QP/AV Level (dBμV) = QP/AV Reading (dBμV) + Factor (dB)
6. Margin (dB) = QP/AV Limit (dBμV) – QP/AV Level (dBμV)
7. Traces shown in plot are made using a peak detector.
8. Deviations to the Specifications: None.



Plot 7-192. Line Conducted Plot (L1)

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Plot 7-193. Line Conducted Plot (N)

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8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSMG998B** has been tested to comply with the requirements specified in §15.519 and §15.521 of the FCC rules.

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