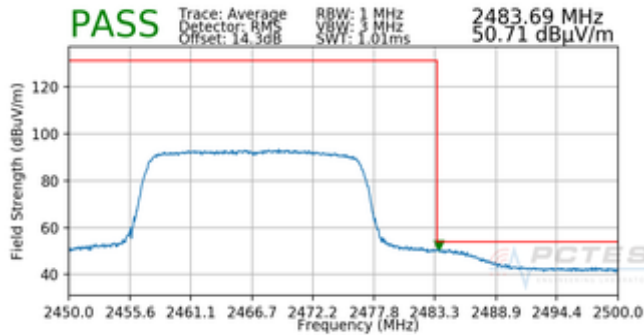
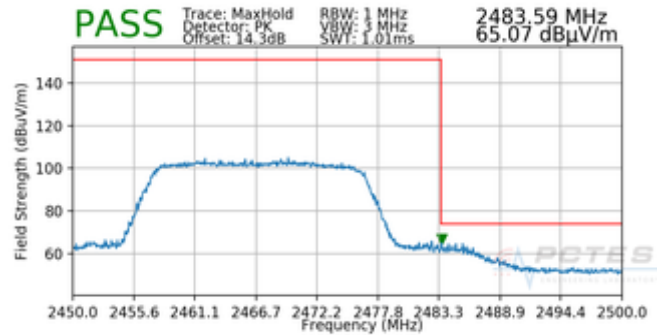


Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index	61
Distance of Measurements:	3 Meters
Operating Frequency:	2467MHz
Channel:	12

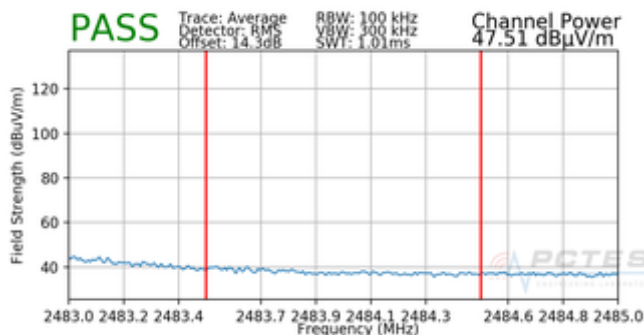


Plot 7-221. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 242 Tones)

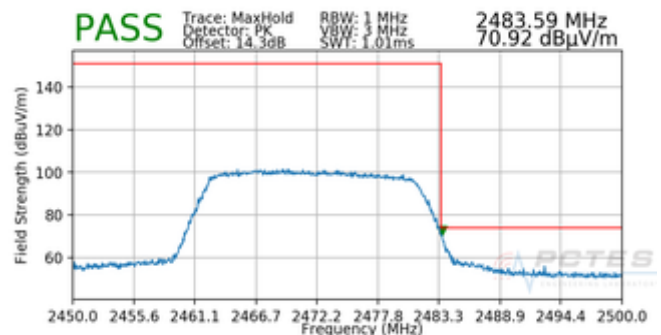


Plot 7-222. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 242 Tones)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index	61
Distance of Measurements:	3 Meters
Operating Frequency:	2472MHz
Channel:	13



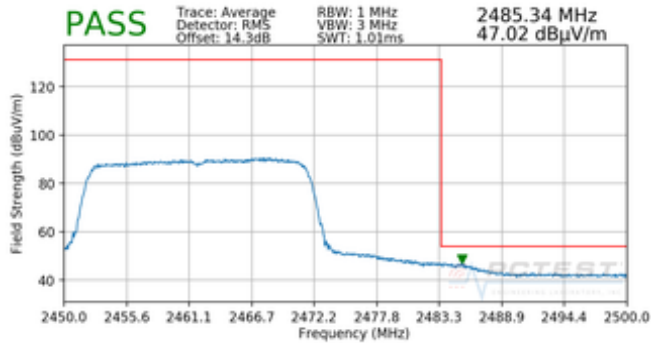
Plot 7-223. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 242 Tones)



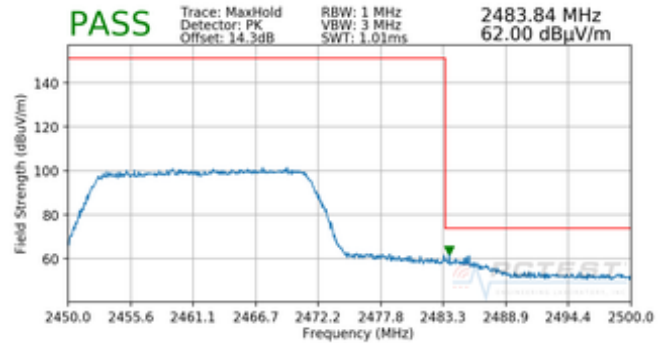
Plot 7-224. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 242 Tones)

FCC ID: A3LSCV42	 MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1901240018-05.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 143 of 151

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index	61
Distance of Measurements:	3 Meters
Operating Frequency:	2462MHz
Channel:	11



Plot 7-225. Radiated Restricted Band Edge Measurement MIMO with WCP (Average – 242 Tones)



Plot 7-226. Radiated Restricted Band Edge Measurement MIMO with WCP (Peak – 242 Tones)

FCC ID: A3LSCV42		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240018-05.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 144 of 151

7.8 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 6 of RSS-Gen (8.10) must not exceed the limits shown in Table 7-44 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 7-44. 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

FCC ID: A3LSCV42		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240018-05.A3L	Test Dates: 10/31/2018-11/17/2019	EUT Type: Portable Handset	Page 145 of 151	

Test Setup

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

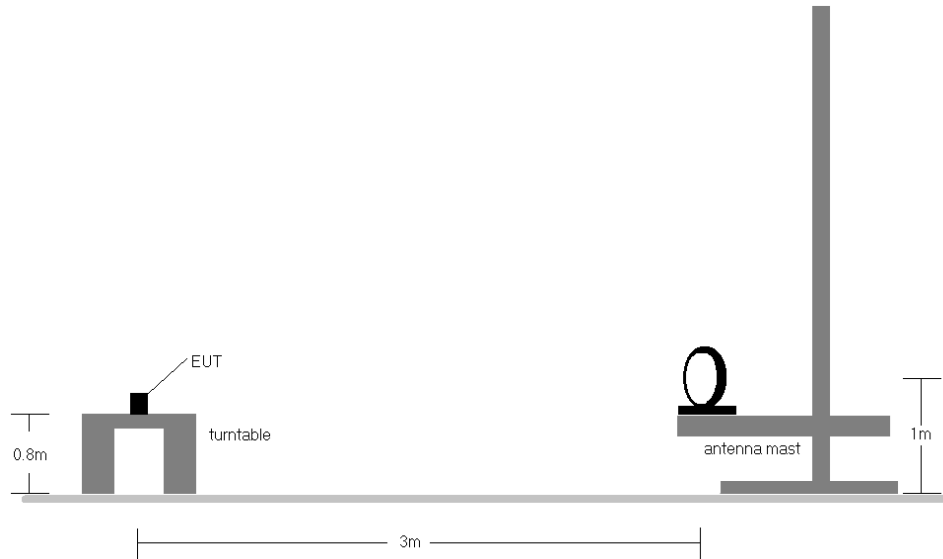


Figure 7-7. Radiated Test Setup < 30Mhz

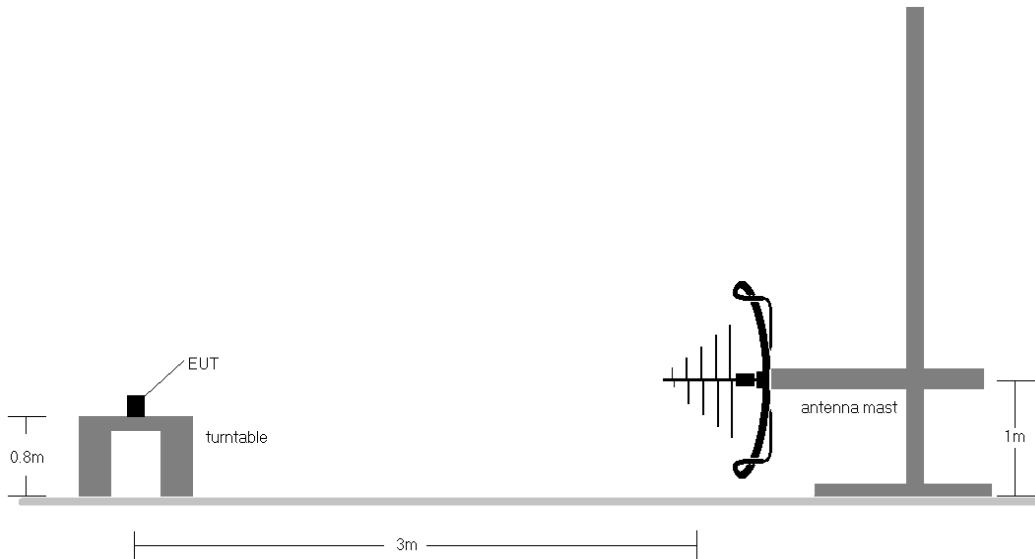


Figure 7-8. Radiated Test Setup < 1GHz

FCC ID: A3LSCV42		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240018-05.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 146 of 151

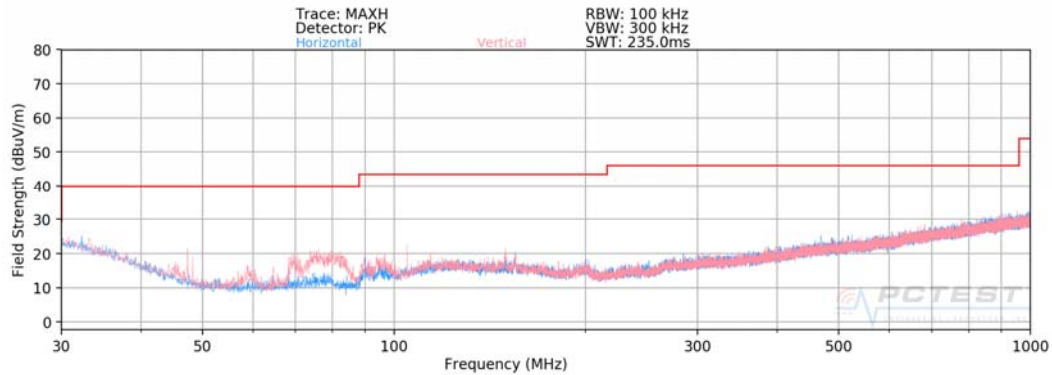
Test Notes

1. All emissions lying in restricted bands specified in §15.205 and RSS-Gen(8.10) are below the limit shown in Table 7-44.
2. The broadband receive antenna is manipulated through vertical and horizontal polarizations during the tests. The EUT is manipulated through three orthogonal planes.
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. The worst-case emissions are reported however emissions whose levels were not within 20dB of the respective limits were not reported.
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. 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.

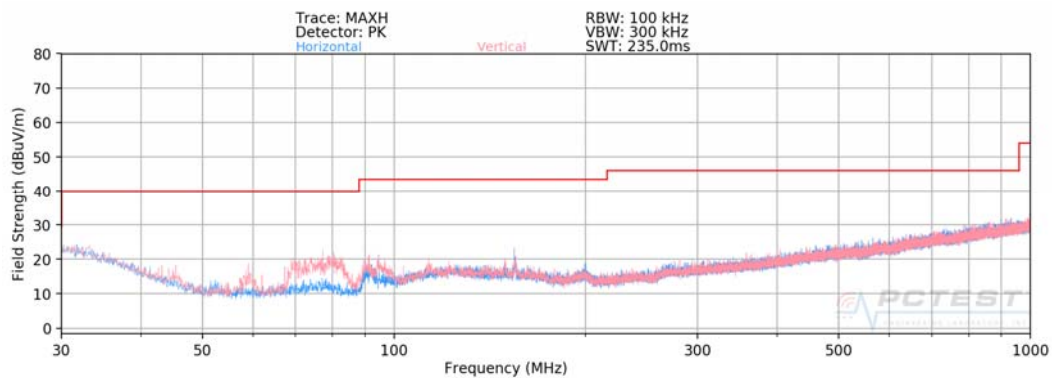
FCC ID: A3LSCV42	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1901240018-05.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset	Page 147 of 151

SISO Antenna-1 Radiated Spurious Emissions Measurements (Below 1GHz)

§15.209; RSS-Gen [8.9]



Plot 7-227. Radiated Spurious Plot below 1GHz SISO ANT1 (106 Tones)

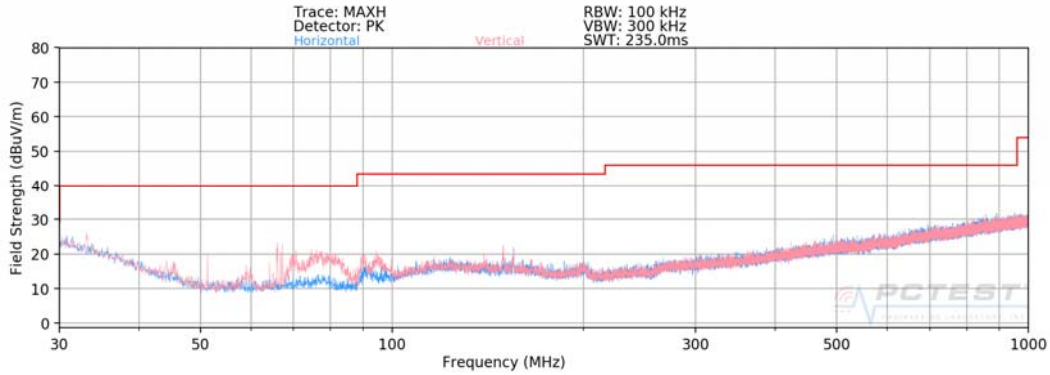


Plot 7-228. Radiated Spurious Plot below 1GHz SISO ANT1 (242 Tones)

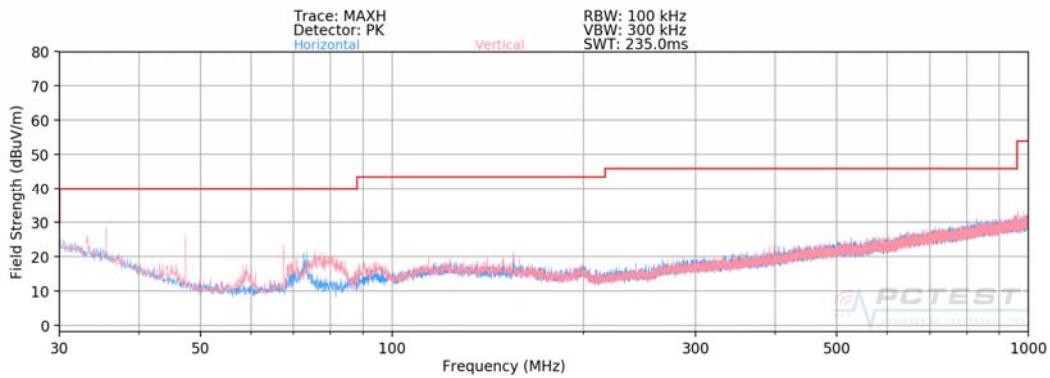
FCC ID: A3LSCV42	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240018-05.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 148 of 151

SISO Antenna-2 Radiated Spurious Emissions Measurements (Below 1GHz)

§15.209; RSS-Gen [8.9]



Plot 7-229. Radiated Spurious Plot below 1GHz SISO ANT2 (106 Tones)

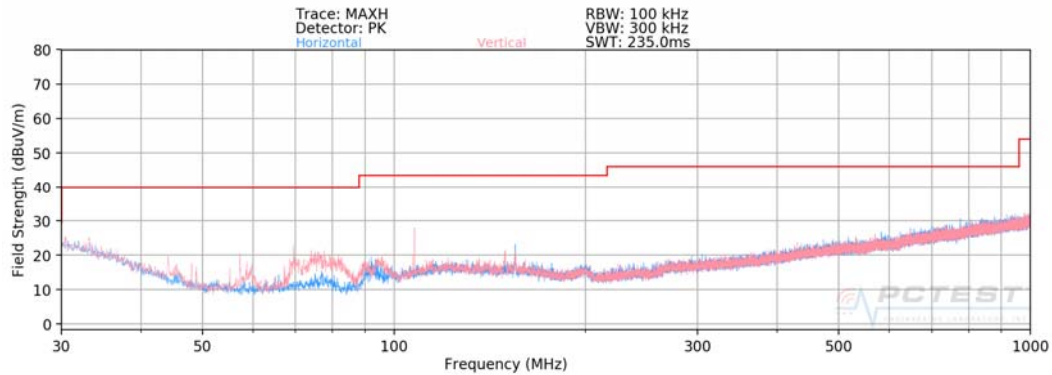


Plot 7-230. Radiated Spurious Plot below 1GHz SISO ANT2 (242 Tones)

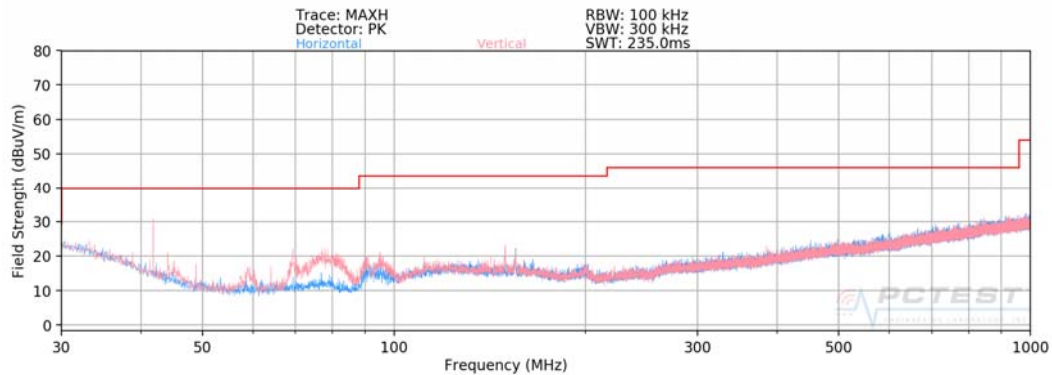
FCC ID: A3LSCV42		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240018-05.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset	Page 149 of 151	

MIMO Radiated Spurious Emissions Measurements (Below 1GHz)

§15.209; RSS-Gen [8.9]



Plot 7-231. Radiated Spurious Plot below 1GHz MIMO (106 Tones)



Plot 7-232. Radiated Spurious Plot below 1GHz MIMO (242 Tones)

FCC ID: A3LSCV42		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240018-05.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 150 of 151

8.0 CONCLUSION

The data collected relate only the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSCV42** 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: A3LSCV42		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240018-05.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset	Page 151 of 151	