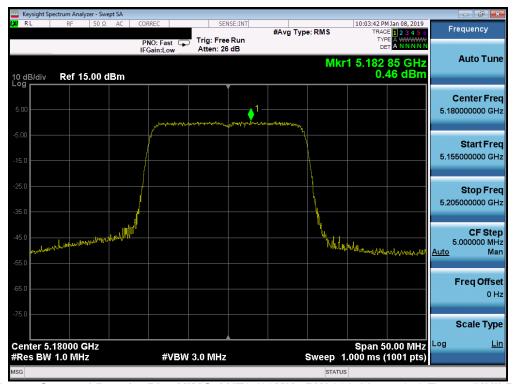


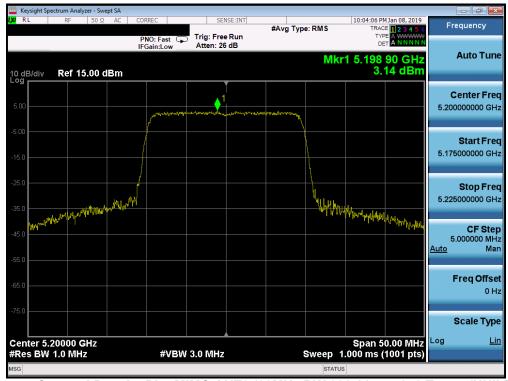
MIMO Antenna-2 Power Spectral Density Measurements (242 Tones)



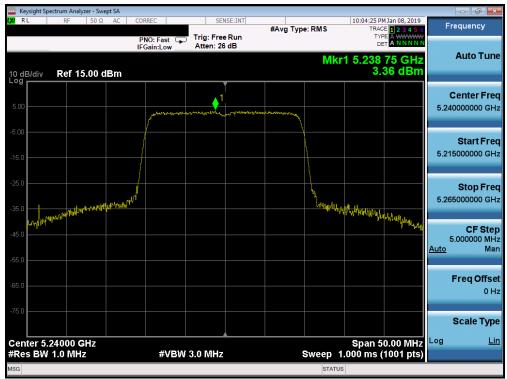
Plot 7-577. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 242 Tones (UNII Band 1) – Ch.

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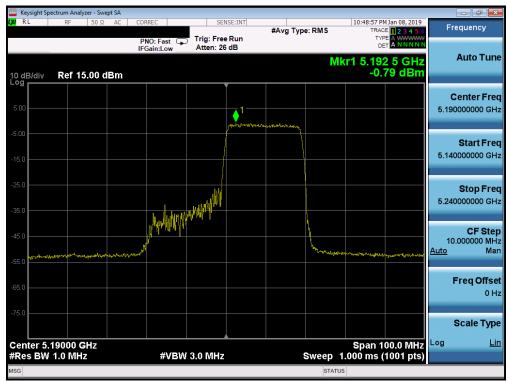
Plot 7-578. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 242 Tones (UNII Band 1) – Ch. 40)



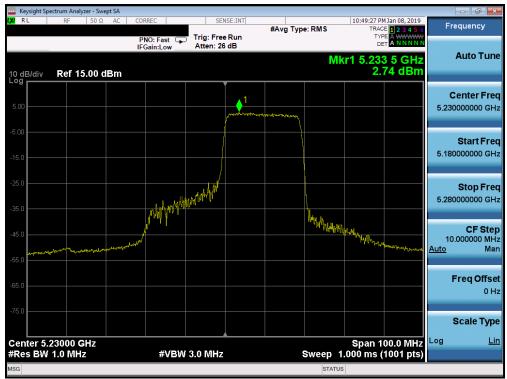
Plot 7-579. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 242 Tones (UNII Band 1) – Ch. 48)

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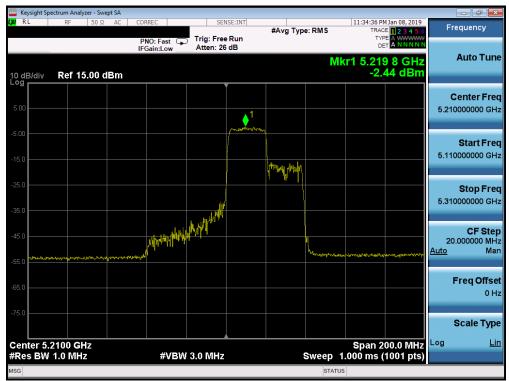
Plot 7-580. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax - 242 Tones (UNII Band 1) - Ch. 38)



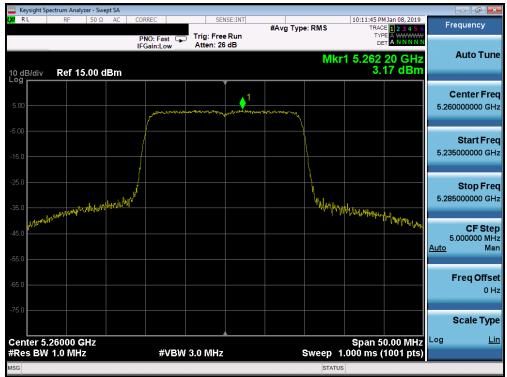
Plot 7-581. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 242 Tones (UNII Band 1) – Ch. 46)

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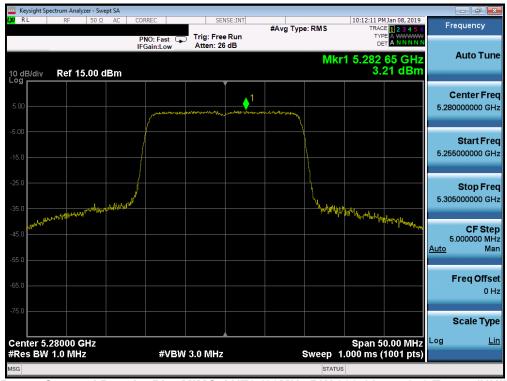
Plot 7-582. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 242 Tones (UNII Band 1) – Ch. 42)



Plot 7-583. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 242 Tones (UNII Band 2A) – Ch. 52)

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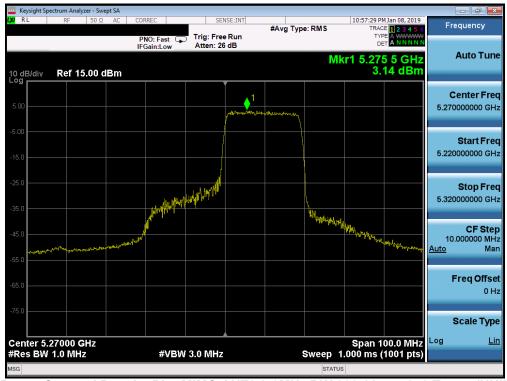
Plot 7-584. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax - 242 Tones (UNII Band 2A) -Ch. 56)



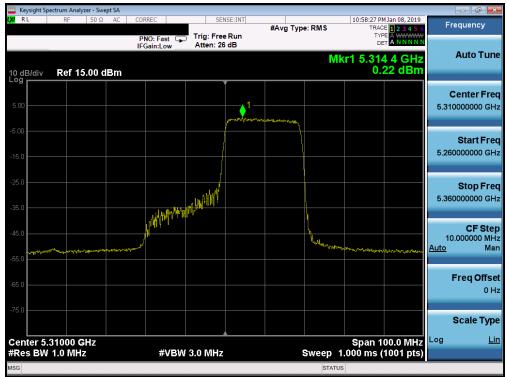
Plot 7-585. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax - 242 Tones (UNII Band 2A) -Ch. 64)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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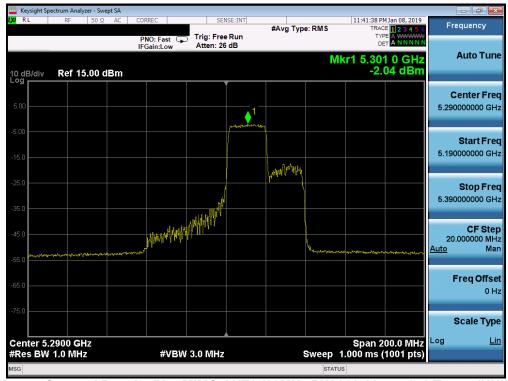
Plot 7-586. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax - 242 Tones (UNII Band 2A) -Ch. 54)



Plot 7-587. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax - 242 Tones (UNII Band 2A) -Ch. 62)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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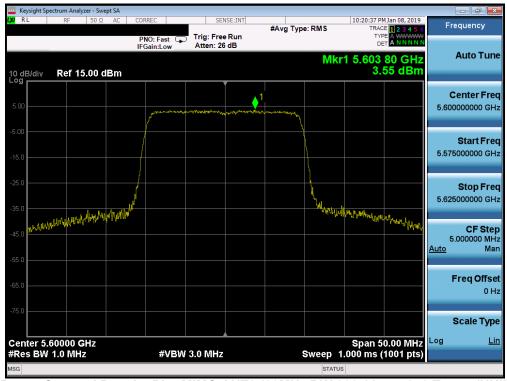
Plot 7-588. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax - 242 Tones (UNII Band 2A) -Ch. 58)



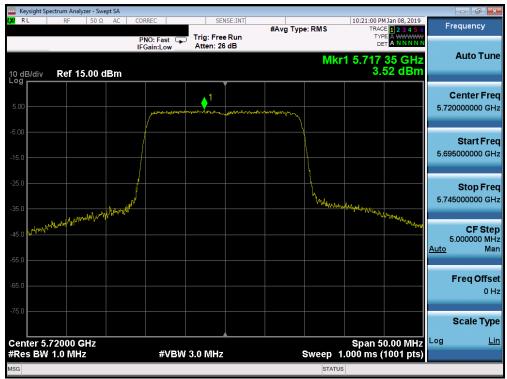
Plot 7-589. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax - 242 Tones (UNII Band 2C) -Ch. 100)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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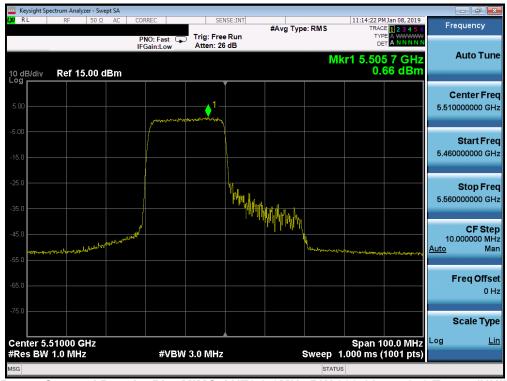
Plot 7-590. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax - 242 Tones (UNII Band 2C) -Ch. 120)



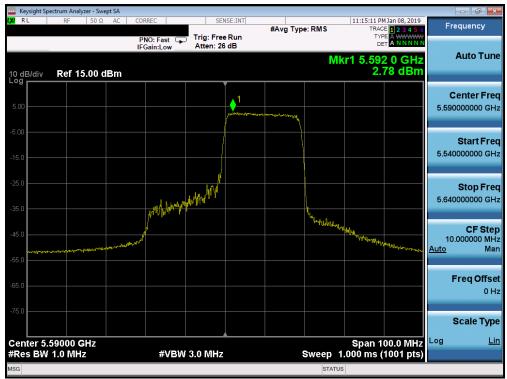
Plot 7-591. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax - 242 Tones (UNII Band 2C) -Ch. 144)

FCC ID: A3LSMG9700	THE STATE OF THE S	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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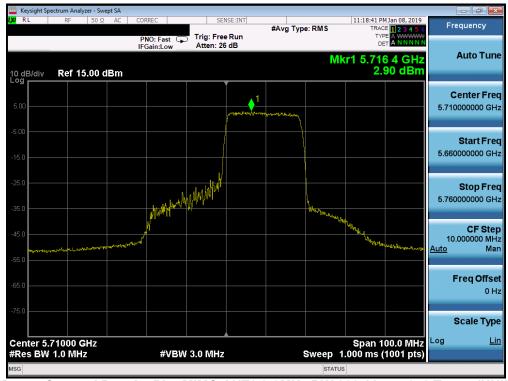
Plot 7-592. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax - 242 Tones (UNII Band 2C) -Ch. 102)



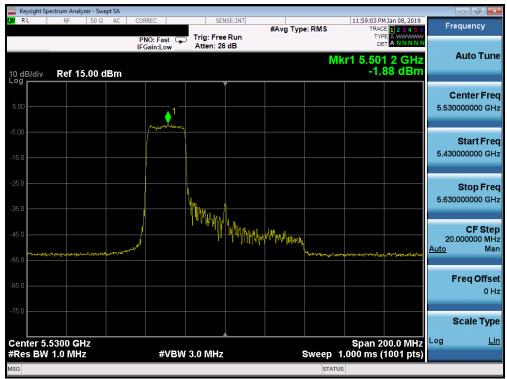
Plot 7-593. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax - 242 Tones (UNII Band 2C) -Ch. 118)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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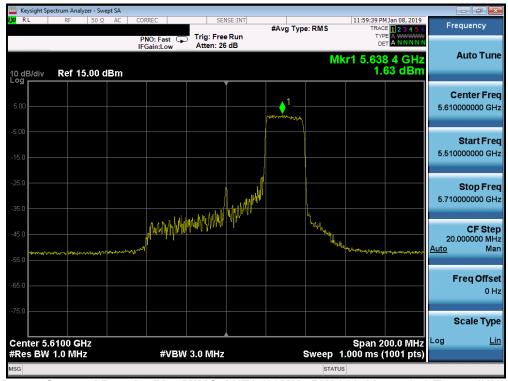
Plot 7-594. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax - 242 Tones (UNII Band 2C) -Ch. 142)



Plot 7-595. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax - 242 Tones (UNII Band 2C) -Ch. 106)

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Plot 7-596. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax - 242 Tones (UNII Band 2C) -Ch. 122)



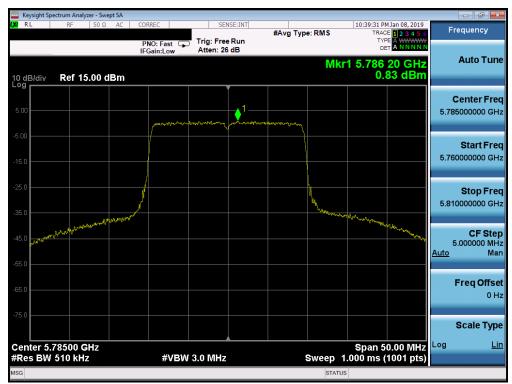
Plot 7-597. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax - 242 Tones (UNII Band 2C) -Ch. 138)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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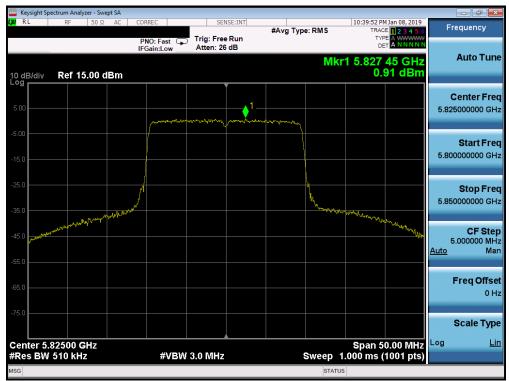
Plot 7-598. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax - 242 Tones (UNII Band 3) - Ch. 149)



Plot 7-599. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax - 242 Tones (UNII Band 3) - Ch.

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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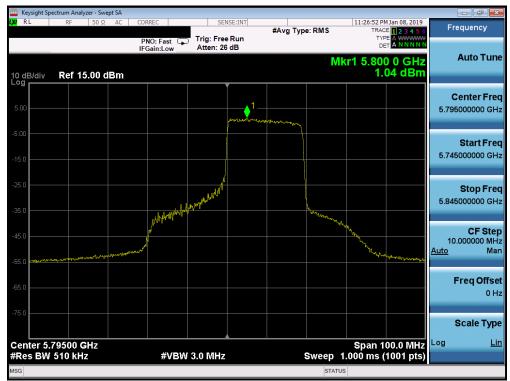
Plot 7-600. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax - 242 Tones (UNII Band 3) - Ch. 165)



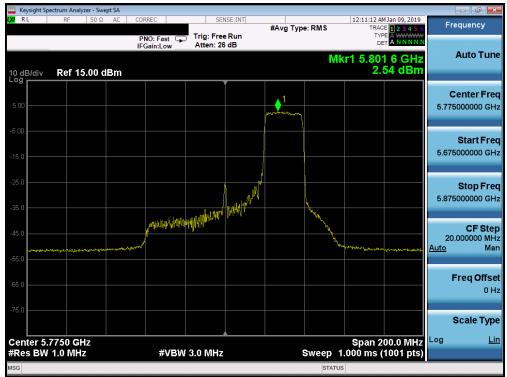
Plot 7-601. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 151)

FCC ID: A3LSMG9700	THE STATE OF THE S	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-602. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax - 242 Tones (UNII Band 3) - Ch. 159)

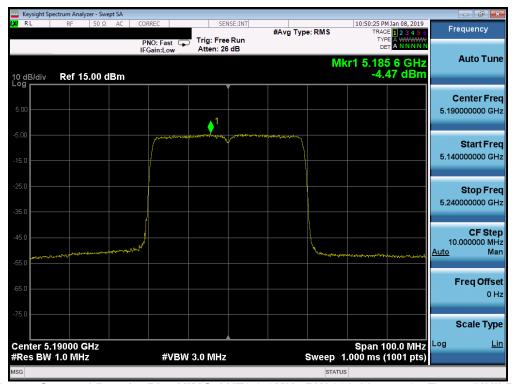


Plot 7-603. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 155)

FCC ID: A3LSMG9700	THE STATE OF THE S	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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MIMO Antenna-2 Power Spectral Density Measurements (484 Tones)



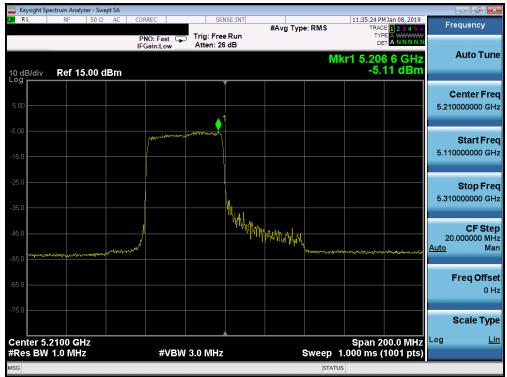
Plot 7-604. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax - 484 Tones (UNII Band 1) - Ch.

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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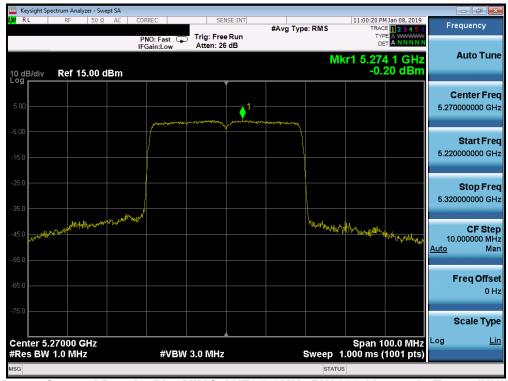
Plot 7-605. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 484 Tones (UNII Band 1) – Ch. 46)



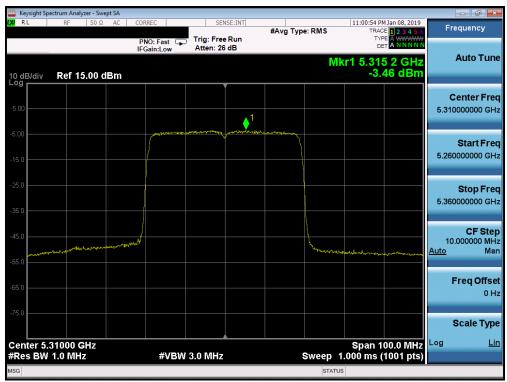
Plot 7-606. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 484 Tones (UNII Band 1) – Ch. 42)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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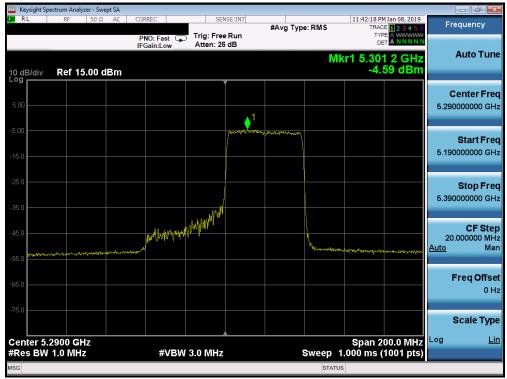
Plot 7-607. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax - 484 Tones (UNII Band 2A) -Ch. 54)



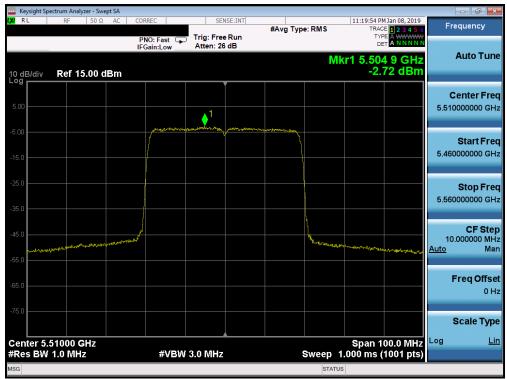
Plot 7-608. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax - 484 Tones (UNII Band 2A) -Ch. 62)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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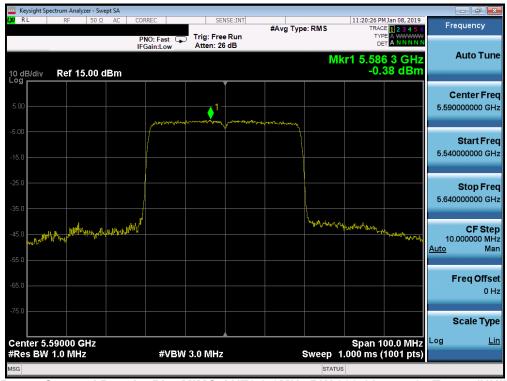
Plot 7-609. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax - 484 Tones (UNII Band 2A) -Ch. 58)



Plot 7-610. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax - 484 Tones (UNII Band 2C) -Ch. 102)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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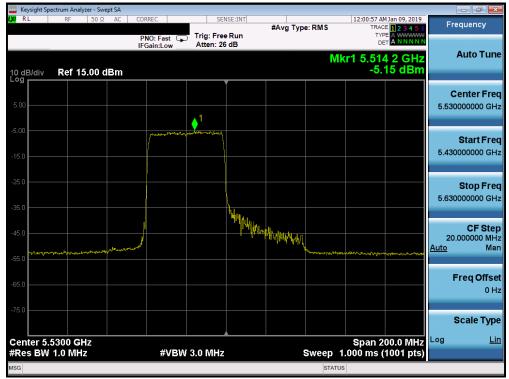
Plot 7-611. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax - 484 Tones (UNII Band 2C) -Ch. 118)



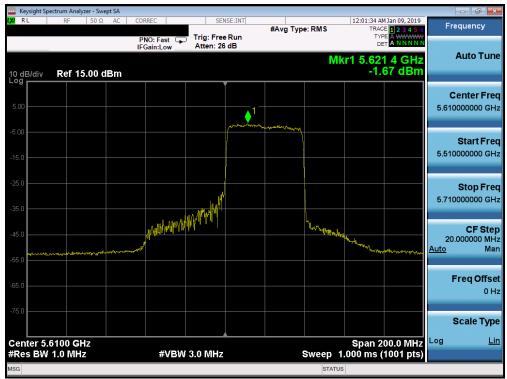
Plot 7-612. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax - 484 Tones (UNII Band 2C) -Ch. 142)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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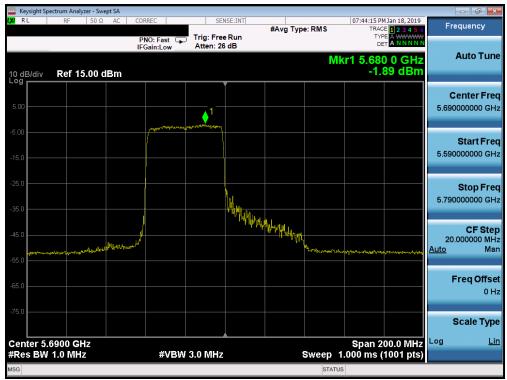
Plot 7-613. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax - 484 Tones (UNII Band 2C) -Ch. 106)



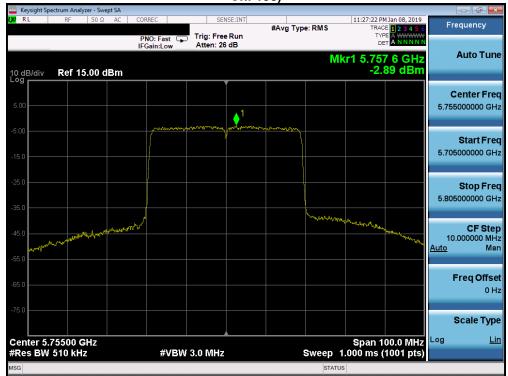
Plot 7-614. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax - 484 Tones (UNII Band 2C) -Ch. 122)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-615. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 138)



Plot 7-616. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 484 Tones (UNII Band 3) – Ch. 151)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-617. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 484 Tones (UNII Band 3) – Ch. 159)

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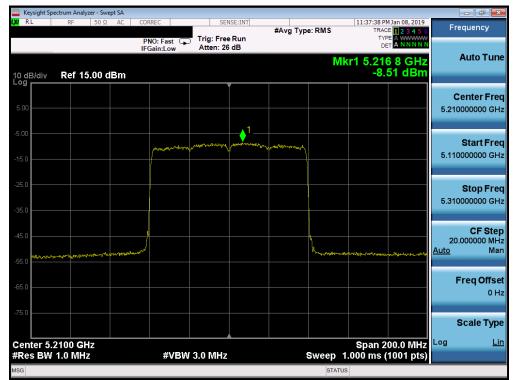


Plot 7-618. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 484 Tones (UNII Band 3) – Ch. 155)

FCC ID: A3LSMG9700	FETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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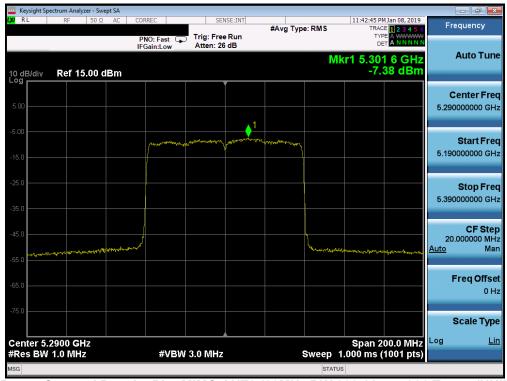
MIMO Antenna-2 Power Spectral Density Measurements (996 Tones)



Plot 7-619. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 996 Tones (UNII Band 1) – Ch. 42)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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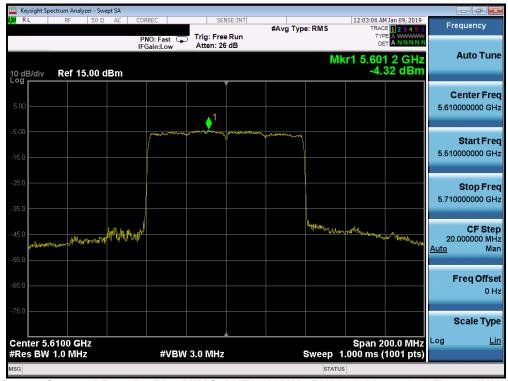
Plot 7-620. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax - 996 Tones (UNII Band 2A) -Ch. 58)



Plot 7-621. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax - 996 Tones (UNII Band 2C) -Ch. 106)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-622. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax - 996 Tones (UNII Band 2C) - Ch. 122)



Plot 7-623. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 996 Tones (UNII Band 2C) – Ch. 138)

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Plot 7-624. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 996 Tones (UNII Band 3) – Ch. 155)

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7.6 Radiated Spurious Emission Measurements – Above 1GHz §15.407(b) §15.205 §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 its maximum power control level, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, and at the appropriate frequencies. All channels, modes (e.g.26 Tones, 52 Toens, 106 Tones, 242 Toens, 484 Tones and 996 Toens), and modulations/data rates were investigated among all UNII bands. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

For transmitters operating in the 5.15-5.25 GHz and 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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 7-30 per Section 15.209 and RSS-Gen (8.9).

Frequency	Field Strength [μV/m]	Measured Distance [Meters]
Above 960.0 MHz	500	3

Table 7-117. Radiated Limits

Test Procedures Used

ANSI C63.10-2013 – Sections 12.7.7.2, 12.7.6, 12.7.5 KDB 789033 D02 v02r01 – Section G

Test Settings

Average Measurements above 1GHz (Method AD)

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW = 3MHz
- 4. Detector = power average (RMS)
- 5. Number of measurement points = 1001 (Number of points must be \geq 2 x span/RBW)
- 6. Averaging type = power (RMS)
- 7. Sweep time = auto couple
- 8. Trace was averaged over 100 sweeps

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Peak Measurements above 1GHz

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW = 3MHz
- 4. Detector = peak
- 5. Sweep time = auto couple
- 6. Trace mode = max hold
- 7. Trace was allowed to stabilize

Peak Measurements below 1GHz

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. Span was set greater than 1MHz
- 3. RBW = 120kHz
- 4. Detector = CISPR quasi-peak
- 5. Sweep time = auto couple
- 6. Trace was allowed to stabilize

Test Setup

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

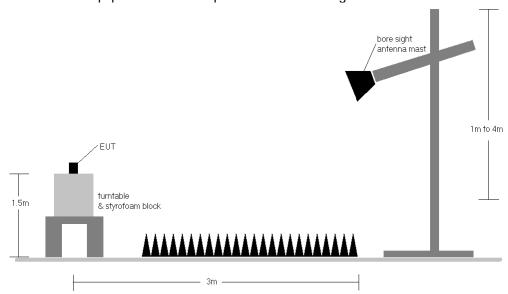


Figure 7-5. Test Instrument & Measurement Setup

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Test Notes

- 1. All emissions that lie in the restricted bands (denoted by a * next to the frequency) specified in §15.205 and Section 8.10 of RSS-Gen are below the limit shown in Table 7-30.
- 2. All spurious emissions lying in restricted bands specified in §15.205 and Section 8.10 of RSS-Gen are below the limit shown in Table 7-30. All spurious emissions that do not lie in a restricted band are subject to a peak limit of -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/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 68.2dBμV/m.
- 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

- ο Field Strength Level $[dB\mu V/m]$ = Analyzer Level [dBm] + 107 + AFCL [dB/m]
- AFCL [dB/m] = Antenna Factor [dB/m] + Cable Loss [dB]
- Margin [dB] = Field Strength Level [dBμV/m] Limit [dBμV/m]

Radiated Band Edge Measurement Offset

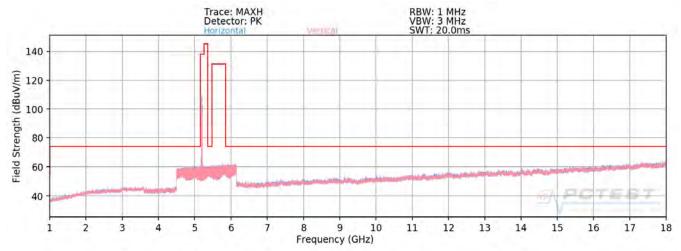
- The amplitude offset shown in the radiated restricted band edge plots in Section 7.8 was calculated using the formula:
 - Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) Preamplifier Gain

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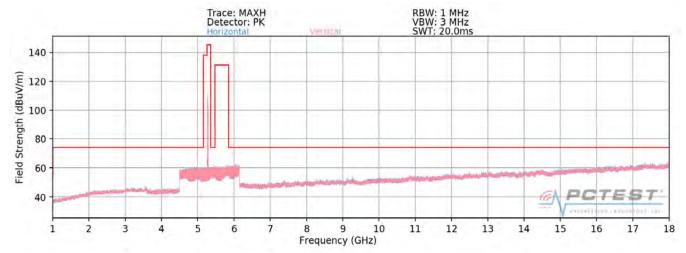


7.6.1 SISO Antenna-1 Radiated Spurious Emission Measurements

106 Tones



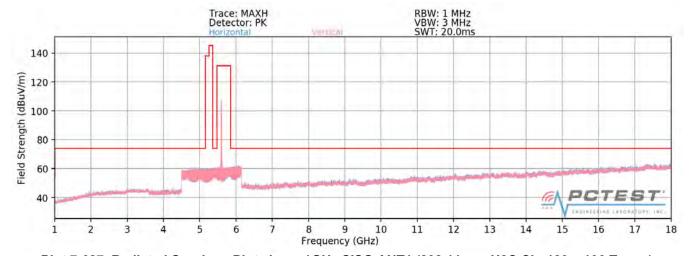
Plot 7-625. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11ax – U1 Ch. 40 – 106 Tones)



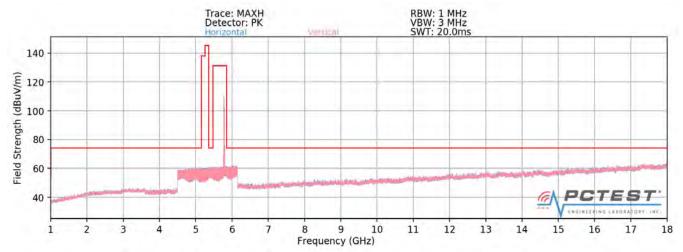
Plot 7-626. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11ax – U2A Ch. 56 – 106 Tones)

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Plot 7-627. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11ax – U2C Ch. 120 – 106 Tones)

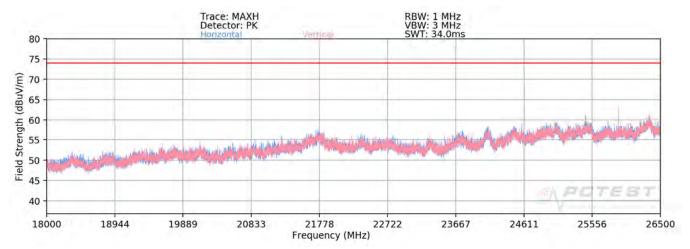


Plot 7-628. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11ax – U3 Ch. 157 – 106 Tones)

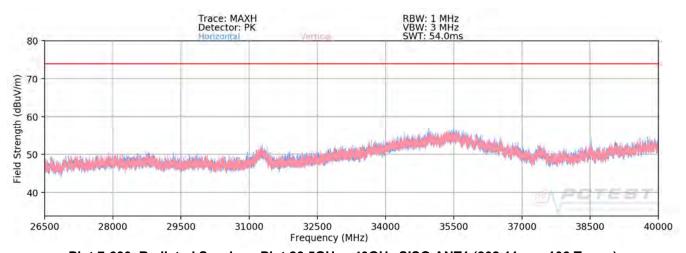
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SISO Antenna-1 Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-629. Radiated Spurious Plot 18GHz - 26.5GHz SISO ANT1 (802.11ax - 106 Tones)



Plot 7-630. Radiated Spurious Plot 26.5GHz - 40GHz SISO ANT1 (802.11ax - 106 Tones)

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SISO Antenna-1 Radiated Spurious Emission Measurements (106 Tones) §15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

(b) 910.200 & 910.200, ROO-Gen [0.0]

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5180MHz

Channel: 36

	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]
	10360.00	Peak	Н	400	293	-63.24	12.74	0.00	56.50	68.20	-11.70
*	15540.00	Average	Н	-	-	-79.54	15.28	0.00	42.74	53.98	-11.24
*	15540.00	Peak	Н	-	-	-68.93	15.28	0.00	53.35	73.98	-20.63
*	20720.00	Average	Н	-	-	-77.92	16.92	-9.54	36.46	53.98	-17.52
*	20720.00	Peak	Н	-	-	-66.70	16.92	-9.54	47.68	73.98	-26.30
	25900.00	Peak	Н	-	-	-65.18	19.39	-9.54	51.67	68.20	-16.53

Table 7-118. Radiated Measurements SISO ANT1 (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5200MHz

Channel: 40

	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]
	10400.00	Peak	Н	372	293	-62.92	12.24	0.00	56.32	68.20	-11.88
*	15600.00	Average	Н	-	-	-79.62	15.40	0.00	42.78	53.98	-11.19
*	15600.00	Peak	Н	-	-	-68.26	15.40	0.00	54.14	73.98	-19.83
*	20800.00	Average	Н	-	-	-77.64	17.39	-9.54	37.20	53.98	-16.77
*	20800.00	Peak	Н	-	-	-66.77	17.39	-9.54	48.07	73.98	-25.90
	26000.00	Peak	Н	-	-	-64.69	19.98	-9.54	52.74	68.20	-15.46

Table 7-119. Radiated Measurements SISO ANT1 (106 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5240MHz

Channel: 48

	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]
	10480.00	Peak	Н	398	296	-62.63	12.41	0.00	56.78	68.20	-11.42
*	15720.00	Average	Н	-	-	-79.89	16.70	0.00	43.81	53.98	-10.17
*	15720.00	Peak	Н	-	-	-68.82	16.70	0.00	54.88	73.98	-19.10
*	20960.00	Average	Н	-	-	-77.90	17.29	-9.54	36.85	53.98	-17.13
*	20960.00	Peak	Н	-	-	-66.95	17.29	-9.54	47.80	73.98	-26.18
	26200.00	Peak	Н	-	-	-65.02	19.80	-9.54	52.24	68.20	-15.96

Table 7-120. Radiated Measurements SISO ANT1 (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index:

53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5240MHz

Channel: 48

	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]
	10480.00	Peak	Н	-	-	-62.98	12.41	0.00	56.43	68.20	-11.77
*	15720.00	Average	Н	-	-	-79.99	16.70	0.00	43.71	53.98	-10.27
*	15720.00	Peak	Н	-	-	-69.12	16.70	0.00	54.58	73.98	-19.40
*	20960.00	Average	Н	-	-	-77.97	17.29	-9.54	36.78	53.98	-17.20
*	20960.00	Peak	Н	-	-	-67.08	17.29	-9.54	47.67	73.98	-26.31
	26200.00	Peak	Н	-	-	-64.80	19.80	-9.54	52.46	68.20	-15.74

Table 7-121. Radiated Measurements SISO ANT1 (106 Tones)with WCP

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5260MHz

Channel: 52

	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]
	10520.00	Peak	Н	361	293	-63.51	13.16	0.00	56.65	68.20	-11.55
*	15780.00	Average	Н	-	-	-79.80	16.21	0.00	43.41	53.98	-10.57
*	15780.00	Peak	Н	-	-	-69.37	16.21	0.00	53.84	73.98	-20.14
*	21040.00	Average	Н	-	-	-77.84	17.32	-9.54	36.94	53.98	-17.04
*	21040.00	Peak	Н	-	-	-66.71	17.32	-9.54	48.07	73.98	-25.91
	26300.00	Peak	Н	-	-	-65.02	20.12	-9.54	52.56	68.20	-15.64

Table 7-122. Radiated Measurements SISO ANT1 (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5280MHz

Channel: 56

	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]
	10560.00	Peak	Н	400	291	-64.32	13.66	0.00	56.34	68.20	-11.86
*	15840.00	Average	н	-	-	-79.51	15.64	0.00	43.13	53.98	-10.85
*	15840.00	Peak	Н	-	-	-68.45	15.64	0.00	54.19	73.98	-19.79
*	21120.00	Average	н	-	-	-77.68	17.26	-9.54	37.04	53.98	-16.94
*	21120.00	Peak	Н	-	-	-66.49	17.26	-9.54	48.23	73.98	-25.75
	26400.00	Peak	Н	-	-	-64.89	19.67	-9.54	52.24	68.20	-15.96

Table 7-123. Radiated Measurements SISO ANT1 (106 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5320MHz

Channel: 64

	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]
*	10640.00	Average	Ι	400	292	-78.03	14.15	0.00	43.12	53.98	-10.86
*	10640.00	Peak	Н	400	292	-66.74	14.15	0.00	54.41	73.98	-19.57
*	15960.00	Average	Н	223	344	-79.02	15.01	0.00	42.99	53.98	-10.99
*	15960.00	Peak	Н	223	344	-65.81	15.01	0.00	56.20	73.98	-17.78
*	21280.00	Average	Н	-	-	-77.91	17.51	-9.54	37.06	53.98	-16.92
*	21280.00	Peak	Н	-	-	-66.74	17.51	-9.54	48.23	73.98	-25.75
	26600.00	Peak	Н	-	-	-49.87	1.44	-9.54	49.03	68.20	-19.17

Table 7-124. Radiated Measurements SISO ANT1 (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5260MHz

Channel: 52

Distance Ant. **Antenna Turntable** Analyzer **Field** Frequency **AFCL** Margin Correction Limit **Detector** Pol. Height **Azimuth** Level Strength [MHz] [dB/m] [dBµV/m] [dB] **Factor** [dBµV/m] [H/V] [degree] [dBm] [cm] [dB] 10520.00 Peak Η -67.76 13.16 0.00 52.40 68.20 -15.80 15780.00 Average Н -80.22 16.21 0.00 42.99 53.98 -10.99 15780.00 Peak Η -79.22 16.21 0.00 43.99 73.98 -29.99 21040.00 Average Н -77.41 17.32 -9.54 37.37 53.98 -16.61 21040.00 Peak Η -66.38 17.32 -9.54 48.40 73.98 -25.58 26300.00 -64.91 Peak Н 20.12 -9.54 52.67 68.20 -15.53

Table 7-125. Radiated Measurements SISO ANT1 (106 Tones)with WCP

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5500MHz

Channel: 100

	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]
*	11000.00	Average	Н	326	86	-78.59	13.55	0.00	41.96	53.98	-12.02
*	11000.00	Peak	Н	326	86	-67.93	13.55	0.00	52.62	73.98	-21.36
	16500.00	Peak	Н	234	344	-61.97	16.10	0.00	61.13	68.20	-7.07
	22000.00	Peak	Н	-	-	-66.54	18.25	-9.54	49.17	68.20	-19.03
	27500.00	Peak	Н	-	-	-48.26	0.12	-9.54	49.32	68.20	-18.88

Table 7-126. Radiated Measurements SISO ANT1 (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5600MHz

	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]
*	11200.00	Average	Н	ı	-	-79.40	13.31	0.00	40.91	53.98	-13.07
*	11200.00	Peak	Н	-	-	-68.94	13.31	0.00	51.37	73.98	-22.61
	16800.00	Peak	Н	252	352	-61.65	17.53	0.00	62.88	68.20	-5.32
*	22400.00	Average	Н	-	-	-77.93	19.00	-9.54	38.53	53.98	-15.45
*	22400.00	Peak	Н	-	-	-66.42	19.00	-9.54	50.04	73.98	-23.94
	28000.00	Peak	Н	-	-	-48.57	0.74	-9.54	49.62	68.20	-18.58

Table 7-127. Radiated Measurements SISO ANT1 (106 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5720MHz

Channel: 144

	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]
*	11440.00	Average	Н		-	-79.45	15.10	0.00	42.65	53.98	-11.33
*	11440.00	Peak	Н	-	-	-68.62	15.10	0.00	53.48	73.98	-20.50
	17160.00	Peak	Н	240	82	-66.17	18.83	0.00	59.66	68.20	-8.54
*	22880.00	Average	Н	-	-	-77.71	18.40	-9.54	38.15	53.98	-15.83
*	22880.00	Peak	Н	-	-	-66.50	18.40	-9.54	49.36	73.98	-24.62
	28600.00	Peak	Н	-	-	-49.08	0.41	-9.54	48.79	68.20	-19.41

Table 7-128. Radiated Measurements SISO ANT1 (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5600MHz

	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]
*	11200.00	Average	Н	-	-	-79.66	13.31	0.00	40.65	53.98	-13.33
*	11200.00	Peak	н	-	-	-68.77	13.31	0.00	51.54	73.98	-22.44
	16800.00	Peak	Н	-	-	-61.98	17.53	0.00	62.55	68.20	-5.65
*	22400.00	Average	Н	-	-	-77.84	19.00	-9.54	38.62	53.98	-15.36
*	22400.00	Peak	Н	-	-	-66.64	19.00	-9.54	49.82	73.98	-24.16
	28000.00	Peak	Н	-	-	-48.41	0.74	-9.54	49.78	68.20	-18.42

Table 7-129. Radiated Measurements SISO ANT1 (106 Tones)with WCP

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Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5745MHz

Channel: 149

	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]
*	11490.00	Average	Н	-	-	-79.30	15.22	0.00	42.92	53.98	-11.06
*	11490.00	Peak	Н	-	-	-68.26	15.22	0.00	53.96	73.98	-20.02
	17235.00	Peak	Н	240	348	-64.47	19.54	0.00	62.07	68.20	-6.13
*	22980.00	Average	Н	-	-	-77.49	17.92	-9.54	37.89	53.98	-16.09
*	22980.00	Peak	Н	-	-	-66.94	17.92	-9.54	48.44	73.98	-25.54
	28725.00	Peak	Н	-	-	-49.18	0.67	-9.54	48.95	68.20	-19.25

Table 7-130. Radiated Measurements SISO ANT1 (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5785MHz

	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]
*	11570.00	Average	Н	-	-	-79.18	15.02	0.00	42.84	53.98	-11.14
*	11570.00	Peak	Н	-	-	-68.15	15.02	0.00	53.87	73.98	-20.11
	17355.00	Peak	Н	-	-	-69.70	23.41	0.00	60.71	68.20	-7.49
	23140.00	Peak	Н	-	-	-66.67	18.32	-9.54	49.11	68.20	-19.09
	28925.00	Peak	Н	-	-	-49.08	0.75	-9.54	49.13	68.20	-19.07

Table 7-131. Radiated Measurements SISO ANT1 (106 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

53

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5825MHz

Channel:

RU Index:

165

	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]
*	11650.00	Average	Н	-	-	-79.21	14.92	0.00	42.71	53.98	-11.27
*	11650.00	Peak	Н	-	-	-68.03	14.92	0.00	53.89	73.98	-20.09
	17475.00	Peak	Н	-	-	-69.75	21.86	0.00	59.11	68.20	-9.09
	23300.00	Peak	Н	-	-	-66.79	18.77	-9.54	49.44	68.20	-18.76
	29125.00	Peak	Н	-	-	-49.14	-0.12	-9.54	48.20	68.20	-20.00

Table 7-132. Radiated Measurements SISO ANT1 (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5745MHz

Channel: 149

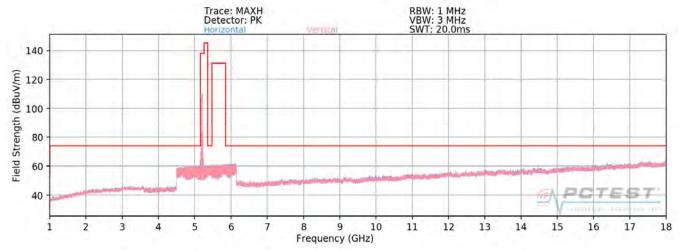
	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11490.00	Average	Н	-	-	-79.35	15.22	0.00	42.87	53.98	-11.11
*	11490.00	Peak	н	-	-	-68.22	15.22	0.00	54.00	73.98	-19.98
	17235.00	Peak	Н	-	-	-65.21	19.54	0.00	61.33	68.20	-6.87
*	22980.00	Average	Н	-	-	-77.68	17.92	-9.54	37.70	53.98	-16.28
*	22980.00	Peak	Н	-	-	-66.74	17.92	-9.54	48.64	73.98	-25.34
	28725.00	Peak	Н	-	-	-48.98	0.67	-9.54	49.15	68.20	-19.05

Table 7-133. Radiated Measurements SISO ANT1 (106 Tones)with WCP

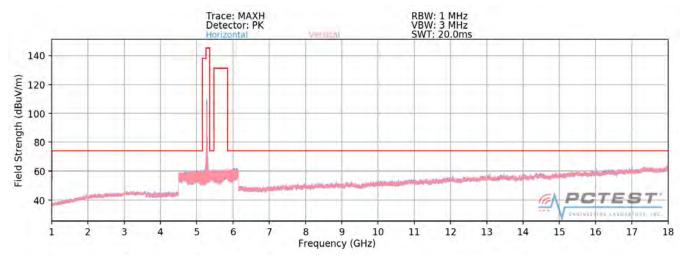
FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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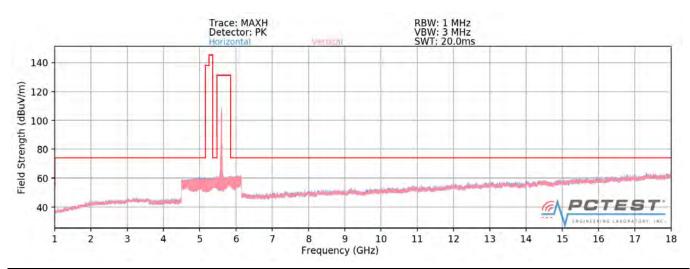
242 Tones



Plot 7-631. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11ax – U1 Ch. 40 – 242 Tones)



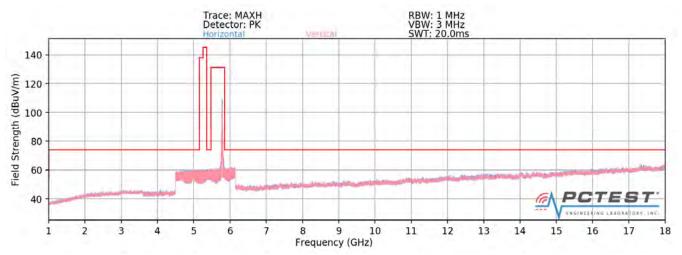
Plot 7-632. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11ax – U2A Ch. 56 – 242 Tones)



FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-633. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11ax – U2C Ch. 120 – 242 Tones)

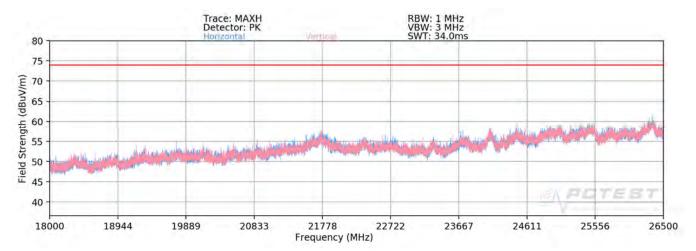


Plot 7-634. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11ax – U3 Ch. 157 – 242 Tones)

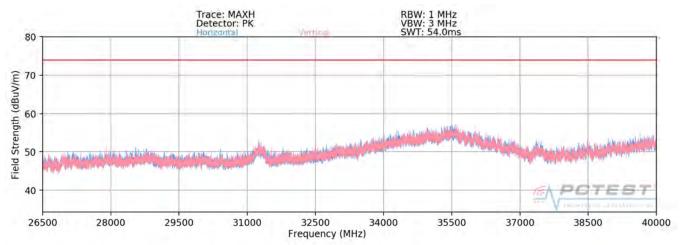
FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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SISO Antenna-1 Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-635. Radiated Spurious Plot 18GHz - 26.5GHz SISO ANT1 (802.11ax - 242 Tones)



Plot 7-636. Radiated Spurious Plot 26.5GHz - 40GHz SISO ANT1 (802.11ax - 242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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SISO Antenna-1 Radiated Spurious Emission Measurements (242 Tones) §15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5180MHz

Channel: 36

	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]
	10360.00	Peak	Н	-	-	-68.70	15.88	0.00	54.18	68.20	-14.02
*	15540.00	Average	Н	-	-	-81.17	23.03	0.00	48.86	53.98	-5.12
*	15540.00	Peak	Н	-	-	-69.52	23.03	0.00	60.51	73.98	-13.47
*	20720.00	Average	Н	-	-	-77.89	16.92	-9.54	36.49	53.98	-17.49
*	20720.00	Peak	Н	-	-	-66.74	16.92	-9.54	47.64	73.98	-26.34
	25900.00	Peak	Н	-	-	-65.05	19.39	-9.54	51.80	68.20	-16.40

Table 7-134. Radiated Measurements SISO ANT1 (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5200MHz

	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]
	10400.00	Peak	Н	-	-	-68.86	16.04	0.00	54.18	68.20	-14.02
*	15600.00	Average	Н	-	-	-80.95	23.01	0.00	49.06	53.98	-4.92
*	15600.00	Peak	Н	-	-	-69.83	23.01	0.00	60.18	73.98	-13.80
*	20800.00	Average	Н	-	-	-77.84	17.39	-9.54	37.00	53.98	-16.97
*	20800.00	Peak	Н	-	-	-66.73	17.39	-9.54	48.11	73.98	-25.86
	26000.00	Peak	Н	-	-	-65.90	19.98	-9.54	51.53	68.20	-16.67

Table 7-135. Radiated Measurements SISO ANT1 (242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5240MHz

Channel: 48

	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]
	10480.00	Peak	Н	-	-	-68.99	16.18	0.00	54.19	68.20	-14.01
*	15720.00	Average	Н	-	-	-81.20	23.46	0.00	49.26	53.98	-4.72
*	15720.00	Peak	Н	-	-	-69.70	23.46	0.00	60.76	73.98	-13.22
*	20960.00	Average	Н	-	-	-77.85	17.29	-9.54	36.90	53.98	-17.08
*	20960.00	Peak	Н	-	-	-66.14	17.29	-9.54	48.61	73.98	-25.37
•	26200.00	Peak	Н	-	-	-65.77	19.80	-9.54	51.49	68.20	-16.71

Table 7-136. Radiated Measurements SISO ANT1 (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements:

1 & 3 Meters

Operating Frequency: 5260MHz Channel: 52

	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]
	10520.00	Peak	Н	-	-	-69.27	16.24	0.00	53.97	68.20	-14.23
*	15780.00	Average	Н	-	-	-81.16	23.09	0.00	48.93	53.98	-5.05
*	15780.00	Peak	Н	-	-	-69.65	23.09	0.00	60.44	73.98	-13.54
*	21040.00	Average	Н	-	-	-77.68	17.32	-9.54	37.10	53.98	-16.88
*	21040.00	Peak	Н	-	-	-66.09	17.32	-9.54	48.69	73.98	-25.29
	26300.00	Peak	Н	-	-	-65.39	20.12	-9.54	52.19	68.20	-16.01

Table 7-137. Radiated Measurements SISO ANT1 (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5280MHz

Channel: 56

	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]
	10560.00	Peak	Н	-	-	-69.11	16.27	0.00	54.16	68.20	-14.04
*	15840.00	Average	Н	-	-	-81.32	23.65	0.00	49.33	53.98	-4.65
*	15840.00	Peak	Н	-	-	-70.10	23.65	0.00	60.55	73.98	-13.43
*	21120.00	Average	Н	-	-	-77.65	17.26	-9.54	37.07	53.98	-16.91
*	21120.00	Peak	Н	-	-	-65.86	17.26	-9.54	48.86	73.98	-25.12
•	26400.00	Peak	Н	-	-	-65.29	19.67	-9.54	51.84	68.20	-16.36

Table 7-138. Radiated Measurements SISO ANT1 (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5320MHz

	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]
*	10640.00	Average	Н	-	-	-80.83	16.99	0.00	43.16	53.98	-10.82
*	10640.00	Peak	Н	-	-	-69.10	16.99	0.00	54.89	73.98	-19.09
*	15960.00	Average	Н	-	-	-81.25	23.61	0.00	49.36	53.98	-4.62
*	15960.00	Peak	Н	-	-	-69.93	23.61	0.00	60.68	73.98	-13.30
*	21280.00	Average	Н	-	-	-77.52	17.51	-9.54	37.45	53.98	-16.53
*	21280.00	Peak	Н	-	-	-65.99	17.51	-9.54	48.98	73.98	-25.00
	26600.00	Peak	Н	-	-	-49.73	1.44	-9.54	49.17	68.20	-19.03

Table 7-139. Radiated Measurements SISO ANT1 (242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

04

RU Index:

61

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5500MHz

Channel:

100

	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]
*	11000.00	Average	Н	-	-	-80.28	17.61	0.00	44.33	53.98	-9.65
*	11000.00	Peak	Н	-	-	-68.23	17.61	0.00	56.38	73.98	-17.60
	16500.00	Peak	Н	-	-	-68.87	25.31	0.00	63.44	68.20	-4.76
•	22000.00	Peak	Н	-	-	-66.42	18.25	-9.54	49.29	68.20	-18.91
	27500.00	Peak	Н	-	-	-48.36	0.12	-9.54	49.22	68.20	-18.98

Table 7-140. Radiated Measurements SISO ANT1 (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5600MHz

	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]
*	11200.00	Average	Н	-	-	-80.29	16.98	0.00	43.69	53.98	-10.29
*	11200.00	Peak	Н	-	-	-67.67	16.98	0.00	56.31	73.98	-17.67
	16800.00	Peak	Н	-	-	-69.69	24.87	0.00	62.18	68.20	-6.02
*	22400.00	Average	Н	-	-	-78.00	19.00	-9.54	38.46	53.98	-15.52
*	22400.00	Peak	Н	-	-	-67.15	19.00	-9.54	49.31	73.98	-24.67
•	28000.00	Peak	Н	-	-	-48.58	0.74	-9.54	49.61	68.20	-18.59

Table 7-141. Radiated Measurements SISO ANT1 (242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

04

RU Index:

61

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5720MHz

Channel:

144

	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]
*	11440.00	Average	Н	-	-	-81.00	18.07	0.00	44.07	53.98	-9.91
*	11440.00	Peak	н	-	-	-69.60	18.07	0.00	55.47	73.98	-18.51
	17160.00	Peak	П	-	-	-68.43	24.98	0.00	63.55	68.20	-4.65
*	22880.00	Average	н	-	-	-78.13	18.40	-9.54	37.73	53.98	-16.25
*	22880.00	Peak	Н	-	-	-67.05	18.40	-9.54	48.81	73.98	-25.17
	28600.00	Peak	Н	-	-	-48.96	0.41	-9.54	48.91	68.20	-19.29

Table 7-142. Radiated Measurements SISO ANT1 (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5745MHz

Channel: 149

	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]
*	11490.00	Average	Η	351	33	-80.15	18.31	0.00	45.16	53.98	-8.82
*	11490.00	Peak	Н	351	33	-68.44	18.31	0.00	56.87	73.98	-17.11
•	17235.00	Peak	Н	233	350	-67.76	25.66	0.00	64.90	68.20	-3.30
*	22980.00	Average	Н	-	-	-77.87	17.92	-9.54	37.51	53.98	-16.47
*	22980.00	Peak	Н	-	-	-67.24	17.92	-9.54	48.14	73.98	-25.84
	28725.00	Peak	Н	-	-	-49.32	0.67	-9.54	48.81	68.20	-19.39

Table 7-143. Radiated Measurements SISO ANT1 (242 Tones)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5785MHz

Channel: 157

	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]
*	11570.00	Average	Н	343	84	-79.94	18.06	0.00	45.12	53.98	-8.86
*	11570.00	Peak	Н	343	84	-68.54	18.06	0.00	56.52	73.98	-17.46
	17355.00	Peak	Н	242	341	-69.22	27.10	0.00	64.88	68.20	-3.32
	23140.00	Peak	Н	-	-	-67.08	18.32	-9.54	48.70	68.20	-19.50
	28925.00	Peak	Н	-	-	-48.92	0.75	-9.54	49.29	68.20	-18.91

Table 7-144. Radiated Measurements SISO ANT1 (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5825MHz

	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]
*	11650.00	Average	Н	255	65	-78.81	18.25	0.00	46.44	53.98	-7.54
*	11650.00	Peak	Н	255	65	-66.66	18.25	0.00	58.59	73.98	-15.39
	17475.00	Peak	Н	256	341	-69.32	26.28	0.00	63.96	68.20	-4.24
	23300.00	Peak	Н	-	-	-66.93	18.77	-9.54	49.30	68.20	-18.90
	29125.00	Peak	Н	-	-	-48.56	-0.12	-9.54	48.78	68.20	-19.42

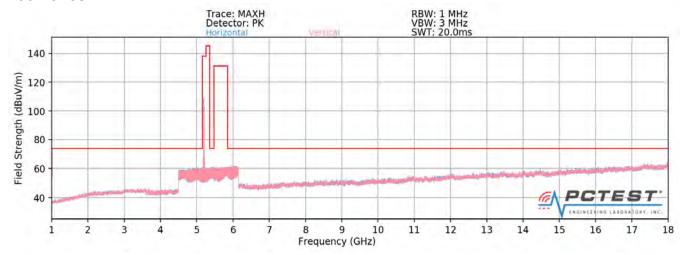
Table 7-145. Radiated Measurements SISO ANT1 (242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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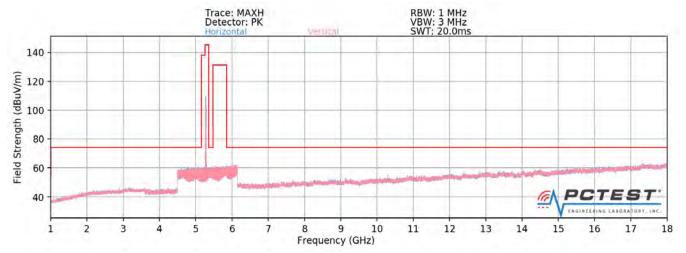


7.6.2 SISO Antenna-2 Radiated Spurious Emission Measurements

106 Tones



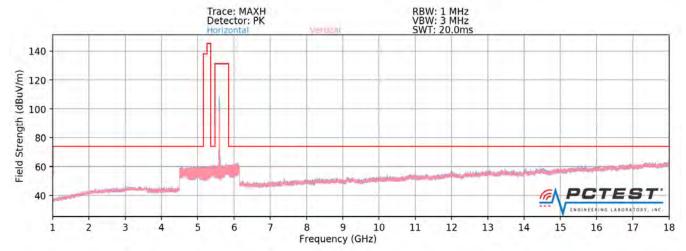
Plot 7-637. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax – U1 Ch. 40 – 106 Tones)



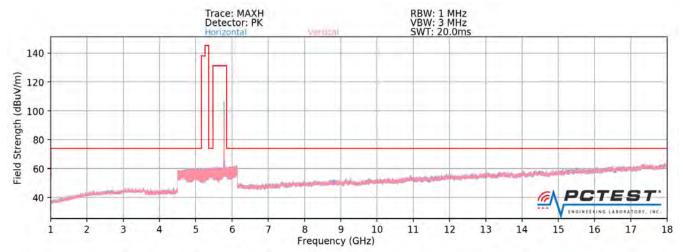
Plot 7-638. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax – U2A Ch. 56 – 106 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-639. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax – U2C Ch. 120 – 106 Tones)

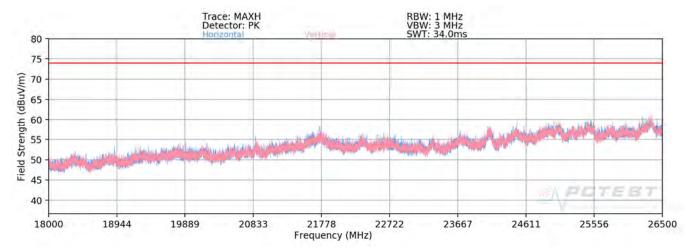


Plot 7-640. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax – U3 Ch. 157 – 106 Tones)

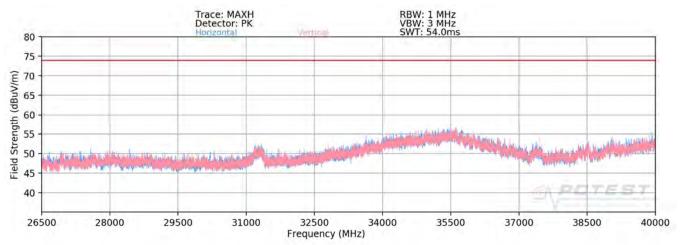
FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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SISO Antenna-2 Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-641. Radiated Spurious Plot 18GHz - 26.5GHz SISO ANT2 (802.11ax - 106 Tones)



Plot 7-642. Radiated Spurious Plot 26.5GHz - 40GHz SISO ANT2 (802.11ax - 106 Tones)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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SISO Antenna-2 Radiated Spurious Emission Measurements (106 Tones) §15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5180MHz

Channel: 36

	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]
	10360.00	Peak	Н	258	232	-67.27	12.74	0.00	52.47	68.20	-15.73
*	15540.00	Average	Н	116	152	-79.52	15.28	0.00	42.76	53.98	-11.22
*	15540.00	Peak	Н	116	152	-69.24	15.28	0.00	53.04	73.98	-20.94
*	20720.00	Average	Н	-	-	-78.08	16.92	-9.54	36.30	53.98	-17.68
*	20720.00	Peak	Н	-	-	-66.72	16.92	-9.54	47.66	73.98	-26.32
	25900.00	Peak	Н	-	-	-65.40	19.39	-9.54	51.45	68.20	-16.75

Table 7-146. Radiated Measurements SISO ANT2 (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5200MHz

	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]
	10400.00	Peak	Н	298	55	-68.06	12.24	0.00	51.18	68.20	-17.02
*	15600.00	Average	Н	-	-	-79.46	15.40	0.00	42.94	53.98	-11.03
*	15600.00	Peak	Н	-	-	-69.20	15.40	0.00	53.20	73.98	-20.77
*	20800.00	Average	Н	-	-	-77.94	17.39	-9.54	36.90	53.98	-17.07
*	20800.00	Peak	Н	-	-	-67.19	17.39	-9.54	47.65	73.98	-26.32
	26000.00	Peak	Н	-	-	-65.56	19.98	-9.54	51.87	68.20	-16.33

Table 7-147. Radiated Measurements SISO ANT2 (106 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

RU Index:

53

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5240MHz

Channel:

48

	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]
	10480.00	Peak	Н	306	41	-66.44	12.41	0.00	52.97	68.20	-15.23
*	15720.00	Average	Н	-	-	-79.58	16.70	0.00	44.12	53.98	-9.86
*	15720.00	Peak	Н	-	-	-69.57	16.70	0.00	54.13	73.98	-19.85
*	20960.00	Average	Н	-	-	-77.82	17.29	-9.54	36.93	53.98	-17.05
*	20960.00	Peak	Н	-	-	-67.01	17.29	-9.54	47.74	73.98	-26.24
	26200.00	Peak	Н	-	-	-65.70	19.80	-9.54	51.56	68.20	-16.64

Table 7-148. Radiated Measurements SISO ANT2 (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Mode:	802.11ax (20MHz BW)
Worst Case Transfer Rate:	MCS0
RU Index:	53
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5240MHz
Channel:	48

	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]
	10480.00	Peak	Н	-	-	-67.21	12.41	0.00	52.20	68.20	-16.00
*	15720.00	Average	Н	-	-	-80.10	16.70	0.00	43.60	53.98	-10.38
*	15720.00	Peak	Н	-	-	-69.82	16.70	0.00	53.88	73.98	-20.10
*	20960.00	Average	Н	-	-	-77.88	17.39	-9.54	36.96	53.98	-17.01
*	20960.00	Peak	Н	-	-	-67.03	17.39	-9.54	47.81	73.98	-26.16
	26200.00	Peak	Н	-	-	-65.45	19.98	-9.54	51.98	68.20	-16.22

Table 7-149. Radiated Measurements SISO ANT2 (106 Tones) with WCP

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate:

MCS0

RU Index:

53

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5260MHz

Channel:

52

	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]
	10520.00	Peak	Н	-	-	-67.47	13.16	0.00	52.69	68.20	-15.51
*	15780.00	Average	н	-	-	-79.65	16.21	0.00	43.56	53.98	-10.42
*	15780.00	Peak	Н	-	-	-69.05	16.21	0.00	54.16	73.98	-19.82
*	21040.00	Average	н	-	-	-77.72	17.32	-9.54	37.06	53.98	-16.92
*	21040.00	Peak	Н	-	-	-66.74	17.32	-9.54	48.04	73.98	-25.94
	26300.00	Peak	Н	-	-	-64.76	20.12	-9.54	52.82	68.20	-15.38

Table 7-150. Radiated Measurements SISO ANT2 (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate:

MCS0

RU Index:

53

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5280MHz

Channel:

	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]
	10560.00	Peak	Н	397	36	-67.84	13.66	0.00	52.82	68.20	-15.38
*	15840.00	Average	Н	-	-	-79.52	15.64	0.00	43.12	53.98	-10.86
*	15840.00	Peak	Н	-	-	-69.48	15.64	0.00	53.16	73.98	-20.82
*	21120.00	Average	Н	-	-	-77.48	17.26	-9.54	37.24	53.98	-16.74
*	21120.00	Peak	Н	-	-	-66.36	17.26	-9.54	48.36	73.98	-25.62
	26400.00	Peak	Н	-	-	-64.66	19.67	-9.54	52.47	68.20	-15.73

Table 7-151. Radiated Measurements SISO ANT2 (106 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate:

MCS0

RU Index:

53

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5320MHz

Channel:

64

	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]
*	10640.00	Average	Н	-	-	-79.16	14.15	0.00	41.99	53.98	-11.99
*	10640.00	Peak	Н	-	-	-68.79	14.15	0.00	52.36	73.98	-21.62
*	15960.00	Average	Н	-	-	-79.61	15.01	0.00	42.40	53.98	-11.58
*	15960.00	Peak	Н	-	-	-68.37	15.01	0.00	53.64	73.98	-20.34
*	21280.00	Average	Н	-	-	-77.37	17.51	-9.54	37.60	53.98	-16.38
*	21280.00	Peak	Н	-	-	-66.48	17.51	-9.54	48.49	73.98	-25.49
	26600.00	Peak	Н	-	-	-49.81	1.44	-9.54	49.09	68.20	-19.11

Table 7-152. Radiated Measurements SISO ANT2 (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency:

5260MHz

Channel:

52

	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]
	10520.00	Peak	V	-	-	-67.77	13.16	0.00	52.39	68.20	-15.81
*	15780.00	Average	V	-	-	-80.02	16.21	0.00	43.19	53.98	-10.79
*	15780.00	Peak	V	-	-	-70.12	16.21	0.00	53.09	73.98	-20.89
*	21040.00	Average	V	-	-	-77.72	17.32	-9.54	37.06	53.98	-16.92
*	21040.00	Peak	V	-	-	-66.74	17.32	-9.54	48.04	73.98	-25.94
	26300.00	Peak	V	-	-	-64.76	20.12	-9.54	52.82	68.20	-15.38

Table 7-153. Radiated Measurements SISO ANT2 (106 Tones) with WCP

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

RU Index:

53 1 & 3 Meters

Distance of Measurements:

Operating Frequency:

5500MHz

Channel: 100

	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]
*	11000.00	Average	Н	-	-	-79.21	13.55	0.00	41.34	53.98	-12.64
*	11000.00	Peak	н	-	-	-67.78	13.55	0.00	52.77	73.98	-21.21
	16500.00	Peak	Н	-	-	-69.54	16.10	0.00	53.56	68.20	-14.64
	22000.00	Peak	Н	-	-	-66.29	18.25	-9.54	49.42	68.20	-18.78
	27500.00	Peak	Н	-	-	-48.71	0.12	-9.54	48.87	68.20	-19.33

Table 7-154. Radiated Measurements SISO ANT2 (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

1 & 3 Meters Distance of Measurements:

5600MHz Operating Frequency:

	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]
*	11200.00	Average	Н	ı	-	-79.14	13.31	0.00	41.17	53.98	-12.81
*	11200.00	Peak	Н	-	-	-68.18	13.31	0.00	52.13	73.98	-21.85
	16800.00	Peak	Н	-	-	-69.00	17.53	0.00	55.53	68.20	-12.67
*	22400.00	Average	Н	-	-	-77.62	19.00	-9.54	38.84	53.98	-15.14
*	22400.00	Peak	Н	-	-	-66.41	19.00	-9.54	50.05	73.98	-23.93
	28000.00	Peak	Н	-	-	-48.44	0.74	-9.54	49.75	68.20	-18.45

Table 7-155. Radiated Measurements SISO ANT2 (106 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate:

MCS0

RU Index:

53

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5720MHz

Channel:

144

	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]
*	11440.00	Average	Н	380	44	-78.12	15.10	0.00	43.98	53.98	-10.00
*	11440.00	Peak	Н	380	44	-67.72	15.10	0.00	54.38	73.98	-19.60
	17160.00	Peak	Н	-	-	-69.16	18.83	0.00	56.67	68.20	-11.53
*	22880.00	Average	Н	-	-	-77.73	18.40	-9.54	38.13	53.98	-15.85
*	22880.00	Peak	Н	-	-	-66.27	18.40	-9.54	49.59	73.98	-24.39
	28600.00	Peak	Н	-	-	-48.17	0.41	-9.54	49.70	68.20	-18.50

Table 7-156. Radiated Measurements SISO ANT2 (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

53

RU Index:

1 & 3 Meters

Distance of Measurements:

5720MHz

Operating Frequency:

Channel:

	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]
*	11440.00	Average	Н	-	-	-79.67	15.10	0.00	42.43	53.98	-11.55
*	11440.00	Peak	Н	-	-	-68.21	15.10	0.00	53.89	73.98	-20.09
	17160.00	Peak	Н	-	-	-70.02	18.83	0.00	55.81	68.20	-12.39
*	22880.00	Average	Н	-	-	-77.48	19.00	-9.54	38.98	53.98	-15.00
*	22880.00	Peak	Н	-	-	-66.54	19.00	-9.54	49.92	73.98	-24.06
	28600.00	Peak	Н	-	-	-48.86	0.74	-9.54	49.33	68.20	-18.87

Table 7-157. Radiated Measurements SISO ANT2 (106 Tones) with WCP

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

RU Index:

53

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5745MHz

Channel: 149

	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]
*	11490.00	Average	Н	256	41	-77.53	15.22	0.00	44.69	53.98	-9.29
*	11490.00	Peak	н	256	41	-67.27	15.22	0.00	54.95	73.98	-19.03
	17235.00	Peak	Н	-	-	-68.47	19.54	0.00	58.07	68.20	-10.13
*	22980.00	Average	н	-	-	-78.01	17.92	-9.54	37.37	53.98	-16.61
*	22980.00	Peak	Н	-	-	-67.00	17.92	-9.54	48.38	73.98	-25.60
	28725.00	Peak	Н	-	-	-48.42	0.67	-9.54	49.71	68.20	-18.49

Table 7-158. Radiated Measurements SISO ANT2 (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index:

53

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5785MHz

Channel:

	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]
*	11570.00	Average	Н	-	-	-79.11	15.02	0.00	42.91	53.98	-11.07
*	11570.00	Peak	Н	-	-	-68.44	15.02	0.00	53.58	73.98	-20.40
	17355.00	Peak	Н	-	-	-69.66	23.41	0.00	60.75	68.20	-7.45
	23140.00	Peak	Н	-	-	-66.62	18.32	-9.54	49.16	68.20	-19.04
	28925.00	Peak	Н	-	-	-48.27	0.75	-9.54	49.94	68.20	-18.26

Table 7-159. Radiated Measurements SISO ANT2 (106 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate:

MCS0

RU Index:

53

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5825MHz

Channel:

165

	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]
*	11650.00	Average	Н	400	36	-78.12	14.92	0.00	43.80	53.98	-10.18
*	11650.00	Peak	н	400	36	-67.74	14.92	0.00	54.18	73.98	-19.80
	17475.00	Peak	Н	-	-	-69.06	21.86	0.00	59.80	68.20	-8.40
	23300.00	Peak	Н	-	-	-66.92	18.77	-9.54	49.31	68.20	-18.89
	29125.00	Peak	Н	-	-	-48.78	-0.12	-9.54	48.56	68.20	-19.64

Table 7-160. Radiated Measurements SISO ANT2 (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index:

53

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5745MHz

Channel:

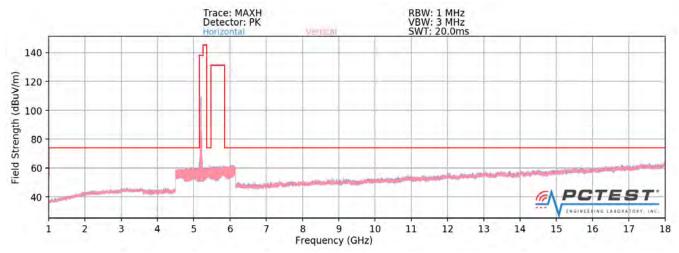
	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11490.00	Average	Н	-	-	-78.21	15.22	0.00	44.01	53.98	-9.97
*	11490.00	Peak	Н	-	-	-67.89	15.22	0.00	54.33	73.98	-19.65
	17235.00	Peak	Н	-	-	-68.21	19.54	0.00	58.33	68.20	-9.87
*	22980.00	Average	Н	-	-	-77.81	17.92	-9.54	37.57	53.98	-16.41
*	22980.00	Peak	Н	-	-	-66.64	17.92	-9.54	48.74	73.98	-25.24
	28725.00	Peak	Н	-	-	-48.17	0.67	-9.54	49.96	68.20	-18.24

Table 7-161. Radiated Measurements SISO ANT2 (106 Tones)with WCP

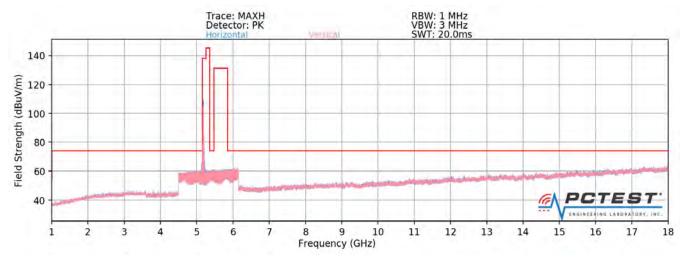
FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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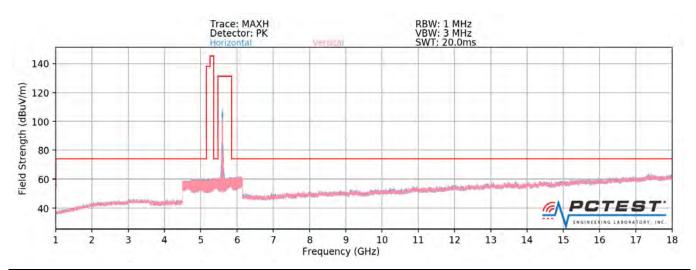
242 Tones



Plot 7-643. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax – U1 Ch. 40 – 242 Tones)



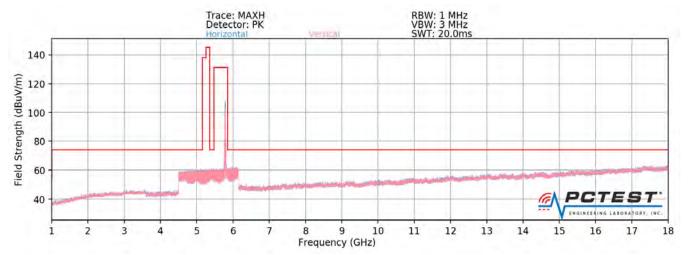
Plot 7-644. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax – U2A Ch. 56 – 242 Tones)



FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-645. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax – U2C Ch. 120 – 242 Tones)

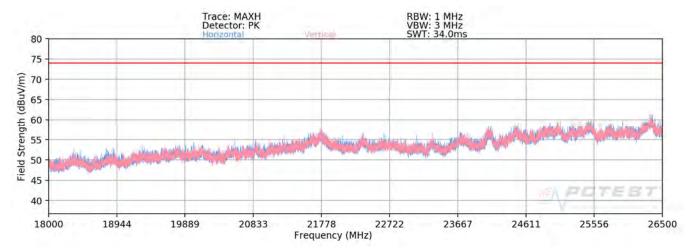


Plot 7-646. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax – U3 Ch. 157 – 242 Tones)

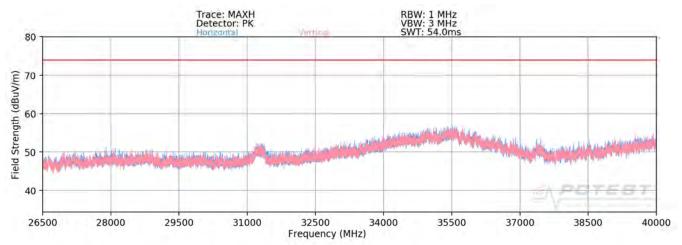
FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 440 of 519
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SISO Antenna-2 Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-647. Radiated Spurious Plot 18GHz - 26.5GHz SISO ANT2 (802.11ax - 242 Tones)



Plot 7-648. Radiated Spurious Plot 26.5GHz - 40GHz SISO ANT2 (802.11ax - 242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 441 of 519
1M1811260212-15.A3L	11/9/2018 - 1/22/2019	Portable Handset		Fage 44 1 01 5 19



SISO Antenna-2 Radiated Spurious Emission Measurements (242 Tones) §15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5180MHz

Channel: 36

	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]
	10360.00	Peak	Н	283	50	-67.61	12.74	0.00	52.13	68.20	-16.07
*	15540.00	Average	Н	-	-	-79.40	15.28	0.00	42.88	53.98	-11.10
*	15540.00	Peak	Н	-	-	-68.92	15.28	0.00	53.36	73.98	-20.62
*	20720.00	Average	Н	-	-	-77.95	16.92	-9.54	36.43	53.98	-17.55
*	20720.00	Peak	Н	-	-	-67.28	16.92	-9.54	47.10	73.98	-26.88
	25900.00	Peak	Н	-	-	-66.13	19.39	-9.54	50.72	68.20	-17.48

Table 7-162. Radiated Measurements SISO ANT2 (242 Tones)

Worst Case Mode: 802 11ax (20MHz RW)

Worst

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Opera

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t Case Mode.	OUZ. I TAX (ZUIVII IZ DVV)
t Case Transfer Rate:	MCS0
idex:	61
nce of Measurements:	1 & 3 Meters
ating Frequency:	5200MHz
nel:	40

	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]
	10400.00	Peak	Н	132	82	-67.22	12.24	0.00	52.02	68.20	-16.18
*	15600.00	Average	I	-	-	-79.36	15.40	0.00	43.04	53.98	-10.93
*	15600.00	Peak	Н	-	-	-69.01	15.40	0.00	53.39	73.98	-20.58
*	20800.00	Average	I	-	-	-77.99	17.39	-9.54	36.85	53.98	-17.12
*	20800.00	Peak	Н	-	-	-66.05	17.39	-9.54	48.79	73.98	-25.18
	26000.00	Peak	Н	-	-	-65.33	19.98	-9.54	52.10	68.20	-16.10

Table 7-163. Radiated Measurements SISO ANT2 (242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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61

Worst Case Transfer Rate: MCS0

RU Index:

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5240MHz

Channel: 48

	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]
	10480.00	Peak	Н	330	47	-66.63	12.41	0.00	52.78	68.20	-15.42
*	15720.00	Average	Н	-	-	-79.63	16.70	0.00	44.07	53.98	-9.91
*	15720.00	Peak	Н	-	-	-68.40	16.70	0.00	55.30	73.98	-18.68
*	20960.00	Average	Н	-	-	-78.85	17.29	-9.54	35.90	53.98	-18.08
*	20960.00	Peak	Н	-	-	-67.31	17.29	-9.54	47.44	73.98	-26.54
	26200.00	Peak	Н	-	-	-65.19	19.80	-9.54	52.07	68.20	-16.13

Table 7-164. Radiated Measurements SISO ANT2 (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements:

1 & 3 Meters Operating Frequency: 5260MHz

	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]
	10520.00	Peak	Н	-	-	-68.24	13.16	0.00	51.92	68.20	-16.28
*	15780.00	Average	Н	-	-	-79.69	16.21	0.00	43.52	53.98	-10.46
*	15780.00	Peak	Н	-	-	-69.19	16.21	0.00	54.02	73.98	-19.96
*	21040.00	Average	Н	-	-	-77.72	17.32	-9.54	37.06	53.98	-16.92
*	21040.00	Peak	Н	-	-	-66.26	17.32	-9.54	48.52	73.98	-25.46
	26300.00	Peak	Н	-	-	-65.22	20.12	-9.54	52.36	68.20	-15.84

Table 7-165. Radiated Measurements SISO ANT2 (242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

RU Index:

61

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5280MHz

Channel:

56

	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]
	10560.00	Peak	Н	397	338	-67.14	13.66	0.00	53.52	68.20	-14.68
*	15840.00	Average	н	-	-	-79.42	15.64	0.00	43.22	53.98	-10.76
*	15840.00	Peak	Н	-	-	-68.79	15.64	0.00	53.85	73.98	-20.13
*	21120.00	Average	н	-	-	-78.36	17.26	-9.54	36.36	53.98	-17.62
*	21120.00	Peak	н	-	-	-69.51	17.26	-9.54	45.21	73.98	-28.77
	26400.00	Peak	Н	-	-	-65.64	19.67	-9.54	51.49	68.20	-16.71

Table 7-166. Radiated Measurements SISO ANT2 (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate:

MCS0

RU Index:

61

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5320MHz

Channel:

64

	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]
*	10640.00	Average	Η	393	56	-78.88	14.15	0.00	42.27	53.98	-11.71
*	10640.00	Peak	Н	393	56	-68.24	14.15	0.00	52.91	73.98	-21.07
*	15960.00	Average	Н	-	-	-79.49	15.01	0.00	42.52	53.98	-11.46
*	15960.00	Peak	Н	-	-	-68.81	15.01	0.00	53.20	73.98	-20.78
*	21280.00	Average	Н	-	-	-77.60	17.51	-9.54	37.37	53.98	-16.61
*	21280.00	Peak	Н	-	-	-65.53	17.51	-9.54	49.44	73.98	-24.54
	26600.00	Peak	Н	-	-	-50.99	1.44	-9.54	47.91	68.20	-20.29

Table 7-167. Radiated Measurements SISO ANT2 (242 Tones)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

RU Index:

61

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5500MHz

Channel:

100

	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]
*	11000.00	Average	Н	-	-	-79.12	13.55	0.00	41.43	53.98	-12.55
*	11000.00	Peak	Н	-	-	-68.47	13.55	0.00	52.08	73.98	-21.90
	16500.00	Peak	Н	-	-	-69.13	16.10	0.00	53.97	68.20	-14.23
	22000.00	Peak	Н	-	-	-66.01	18.25	-9.54	49.70	68.20	-18.50
	27500.00	Peak	Н	-	-	-49.03	0.12	-9.54	48.55	68.20	-19.65

Table 7-168. Radiated Measurements SISO ANT2 (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5600MHz

	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]
*	11200.00	Average	Н	-	-	-79.09	13.31	0.00	41.22	53.98	-12.76
*	11200.00	Peak	Н	-	-	-67.86	13.31	0.00	52.45	73.98	-21.53
	16800.00	Peak	Н	-	-	-69.45	17.53	0.00	55.08	68.20	-13.12
*	22400.00	Average	Н	-	-	-77.89	19.00	-9.54	38.57	53.98	-15.41
*	22400.00	Peak	Н	-	-	-66.93	19.00	-9.54	49.53	73.98	-24.45
•	28000.00	Peak	Н	-	-	-49.09	0.74	-9.54	49.10	68.20	-19.10

Table 7-169. Radiated Measurements SISO ANT2 (242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

....

RU Index:

61

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5720MHz

Channel:

144

	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]
*	11440.00	Average	Н	295	46	-78.09	15.10	0.00	44.01	53.98	-9.97
*	11440.00	Peak	Н	295	46	-67.75	15.10	0.00	54.35	73.98	-19.63
	17160.00	Peak	Н	-	-	-68.27	18.83	0.00	57.56	68.20	-10.64
*	22880.00	Average	Н	-	-	-77.92	18.40	-9.54	37.94	53.98	-16.04
*	22880.00	Peak	Н	-	-	-66.91	18.40	-9.54	48.95	73.98	-25.03
	28600.00	Peak	Н	-	-	-48.55	0.41	-9.54	49.32	68.20	-18.88

Table 7-170. Radiated Measurements SISO ANT2 (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index:

61

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5745MHz

Channel:

	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]
*	11490.00	Average	Н	394	47	-77.79	15.22	0.00	44.43	53.98	-9.55
*	11490.00	Peak	Н	394	47	-67.09	15.22	0.00	55.13	73.98	-18.85
	17235.00	Peak	Н	-	-	-68.75	19.54	0.00	57.79	68.20	-10.41
*	22980.00	Average	Н	-	-	-77.97	17.92	-9.54	37.41	53.98	-16.57
*	22980.00	Peak	Н	-	-	-66.79	17.92	-9.54	48.59	73.98	-25.39
	28725.00	Peak	Н	-	-	-48.92	0.67	-9.54	49.21	68.20	-18.99

Table 7-171. Radiated Measurements SISO ANT2 (242 Tones)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5785MHz

Channel: 157

	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]
*	11570.00	Average	Н	400	35	-77.71	15.02	0.00	44.31	53.98	-9.67
*	11570.00	Peak	Н	400	35	-67.24	15.02	0.00	54.78	73.98	-19.20
	17355.00	Peak	Н	-	-	-69.92	23.41	0.00	60.49	68.20	-7.71
	23140.00	Peak	Н	-	-	-67.14	18.32	-9.54	48.64	68.20	-19.56
•	28925.00	Peak	Н	-	-	-49.37	0.75	-9.54	48.84	68.20	-19.36

Table 7-172. Radiated Measurements SISO ANT2 (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5825MHz

	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]
*	11650.00	Average	П	400	38	-78.08	14.92	0.00	43.84	53.98	-10.14
*	11650.00	Peak	Н	400	38	-67.72	14.92	0.00	54.20	73.98	-19.78
	17475.00	Peak	Н	-	-	-69.52	21.86	0.00	59.34	68.20	-8.86
	23300.00	Peak	Н	-	-	-67.01	18.77	-9.54	49.22	68.20	-18.98
•	29125.00	Peak	Н	-	-	-48.99	-0.12	-9.54	48.35	68.20	-19.85

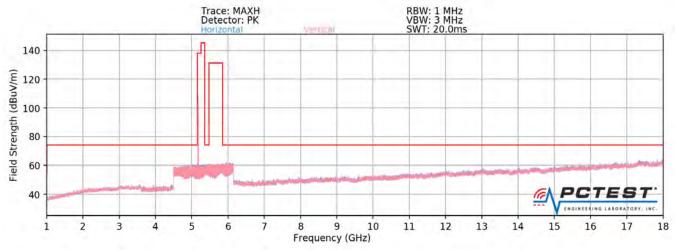
Table 7-173. Radiated Measurements SISO ANT2 (242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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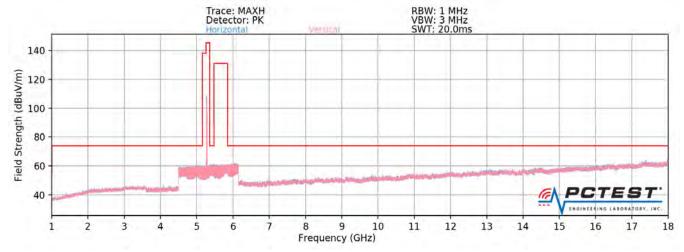


7.6.3 MIMO Radiated Spurious Emission Measurements

106 Tones



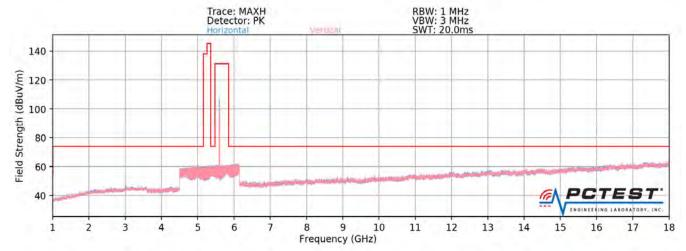
Plot 7-649. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U1 Ch. 40 – 106 Tones)



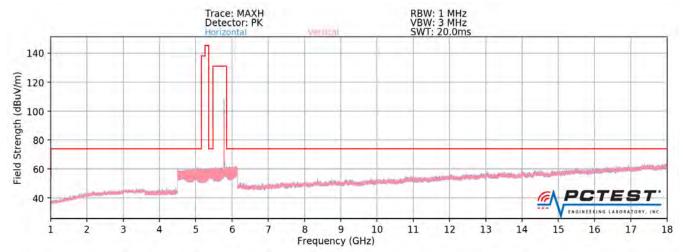
Plot 7-650. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U2A Ch. 56 – 106 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-651. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U2C Ch. 120 – 106 Tones)

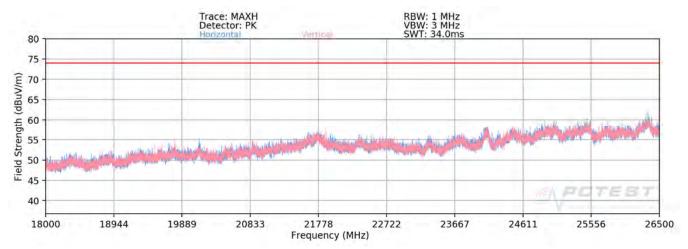


Plot 7-652. Radiated Spurious Plot above 1GHz MIMO (802.11ax - U3 Ch. 157 - 106 Tones)

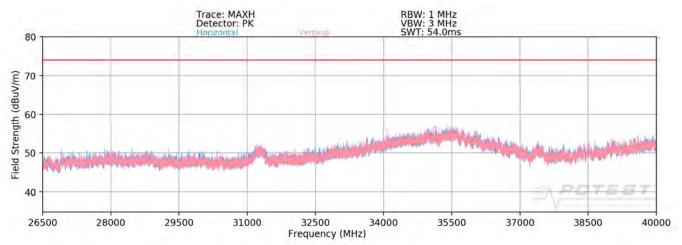
FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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MIMO Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-653. Radiated Spurious Plot 18GHz - 26.5GHz MIMO (802.11ax - 106 Tones)



Plot 7-654. Radiated Spurious Plot 26.5GHz - 40GHz MIMO (802.11ax - 106 Tones)

FCC ID: A3LSMG9700	PCTEST*	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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MIMO Radiated Spurious Emission Measurements (106 Tones)

§15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5180MHz

Channel: 36

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correctio n Factor [dB]	Strength	Limit [dBµV/m]	Margin [dB]
	10360.00	Peak	Н	332	40	-61.01	12.74	0.00	58.73	68.20	-9.47
*	15540.00	Average	Н	-	-	-79.58	15.28	0.00	42.70	53.98	-11.28
*	15540.00	Peak	Н	-	-	-68.46	15.28	0.00	53.82	73.98	-20.16
*	20720.00	Average	Н	-	-	-77.86	16.92	-9.54	36.52	53.98	-17.46
*	20720.00	Peak	Н	-	-	-66.47	16.92	-9.54	47.91	73.98	-26.07
	25900.00	Peak	Н	-	-	-65.49	19.39	-9.54	51.36	68.20	-16.84

Table 7-174. Radiated Measurements MIMO (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0 RU Index: 53 Distance of Measurements: 1 & 3 Meters Operating Frequency: 5200MHz Channel: 40

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correctio n Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10400.00	Peak	Н	294	55	-76.73	12.24	0.00	42.51	68.20	-25.69
*	15600.00	Average	Н	-	-	-79.58	15.40	0.00	42.82	53.98	-11.15
*	15600.00	Peak	П	-	-	-78.29	15.40	0.00	44.11	73.98	-29.86
*	20800.00	Average	П	-	-	-77.68	17.39	-9.54	37.16	53.98	-16.81
*	20800.00	Peak	П	-	-	-67.06	17.39	-9.54	47.78	73.98	-26.19
	26000.00	Peak	Н	-	-	-64.68	19.98	-9.54	52.75	68.20	-15.45

Table 7-175. Radiated Measurements MIMO (106 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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53

Worst Case Transfer Rate: MCS0

RU Index:

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5240MHz

Channel: 48

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correctio n Factor [dB]	Strenath	Limit [dBµV/m]	Margin [dB]
	10480.00	Peak	Н	393	293	-65.79	12.41	0.00	53.62	68.20	-14.58
*	15720.00	Average	Н	-	-	-79.74	16.70	0.00	43.96	53.98	-10.02
*	15720.00	Peak	Н	-	-	-69.38	16.70	0.00	54.32	73.98	-19.66
*	20960.00	Average	Н	-	-	-77.63	17.29	-9.54	37.12	53.98	-16.86
*	20960.00	Peak	Н	-	-	-66.98	17.29	-9.54	47.77	73.98	-26.21
	26200.00	Peak	Н	-	-	-65.16	19.80	-9.54	52.10	68.20	-16.10

Table 7-176. Radiated Measurements MIMO (106 Tones)

1 & 3 Meters

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 18

Operating Frequency: 5180MHz

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correctio n Factor [dB]	Strength	Limit [dBµV/m]	Margin [dB]
	10360.00	Peak	Н	-	-	-62.76	12.74	0.00	56.98	68.20	-11.22
*	15540.00	Average	Н	-	-	-80.12	15.28	0.00	42.16	53.98	-11.82
*	15540.00	Peak	Н	-	-	-68.22	15.28	0.00	54.06	73.98	-19.92
*	20720.00	Average	Н	-	-	-77.84	17.39	-9.54	37.00	53.98	-16.97
*	20720.00	Peak	Н	-	-	-66.81	17.39	-9.54	48.03	73.98	-25.94
	25900.00	Peak	Н	_	_	-65.08	19.98	-9.54	52.35	68.20	-15.85

Table 7-177. Radiated Measurements MIMO (106 Tones)with WCP

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate:

MCS0

RU Index:

53

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5260MHz

Channel:

52

	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]
	10520.00	Peak	Н	400	293	-67.64	13.16	0.00	52.52	68.20	-15.68
*	15780.00	Average	н	-	-	-79.89	16.21	0.00	43.32	53.98	-10.66
*	15780.00	Peak	Н	-	-	-68.25	16.21	0.00	54.96	73.98	-19.02
*	21040.00	Average	н	-	-	-77.50	17.32	-9.54	37.28	53.98	-16.70
*	21040.00	Peak	н	-	-	-67.09	17.32	-9.54	47.69	73.98	-26.29
	26300.00	Peak	Н	ı	-	-65.21	20.12	-9.54	52.37	68.20	-15.83

Table 7-178. Radiated Measurements MIMO (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index:

53

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5280MHz

Channel:

56

	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]
	10560.00	Peak	Н	400	296	-67.64	13.66	0.00	53.02	68.20	-15.18
*	15840.00	Average	Н	-	-	-79.64	15.64	0.00	43.00	53.98	-10.98
*	15840.00	Peak	Н	-	-	-68.37	15.64	0.00	54.27	73.98	-19.71
*	21120.00	Average	Н	-	-	-77.87	17.26	-9.54	36.85	53.98	-17.13
*	21120.00	Peak	Н	-	-	-67.04	17.26	-9.54	47.68	73.98	-26.30
	26400.00	Peak	Н	-	-	-64.35	19.67	-9.54	52.78	68.20	-15.42

Table 7-179. Radiated Measurements MIMO (106 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

RU Index:

53

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5320MHz

Channel:

64

	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]
*	10640.00	Average	Н	-	-	-79.32	14.15	0.00	41.83	53.98	-12.15
*	10640.00	Peak	I	-		-68.24	14.15	0.00	52.91	73.98	-21.07
*	15960.00	Average	Н	-	-	-79.53	15.01	0.00	42.48	53.98	-11.50
*	15960.00	Peak	Н	-	-	-68.14	15.01	0.00	53.87	73.98	-20.11
*	21280.00	Average	Н	-	-	-77.65	17.51	-9.54	37.32	53.98	-16.66
*	21280.00	Peak	Н	-	-	-67.22	17.51	-9.54	47.75	73.98	-26.23
	26600.00	Peak	Н	-	-	-49.18	1.44	-9.54	49.72	68.20	-18.48

Table 7-180. Radiated Measurements MIMO (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5280MHz

Channel: 56

	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]
	10560.00	Peak	Н	-	-	-68.65	13.66	0.00	52.01	68.20	-16.19
*	15840.00	Average	Н	-	-	-80.02	15.64	0.00	42.62	53.98	-11.36
*	15840.00	Peak	Н	-	-	-68.77	15.64	0.00	53.87	73.98	-20.11
*	21120.00	Average	Н	-	-	-77.67	17.26	-9.54	37.05	53.98	-16.93
*	21120.00	Peak	Н	-	-	-66.91	17.26	-9.54	47.81	73.98	-26.17
	26400.00	Peak	Н	-	-	-64.87	19.67	-9.54	52.26	68.20	-15.94

Table 7-181. Radiated Measurements MIMO (106 Tones)with WCP

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

RU Index:

53

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5500MHz

Channel:

100

	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]
*	11000.00	Average	Н	-	-	-79.21	13.55	0.00	41.34	53.98	-12.64
*	11000.00	Peak	н	-	-	-68.39	13.55	0.00	52.16	73.98	-21.82
	16500.00	Peak	Н	-	-	-68.61	16.10	0.00	54.49	68.20	-13.71
•	22000.00	Peak	Н	-	-	-67.08	18.25	-9.54	48.63	68.20	-19.57
	27500.00	Peak	Н	-	-	-48.87	0.12	-9.54	48.71	68.20	-19.49

Table 7-182. Radiated Measurements MIMO (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5600MHz

	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]
*	11200.00	Average	Н	-	-	-79.23	13.31	0.00	41.08	53.98	-12.90
*	11200.00	Peak	Н	-	-	-68.31	13.31	0.00	52.00	73.98	-21.98
	16800.00	Peak	Н	-	-	-66.79	17.53	0.00	57.74	68.20	-10.46
*	22400.00	Average	Н	-	-	-78.08	19.00	-9.54	38.38	53.98	-15.60
*	22400.00	Peak	Н	-	-	-66.81	19.00	-9.54	49.65	73.98	-24.33
•	28000.00	Peak	Н	-	-	-49.08	0.74	-9.54	49.11	68.20	-19.09

Table 7-183. Radiated Measurements MIMO (106 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate:

MCS0

RU Index:

53

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5720MHz

Channel:

144

	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]
*	11440.00	Average	Н		-	-79.44	15.10	0.00	42.66	53.98	-11.32
*	11440.00	Peak	Н	-	-	-68.29	15.10	0.00	53.81	73.98	-20.17
	17160.00	Peak	Н	-	-	-68.16	18.83	0.00	57.67	68.20	-10.53
*	22880.00	Average	Н	-	-	-77.89	18.40	-9.54	37.97	53.98	-16.01
*	22880.00	Peak	Н	-	-	-66.57	18.40	-9.54	49.29	73.98	-24.69
	28600.00	Peak	Н	-	-	-49.01	0.41	-9.54	48.86	68.20	-19.34

Table 7-184. Radiated Measurements MIMO (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5600MHz

	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]
*	11200.00	Average	V	-	-	-79.55	13.31	0.00	40.76	53.98	-13.22
*	11200.00	Peak	٧	-	-	-68.02	13.31	0.00	52.29	73.98	-21.69
	16800.00	Peak	V	-	-	-67.07	17.53	0.00	57.46	68.20	-10.74
*	22400.00	Average	٧	-	-	-77.68	19.00	-9.54	38.78	53.98	-15.20
*	22400.00	Peak	V	-	-	-66.57	19.00	-9.54	49.89	73.98	-24.09
	28000.00	Peak	V	-	-	-49.26	0.74	-9.54	48.93	68.20	-19.27

Table 7-185. Radiated Measurements MIMO (106 Tones)with WCP

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

53

RU Index:

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5745MHz

Channel:

149

	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]
*	11490.00	Average	Н	-	-	-80.56	18.31	0.00	44.75	53.98	-9.23
*	11490.00	Peak	Н	-	-	-69.45	18.31	0.00	55.86	73.98	-18.12
	17235.00	Peak	Н	-	-	-69.97	25.66	0.00	62.69	68.20	-5.51
*	22980.00	Average	Н	-	-	-77.92	17.92	-9.54	37.46	53.98	-16.52
*	22980.00	Peak	Н	-	-	-66.85	17.92	-9.54	48.53	73.98	-25.45
	28725.00	Peak	Н	-	-	-49.18	0.67	-9.54	48.95	69.20	-20.25

Table 7-186. Radiated Measurements MIMO (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index:

53

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5785MHz

Channel:

157

	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]
*	11570.00	Average	Н	297	64	-80.11	18.06	0.00	44.95	53.98	-9.03
*	11570.00	Peak	Н	297	64	-68.84	18.06	0.00	56.22	73.98	-17.76
	17355.00	Peak	Н	-	-	-69.43	27.10	0.00	64.67	68.20	-3.53
	23140.00	Peak	Н	-	-	-66.78	18.32	-9.54	49.00	68.20	-19.20
	28925.00	Peak	Н	-	-	-49.03	0.75	-9.54	49.18	68.20	-19.02

Table 7-187. Radiated Measurements MIMO (106 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

53

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5825MHz

Channel:

RU Index:

165

	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]
*	11650.00	Average	Н	-	-	-80.40	18.25	0.00	44.85	53.98	-9.13
*	11650.00	Peak	Н	-	-	-68.72	18.25	0.00	56.53	73.98	-17.45
	17475.00	Peak	Н	-	-	-69.20	26.28	0.00	64.08	68.20	-4.12
	23300.00	Peak	Н	-	-	-66.46	18.77	-9.54	49.77	68.20	-18.43
	29125.00	Peak	Н	-	-	-48.87	-0.12	-9.54	48.47	68.20	-19.73

Table 7-188. Radiated Measurements MIMO (106 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 53

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5785MHz

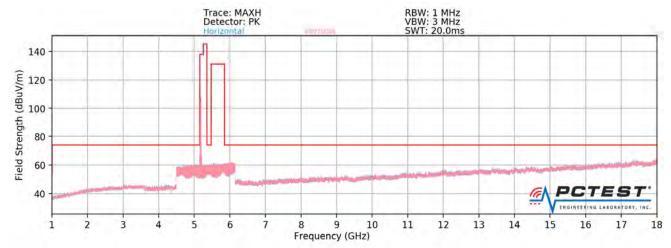
	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11570.00	Average	Н	-	-	-79.87	18.06	0.00	45.19	53.98	-8.79
*	11570.00	Peak	Н	-	-	-68.65	18.06	0.00	56.41	73.98	-17.57
	17355.00	Peak	Н	-	-	-70.02	27.10	0.00	64.08	68.20	-4.12
	23140.00	Peak	Н	-	-	-67.18	17.92	-9.54	48.20	68.20	-20.00
	28925.00	Peak	Н	-	-	-49.12	0.67	-9.54	49.01	68.20	-19.19

Table 7-189. Radiated Measurements MIMO (106 Tones)with WCP

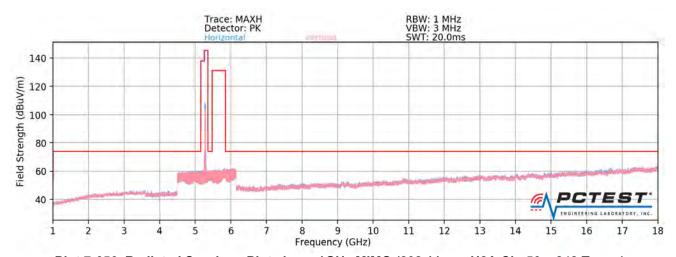
FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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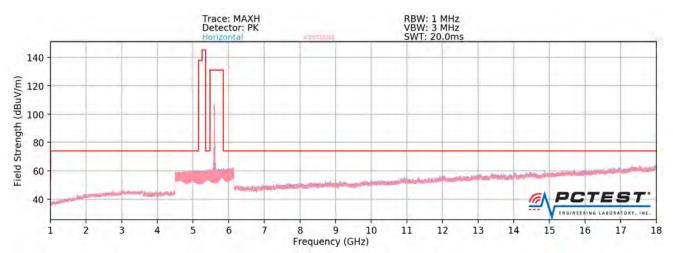
242 Tones



Plot 7-655. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U1 Ch. 40 – 242 Tones)



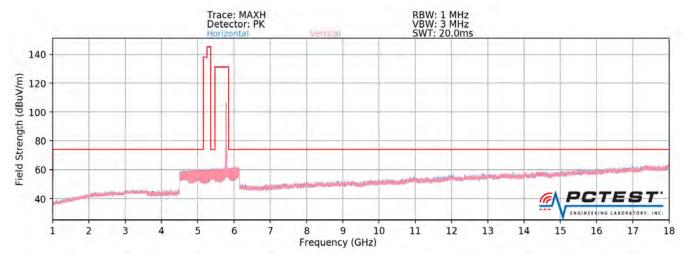
Plot 7-656. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U2A Ch. 56 – 242 Tones)



Plot 7-657. Radiated Spurious Plot above 1GHz MIMO (802.11ax - U2C Ch. 120 - 242 Tones)

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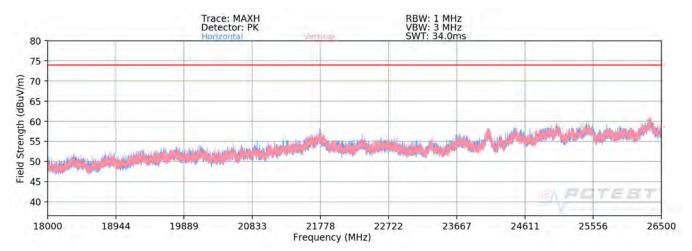


Plot 7-658. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U3 Ch. 157 – 242 Tones)

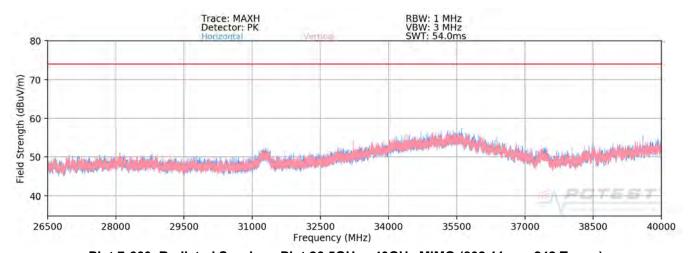
FCC ID: A3LSMG9700	THE STATE OF THE S	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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MIMO Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-659. Radiated Spurious Plot 18GHz - 26.5GHz MIMO (802.11ax - 242 Tones)



Plot 7-660. Radiated Spurious Plot 26.5GHz - 40GHz MIMO (802.11ax - 242 Tones)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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MIMO Radiated Spurious Emission Measurements (242 Tones)

§15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5180MHz

Channel: 36

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correctio n Factor [dB]	Stronath	Limit [dBµV/m]	Margin [dB]
	10360.00	Peak	Н	391	291	-66.30	12.74	0.00	53.44	68.20	-14.76
*	15540.00	Average	Н	-	-	-79.44	15.28	0.00	42.84	53.98	-11.14
*	15540.00	Peak	Н	-	-	-68.66	15.28	0.00	53.62	73.98	-20.36
*	20720.00	Average	Н	-	-	-77.89	16.92	-9.54	36.49	53.98	-17.49
*	20720.00	Peak	Н	-	-	-66.75	16.92	-9.54	47.63	73.98	-26.35
	25900.00	Peak	Н	-	-	-65.59	19.39	-9.54	51.26	68.20	-16.94

Table 7-190. Radiated Measurements MIMO (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5200MHz

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correctio n Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10400.00	Peak	Н	-	-	-67.25	12.24	0.00	51.99	68.20	-16.21
*	15600.00	Average	Н	-	-	-79.54	15.40	0.00	42.86	53.98	-11.11
*	15600.00	Peak	Н	-	-	-69.03	15.40	0.00	53.37	73.98	-20.60
*	20800.00	Average	Н	-	-	-77.92	17.39	-9.54	36.92	53.98	-17.05
*	20800.00	Peak	Н	-	-	-66.60	17.39	-9.54	48.24	73.98	-25.73
	26000.00	Peak	Н	-	-	-65.92	19.98	-9.54	51.51	68.20	-16.69

Table 7-191. Radiated Measurements MIMO (242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 462 of 519
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61

Worst Case Transfer Rate: MCS0

RU Index:

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5240MHz

Channel: 48

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correctio n Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10480.00	Peak	Н	390	294	-65.67	12.41	0.00	53.74	68.20	-14.46
*	15720.00	Average	Н	-	-	-79.77	16.70	0.00	43.93	53.98	-10.05
*	15720.00	Peak	Н	-	-	-69.00	16.70	0.00	54.70	73.98	-19.28
*	20960.00	Average	Н	-	-	-78.01	17.29	-9.54	36.74	53.98	-17.24
*	20960.00	Peak	Н	-	-	-65.82	17.29	-9.54	48.93	73.98	-25.05
	26200.00	Peak	Н	-	-	-64.84	19.80	-9.54	52.42	68.20	-15.78

Table 7-192. Radiated Measurements MIMO (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5260MHz

	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]
	10520.00	Peak	Н	400	295	-66.31	13.16	0.00	53.85	68.20	-14.35
*	15780.00	Average	Н	-	-	-79.90	16.21	0.00	43.31	53.98	-10.67
*	15780.00	Peak	Н	-	-	-69.20	16.21	0.00	54.01	73.98	-19.97
*	21040.00	Average	Н	-	-	-77.59	17.32	-9.54	37.19	53.98	-16.79
*	21040.00	Peak	Н	-	-	-66.32	17.32	-9.54	48.46	73.98	-25.52
	26300.00	Peak	Н	-	-	-64.95	20.12	-9.54	52.63	68.20	-15.57

Table 7-193. Radiated Measurements MIMO (242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 463 of 519
1M1811260212-15.A3L	11/9/2018 - 1/22/2019	Portable Handset		Fage 403 01 5 19



Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5280MHz

Channel: 56

	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]
	10560.00	Peak	Н	400	291	-66.74	13.66	0.00	53.92	68.20	-14.28
*	15840.00	Average	Н	-	-	-79.71	15.64	0.00	42.93	53.98	-11.05
*	15840.00	Peak	Н	-	-	-69.26	15.64	0.00	53.38	73.98	-20.60
*	21120.00	Average	Н	-	-	-77.82	17.26	-9.54	36.90	53.98	-17.08
*	21120.00	Peak	Н	-	-	-66.59	17.26	-9.54	48.13	73.98	-25.85
	26400.00	Peak	Н	-	-	-65.41	19.67	-9.54	51.72	68.20	-16.48

Table 7-194. Radiated Measurements MIMO (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5320MHz

Channel: 64

	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]
*	10640.00	Average	Н	-	-	-79.12	14.15	0.00	42.03	53.98	-11.95
*	10640.00	Peak	Н	-	-	-68.17	14.15	0.00	52.98	73.98	-21.00
*	15960.00	Average	Н	-	-	-79.57	15.01	0.00	42.44	53.98	-11.54
*	15960.00	Peak	Н	-	-	-68.63	15.01	0.00	53.38	73.98	-20.60
*	21280.00	Average	Н	-	-	-77.74	17.51	-9.54	37.23	53.98	-16.75
*	21280.00	Peak	Н	-	-	-66.22	17.51	-9.54	48.75	73.98	-25.23
	26600.00	Peak	Н	-	-	-50.56	1.44	-9.54	48.34	68.20	-19.86

Table 7-195. Radiated Measurements MIMO (242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Transfer Rate: MCS0

RU Index:

61

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5500MHz

Channel:

100

	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]
*	11000.00	Average	Н	-	-	-79.05	13.55	0.00	41.50	53.98	-12.48
*	11000.00	Peak	Н	-	-	-68.33	13.55	0.00	52.22	73.98	-21.76
	16500.00	Peak	Н	-	-	-69.03	16.10	0.00	54.07	68.20	-14.13
•	22000.00	Peak	Н	-	-	-65.51	18.25	-9.54	50.20	68.20	-18.00
	27500.00	Peak	Н	-	-	-48.91	0.12	-9.54	48.67	68.20	-19.53

Table 7-196. Radiated Measurements MIMO (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate:

MCS0

RU Index:

61

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5600MHz

Channel:

120

	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]
*	11200.00	Average	Н	-	-	-79.11	13.31	0.00	41.20	53.98	-12.78
*	11200.00	Peak	Н	-	-	-68.12	13.31	0.00	52.19	73.98	-21.79
	16800.00	Peak	Н	-	-	-68.87	17.53	0.00	55.66	68.20	-12.54
*	22400.00	Average	Н	-	-	-77.84	19.00	-9.54	38.62	53.98	-15.36
*	22400.00	Peak	Н	-	-	-66.58	19.00	-9.54	49.88	73.98	-24.10
•	28000.00	Peak	Н	-	-	-48.74	0.74	-9.54	49.45	68.20	-18.75

Table 7-197. Radiated Measurements MIMO (242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 465 of 519
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Worst Case Transfer Rate:

MCS0

RU Index:

61

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5720MHz

Channel:

144

	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]
*	11440.00	Average	Ι	1	-	-79.44	15.10	0.00	42.66	53.98	-11.32
*	11440.00	Peak	Н	-	-	-67.78	15.10	0.00	54.32	73.98	-19.66
	17160.00	Peak	Н	-	-	-67.12	18.83	0.00	58.71	68.20	-9.49
*	22880.00	Average	н	-	-	-77.92	18.40	-9.54	37.94	53.98	-16.04
*	22880.00	Peak	н	-	-	-66.84	18.40	-9.54	49.02	73.98	-24.96
	28600.00	Peak	Н	ı	-	-49.51	0.41	-9.54	48.36	68.20	-19.84

Table 7-198. Radiated Measurements MIMO (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index:

61

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5745MHz

	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]
*	11490.00	Average	Η	311	40	-78.59	15.22	0.00	43.63	53.98	-10.35
*	11490.00	Peak	Н	311	40	-67.58	15.22	0.00	54.64	73.98	-19.34
	17235.00	Peak	Н	-	-	-68.88	19.54	0.00	57.66	68.20	-10.54
*	22980.00	Average	Н	-	-	-79.41	17.92	-9.54	35.97	53.98	-18.01
*	22980.00	Peak	Н	-	-	-67.34	17.92	-9.54	48.04	73.98	-25.94
	28725.00	Peak	Н	-	-	-49.67	0.67	-9.54	48.46	69.20	-20.74

Table 7-199. Radiated Measurements MIMO (242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 466 of 519
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Worst Case Transfer Rate: MCS0

RU Index:

61

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5785MHz

Channel:

157

	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]
*	11570.00	Average	Н	400	29	-78.25	15.02	0.00	43.77	53.98	-10.21
*	11570.00	Peak	Н	400	29	-66.51	15.02	0.00	55.51	73.98	-18.47
	17355.00	Peak	Η	-	-	-70.09	23.41	0.00	60.32	68.20	-7.88
	23140.00	Peak	Н	-	-	-66.70	18.32	-9.54	49.08	68.20	-19.12
	28925.00	Peak	Н	-	-	-50.03	0.75	-9.54	48.18	68.20	-20.02

Table 7-200. Radiated Measurements MIMO (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)

Worst Case Transfer Rate: MCS0

RU Index:

61

Distance of Measurements:

1 & 3 Meters

Operating Frequency:

5825MHz

Channel:

165

	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]
*	11650.00	Average	Н	398	47	-78.41	14.92	0.00	43.51	53.98	-10.47
*	11650.00	Peak	Н	398	47	-66.76	14.92	0.00	55.16	73.98	-18.82
	17475.00	Peak	Н	-	-	-68.93	21.86	0.00	59.93	68.20	-8.27
	23300.00	Peak	Н	-	-	-65.86	18.77	-9.54	50.37	68.20	-17.83
	29125.00	Peak	Н	-	-	-49.61	-0.12	-9.54	47.73	68.20	-20.47

Table 7-201. Radiated Measurements MIMO (242 Tones)

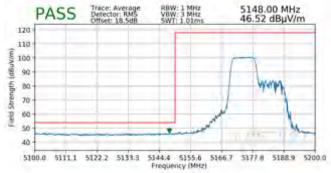
FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 467 of 519
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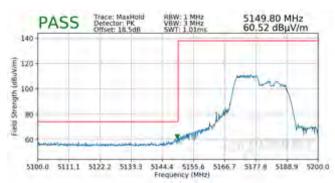
7.6.4 SISO Antenna-1 Radiated Band Edge Measurements (20MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]; RSS-Gen [8.9]

106 Tones

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 53 Distance of Measurements: 3 Meters Operating Frequency: 5180MHz Channel: 36

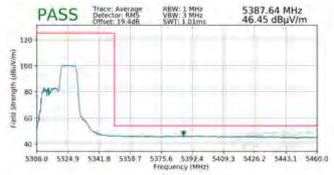


Plot 7-661. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1 – 106 Tones)



Plot 7-662. Radiated Lower Band Edge Plot SISO ANT1 (Peak - UNII Band 1 - 106 Tones)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index	54
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64



Plot 7-663. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A – 106 Tones)



Plot 7-664. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 2A – 106 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode:

Worst Case Transfer Rate:

RU Index

Distance of Measurements:

Operating Frequency:

Channel:

802.11ax

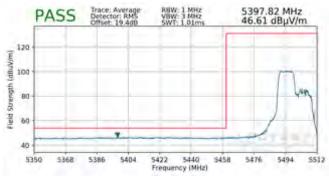
MCS0

53

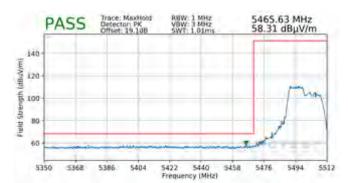
3 Meters

5500MHz

100



Plot 7-665. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C – 106 Tones)



Plot 7-666. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 2C – 106 Tones)

Worst Case Mode:

Worst Case Transfer Rate:

RU Index

Distance of Measurements:

Operating Frequency:

Channel:

802.11ax

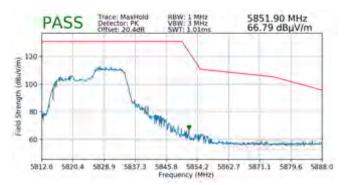
MCS0

54

3 Meters

5825MHz

165



Plot 7-667. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 3 – 106 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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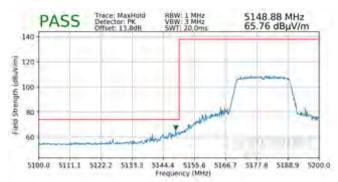
242 Tones

Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
61
3 Meters
5180MHz
36



Plot 7-668. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1 – 242 Tones)



Plot 7-669. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 1 – 242 Tones)

Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
61
3 Meters
5320MHz
64



Plot 7-670. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A – 242 Tones)



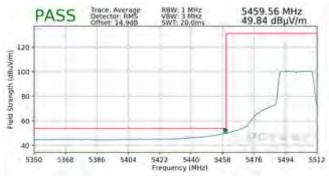
Plot 7-671. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 2A – 242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
61
3 Meters
5500MHz
100



Plot 7-672. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C – 242 Tones)



Plot 7-673. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 2C – 242 Tones)

Worst Case Mode:

Worst Case Transfer Rate:

RU Index

Distance of Measurements:

Operating Frequency:

Channel:

802.11ax

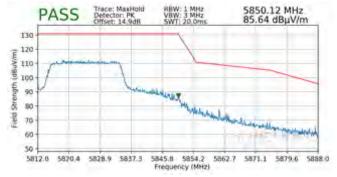
MCS0

61

3 Meters

5825MHz

165



Plot 7-674. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 3 – 242 Tones)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 61 Distance of Measurements: 3 Meters Operating Frequency: 5320MHz Channel: 64



Plot 7-675. Radiated Band Edge Plot SISO ANT1 (Average - WCP - 242 Tones)



Plot 7-676. Radiated Band Edge Plot SISO ANT1 (Peak - WCP - 242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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1M1811260212-15.A3L	11/9/2018 - 1/22/2019	Portable Handset		Page 472 of 519

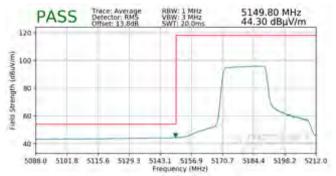


7.6.5 SISO Antenna-1 Radiated Band Edge Measurements (40MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

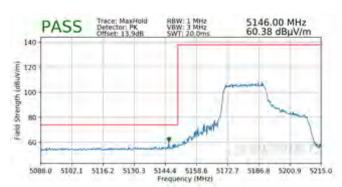
242 Tones

Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
61
3 Meters
5190MHz
38



Plot 7-677. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1 – 242 Tones)



Plot 7-678. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 1 – 242 Tones)

Worst Case Mode:

Worst Case Transfer Rate:

RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax

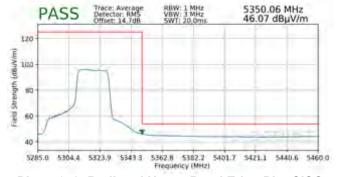
MCS0

62

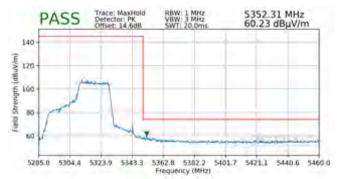
3 Meters

5310MHz

62



Plot 7-679. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A – 242 Tones)



Plot 7-680. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 2A – 242 Tones)

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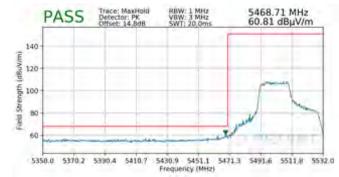


Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
61
3 Meters
5510MHz
102



Plot 7-681. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C – 242 Tones)



Plot 7-682. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 2C – 242 Tones)

Worst Case Mode:

Worst Case Transfer Rate:

RU Index

Distance of Measurements:

Operating Frequency:

Channel:

802.11ax

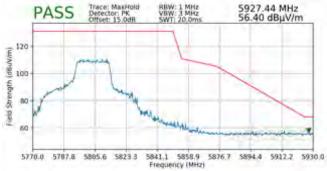
MCS0

62

3 Meters

5795MHz

159



Plot 7-683. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 3 – 242 Tones)

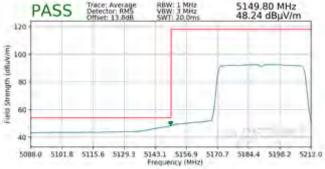
FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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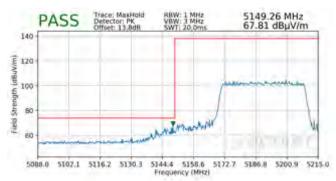
484 Tones

Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
65
3 Meters
5190MHz
38



Plot 7-684. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1 – 484 Tones)

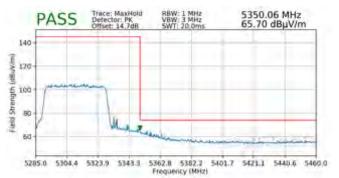


Plot 7-685. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 1 – 484 Tones)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index	65
Distance of Measurements:	3 Meters
Operating Frequency:	5310MHz
Channel:	62



Plot 7-686. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A – 484 Tones)



Plot 7-687. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 2A – 484 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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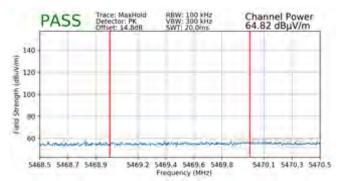


Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
65
3 Meters
5510MHz
102



Plot 7-688. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C – 484 Tones)



Plot 7-689. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 2C – 484 Tones)

Worst Case Mode:

Worst Case Transfer Rate:

RU Index

Distance of Measurements:

Operating Frequency:

Channel:

802.11ax

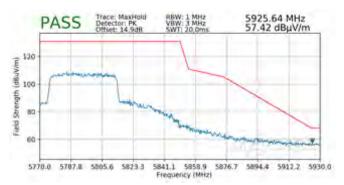
MCS0

65

3 Meters

5795MHz

159

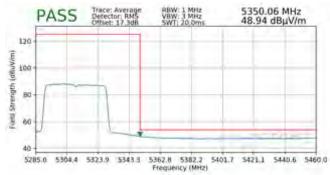


Plot 7-690. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 3 – 484 Tones)

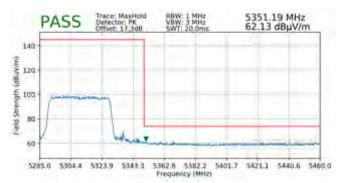
FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 65 Distance of Measurements: 3 Meters Operating Frequency: 5310MHz Channel: 62



Plot 7-691. Radiated Band Edge Plot SISO ANT1 (Average - WCP - 484 Tones)



Plot 7-692. Radiated Band Edge Plot SISO ANT1 (Peak - WCP - 484 Tones)

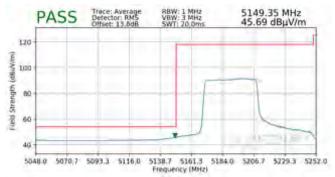
FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	ING	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 477 of 519
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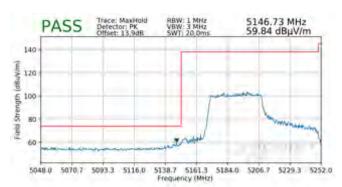
7.6.6 SISO Antenna-1 Radiated Band Edge Measurements (80MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

484 Tones

Worst Case Mode: 802.11ax MCS0 Worst Case Transfer Rate: **RU Index** 65 Distance of Measurements: 3 Meters Operating Frequency: 5210MHz Channel: 42

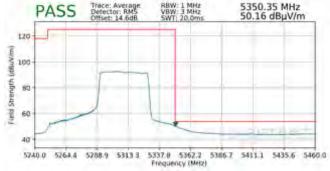


Plot 7-693. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1 – 484 Tones)

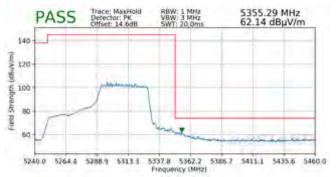


Plot 7-694. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 1 – 484 Tones)

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 66 3 Meters Distance of Measurements: Operating Frequency: 5290MHz Channel: 58



Plot 7-695. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A – 484 Tones)

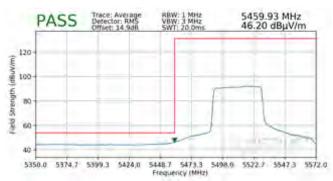


Plot 7-696. Radiated Upper Band Edge Plot SISO ANT1 (Peak - UNII Band 2A - 484 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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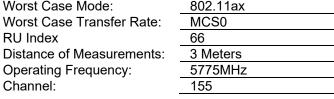


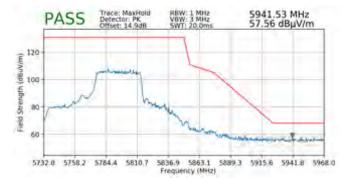
Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 65 Distance of Measurements: 3 Meters Operating Frequency: 5530MHz Channel: 106



Plot 7-697. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C – 484 Tones)

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 66 Distance of Measurements: 3 Meters Operating Frequency: 5775MHz





Plot 7-699. Radiated Upper Band Edge Plot SISO ANT1 (Peak - UNII Band 3 - 484 Tones)

PA	SS	Trace: MaxHold Detector: PK Offset: 14,8dB	RBW: 1 MHz VBW: 3 MHz SWT: 20,0ms	5468.12 MHz 62.45 dBµV/m
10				
20				
30			T	
80				Manager of the same
50			Jane	
	-			

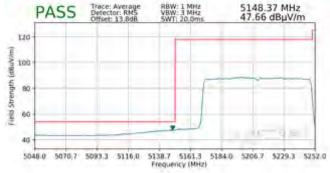
Plot 7-698. Radiated Lower Band Edge Plot SISO ANT1 (Peak - UNII Band 2C - 484 Tones)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 479 of 519
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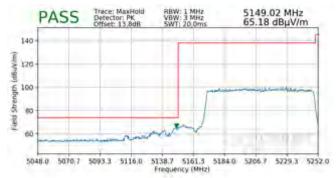


996 Tones

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 67 RU Index Distance of Measurements: 3 Meters 5210MHz Operating Frequency: Channel: 42



Plot 7-700. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1 – 996 Tones)

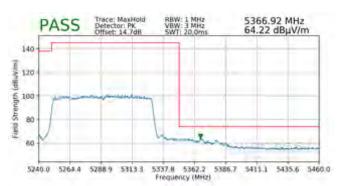


Plot 7-701. Radiated Lower Band Edge Plot SISO ANT1 (Peak - UNII Band 1 - 996 Tones)

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU Index** Distance of Measurements: 3 Meters Operating Frequency: 5290MHz Channel: 58



Plot 7-702. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A – 996 Tones)

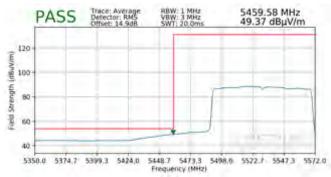


Plot 7-703. Radiated Upper Band Edge Plot SISO ANT1 (Peak - UNII Band 2A - 996 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 480 of 519
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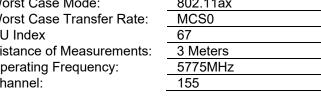


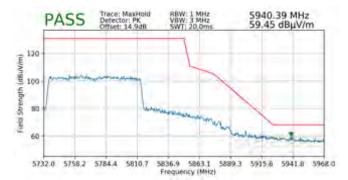
Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 67 Distance of Measurements: 3 Meters Operating Frequency: 5530MHz Channel: 106



Plot 7-704. Radiated Lower Band Edge Plot SISO ANT1 (Average - UNII Band 2C - 996 Tones)

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 67 Distance of Measurements: 3 Meters Operating Frequency: 5775MHz Channel:





Plot 7-706. Radiated Upper Band Edge Plot SISO ANT1 (Peak - UNII Band 3 - 996 Tones)

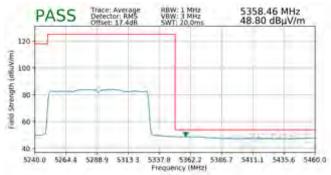
PASS	Trace: Maxifiold Detector: PK Offset: 14,8dB	RBW: 1 MHz VBW: 3 MHz SWT: 20,0ms	5468.47 MHz 65.41 dBµV/m
40			
20			
00		T	- Direction of the last of the
80			
60		under !	
-			

Plot 7-705. Radiated Lower Band Edge Plot SISO ANT1 (Peak - UNII Band 2C - 996 Tones)

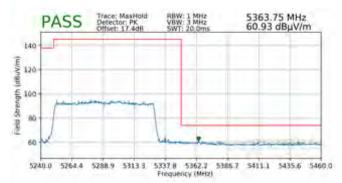
FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dago 491 of 510
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Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 67 Distance of Measurements: 3 Meters Operating Frequency: 5290MHz Channel: 58



Plot 7-707. Radiated Band Edge Plot SISO ANT1 (Average - WCP - 996 Tones)



Plot 7-708. Radiated Band Edge Plot SISO ANT1 (Peak - WCP - 996 Tones)

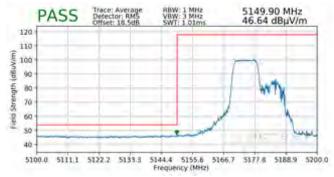
FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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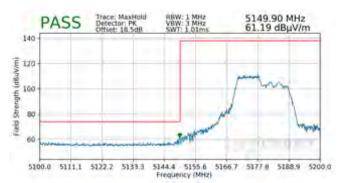
7.6.7 SISO Antenna-2 Radiated Band Edge Measurements (20MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]; RSS-Gen [8.9]

106 Tones

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 53 Distance of Measurements: 3 Meters Operating Frequency: 5180MHz Channel: 36

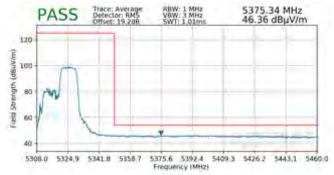


Plot 7-709. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 1 – 106 Tones)

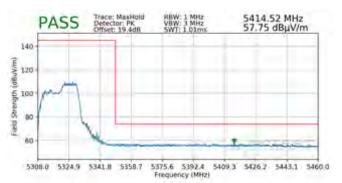


Plot 7-710. Radiated Lower Band Edge Plot SISO ANT2 (Peak - UNII Band 1 - 106 Tones)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index	54
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64



Plot 7-711. Radiated Upper Band Edge Plot SISO ANT2 (Average – UNII Band 2A – 106 Tones)



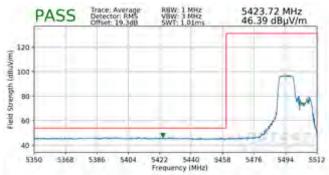
Plot 7-712. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 2A – 106 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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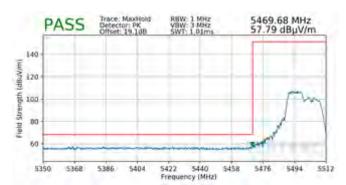


Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
53
3 Meters
5500MHz
100



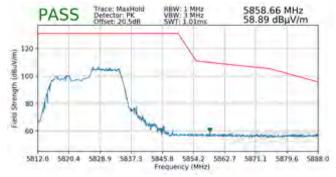
Plot 7-713. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 2C – 106 Tones)



Plot 7-714. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 2C – 106 Tones)

Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
54
3 Meters
5825MHz
165



Plot 7-715. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 3 – 106 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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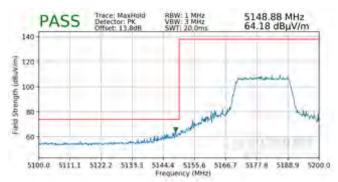
242 Tones

Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
61
3 Meters
5180MHz
36



Plot 7-716. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 1 – 242 Tones)



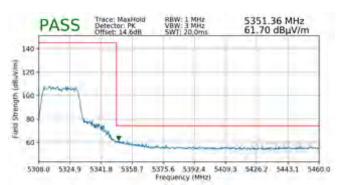
Plot 7-717. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 1 – 242 Tones)

Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
61
3 Meters
5320MHz
64



Plot 7-718. Radiated Upper Band Edge Plot SISO ANT2 (Average – UNII Band 2A – 242 Tones)



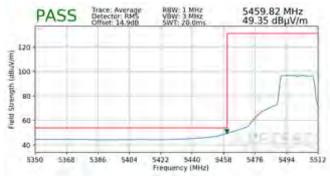
Plot 7-719. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 2A – 242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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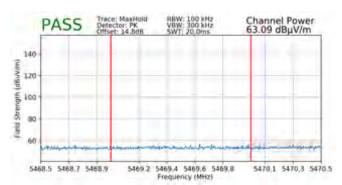


Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
61
3 Meters
5500MHz
100



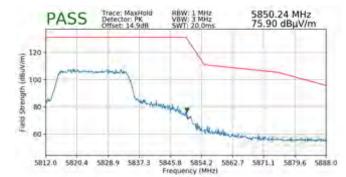
Plot 7-720. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 2C – 242 Tones)



Plot 7-721. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 2C – 242 Tones)

Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
61
3 Meters
5825MHz
165

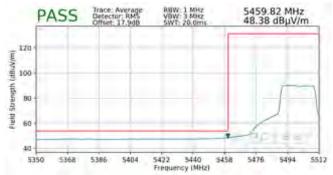


Plot 7-722. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 3 – 242 Tones)

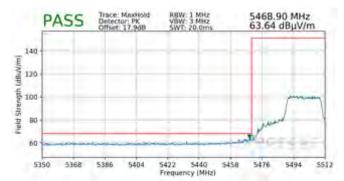
FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 61 Distance of Measurements: 3 Meters Operating Frequency: 5500MHz Channel: 100



Plot 7-723. Radiated Band Edge Plot SISO ANT2 (Average - WCP - 242 Tones)



Plot 7-724. Radiated Band Edge Plot SISO ANT2 (Peak - WCP - 242 Tones)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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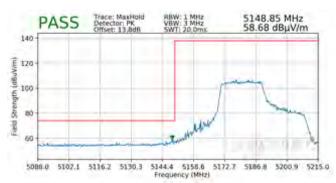
7.6.8 SISO Antenna-2 Radiated Band Edge Measurements (40MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

242 Tones

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU Index** 61 Distance of Measurements: 3 Meters Operating Frequency: 5190MHz Channel: 38



Plot 7-725. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 1 – 242 Tones)



Plot 7-726. Radiated Lower Band Edge Plot SISO ANT2 (Peak - UNII Band 1 - 242 Tones)

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 62 Distance of Measurements: 3 Meters Operating Frequency: 5310MHz Channel: 62



Plot 7-727. Radiated Upper Band Edge Plot SISO ANT2 (Average – UNII Band 2A – 242 Tones)



Plot 7-728. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 2A – 242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 61 Distance of Measurements: 3 Meters Operating Frequency: 5510MHz Channel: 102

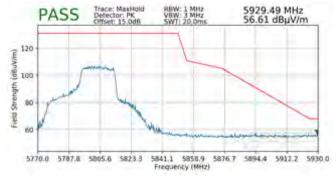


Plot 7-729. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 2C – 242 Tones)



Plot 7-730. Radiated Lower Band Edge Plot SISO ANT2 (Peak - UNII Band 2C - 242 Tones)

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU Index** 62 Distance of Measurements: 3 Meters Operating Frequency: 5795MHz Channel: 159



Plot 7-731. Radiated Upper Band Edge Plot SISO ANT2 (Peak - UNII Band 3 - 242 Tones)

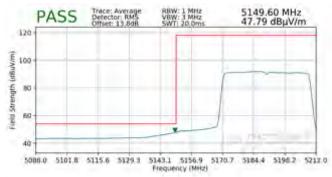
FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 489 of 519
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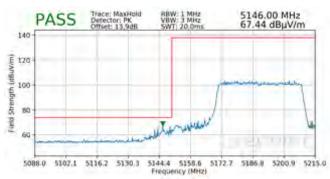
484 Tones

Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
65
3 Meters
5190MHz
38



Plot 7-732. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 1 – 484 Tones)



Plot 7-733. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 1 – 484 Tones)

Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
65
3 Meters
5310MHz
62



Plot 7-734. Radiated Upper Band Edge Plot SISO ANT2 (Average – UNII Band 2A – 484 Tones)



Plot 7-735. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 2A – 484 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 490 of 519
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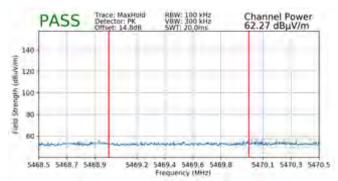


Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
65
3 Meters
5510MHz
102

PASS	Trace: Average Detector: RMS Offset: 14.9dB	RBW: 1 MHz VBW: 3 MHz SWT: 20,0ms	5459.96 MHz 47.84 dBµV/m
20 -			
100-			
80-			
60			
40			
5350.0 5370,2	5390,4 5410,7	5430.9 5451.1 547 Frequency (MHz)	71.3 5491.6 5511.8

Plot 7-736. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 2C – 484 Tones)



Plot 7-737. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 2C – 484 Tones)

Worst Case Mode:

Worst Case Transfer Rate:

RU Index

Distance of Measurements:

Operating Frequency:

Channel:

802.11ax

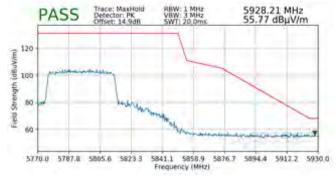
MCS0

65

3 Meters

5795MHz

159

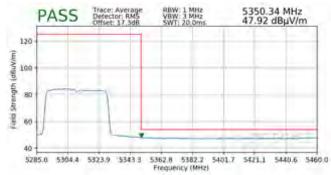


Plot 7-738. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 3 – 484 Tones)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 491 of 519
1M1811260212-15.A3L	11/9/2018 - 1/22/2019	Portable Handset		Fage 491 01 519



Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 65 Distance of Measurements: 3 Meters Operating Frequency: 5310MHz Channel: 62



Plot 7-739. Radiated Band Edge Plot SISO ANT2 (Average - WCP - 484 Tones)



Plot 7-740. Radiated Band Edge Plot SISO ANT2 (Peak - WCP - 484 Tones)

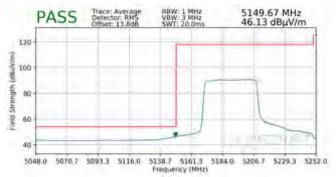
FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 492 of 519
1M1811260212-15.A3L	11/9/2018 - 1/22/2019	Portable Handset	Fage 492 01 519



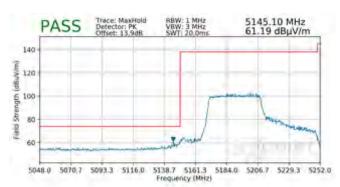
7.6.9 SISO Antenna-2 Radiated Band Edge Measurements (80MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

484 Tones

Worst Case Mode: 802.11ax MCS0 Worst Case Transfer Rate: **RU Index** 65 Distance of Measurements: 3 Meters Operating Frequency: 5210MHz Channel: 42

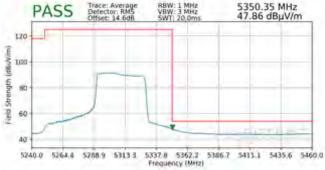


Plot 7-741. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 1 – 484 Tones)



Plot 7-742. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 1 – 484 Tones)

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 66 3 Meters Distance of Measurements: Operating Frequency: 5290MHz Channel: 58



Plot 7-743. Radiated Upper Band Edge Plot SISO ANT2 (Average – UNII Band 2A – 484 Tones)

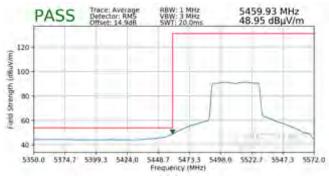


Plot 7-744. Radiated Upper Band Edge Plot SISO ANT2 (Peak - UNII Band 2A - 484 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 493 of 519
1M1811260212-15.A3L	11/9/2018 - 1/22/2019	Portable Handset		Fage 493 01 319

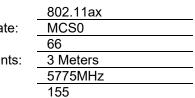


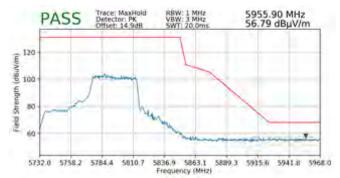
Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 65 Distance of Measurements: 3 Meters Operating Frequency: 5530MHz Channel: 106



Plot 7-745. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 2C – 484 Tones)

Worst Case Mode: Worst Case Transfer Rate: MCS0 **RU** Index 66 Distance of Measurements: 3 Meters Operating Frequency: 5775MHz Channel: 155





Plot 7-747. Radiated Upper Band Edge Plot SISO ANT2 (Peak - UNII Band 3 - 484 Tones)

50 - 50 - 50 - 50 - 50 - 50 - 50 - 50 -	E .					
100-	80+		_		-	
	100-		-1-			

PASS

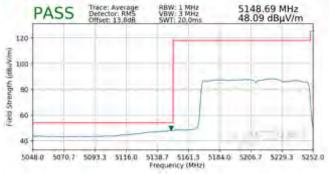
Channel Power 63.35 dBµV/m

FCC ID: A3LSMG9700	PCTEST*	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		D 404 -4 540
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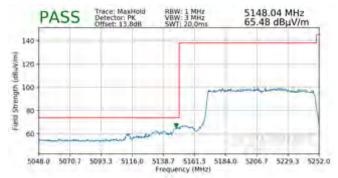


996 Tones

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 67 RU Index Distance of Measurements: 3 Meters 5210MHz Operating Frequency: Channel: 42



Plot 7-748. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 1 – 996 Tones)

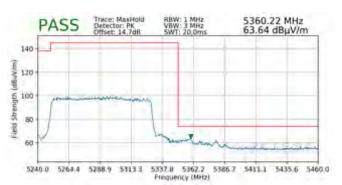


Plot 7-749. Radiated Lower Band Edge Plot SISO ANT2 (Peak - UNII Band 1 - 996 Tones)

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU Index** Distance of Measurements: 3 Meters Operating Frequency: 5290MHz Channel: 58



Plot 7-750. Radiated Upper Band Edge Plot SISO ANT2 (Average – UNII Band 2A – 996 Tones)

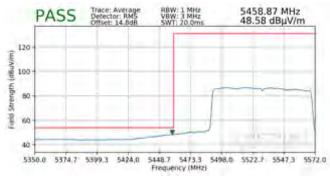


Plot 7-751. Radiated Upper Band Edge Plot SISO ANT2 (Peak - UNII Band 2A - 996 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 495 of 519
1M1811260212-15.A3L	11/9/2018 - 1/22/2019	Portable Handset		Fage 495 01 519

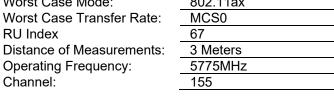


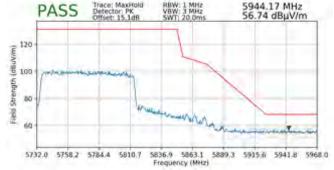
Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 67 Distance of Measurements: 3 Meters Operating Frequency: 5530MHz Channel: 106



Plot 7-752. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 2C – 996 Tones)

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 67 Distance of Measurements: 3 Meters Operating Frequency: 5775MHz





Plot 7-754. Radiated Upper Band Edge Plot SISO ANT2 (Peak - UNII Band 3 - 996 Tones)

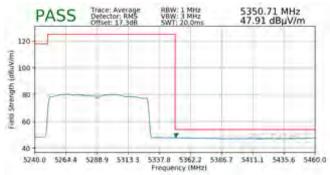
PASS	Detector: PK Offset: 14.8dB	RBW: 100 kHz VBW: 300 kHz SWT: 20,0ms	Channel Power 59.50 dBµV/m
		3777.4454.55	
40-			
20			
201			
00-			
80			
		1 1	
60		-	
40			
5468.5 5468.7 5	5468.9 5469.2	5469.4 5469.6 5469. Frequency (MHz)	B 5470,1 5470,3 S

Plot 7-753. Radiated Lower Band Edge Plot SISO ANT2 (Peak - UNII Band 2C - 996 Tones)

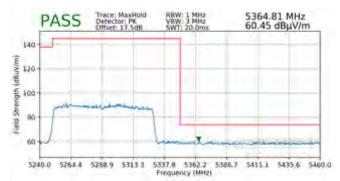
FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dago 406 of 510
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Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 67 Distance of Measurements: 3 Meters Operating Frequency: 5290MHz Channel: 58



Plot 7-755. Radiated Band Edge Plot SISO ANT2 (Average - WCP - 996 Tones)



Plot 7-756. Radiated Band Edge Plot SISO ANT2 (Peak - WCP - 996 Tones)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 497 of 519
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7.6.10 MIMO Radiated Band Edge Measurements (20MHz BW)

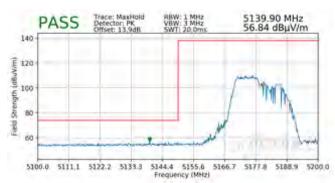
§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]; RSS-Gen [8.9]

106 Tones

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU Index** 53 Distance of Measurements: 3 Meters Operating Frequency: 5180MHz Channel: 36

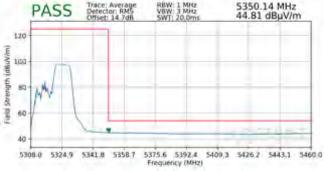


Plot 7-757. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1 – 106 Tones)

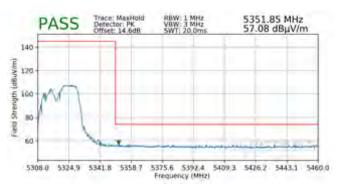


Plot 7-758. Radiated Lower Band Edge Plot MIMO (Peak - UNII Band 1 - 106 Tones)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index	54
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64



Plot 7-759. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A – 106 Tones)

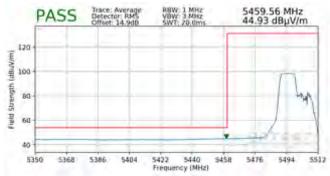


Plot 7-760. Radiated Upper Band Edge Plot MIMO (Peak - UNII Band 2A - 106 Tones)

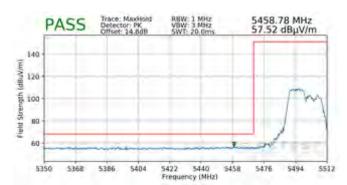
FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 498 of 519
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Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 53 Distance of Measurements: 3 Meters Operating Frequency: 5500MHz Channel: 100



Plot 7-761. Radiated Lower Band Edge Plot MIMO (Average - UNII Band 2C - 106 Tones)



Plot 7-762. Radiated Lower Band Edge Plot MIMO (Peak - UNII Band 2C - 106 Tones)

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU Index** 54 Distance of Measurements: 3 Meters Operating Frequency: 5825MHz Channel: 165



Plot 7-763. Radiated Upper Band Edge Plot MIMO (Peak - UNII Band 3 - 106 Tones)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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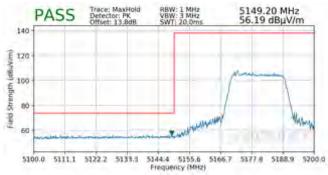


242 Tones

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 RU Index 61 Distance of Measurements: 3 Meters 5180MHz Operating Frequency: Channel: 36



Plot 7-764. Radiated Lower Band Edge Plot MIMO (Average - UNII Band 1 - 242 Tones)



Plot 7-765. Radiated Lower Band Edge Plot MIMO (Peak - UNII Band 1 - 242 Tones)

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU Index** 61 Distance of Measurements: 3 Meters 5320MHz Operating Frequency: Channel: 64



Plot 7-766. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A – 242 Tones)



Plot 7-767. Radiated Upper Band Edge Plot MIMO (Peak - UNII Band 2A - 242 Tones)

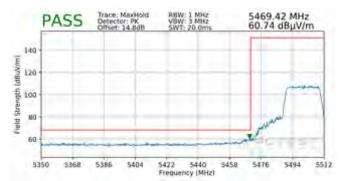
FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 500 of 519
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Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 61 Distance of Measurements: 3 Meters Operating Frequency: 5500MHz Channel: 100

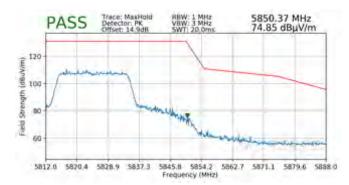
PAS	S Trace Detect Offset	tur: RMS 14.9d0	RBW: 1 MHz VBW: 3 MHz SWT: 20.0ms	5459 45.6	1.30 MHz 1 dBµV/m
120			-		
100	-	-		-	
80 -		-	-	-	-
60				1	1
40					140
5350 5	368 5386		eguency (MHz)	5458 5476	5494

Plot 7-768. Radiated Lower Band Edge Plot MIMO (Average - UNII Band 2C - 242 Tones)



Plot 7-769. Radiated Lower Band Edge Plot MIMO (Peak - UNII Band 2C - 242 Tones)

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU Index** 61 Distance of Measurements: 3 Meters Operating Frequency: 5825MHz Channel: 165



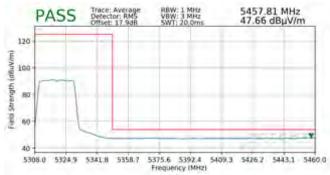
Plot 7-770. Radiated Upper Band Edge Plot MIMO (Peak - UNII Band 3 - 242 Tones)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
61
3 Meters
5320MHz
64



Plot 7-771. Radiated Band Edge Plot MIMO (Average – WCP – 242 Tones)



Plot 7-772. Radiated Band Edge Plot MIMO (Peak – WCP – 242 Tones)

FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 502 of 519
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7.6.11 MIMO Radiated Band Edge Measurements (40MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

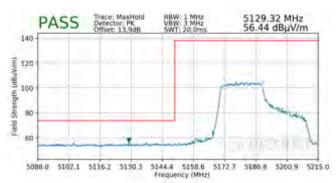
242 Tones

Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
61
3 Meters
5190MHz
38



Plot 7-773. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1 – 242 Tones)



Plot 7-774. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1 – 242 Tones)

Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
62
3 Meters
5310MHz
62



Plot 7-775. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A – 242 Tones)



Plot 7-776. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A – 242 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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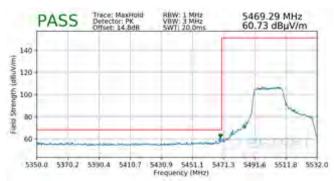


Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
61
3 Meters
5510MHz
102



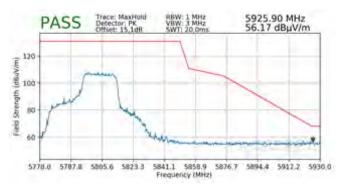
Plot 7-777. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C – 242 Tones)



Plot 7-778. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C – 242 Tones)

Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
62
3 Meters
5795MHz
159



Plot 7-779. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3 – 242 Tones)

FCC ID: A3LSMG9700	PCTEST*	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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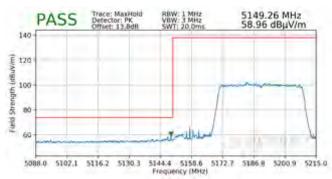
484 Tones

Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
65
3 Meters
5190MHz
38



Plot 7-780. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1 – 484 Tones)



Plot 7-781. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1 – 484 Tones)

Worst Case Mode:

Worst Case Transfer Rate:

RU Index

Distance of Measurements:

Operating Frequency:

Channel:

802.11ax

MCS0

65

3 Meters

5310MHz

62



Plot 7-782. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A – 484 Tones)



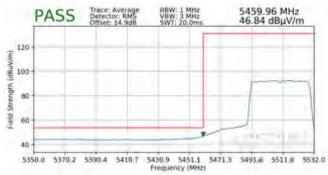
Plot 7-783. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A – 484 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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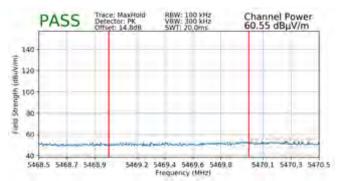


Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
65
3 Meters
5510MHz
102



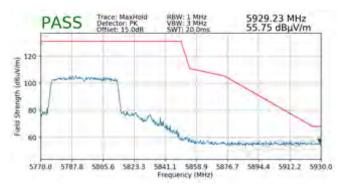
Plot 7-784. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C – 484 Tones)



Plot 7-785. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C – 484 Tones)

Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
65
3 Meters
5795MHz
159



Plot 7-786. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3 – 484 Tones)

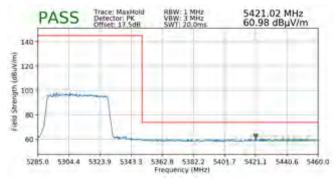
FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 65 Distance of Measurements: 3 Meters Operating Frequency: 5310MHz Channel: 62



Plot 7-787. Radiated Band Edge Plot MIMO (Average - WCP - 484 Tones)



Plot 7-788. Radiated Band Edge Plot MIMO (Peak -WCP - 484 Tones)

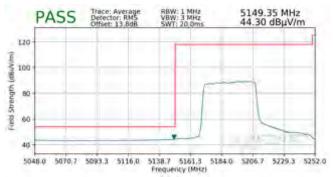
FCC ID: A3LSMG9700	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 507 of 519
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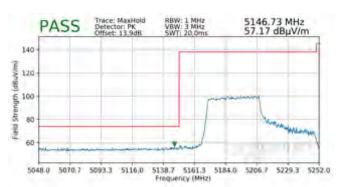
7.6.12 MIMO Radiated Band Edge Measurements (80MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

484 Tones

Worst Case Mode: 802.11ax MCS0 Worst Case Transfer Rate: **RU Index** 65 Distance of Measurements: 3 Meters Operating Frequency: 5210MHz Channel: 42

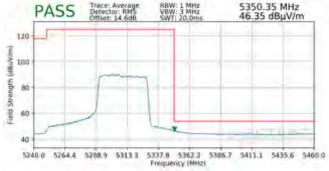


Plot 7-789. Radiated Lower Band Edge Plot MIMO (Average - UNII Band 1 - 484 Tones)

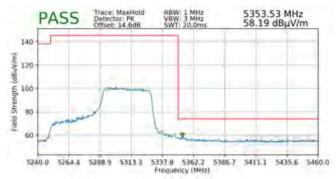


Plot 7-790. Radiated Lower Band Edge Plot MIMO (Peak - UNII Band 1 - 484 Tones)

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 RU Index 66 Distance of Measurements: 3 Meters Operating Frequency: 5290MHz Channel: 58



Plot 7-791. Radiated Upper Band Edge Plot MIMO (Average - UNII Band 2A - 484 Tones)

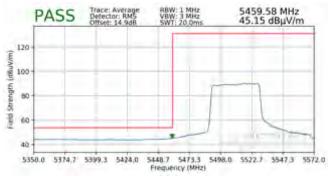


Plot 7-792. Radiated Upper Band Edge Plot MIMO (Peak - UNII Band 2A - 484 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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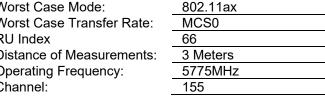


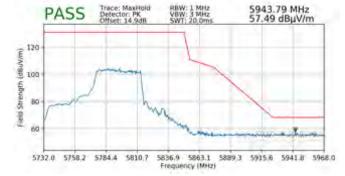
Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 65 Distance of Measurements: 3 Meters Operating Frequency: 5530MHz Channel: 106



Plot 7-793. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C – 484 Tones)

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 66 Distance of Measurements: 3 Meters Operating Frequency: 5775MHz Channel: 155





Plot 7-795. Radiated Upper Band Edge Plot MIMO (Peak - UNII Band 3 - 484 Tones)

PASS	5 Trace: MaxHold Detector: PK Offset: 14,8dB	RBW: 1 MHz VBW: 3 MHz SWT: 20,0ms	5469.54 MHz 58.93 dBμV/m
40			
120			
100-		4	maring
80-			Mangher
60			7744
5350.0 5374	1.7 5399.3 5424.0	5448.7 5473.3 54	98.0 5522.7 5547.3 5

Plot 7-794. Radiated Lower Band Edge Plot MIMO (Peak - UNII Band 2C - 484 Tones)

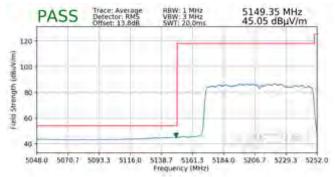
FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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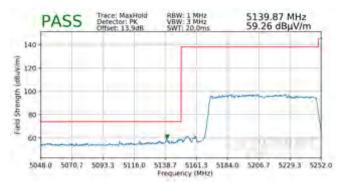
996 Tones

Worst Case Mode:
Worst Case Transfer Rate:
RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
67
3 Meters
5210MHz
42



Plot 7-796. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1 – 996 Tones)



Plot 7-797. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1 – 996 Tones)

Worst Case Mode:

Worst Case Transfer Rate:

RU Index

Distance of Measurements:

Operating Frequency:

Channel:

802.11ax

MCS0

67

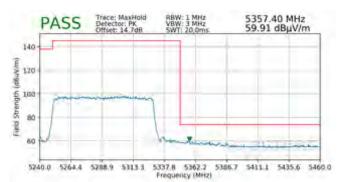
3 Meters

5290MHz

58



Plot 7-798. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A – 996 Tones)

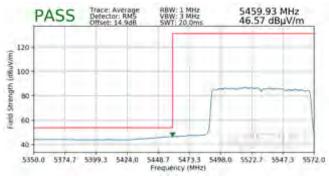


Plot 7-799. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A – 996 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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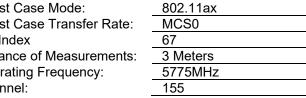


Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 **RU** Index 67 Distance of Measurements: 3 Meters Operating Frequency: 5530MHz Channel: 106



Plot 7-800. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C – 996 Tones)

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS₀ **RU** Index 67 Distance of Measurements: 3 Meters Operating Frequency: 5775MHz Channel: 155





Plot 7-802. Radiated Upper Band Edge Plot MIMO (Peak - UNII Band 3 - 996 Tones)

PAS	S Trace: Ma Detector: Offset: 14	PK VBW	1 MHz 3 MHz 20,0ms	5467.40 MH 61.71 dBµV	/m
140					
120					
100			Abbet		
80					
60		· America	zm.		
5350.0 53	74.7 5399.3 54	24.0 5448.7	5473.3 5498.0	5522.7 5547.3	55
44400		Frequer	cy (MHz)		

Plot 7-801. Radiated Lower Band Edge Plot MIMO (Peak - UNII Band 2C - 996 Tones)

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Worst Case Mode:

Worst Case Transfer Rate:

RU Index
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax

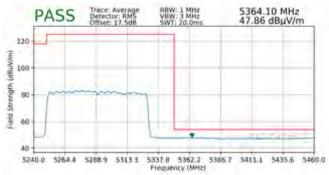
MCS0

67

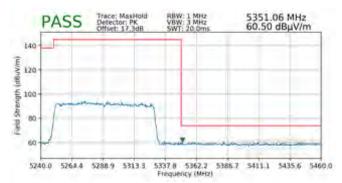
3 Meters

5290MHz

58



Plot 7-803. Radiated Band Edge Plot MIMO (Average – WCP – 996 Tones)



Plot 7-804. Radiated Band Edge Plot MIMO (Peak – WCP – 996 Tones)

FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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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 7-202 per Section 15.209 and RSS-Gen (8.9).

Frequency	Field Strength [μV/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 7-202, 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
- 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.

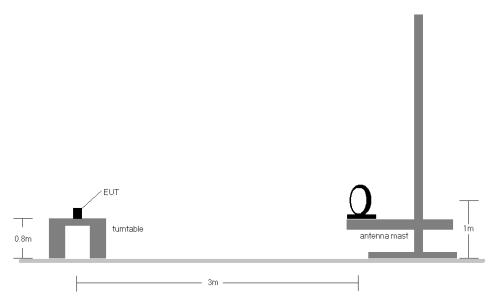


Figure 7-6. Radiated Test Setup < 30MHz

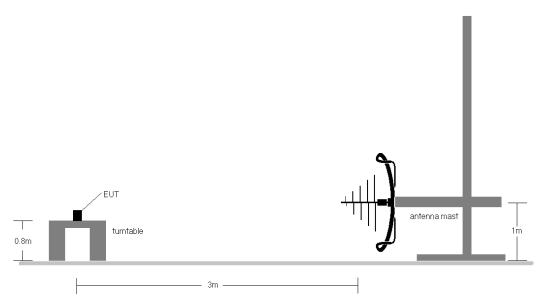


Figure 7-7. Radiated Test Setup < 1GHz

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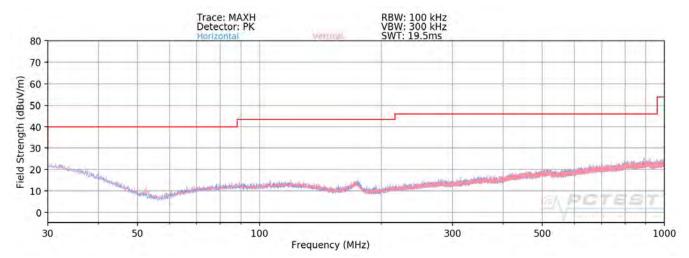


Test Notes

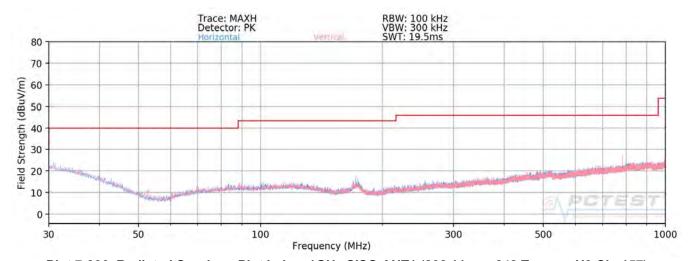
- 1. All emissions lying in restricted bands specified in §15.205 and RSS-Gen (8.10) are below the limit shown in Table 7-202.
- 2. The broadband receive antenna is manipulated through vertical and horizontal polarizations during the tests. The EUT is manipulated through three orthogonal planes.
- 3. 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.



SISO Antenna-1 Radiated Spurious Emissions Measurements (Below 1GHz) §15.209; RSS-Gen [8.9]



Plot 7-805. Radiated Spurious Plot below 1GHz SISO ANT1 (802.11ax - 106 Tones - U3 Ch. 157)

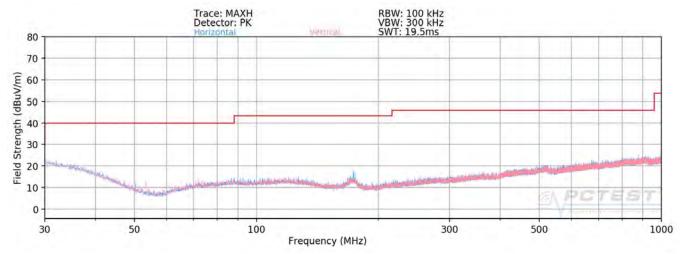


Plot 7-806. Radiated Spurious Plot below 1GHz SISO ANT1 (802.11ax - 242 Tones - U3 Ch. 157)

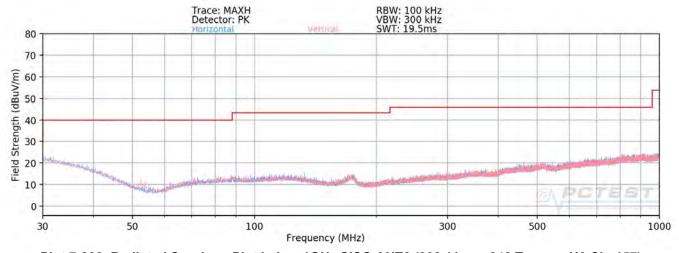
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SISO Antenna-2 Radiated Spurious Emissions Measurements (Below 1GHz) §15.209; RSS-Gen [8.9]



Plot 7-807. Radiated Spurious Plot below 1GHz SISO ANT2 (802.11ax - 106 Tones - U3 Ch. 157)

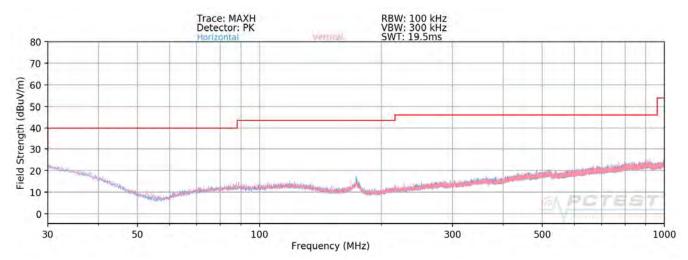


Plot 7-808. Radiated Spurious Plot below 1GHz SISO ANT2 (802.11ax - 242 Tones - U3 Ch. 157)

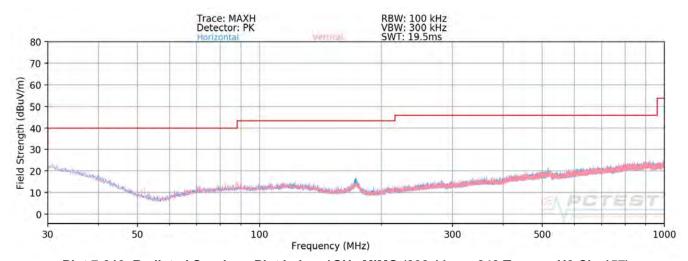
FCC ID: A3LSMG9700	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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MIMO Radiated Spurious Emissions Measurements (Below 1GHz) §15.209; RSS-Gen [8.9]



Plot 7-809. Radiated Spurious Plot below 1GHz MIMO (802.11ax - 106 Tones - U3 Ch. 157)



Plot 7-810. Radiated Spurious Plot below 1GHz MIMO (802.11ax - 242 Tones - U3 Ch. 157)

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CONCLUSION 8.0

The data collected relate only the item(s) tested and show that the Samsung Portable Handset FCC ID: A3LSMG9700 is in compliance with Part 15 Subpart E (15.407) of the FCC Rules.

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