

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
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	V	398	215	-67.00	13.25	0.00	53.25	68.20	-14.95
* 15840.00	Average	V	133	8	-78.46	14.86	0.00	43.40	53.98	-10.58
* 15840.00	Peak	V	133	8	-66.82	14.86	0.00	55.04	73.98	-18.94
* 21120.00	Average	V	-	-	-78.73	17.83	-9.54	36.56	53.98	-17.42
* 21120.00	Peak	V	-	-	-68.36	17.83	-9.54	46.93	73.98	-27.05
26400.00	Peak	V	-	-	-68.24	20.07	-9.54	49.29	68.20	-18.91

Table 7-60. Radiated Measurements MIMO/CDD - CLOSED

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
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	V	396	218	-78.92	14.05	0.00	42.13	53.98	-11.85
* 10640.00	Peak	V	396	218	-67.66	14.05	0.00	53.39	73.98	-20.59
* 15960.00	Average	V	135	8	-78.37	14.67	0.00	43.30	53.98	-10.68
* 15960.00	Peak	V	135	8	-66.48	14.67	0.00	55.19	73.98	-18.79
* 21280.00	Average	V	-	-	-78.46	17.98	-9.54	36.98	53.98	-17.00
* 21280.00	Peak	V	-	-	-68.42	17.98	-9.54	47.02	73.98	-26.96
26600.00	Peak	V	150	48	-48.22	4.42	-9.54	53.65	68.20	-14.55

Table 7-61. Radiated Measurements MIMO/CDD - CLOSED

FCC ID: A3LSMF907B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset		Page 198 of 244

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
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]
10520.00	Peak	V	227	314	-68.04	12.84	0.00	51.80	68.20	-16.40
15780.00	Average	V	-	-	-83.37	15.71	0.00	39.34	53.98	-14.64
15780.00	Peak	V	-	-	-74.14	15.71	0.00	48.57	73.98	-25.41
21040.00	Average	V	-	-	-73.03	17.67	-9.54	42.10	53.98	-11.88
21040.00	Peak	V	-	-	-63.81	17.67	-9.54	51.32	73.98	-22.66
26300.00	Peak	V	-	-	-64.45	20.29	-9.54	53.30	68.20	-14.90

Table 7-62. Radiated Measurements MIMO/CDD with WCP - CLOSED

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
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	V	397	210	-77.64	20.31	0.00	49.67	53.98	-4.31
11000.00	Peak	V	397	210	-66.08	20.31	0.00	61.23	73.98	-12.75
16500.00	Peak	V	118	47	-68.54	15.70	0.00	54.16	68.20	-14.04
22000.00	Peak	V	-	-	-68.75	18.43	-9.54	47.14	68.20	-21.06
27500.00	Peak	V	150	44	-47.22	3.16	-9.54	53.39	68.20	-14.81

Table 7-63. Radiated Measurements MIMO/CDD - CLOSED

FCC ID: A3LSMF907B	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset	Page 199 of 244

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
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	V	338	230	-77.97	19.78	0.00	48.81	53.98	-5.17
11200.00	Peak	V	338	230	-66.11	19.78	0.00	60.67	73.98	-13.31
16800.00	Peak	V	-	-	-68.47	16.64	0.00	55.17	68.20	-13.03
22400.00	Average	V	-	-	-78.78	19.18	-9.54	37.86	53.98	-16.12
22400.00	Peak	V	-	-	-69.01	19.18	-9.54	47.63	73.98	-26.35
28000.00	Peak	V	-	-	-47.67	4.80	-9.54	54.59	68.20	-13.61

Table 7-64. Radiated Measurements MIMO/CDD - CLOSED

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
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	V	396	217	-79.24	20.26	0.00	48.02	53.98	-5.96
11440.00	Peak	V	396	217	-67.91	20.26	0.00	59.35	73.98	-14.63
17160.00	Peak	V	-	-	-68.49	18.30	0.00	56.81	68.20	-11.39
22880.00	Average	V	-	-	-79.41	18.88	-9.54	36.93	53.98	-17.05
22880.00	Peak	V	-	-	-69.41	18.88	-9.54	46.93	73.98	-27.05
28600.00	Peak	V	150	2	-46.96	3.32	-9.54	53.81	68.20	-14.39

Table 7-65. Radiated Measurements MIMO/CDD - CLOSED

FCC ID: A3LSMF907B	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset	Page 200 of 244

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
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	V	342	187	-76.42	20.26	0.00	50.84	53.98	-3.14
11440.00	Peak	V	342	187	-65.41	20.26	0.00	61.85	73.98	-12.13
17160.00	Peak	V	-	-	-69.41	18.30	0.00	55.89	68.20	-12.31
22880.00	Average	V	-	-	-73.27	18.88	-9.54	43.07	53.98	-10.91
22880.00	Peak	V	-	-	-65.05	18.88	-9.54	51.29	73.98	-22.69
28600.00	Peak	V	-	-	-62.11	3.32	-9.54	38.66	68.20	-29.54

Table 7-66. Radiated Measurements MIMO/CDD with WCP - CLOSED

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
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	V	369	228	-78.89	14.31	0.00	42.42	53.98	-11.55
11490.00	Peak	V	369	228	-67.76	14.31	0.00	53.55	73.98	-20.42
17235.00	Peak	V	-	-	-68.89	19.33	0.00	57.44	68.20	-10.76
22980.00	Average	V	-	-	-79.05	19.03	-9.54	37.44	53.98	-16.54
22980.00	Peak	V	-	-	-68.65	19.03	-9.54	47.84	73.98	-26.14
28725.00	Peak	V	150	46	-46.17	3.65	-9.54	54.94	69.20	-14.26

Table 7-67. Radiated Measurements MIMO/CDD - CLOSED

FCC ID: A3LSMF907B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset		Page 201 of 244

Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 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	V	316	231	-78.58	14.24	0.00	42.66	53.98	-11.32
11570.00	Peak	V	316	231	-66.81	14.24	0.00	54.43	73.98	-19.55
17355.00	Peak	V	-	-	-69.39	22.98	0.00	60.59	68.20	-7.61
23140.00	Peak	V	-	-	-69.14	18.82	-9.54	47.14	68.20	-21.06
28925.00	Peak	V	150	43	-45.62	4.50	-9.54	56.34	68.20	-11.86

Table 7-68. Radiated Measurements MIMO/CDD - CLOSED

Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 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	V	364	231	-77.92	15.01	0.00	44.09	53.98	-9.89
11650.00	Peak	V	364	231	-65.71	15.01	0.00	56.30	73.98	-17.68
17475.00	Peak	V	-	-	-69.62	21.56	0.00	58.94	68.20	-9.26
23300.00	Peak	V	-	-	-67.15	18.40	-9.54	48.71	68.20	-19.49
29125.00	Peak	V	-	-	-54.86	2.23	-9.54	44.83	68.20	-23.37

Table 7-69. Radiated Measurements MIMO/CDD - CLOSED

FCC ID: A3LSMF907B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset		Page 202 of 244

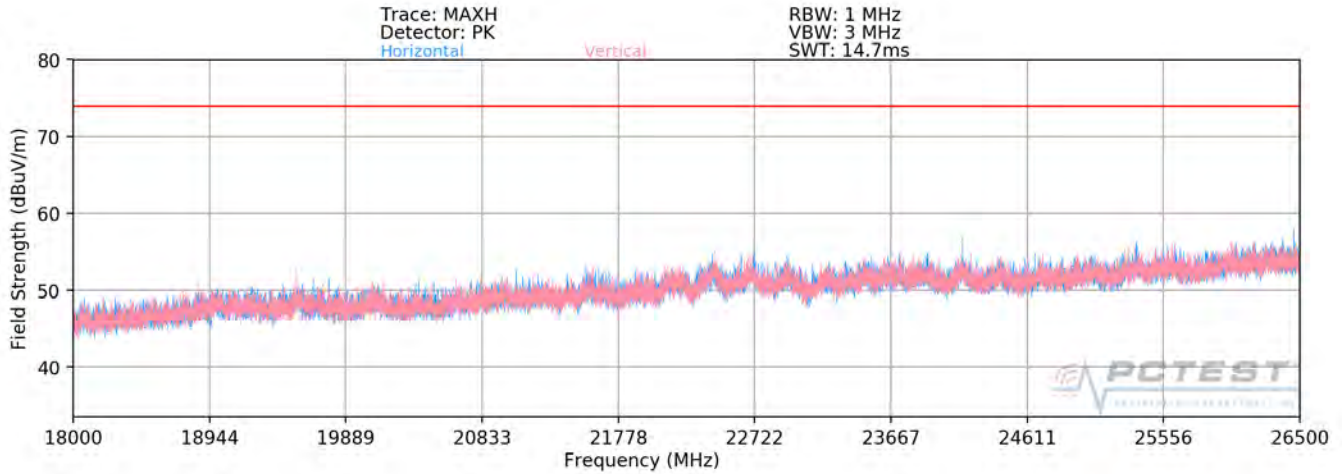
Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 5825MHz
 Channel: 165

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]
11570.00	Average	V	321	167	-76.14	14.24	0.00	45.10	53.98	-8.88
11570.00	Peak	V	321	167	-65.97	14.24	0.00	55.27	73.98	-18.71
17355.00	Peak	V	-	-	-71.84	22.98	0.00	58.14	68.20	-10.06
23140.00	Peak	V	-	-	-66.21	18.82	-9.54	50.07	68.20	-18.13
28925.00	Peak	V	-	-	-64.53	4.50	-9.54	37.43	68.20	-30.77

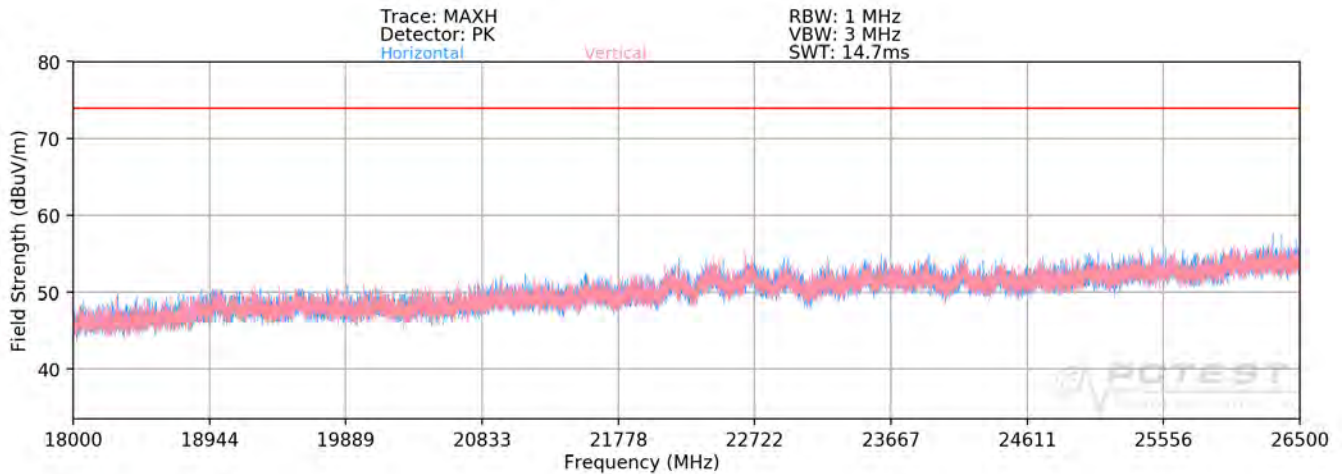
Table 7-70. Radiated Measurements MIMO/CDD with WCP - CLOSED

FCC ID: A3LSMF907B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset	Page 203 of 244	

MIMO/CDD Radiated Spurious Emissions Measurements (Above 18GHz)

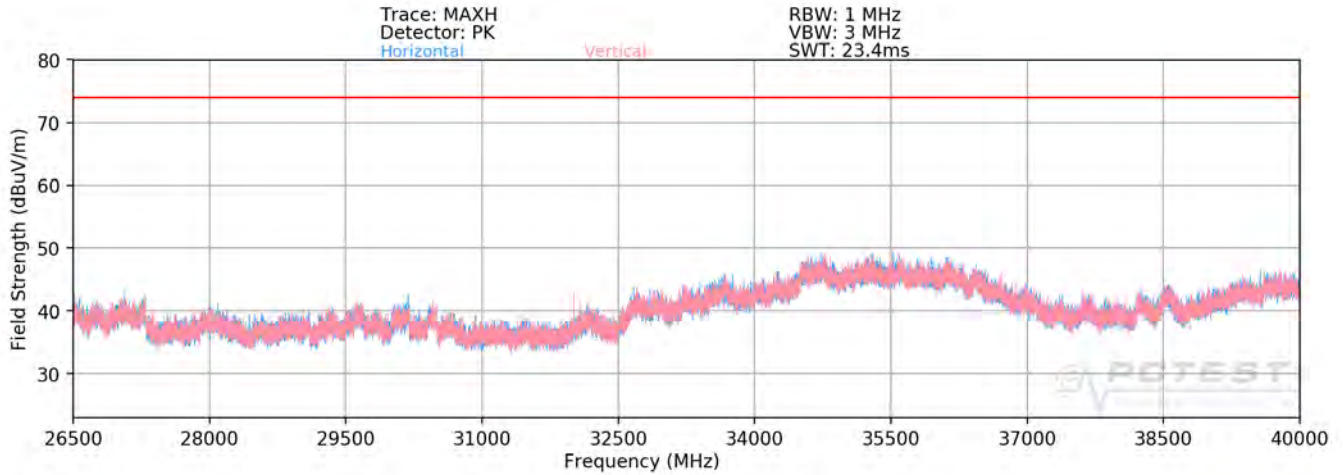


Plot 7-289. Radiated Spurious Plot above 18GHz - 26.5GHz MIMO/CDD (802.11a - CLOSED)

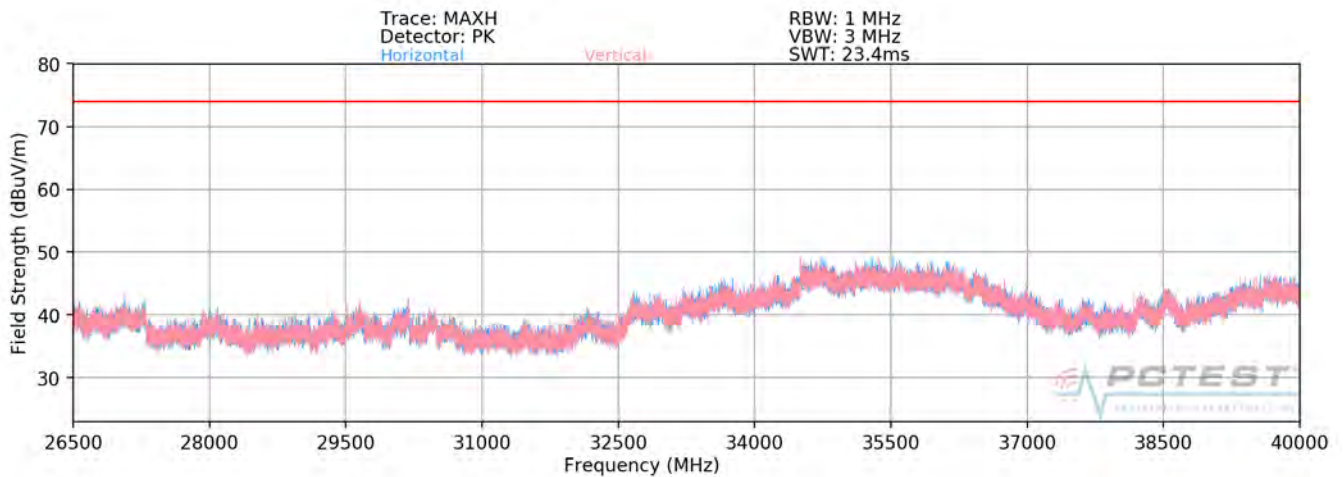


Plot 7-290. Radiated Spurious Plot above 18GHz - 26.5GHz MIMO/CDD (802.11a - OPEN)

FCC ID: A3LSMF907B	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset		Page 204 of 244



Plot 7-291. Radiated Spurious Plot 26.5GHz - 40GHz MIMO/CDD (802.11a - CLOSED)



Plot 7-292. Radiated Spurious Plot 26.5GHz - 40GHz MIMO/CDD (802.11a - OPEN)

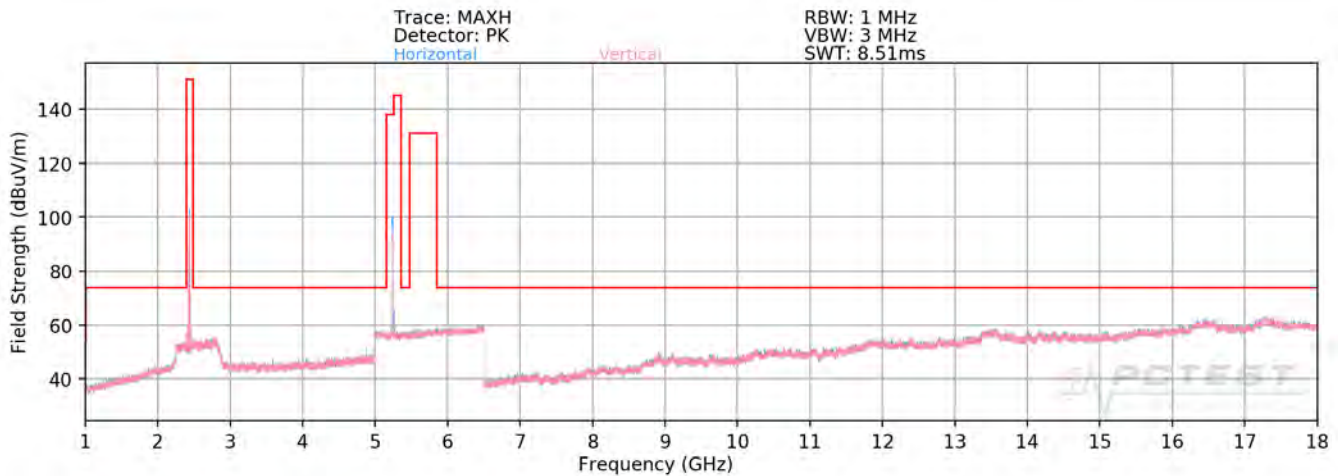
FCC ID: A3LSMF907B	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset		Page 205 of 244

6.6.4 Simultaneous Tx Radiated Spurious Emissions Measurements

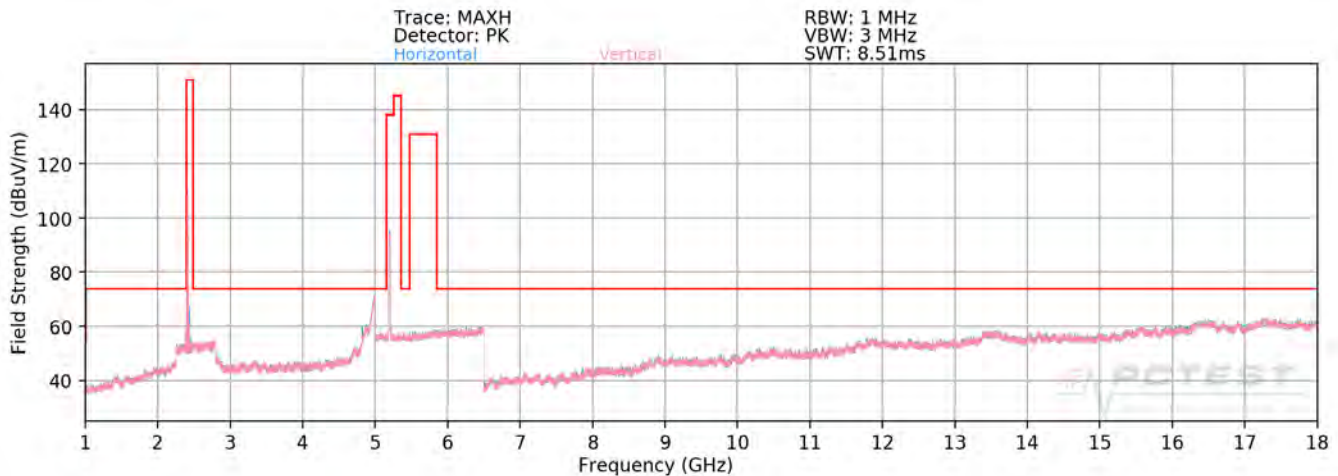
§15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

Description	2.4 GHz Emission	5 GHz Emission
Antenna	1	2
Channel	6	48
Operating Frequency (MHz)	2437	5240
Data Rate (Mbps)	1	6
Mode	802.11b	802.11a

Table 7-71. Simultaneous Transmission Config-1

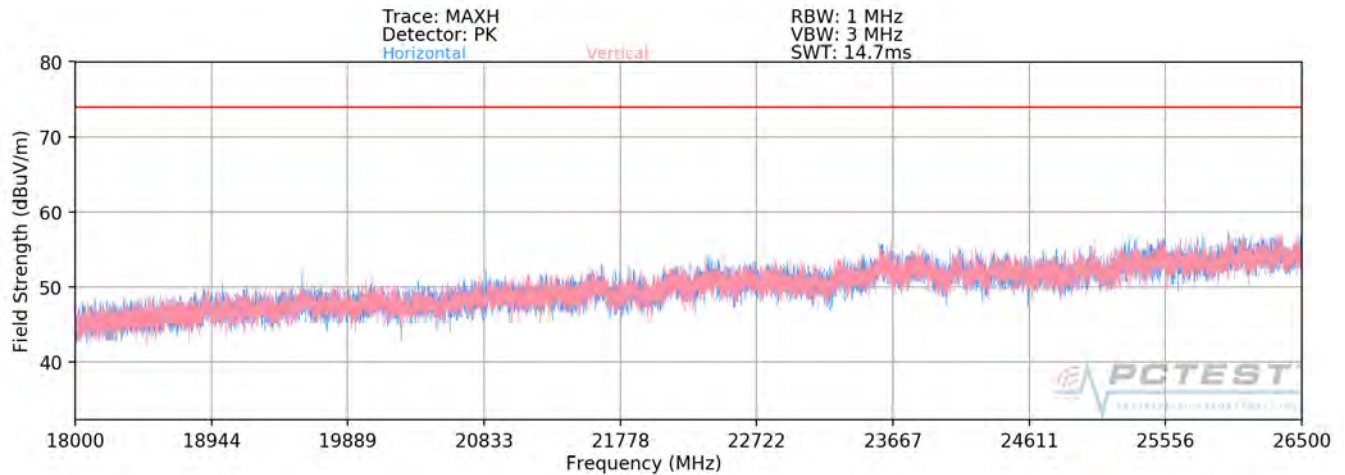


Plot 7-293. Radiated Spurious Plot above 1GHz (2.4GHz – 5GHz - CLOSED)

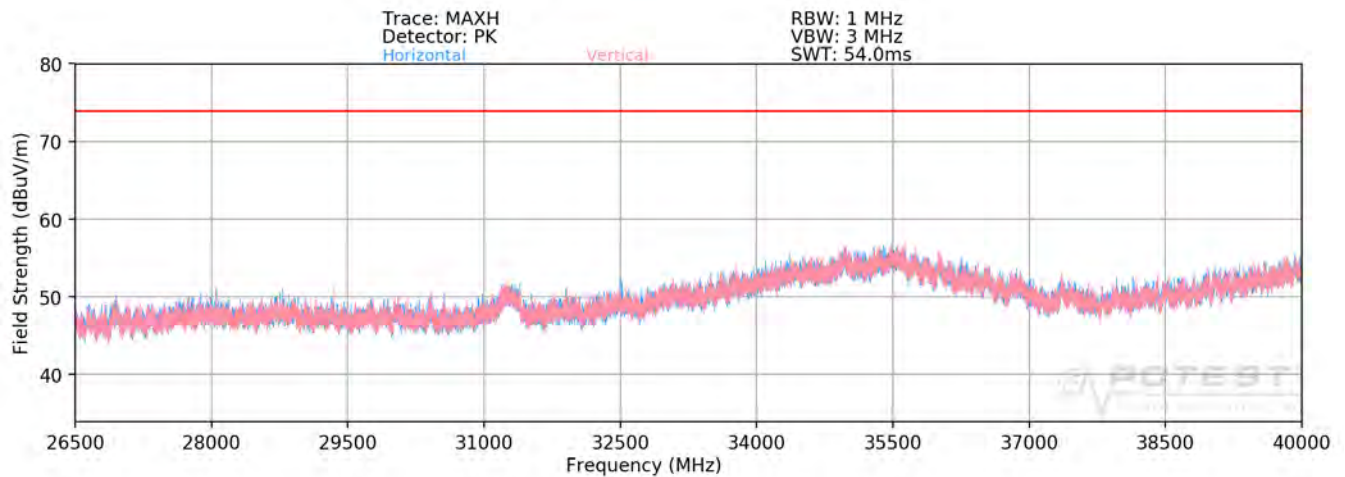


Plot 7-294. Radiated Spurious Plot above 1GHz (2.4GHz – 5GHz - OPEN)

FCC ID: A3LSMF907B	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset		Page 206 of 244



Plot 7-295. Radiated Spurious Plot 18GHz – 26.5GHz (2.4GHz – 5GHz - CLOSED)

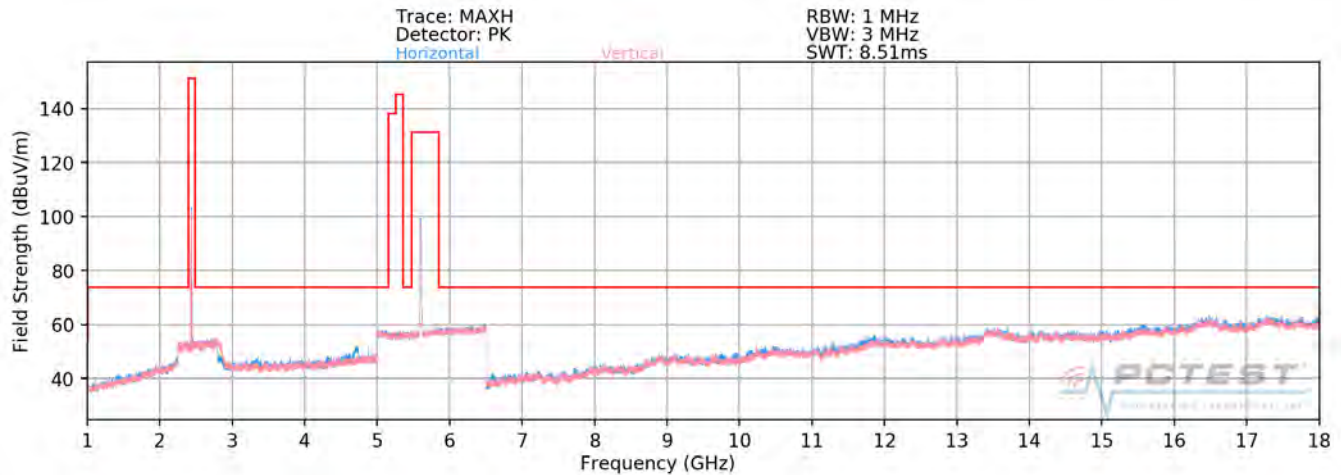


Plot 7-296. Radiated Spurious Plot above 26.5GHz (2.4GHz – 5GHz - CLOSED)

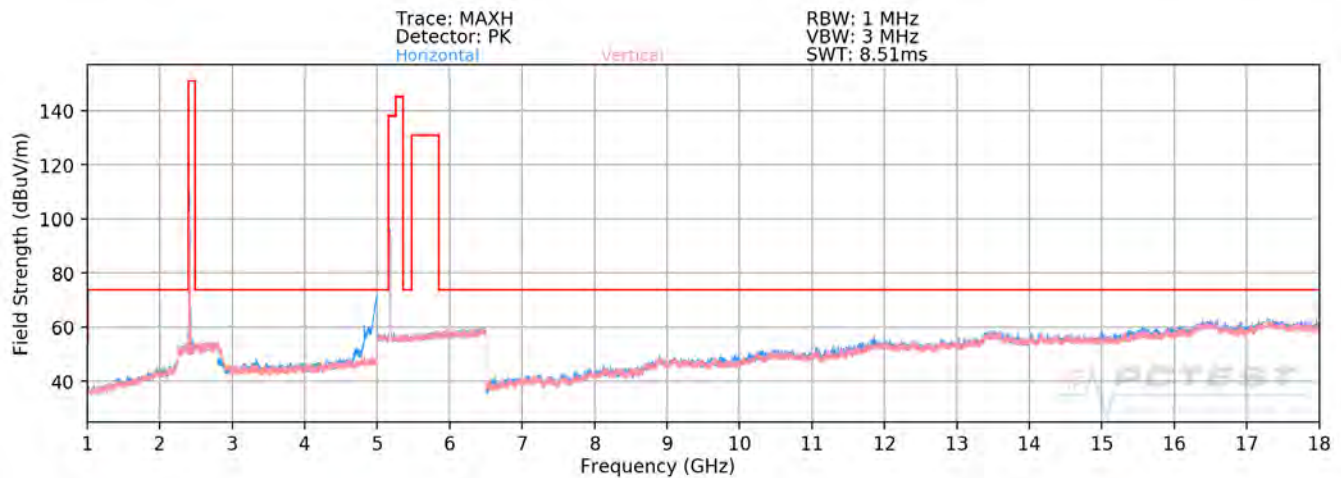
FCC ID: A3LSMF907B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset		Page 207 of 244

Description	2.4 GHz Emission	5 GHz Emission
Antenna	2	1
Channel	6	120
Operating Frequency (MHz)	2437	5600
Data Rate (Mbps)	1	6
Mode	802.11b	802.11a

Table 7-72. Simultaneous Transmission Config-2

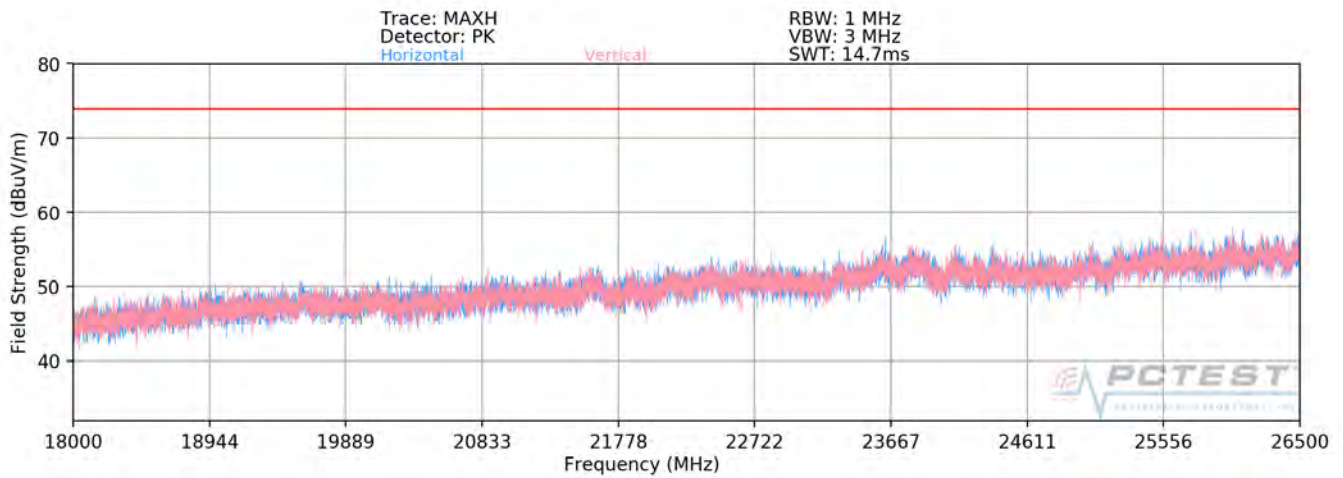


Plot 7-297. Radiated Spurious Plot above 1GHz (5GHz – 2.4 GHz - CLOSED)

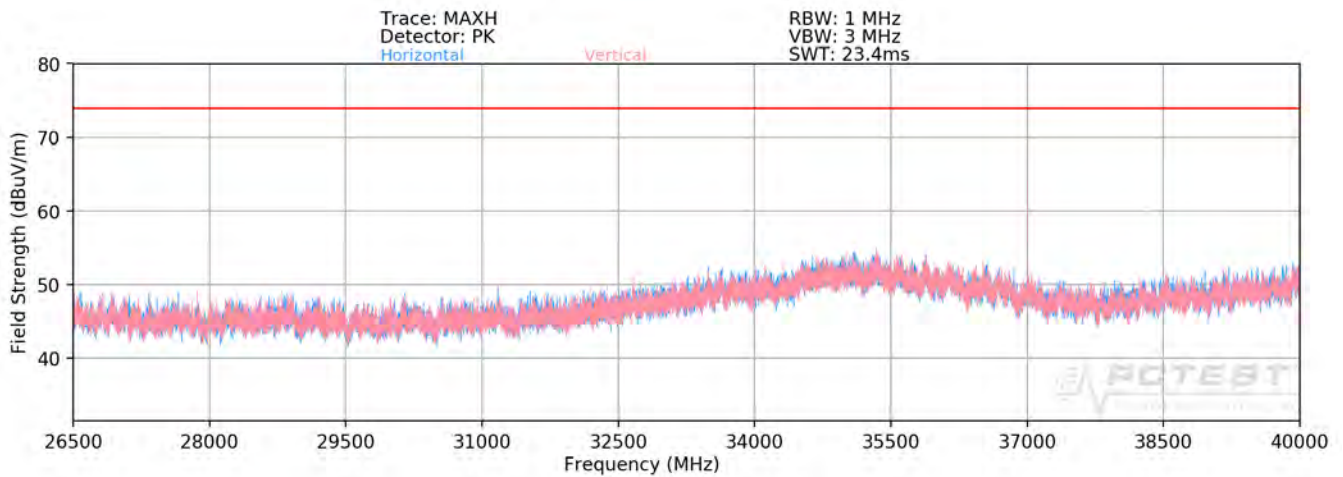


Plot 7-298. Radiated Spurious Plot above 1GHz (5GHz – 2.4 GHz - OPEN)

FCC ID: A3LSMF907B	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset		Page 208 of 244



Plot 7-299. Radiated Spurious Plot 18GHz – 26.5GHz (5GHz – 2.4 GHz - CLOSED)

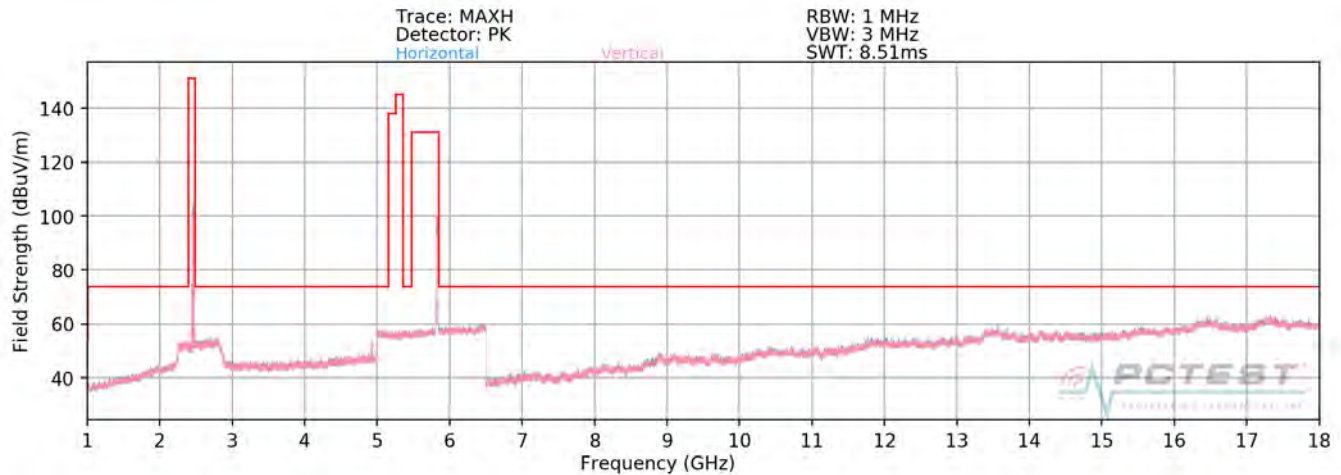


Plot 7-300. Radiated Spurious Plot above 26.5GHz (5GHz – 2.4 GHz - CLOSED)

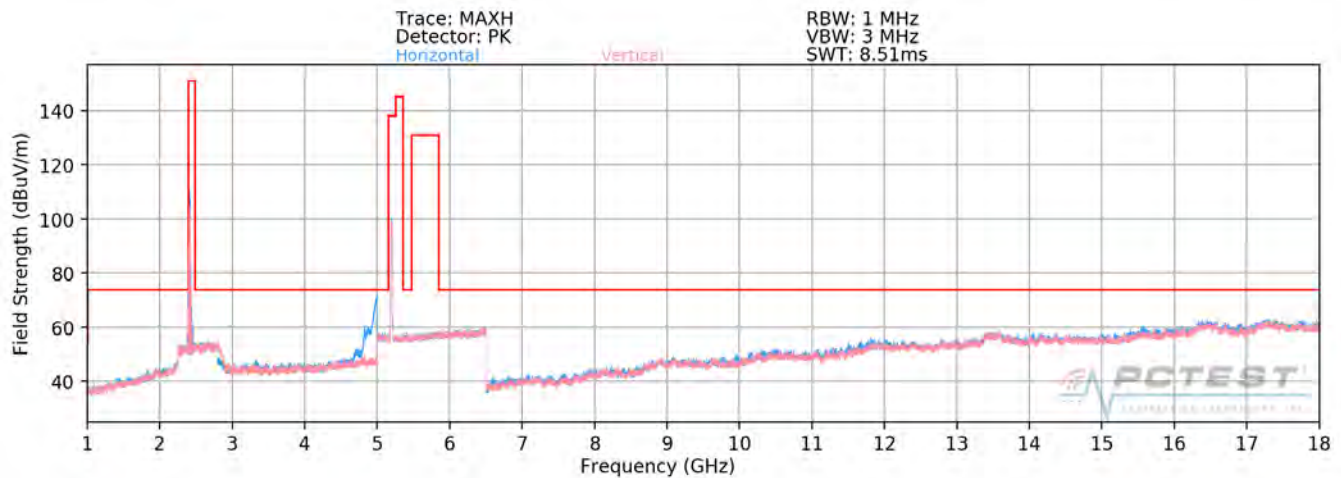
FCC ID: A3LSMF907B	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset		Page 209 of 244

Description	2.4 GHz Emission	5 GHz Emission
Antenna	1, 2	1, 2
Channel	11	165
Operating Frequency (MHz)	2462	5825
Data Rate (Mbps)	6	6
Mode	802.11g	802.11a

Table 7-73. Dual Band Simultaneous Transmission

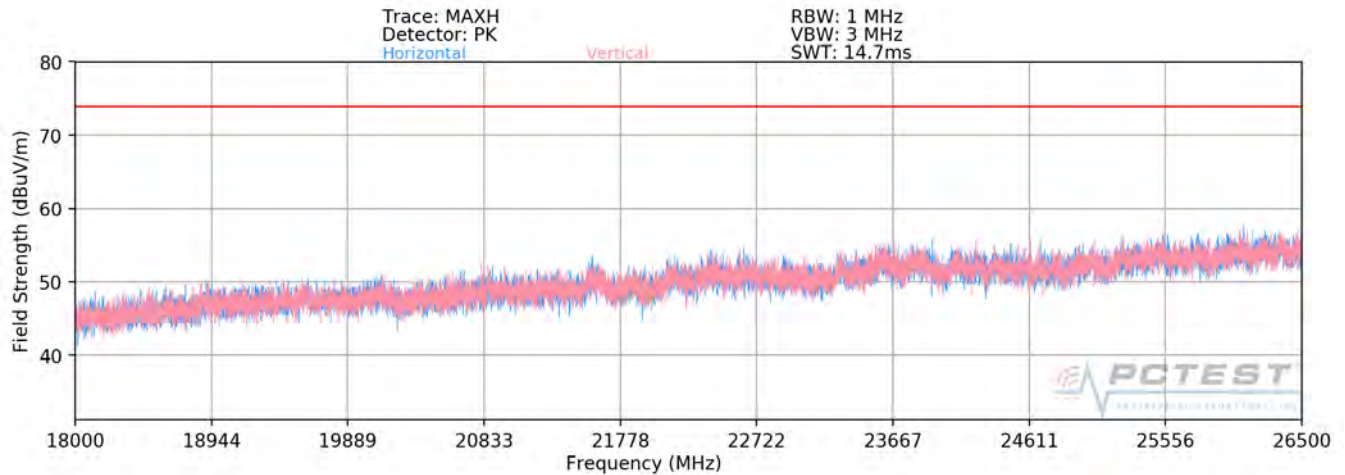


Plot 7-301. Radiated Spurious Plot above 1GHz (Dual Band Simult. Tx - CLOSED)

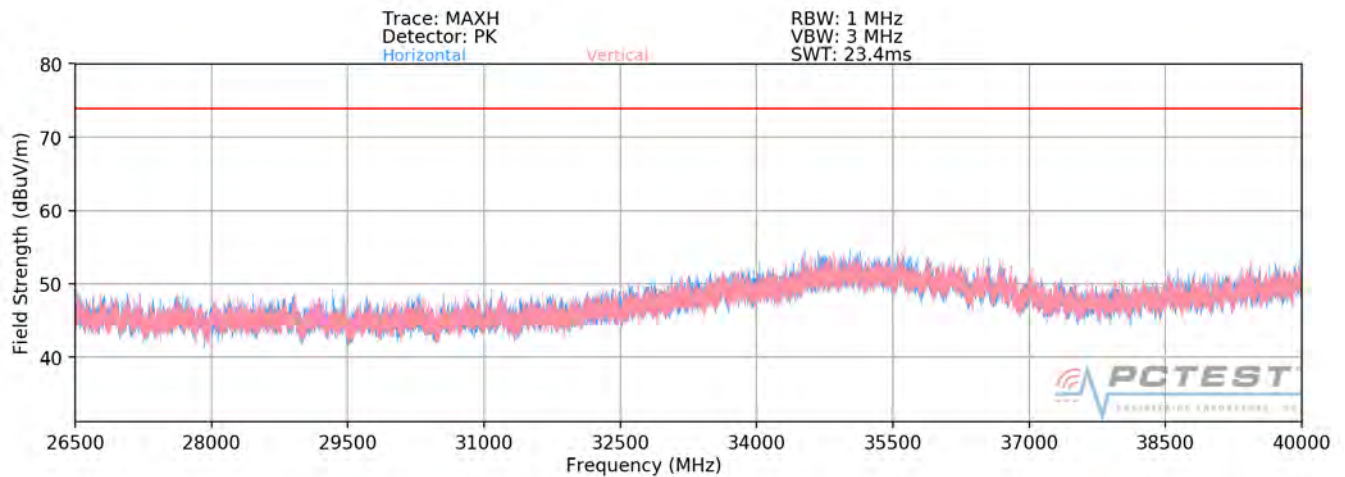


Plot 7-302. Radiated Spurious Plot above 1GHz (Dual Band Simult. Tx - OPEN)

FCC ID: A3LSMF907B	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset		Page 210 of 244



Plot 7-303. Radiated Spurious Plot 18GHz – 26.5GHz (Dual Band Simult. Tx - OPEN)



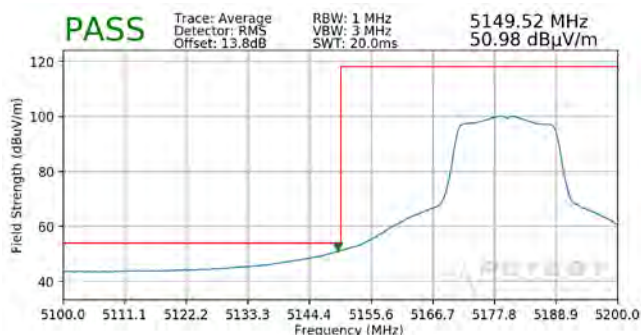
Plot 7-304. Radiated Spurious Plot above 26.5GHz (Dual Band Simult. Tx - CLOSED)

FCC ID: A3LSMF907B	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset		Page 211 of 244

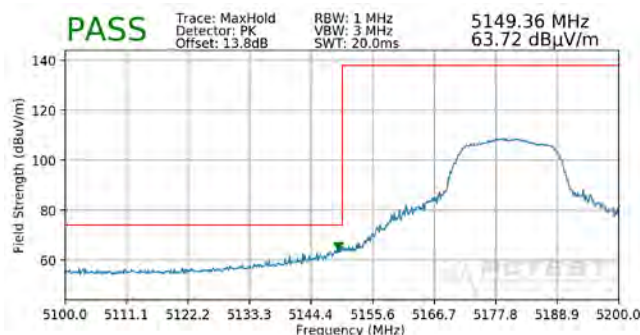
6.6.5 SISO Antenna-1 Radiated Band Edge Measurements (20MHz BW)

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

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5180MHz
Channel:	36



Plot 7-305. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1)



Plot 7-306. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 1)

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64



Plot 7-307. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A)



Plot 7-308. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 2A)

FCC ID: A3LSMF907B	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset		Page 212 of 244

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS0
Distance of Measurements: 3 Meters
Operating Frequency: 5500MHz
Channel: 100

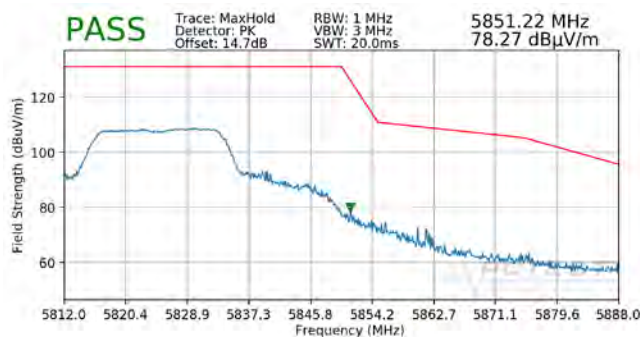


Plot 7-309. Radiated Lower Band Edge Plot SISO ANT1 (Average - UNII Band 2C)



Plot 7-310. Radiated Lower Band Edge Plot SISO ANT1 (Peak - UNII Band 2C)

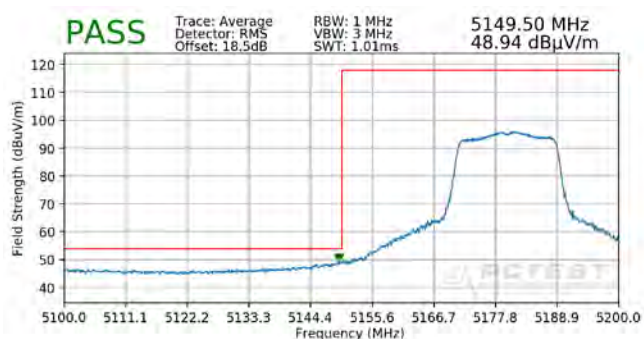
Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS0
Distance of Measurements: 3 Meters
Operating Frequency: 5825MHz
Channel: 165



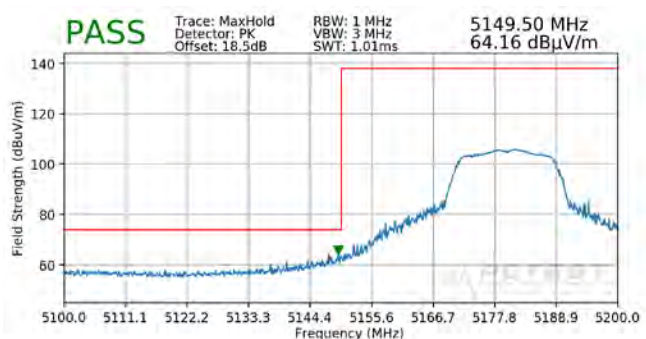
Plot 7-311. Radiated Upper Band Edge Plot SISO ANT1 (Peak - UNII Band 3)

FCC ID: A3LSMF907B	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset		Page 213 of 244

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS0
Distance of Measurements: 3 Meters
Operating Frequency: 5180MHz
Channel: 36



**Plot 7-312. Radiated Band Edge Plot SISO ANT1
(Average – WCP)**



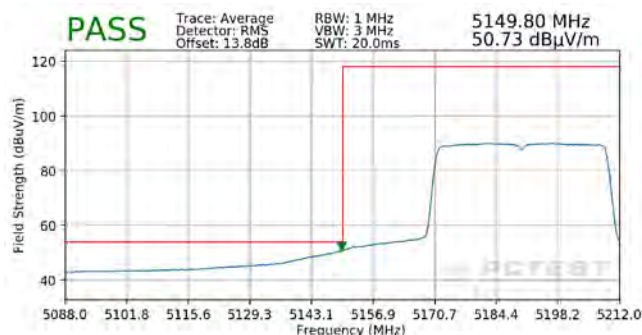
**Plot 7-313. Radiated Band Edge Plot SISO ANT1
(Peak – WCP)**

FCC ID: A3LSMF907B	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904220064-07-A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset		Page 214 of 244

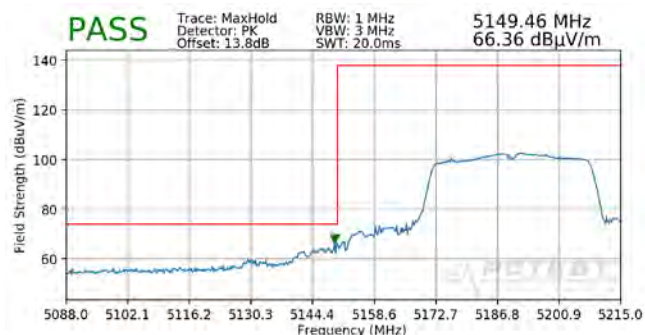
6.6.6 SISO Antenna-1 Radiated Band Edge Measurements (40MHz BW)

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

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

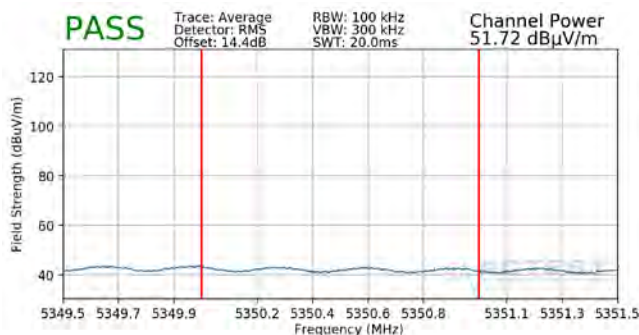


Plot 7-314. Radiated Lower Band Edge Plot SISO ANT1 (Average - UNII Band 1)

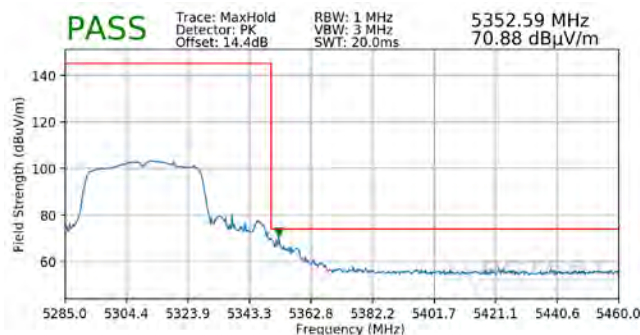


Plot 7-315. Radiated Lower Band Edge Plot SISO ANT1 (Peak - UNII Band 1)

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



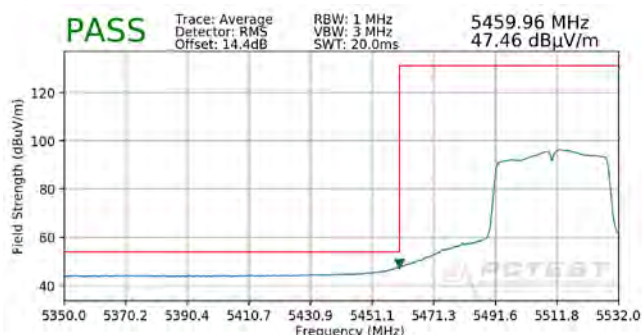
Plot 7-316. Radiated Upper Band Edge Plot SISO ANT1 (Average - UNII Band 2A)



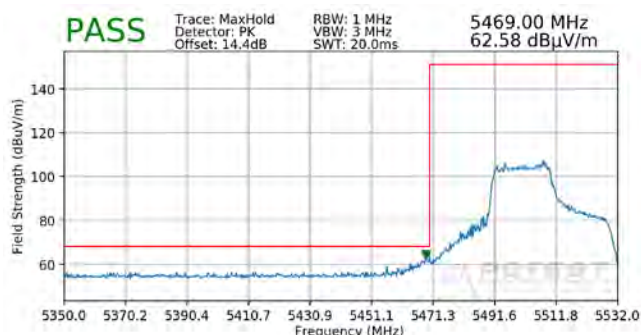
Plot 7-317. Radiated Upper Band Edge Plot SISO ANT1 (Peak - UNII Band 2A)

FCC ID: A3LSMF907B			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset		Page 215 of 244	

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS0
Distance of Measurements: 3 Meters
Operating Frequency: 5510MHz
Channel: 102

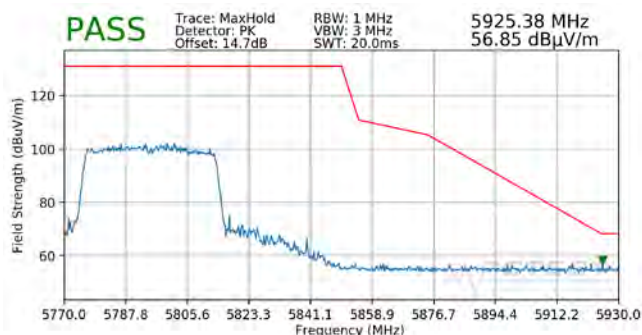


Plot 7-318. Radiated Lower Band Edge Plot SISO ANT1 (Average - UNII Band 2C)



Plot 7-319. Radiated Lower Band Edge Plot SISO ANT1 (Peak - UNII Band 2C)

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



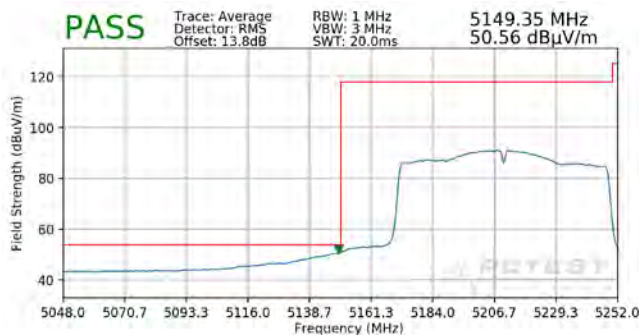
Plot 7-320. Radiated Upper Band Edge Plot SISO ANT1 (Peak - UNII Band 3)

FCC ID: A3LSMF907B	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset		Page 216 of 244

6.6.7 SISO Antenna-1 Radiated Band Edge Measurements (80MHz BW)

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

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

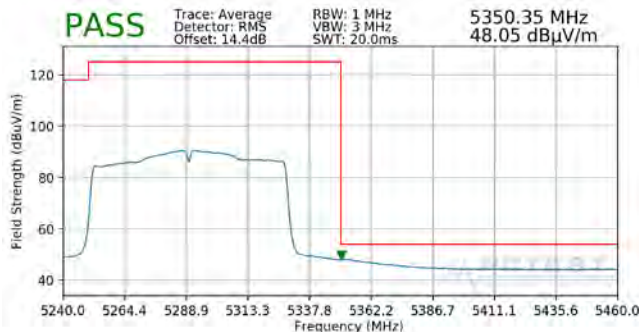


Plot 7-321. Radiated Lower Band Edge Plot SISO ANT1 (Average - UNII Band 1)



Plot 7-322. Radiated Lower Band Edge Plot SISO ANT1 (Peak - UNII Band 1)

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



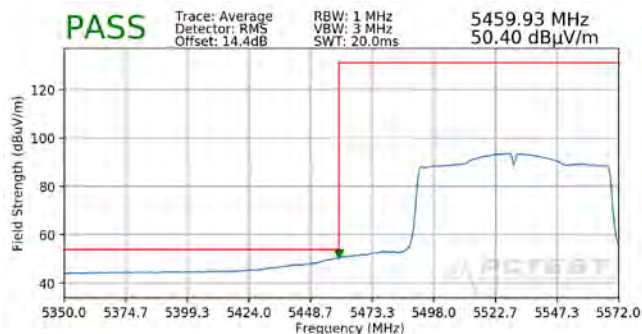
Plot 7-323. Radiated Upper Band Edge Plot SISO ANT1 (Average - UNII Band 2A)



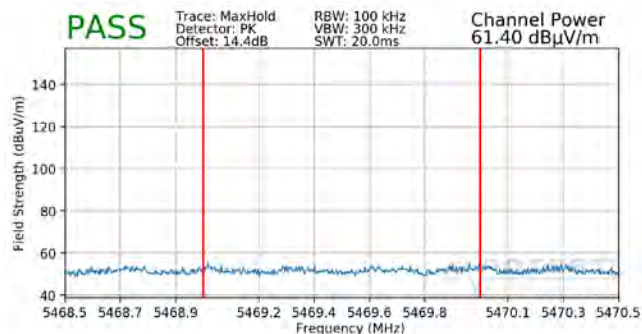
Plot 7-324. Radiated Upper Band Edge Plot SISO ANT1 (Peak - UNII Band 2A)

FCC ID: A3LSMF907B	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset		Page 217 of 244

Worst Case Mode: 802.11ax
Worst Case Transfer Rate: MSC0
Distance of Measurements: 3 Meters
Operating Frequency: 5530MHz
Channel: 106

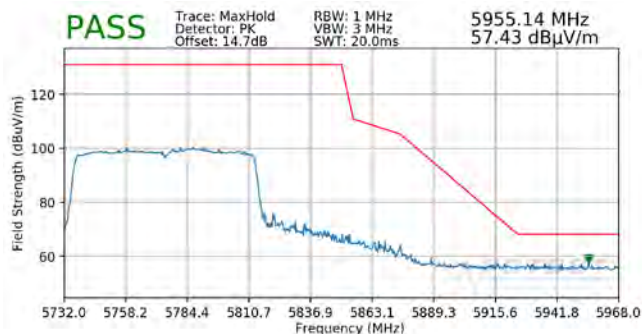


Plot 7-325. Radiated Lower Band Edge Plot SISO ANT1 (Average - UNII Band 2C)



Plot 7-326. Radiated Lower Band Edge Plot SISO ANT1 (Peak - UNII Band 2C)

Worst Case Mode: 802.11ax
Worst Case Transfer Rate: MSC0
Distance of Measurements: 3 Meters
Operating Frequency: 5775MHz
Channel: 155



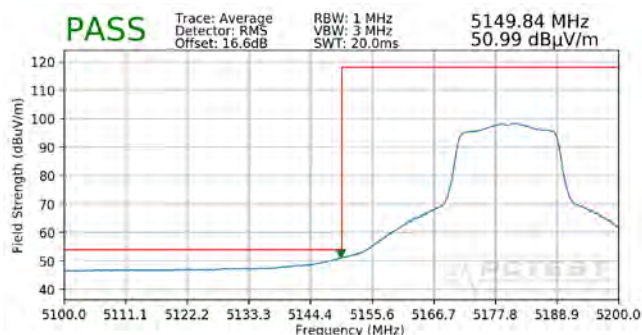
Plot 7-327. Radiated Upper Band Edge Plot SISO ANT1 (Peak - UNII Band 3)

FCC ID: A3LSMF907B	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22-03/18/2019	EUT Type: Portable Handset		Page 218 of 244

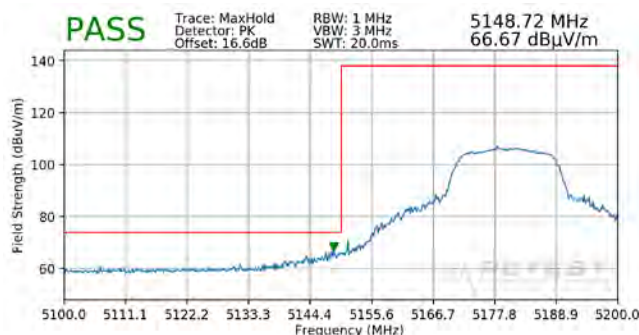
6.6.8 SISO Antenna-2 Radiated Band Edge Measurements (20MHz BW)

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

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5180MHz
Channel:	36



Plot 7-328. Radiated Lower Band Edge Plot SISO ANT2 (Average - UNII Band 1)



Plot 7-329. Radiated Lower Band Edge Plot SISO ANT2 (Peak - UNII Band 1)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64



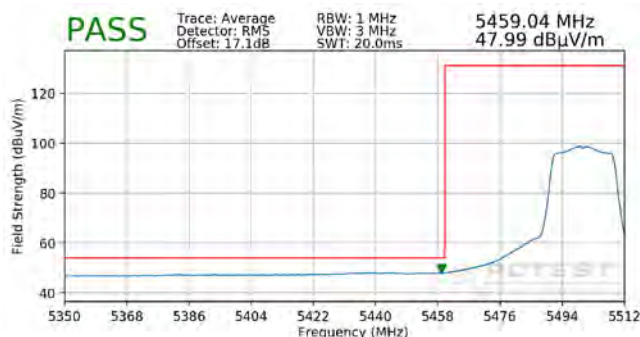
Plot 7-330. Radiated Upper Band Edge Plot SISO ANT2 (Average - UNII Band 2A)



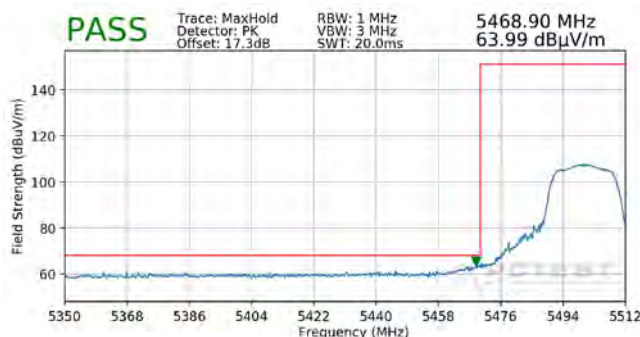
Plot 7-331. Radiated Upper Band Edge Plot SISO ANT2 (Peak - UNII Band 2A)

FCC ID: A3LSMF907B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 219 of 244

Worst Case Mode: 802.11ac
Worst Case Transfer Rate: MCS0
Distance of Measurements: 3 Meters
Operating Frequency: 5500MHz
Channel: 100

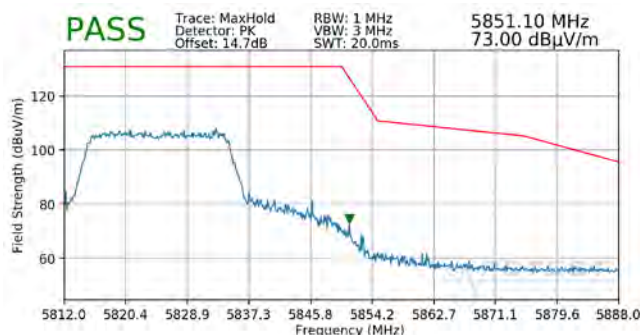


Plot 7-332. Radiated Lower Band Edge Plot SISO ANT2 (Average - UNII Band 2C)



Plot 7-333. Radiated Lower Band Edge Plot SISO ANT2 (Peak - UNII Band 2C)

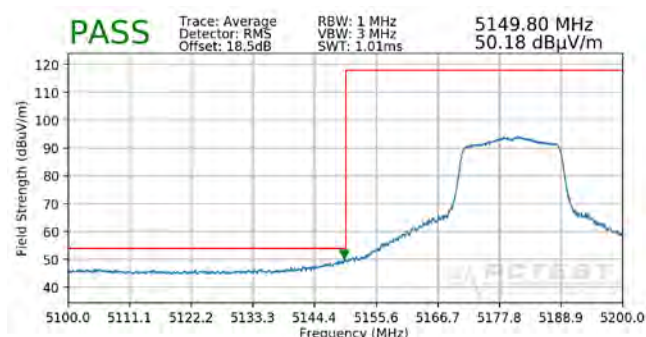
Worst Case Mode: 802.11ax
Worst Case Transfer Rate: MCS0
Distance of Measurements: 3 Meters
Operating Frequency: 5825MHz
Channel: 165



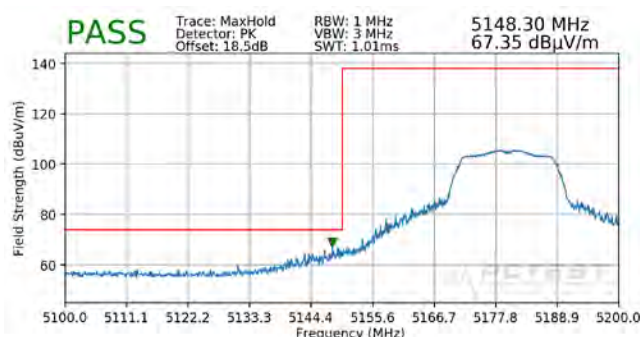
Plot 7-334. Radiated Upper Band Edge Plot SISO ANT2 (Peak - UNII Band 3)

FCC ID: A3LSMF907B	 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07-A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 220 of 244

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS0
Distance of Measurements: 3 Meters
Operating Frequency: 5180MHz
Channel: 36



**Plot 7-335. Radiated Band Edge Plot SISO ANT2
(Average – WCP)**



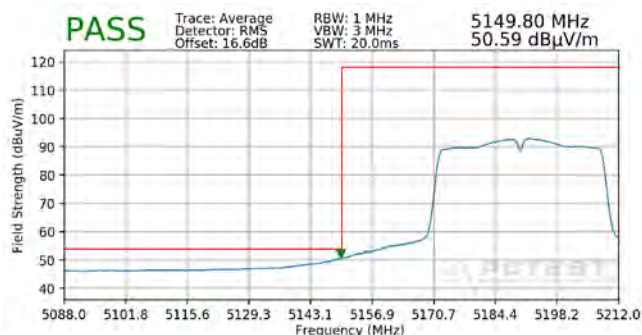
**Plot 7-336. Radiated Band Edge Plot SISO ANT2
(Peak – WCP)**

FCC ID: A3LSMF907B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 221 of 244

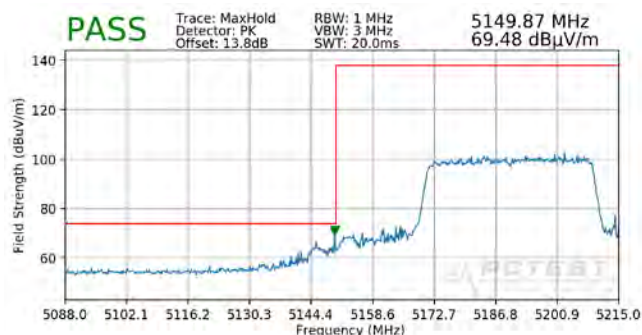
6.6.9 SISO Antenna-2 Radiated Band Edge Measurements (40MHz BW)

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

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5190MHz
Channel:	38

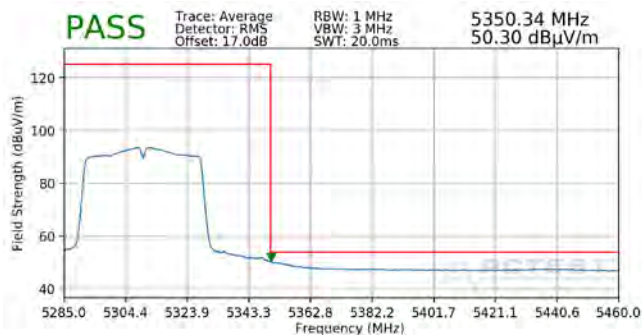


Plot 7-337. Radiated Lower Band Edge Plot SISO ANT2 (Average - UNII Band 1)

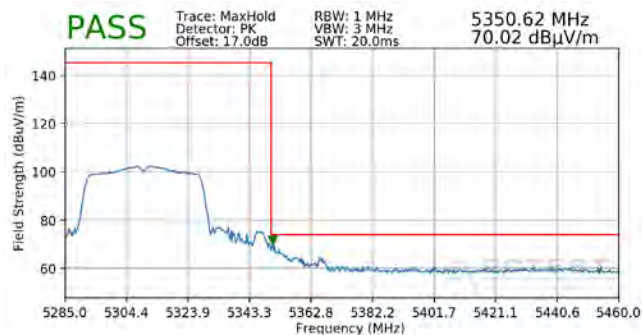


Plot 7-338. Radiated Lower Band Edge Plot SISO ANT2 (Peak - UNII Band 1)

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5310MHz
Channel:	62



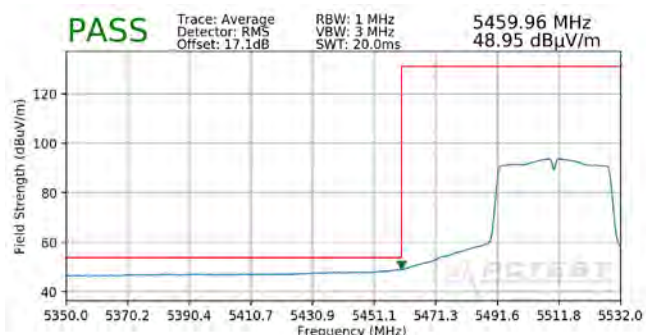
Plot 7-339. Radiated Upper Band Edge Plot SISO ANT2 (Average - UNII Band 2A)



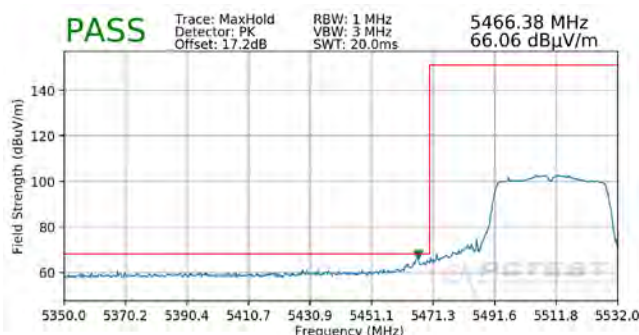
Plot 7-340. Radiated Upper Band Edge Plot SISO ANT2 (Peak - UNII Band 2A)

FCC ID: A3LSMF907B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07-A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 222 of 244

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS0
Distance of Measurements: 3 Meters
Operating Frequency: 5510MHz
Channel: 102

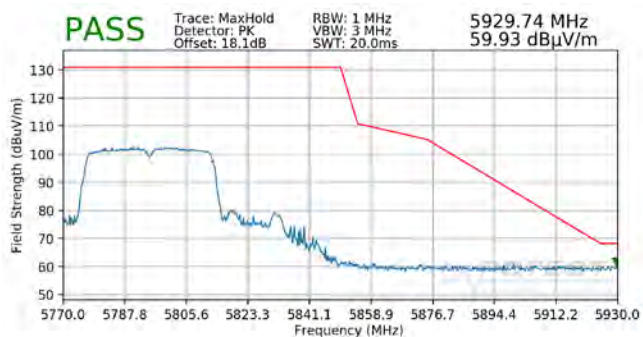


Plot 7-341. Radiated Lower Band Edge Plot SISO ANT2 (Average - UNII Band 2C)



Plot 7-342. Radiated Lower Band Edge Plot SISO ANT2 (Peak - UNII Band 2C)

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



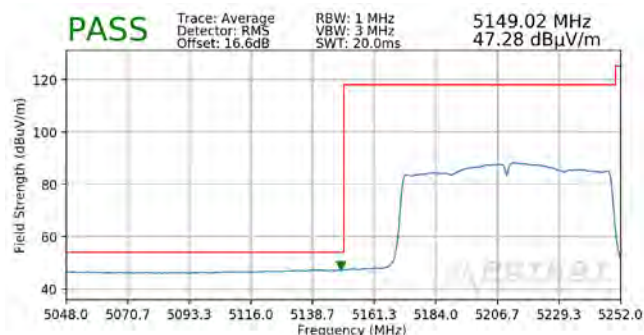
Plot 7-343. Radiated Upper Band Edge Plot SISO ANT2 (Peak - UNII Band 3)

FCC ID: A3LSMF907B	 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07-A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 223 of 244

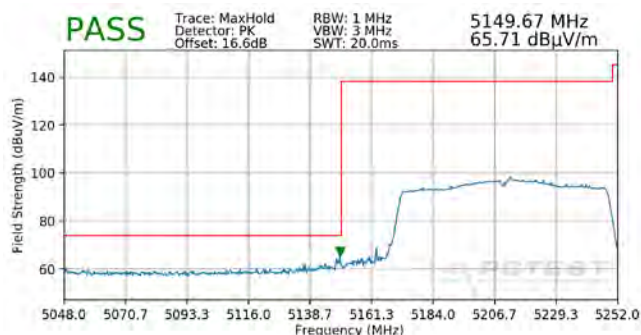
6.6.10 SISO Antenna-2 Radiated Band Edge Measurements (80MHz BW)

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

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

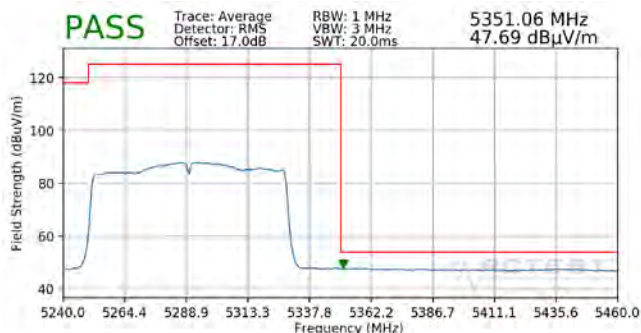


Plot 7-344. Radiated Lower Band Edge Plot SISO ANT2 (Average - UNII Band 1)

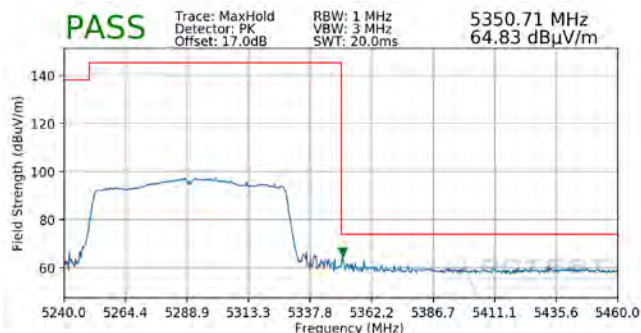


Plot 7-345. Radiated Lower Band Edge Plot SISO ANT2 (Peak - UNII Band 1)

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



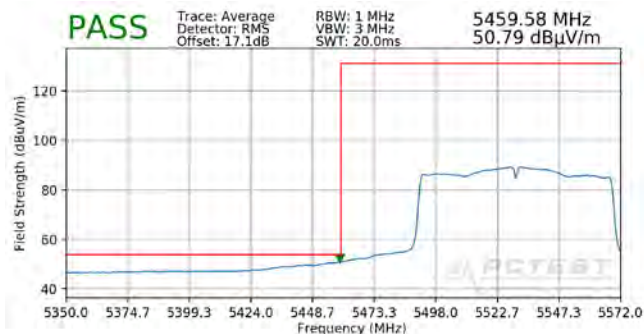
Plot 7-346. Radiated Upper Band Edge Plot SISO ANT2 (Average - UNII Band 2A)



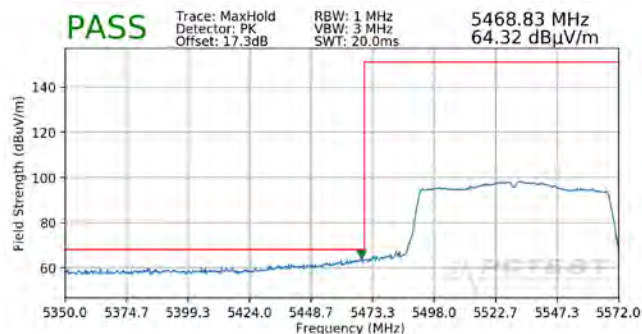
Plot 7-347. Radiated Upper Band Edge Plot SISO ANT2 (Peak - UNII Band 2A)

FCC ID: A3LSMF907B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 224 of 244

Worst Case Mode: 802.11ac
Worst Case Transfer Rate: MCS0
Distance of Measurements: 3 Meters
Operating Frequency: 5530MHz
Channel: 106

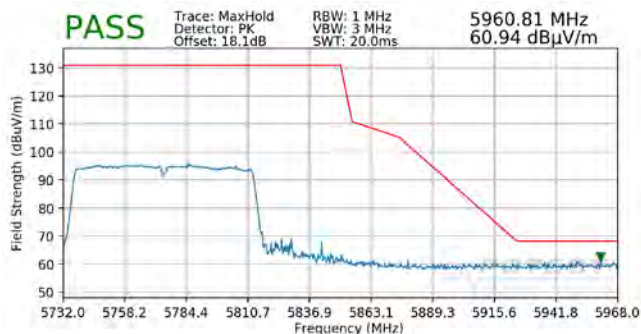


**Plot 7-348. Radiated Lower Band Edge Plot SISO
ANT2 (Average - UNII Band 2C)**



**Plot 7-349. Radiated Lower Band Edge Plot SISO
ANT2 (Peak - UNII Band 2C)**

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



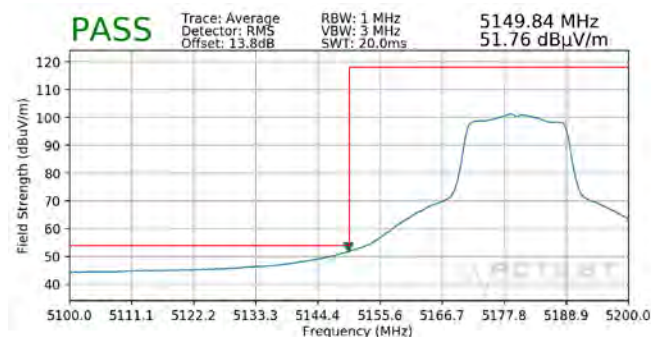
**Plot 7-350. Radiated Upper Band Edge Plot SISO
ANT2 (Peak - UNII Band 3)**

FCC ID: A3LSMF907B	 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 225 of 244

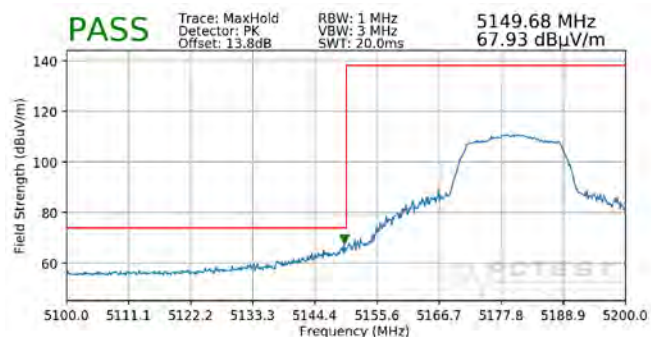
6.6.11 MIMO Radiated Band Edge Measurements (20MHz BW)

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

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS8
Distance of Measurements:	3 Meters
Operating Frequency:	5180MHz
Channel:	36

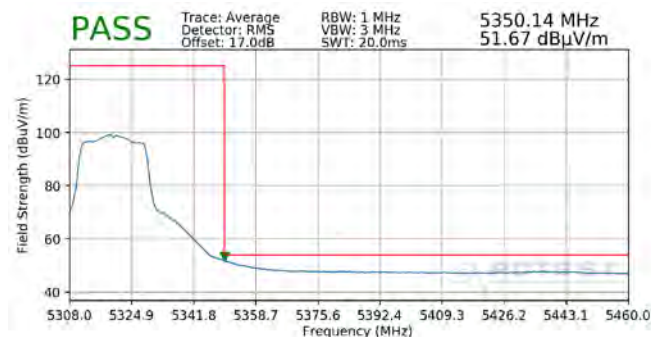


Plot 7-351. Radiated Lower Band Edge Plot MIMO (Average - UNII Band 1)



Plot 7-352. Radiated Lower Band Edge Plot MIMO (Peak - UNII Band 1)

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS8
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64



Plot 7-353. Radiated Upper Band Edge Plot MIMO (Average - UNII Band 2A)



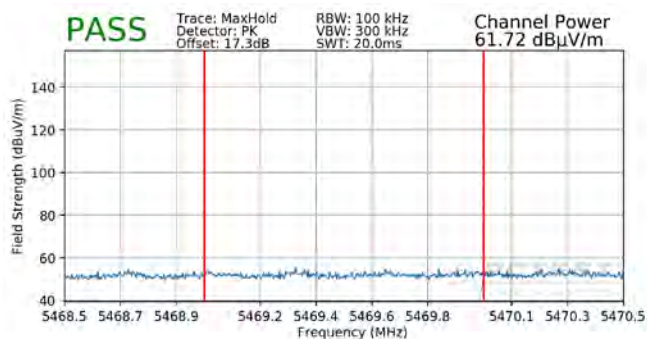
Plot 7-354. Radiated Upper Band Edge Plot MIMO (Peak - UNII Band 2A)

FCC ID: A3LSMF907B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07-A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 226 of 244

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS8
Distance of Measurements:	3 Meters
Operating Frequency:	5500MHz
Channel:	100

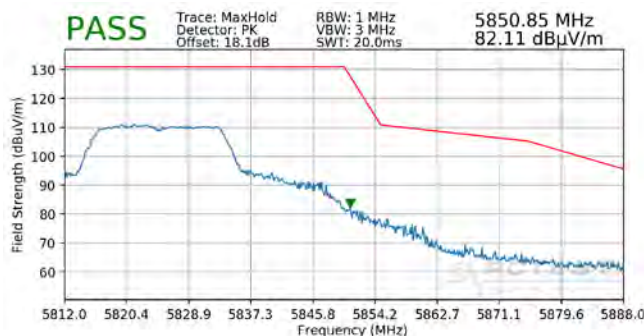


Plot 7-355. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C)



Plot 7-356. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C)

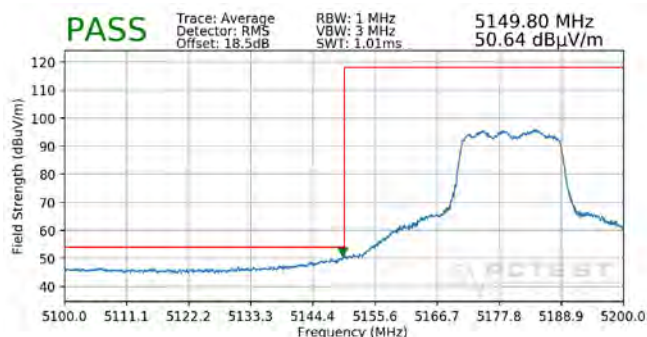
Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS8
Distance of Measurements:	3 Meters
Operating Frequency:	5825MHz
Channel:	165



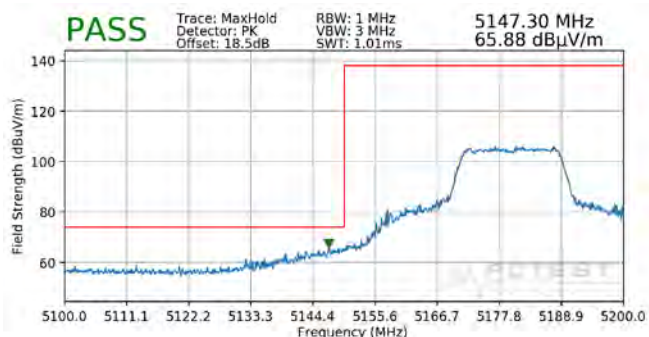
Plot 7-357. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3)

FCC ID: A3LSMF907B	 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 227 of 244

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS8
Distance of Measurements: 3 Meters
Operating Frequency: 5180MHz
Channel: 36



**Plot 7-358. Radiated Band Edge Plot MIMO
(Average – WCP)**



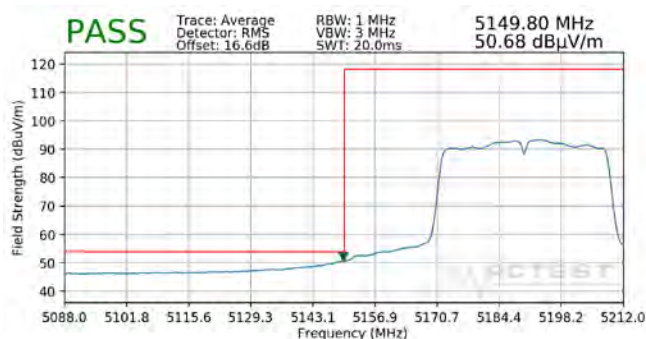
**Plot 7-359. Radiated Band Edge Plot MIMO (Peak –
WCP)**

FCC ID: A3LSMF907B	PCTEST ENGINEERING LABORATORY, INC.		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 228 of 244	

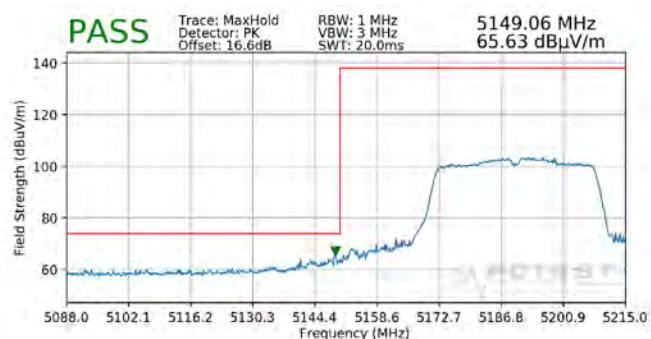
6.6.12 MIMO Radiated Band Edge Measurements (40MHz BW)

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

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS8
Distance of Measurements:	3 Meters
Operating Frequency:	5190MHz
Channel:	38

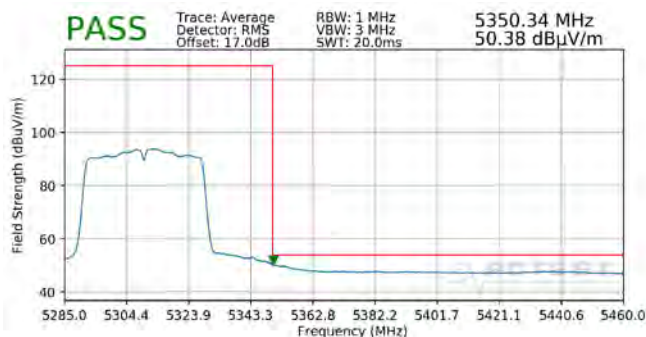


Plot 7-360. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1)



Plot 7-361. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1)

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS8
Distance of Measurements:	3 Meters
Operating Frequency:	5310MHz
Channel:	62



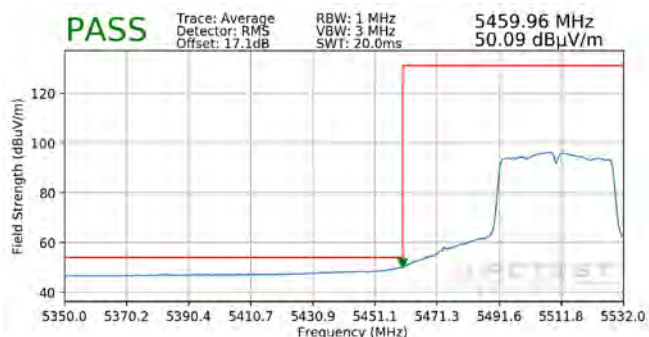
Plot 7-362. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A)



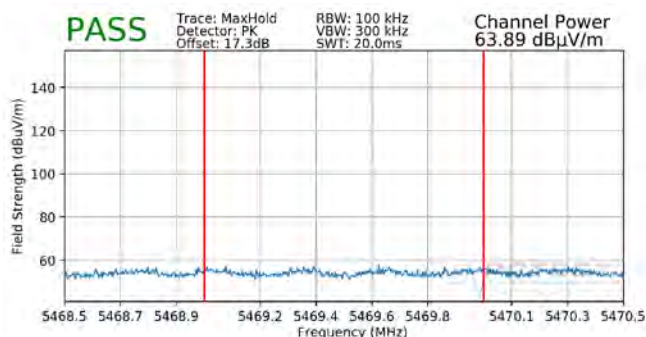
Plot 7-363. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A)

FCC ID: A3LSMF907B	PCTEST ENGINEERING LABORATORY, INC.		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset		Page 229 of 244

Worst Case Mode: 802.11n
 Worst Case Transfer Rate: MCS8
 Distance of Measurements: 3 Meters
 Operating Frequency: 5510MHz
 Channel: 102

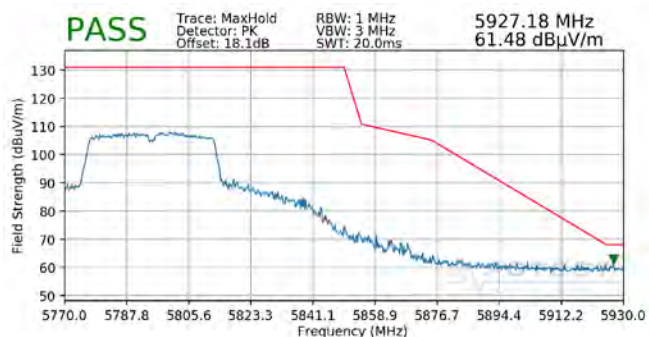


Plot 7-364. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C)



Plot 7-365. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C)

Worst Case Mode: 802.11n
 Worst Case Transfer Rate: MCS8
 Distance of Measurements: 3 Meters
 Operating Frequency: 5795MHz
 Channel: 159



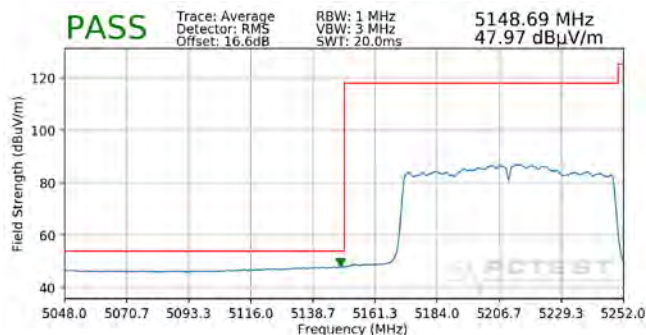
Plot 7-366. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3)

FCC ID: A3LSMF907B	 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 230 of 244

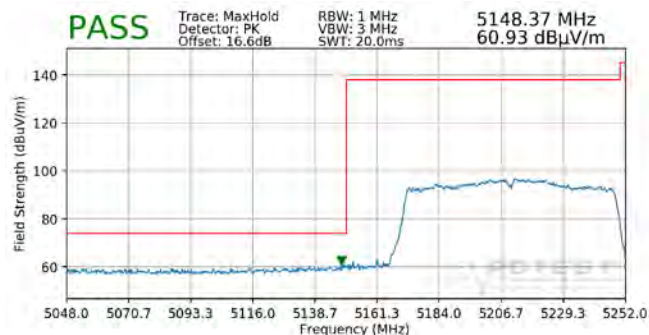
6.6.13 MIMO Radiated Band Edge Measurements (80MHz BW)

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

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5210MHz
Channel:	42

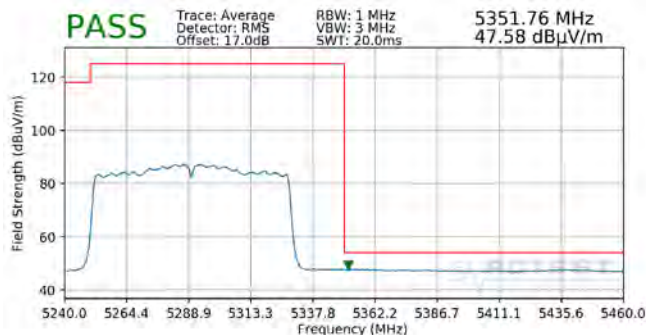


Plot 7-367. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1)

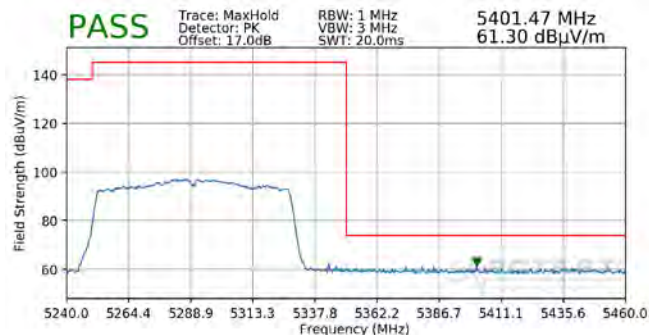


Plot 7-368. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5290MHz
Channel:	58



Plot 7-369. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A)



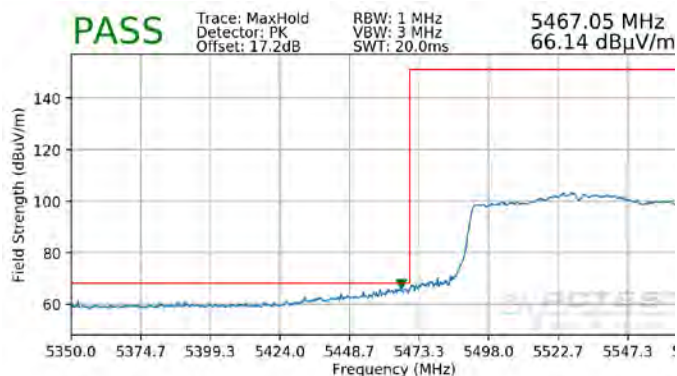
Plot 7-370. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A)

FCC ID: A3LSMF907B	 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 231 of 244

Worst Case Mode: 802.11ac
Worst Case Transfer Rate: MCS0
Distance of Measurements: 3 Meters
Operating Frequency: 5530MHz
Channel: 106

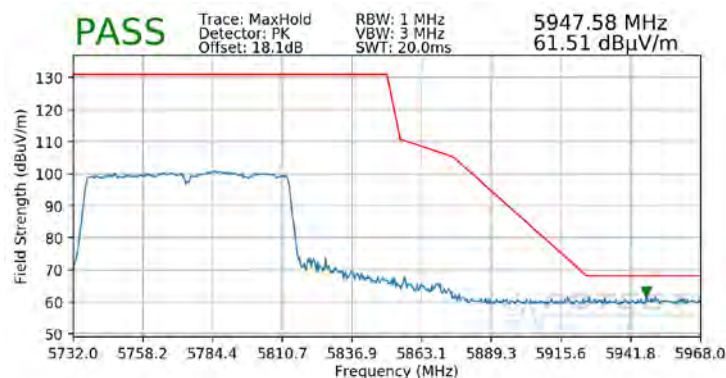


Plot 7-371. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C)



Plot 7-372. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C)

Worst Case Mode: 802.11ac
Worst Case Transfer Rate: MCS0
Distance of Measurements: 3 Meters
Operating Frequency: 5775MHz
Channel: 155



Plot 7-373. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3)

FCC ID: A3LSMF907B	 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07-A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 232 of 244

7.7 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 7-65 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 7-74. Radiated Limits

Test Procedures Used

ANSI C63.10-2013

Test Settings

Quasi-Peak Field Strength Measurements

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

FCC ID: A3LSMF907B	 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 233 of 244

Test Setup

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

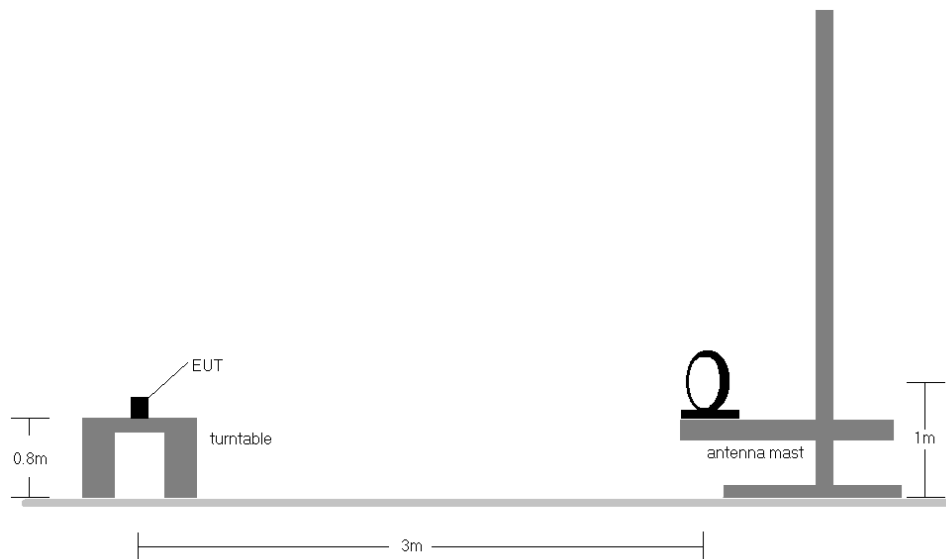


Figure 7-6. Radiated Test Setup < 30MHz

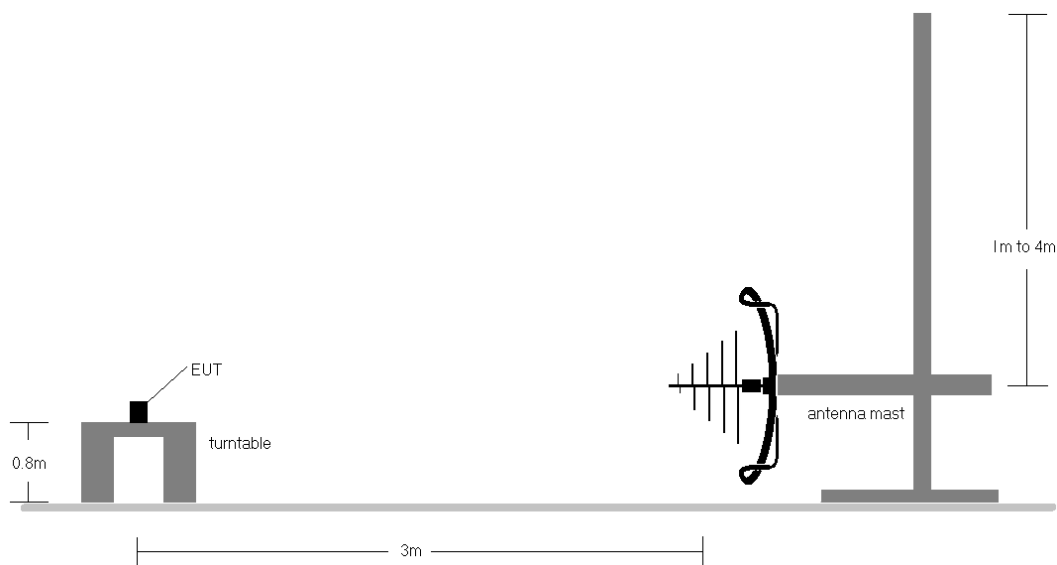


Figure 7-7. Radiated Test Setup < 1GHz

FCC ID: A3LSMF907B	 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 234 of 244

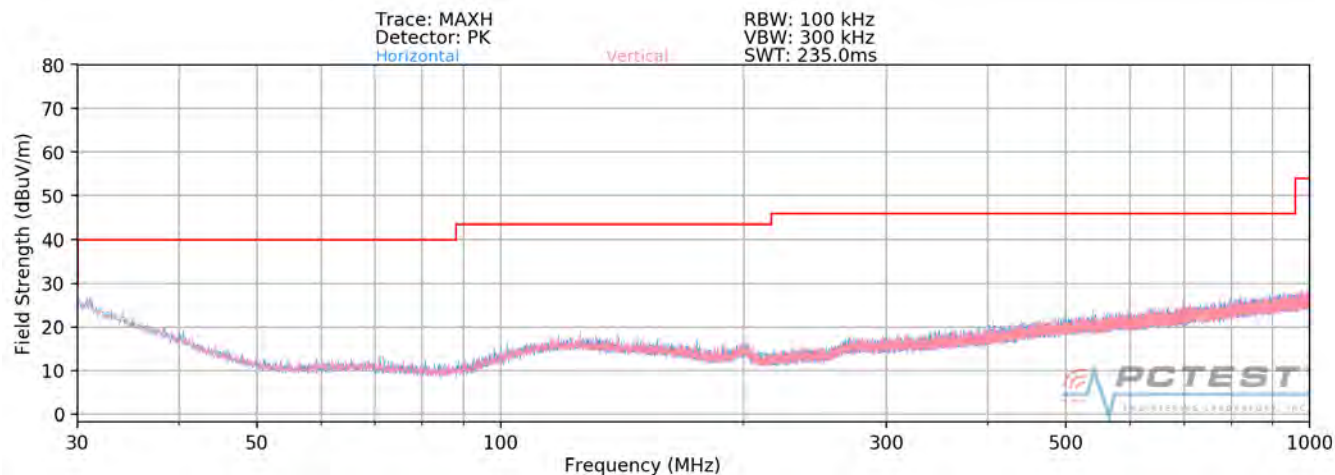
Test Notes

1. All emissions lying in restricted bands specified in §15.205 and RSS-Gen (8.10) are below the limit shown in Table 7-65.
2. The broadband receive antenna is manipulated through vertical and horizontal polarizations during the tests. The EUT is manipulated through three orthogonal planes.
3. This unit was tested with its standard battery.
4. The spectrum is investigated using a peak detector and final measurements are recorded using CISPR quasi peak detector. The worst-case emissions are reported however emissions whose levels were not within 20dB of the respective limits were not reported.
5. Emissions were measured at a 3 meter test distance.
6. Emissions are investigated while operating on the center channel of the mode, band, and modulation that produced the worst case results during the transmitter spurious emissions testing.
7. No spurious emissions were detected within 20dB of the limit below 30MHz.
8. The results recorded using the broadband antenna is known to correlate with the results obtained by using a tuned dipole with an acceptable degree of accuracy. The VSWR for the measurement antenna was found to be less than 2:1.
9. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. There were no emissions detected in the 30MHz – 1GHz frequency range, as shown in the subsequent plots.

FCC ID: A3LSMF907B	 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 235 of 244

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

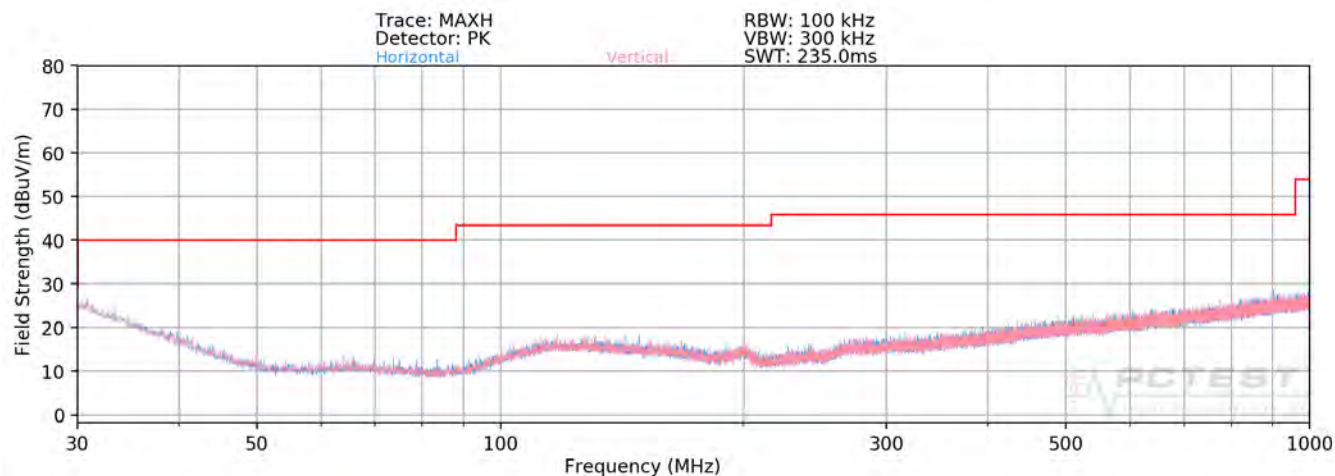
§15.209; RSS-Gen [8.9]



Plot 7-374. Radiated Spurious Plot below 1GHz SISO ANT1 (802.11a – U3 Ch. 157)

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

§15.209; RSS-Gen [8.9]

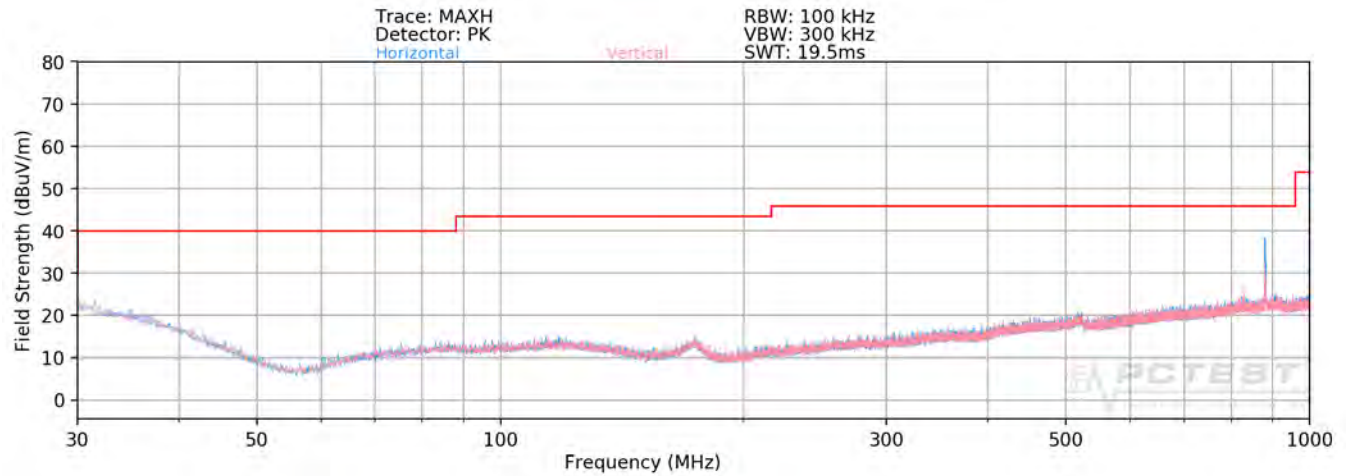


Plot 7-375. Radiated Spurious Plot below 1GHz SISO ANT2 (802.11a – U3 Ch. 157)

FCC ID: A3LSMF907B	 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 236 of 244

Simultaneous Tx Radiated Spurious Emissions Measurements (Below 1GHz)

§15.209; RSS-Gen [8.9]



Plot 7-376. Radiated Spurious Plot below 1GHz (Dual Band Simult. Tx)

FCC ID: A3LSMF907B	 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 237 of 244

7.8 Line-Conducted Test Data

§15.407; RSS-Gen [8.8]

Test Overview and Limit

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

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

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

Table 7-75. Conducted Limits

*Decreases with the logarithm of the frequency.

Test Procedures Used

ANSI C63.10-2013, Section 6.2

Test Settings

Quasi-Peak Field Strength Measurements

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

Average Field Strength Measurements

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

FCC ID: A3LSMF907B	 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 238 of 244

Test Setup

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

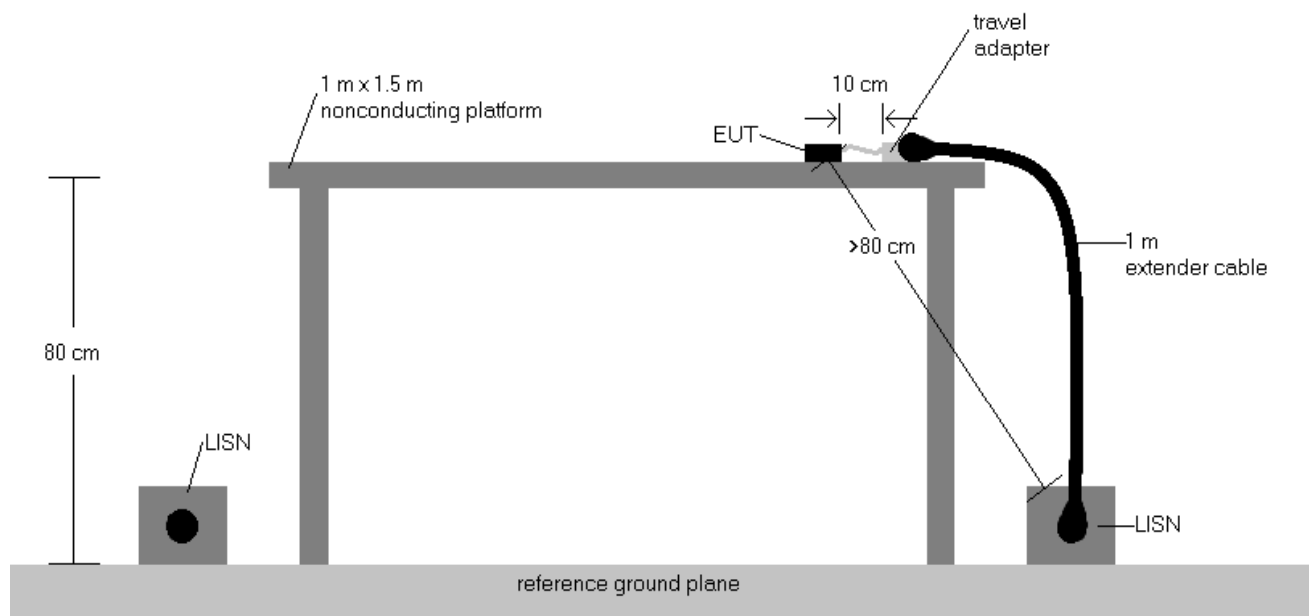
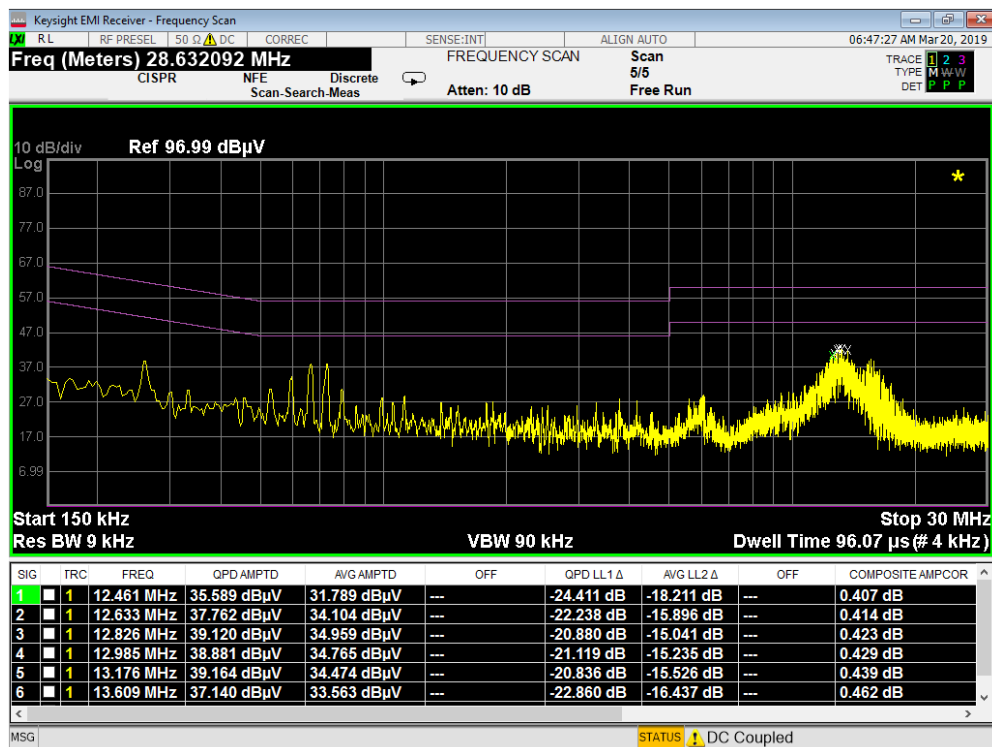


Figure 7-8. Test Instrument & Measurement Setup

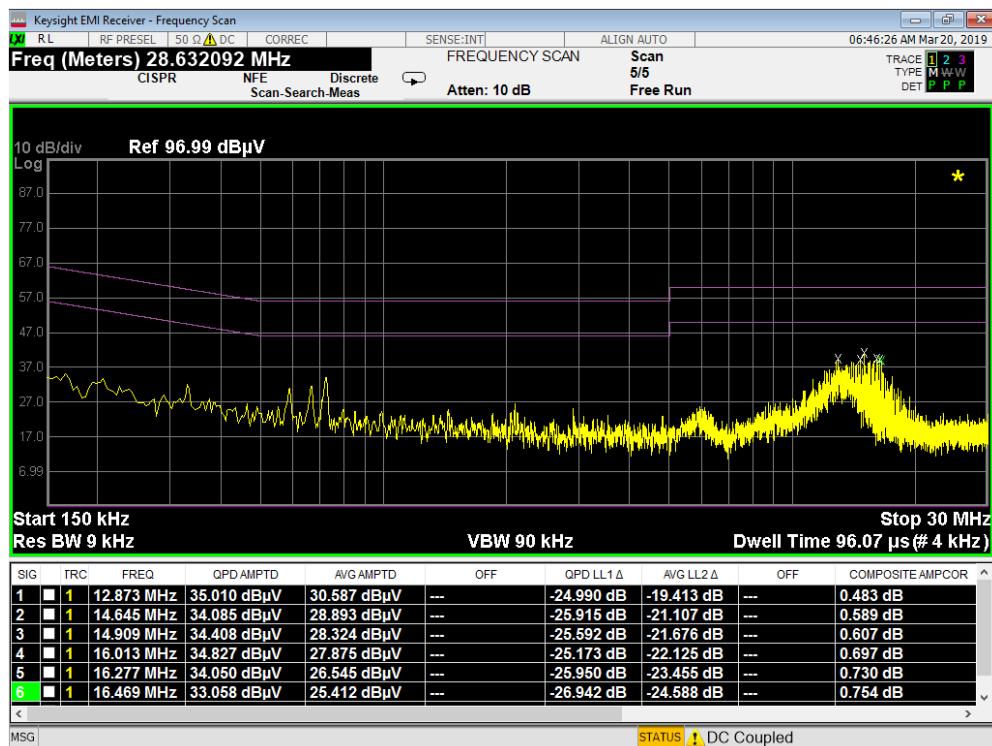
Test Notes

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

FCC ID: A3LSMF907B	 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 239 of 244

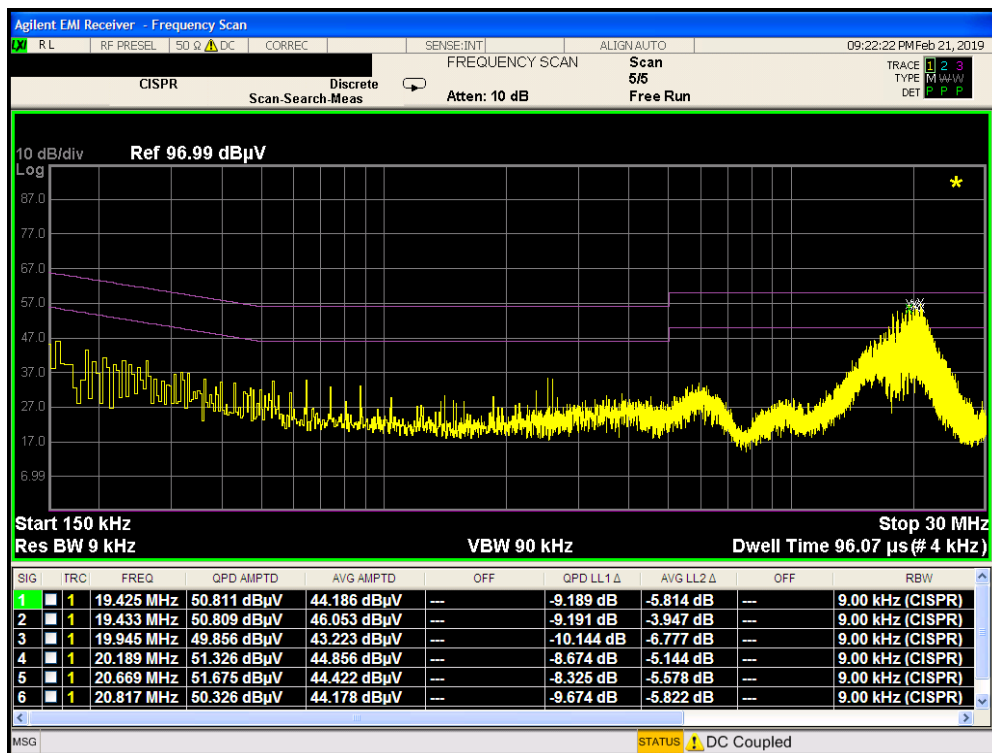


Plot 7-377. Line Conducted Plot with 802.11a UNII Band 1 (L1)

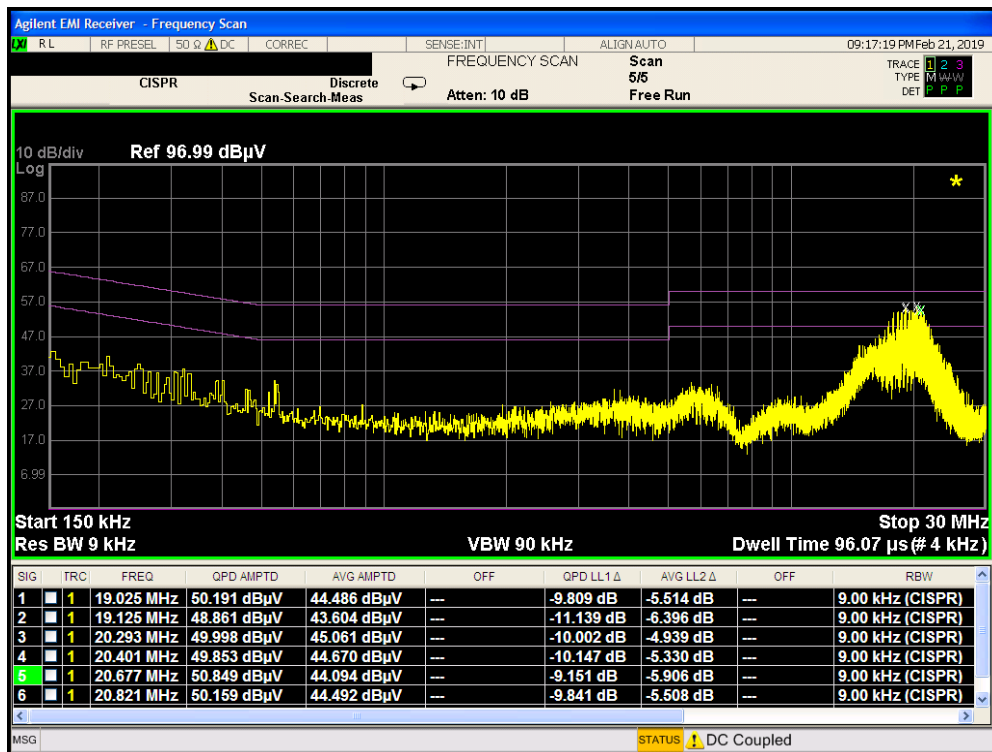


Plot 7-378. Line Conducted Plot with 802.11a UNII Band 1 (N)

FCC ID: A3LSMF907B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07-A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 240 of 244

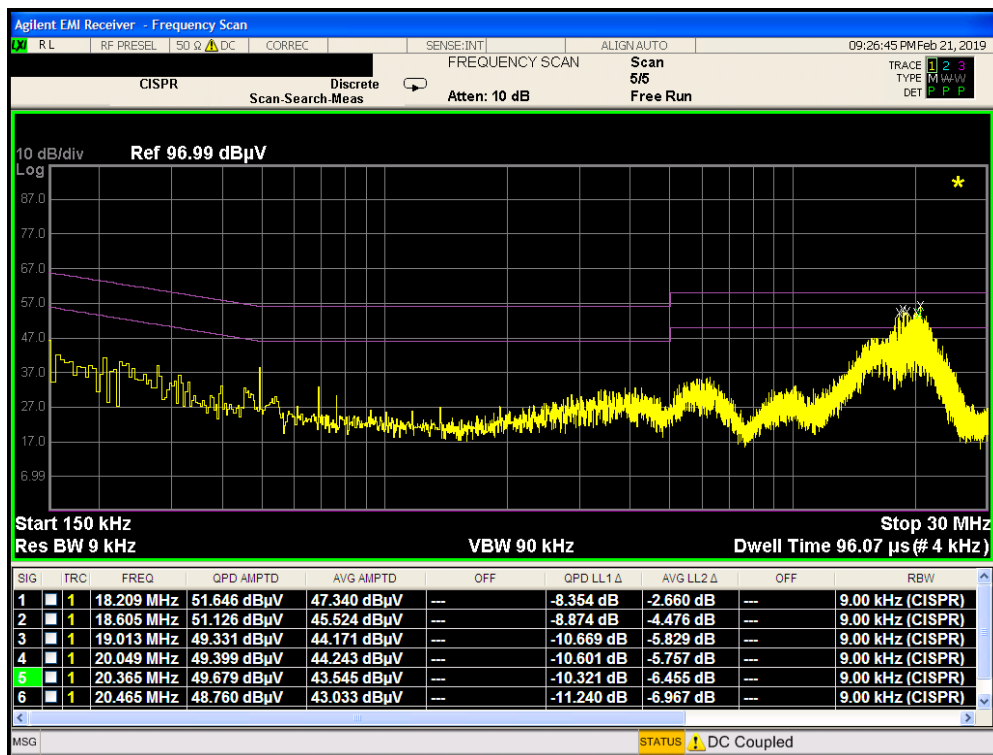


Plot 7-379. Line Conducted Plot with 802.11a UNII Band 2A (L1)

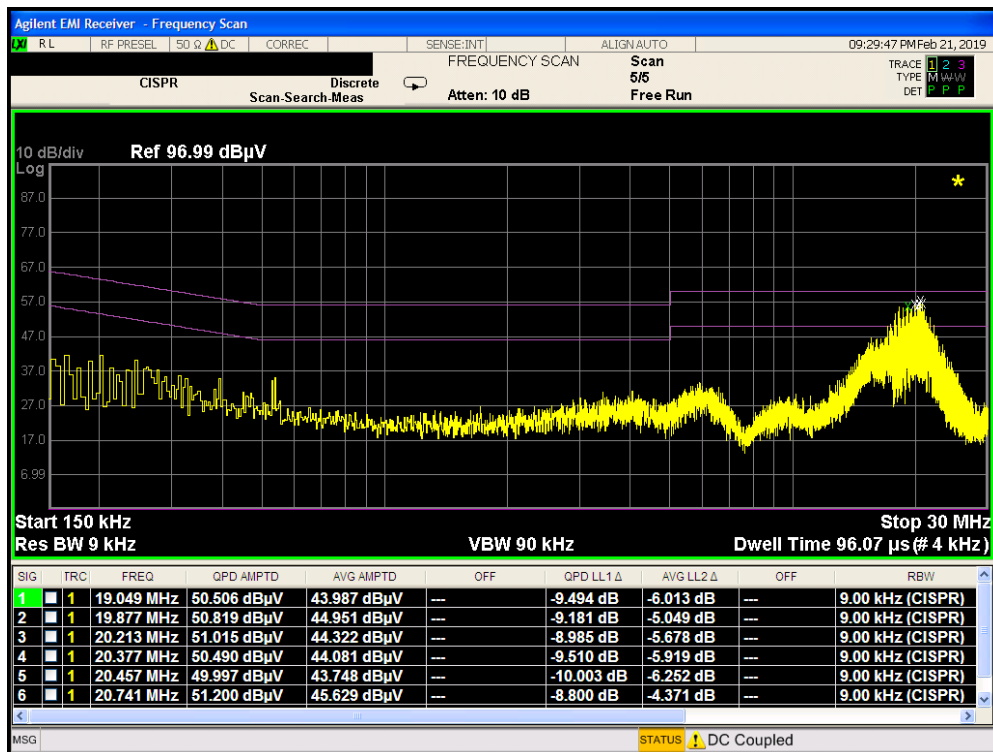


Plot 7-380. Line Conducted Plot with 802.11a UNII Band 2A (N)

FCC ID: A3LSMF907B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 241 of 244

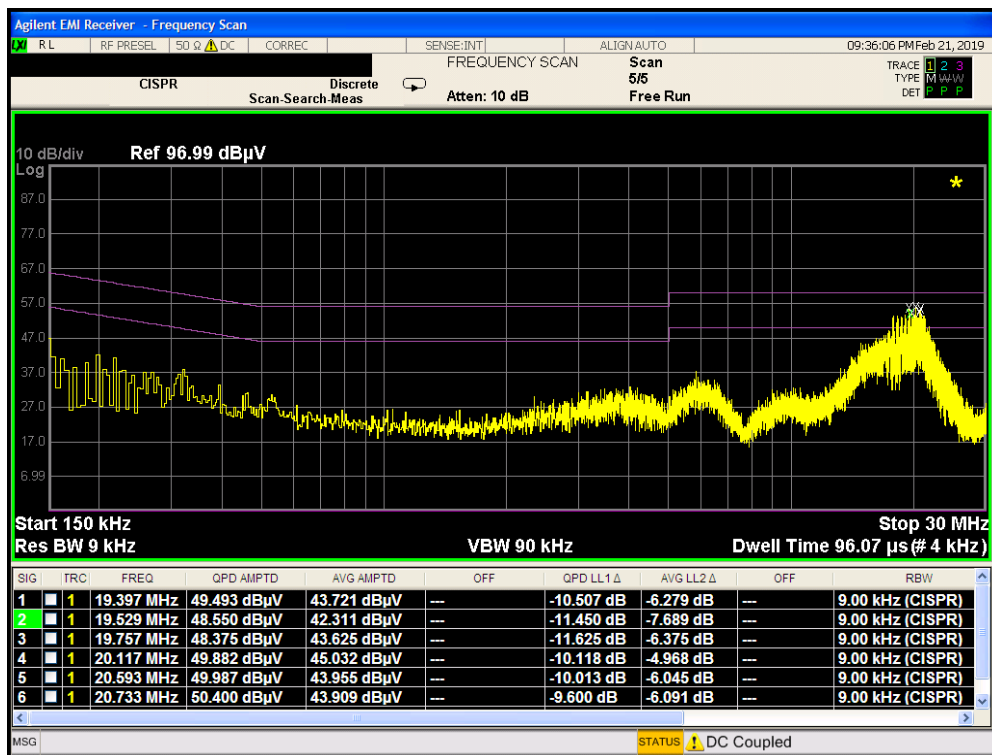


Plot 7-381. Line Conducted Plot with 802.11a UNII Band 2C (L1)

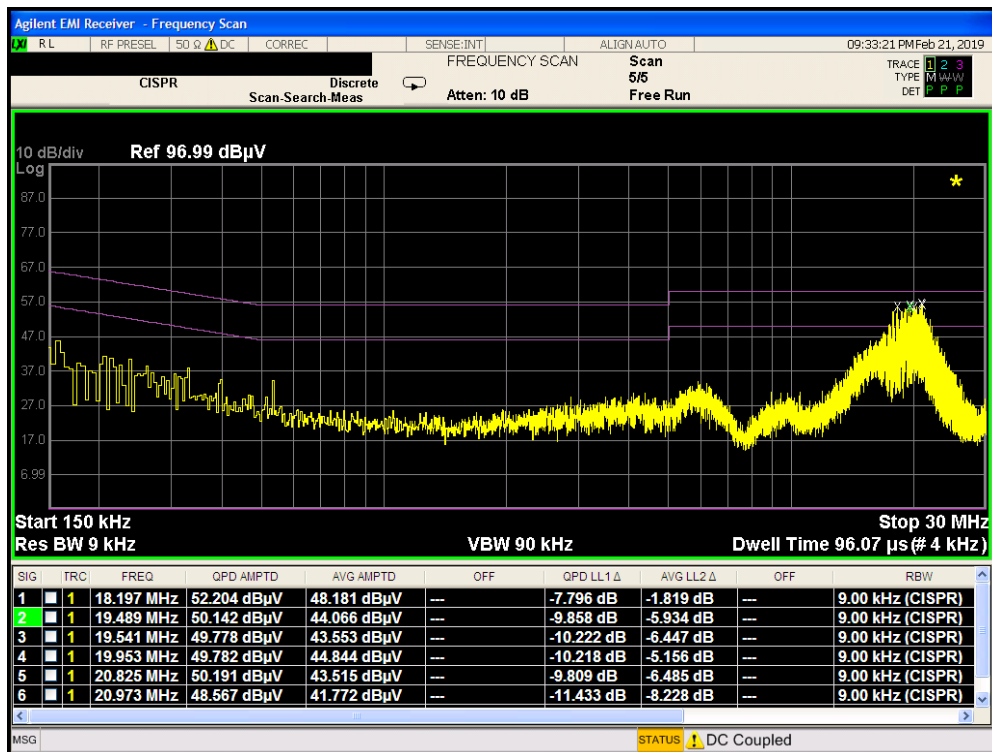


Plot 7-382. Line Conducted Plot with 802.11a UNII Band 2C (N)

FCC ID: A3LSMF907B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07-A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 242 of 244



Plot 7-383. Line Conducted Plot with 802.11a UNII Band 3 (L1)



Plot 7-384. Line Conducted Plot with 802.11a UNII Band 3 (N)

FCC ID: A3LSMF907B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07-A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 243 of 244

8.0 CONCLUSION

The data collected relate only the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSMF907B** is in compliance with Part 15 Subpart E (15.407) of the FCC Rules.

FCC ID: A3LSMF907B	 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1904220064-07.A3L	Test Dates: 01/22 - 05/17/2019	EUT Type: Portable Handset	Page 244 of 244