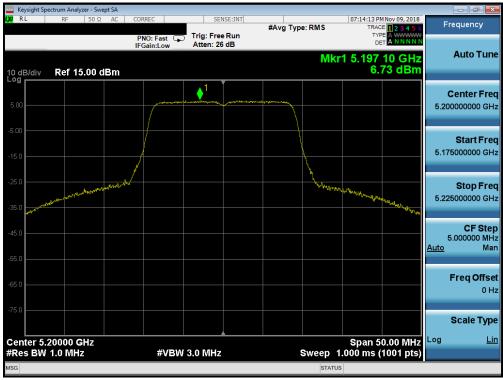


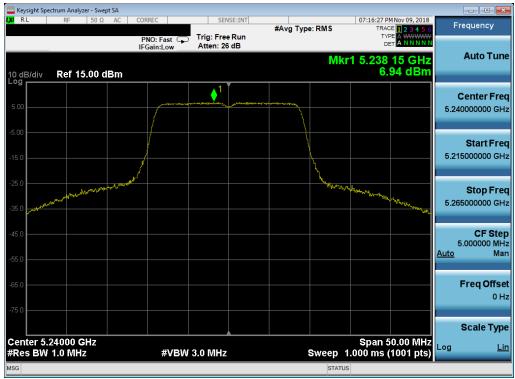
Plot 7-202. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 1) - Ch. 36)



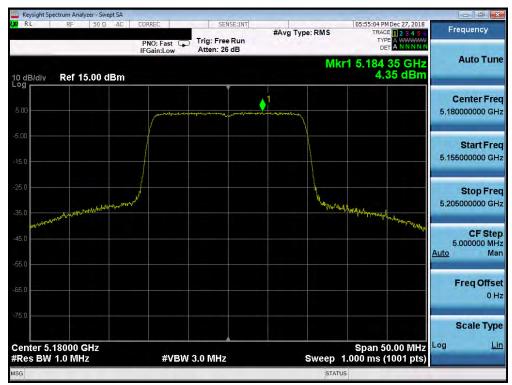
Plot 7-203. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 1) - Ch. 40)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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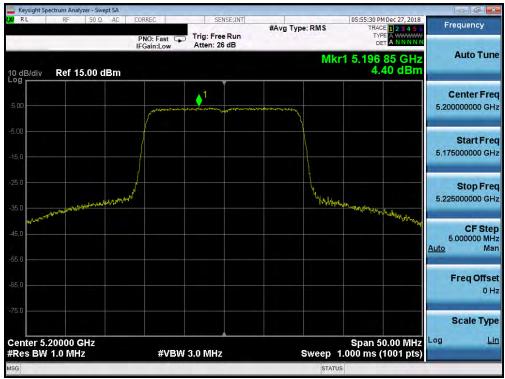
Plot 7-204. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 1) - Ch. 48)



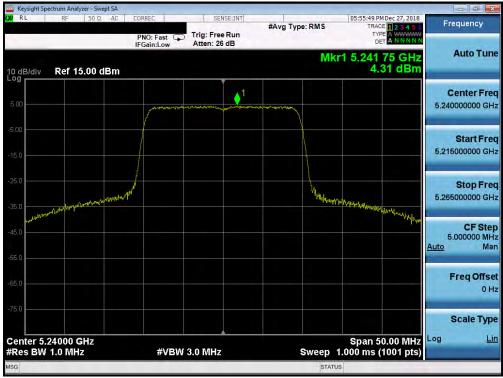
Plot 7-205. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 1) - Ch. 36)

FCC ID: A3LSMG9750	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-206. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 1) - Ch. 40)



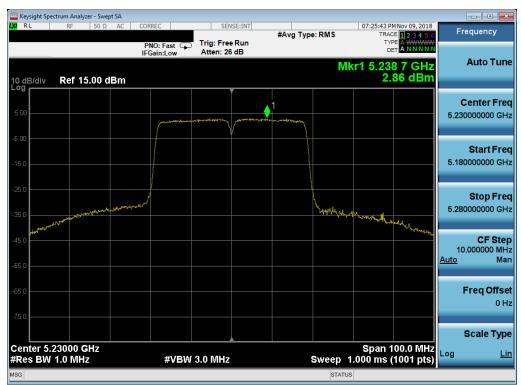
Plot 7-207. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 1) - Ch. 48)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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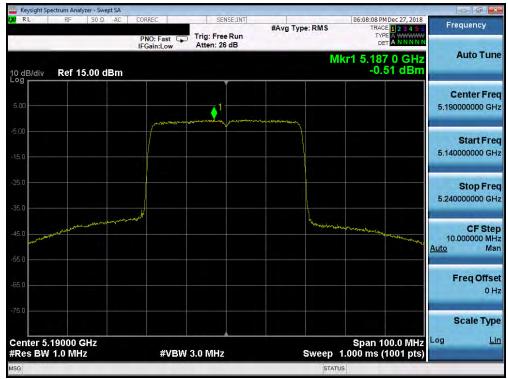
Plot 7-208. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 1) - Ch. 38)



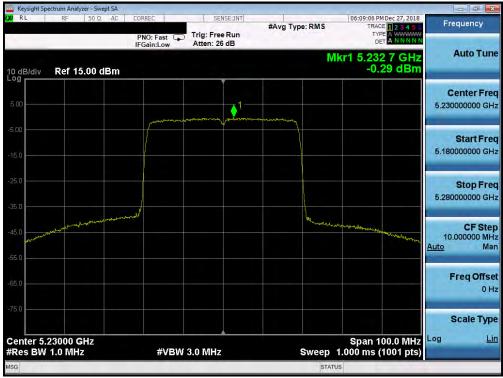
Plot 7-209. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 1) - Ch. 46)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SUNG	Approved by: Quality Manager
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Plot 7-210. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 1) - Ch. 38)



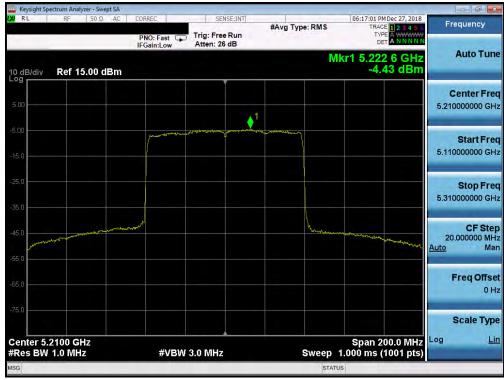
Plot 7-211. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 1) - Ch. 46)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-212. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 1) - Ch. 42)



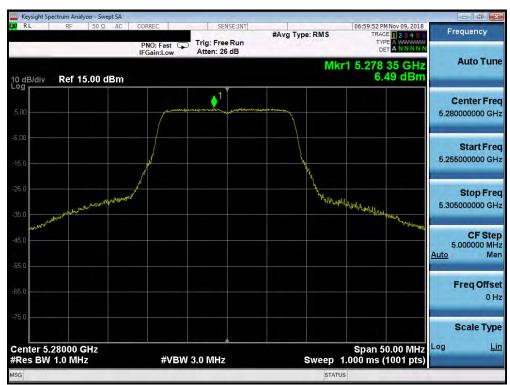
Plot 7-213. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 1) - Ch. 42)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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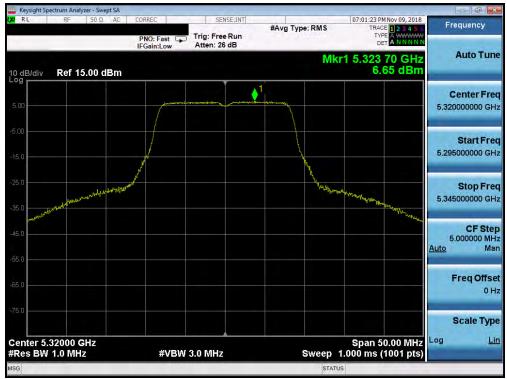
Plot 7-214. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2A) - Ch. 52)



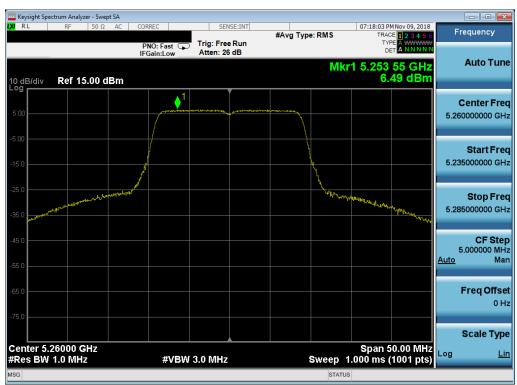
Plot 7-215. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2A) - Ch. 56)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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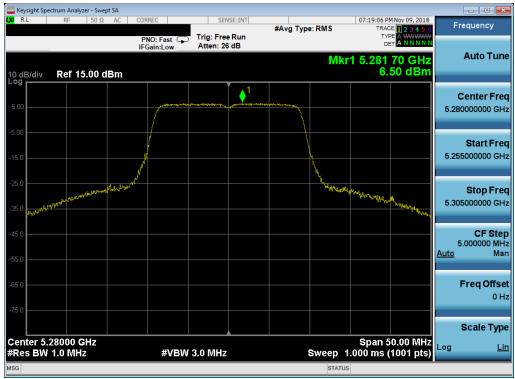
Plot 7-216. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2A) - Ch. 64)



Plot 7-217. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2A) - Ch. 52)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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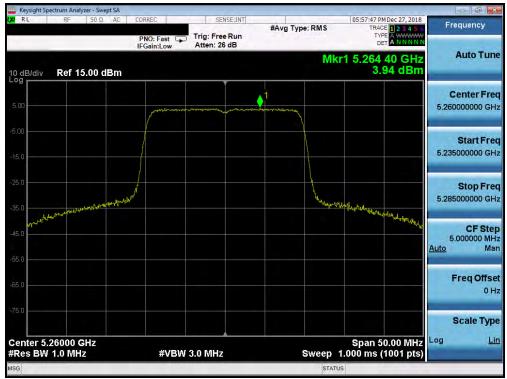
Plot 7-218. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2A) - Ch. 56)



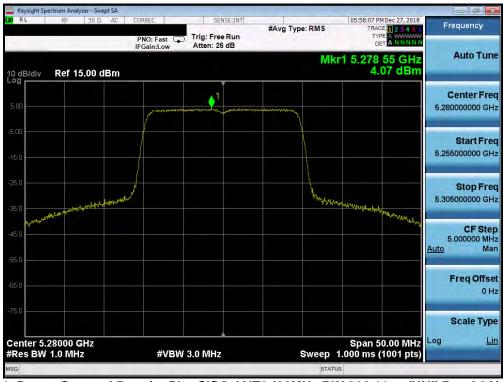
Plot 7-219. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2A) - Ch. 64)

FCC ID: A3LSMG9750	INAMESTIC CAMPAGENERS IN	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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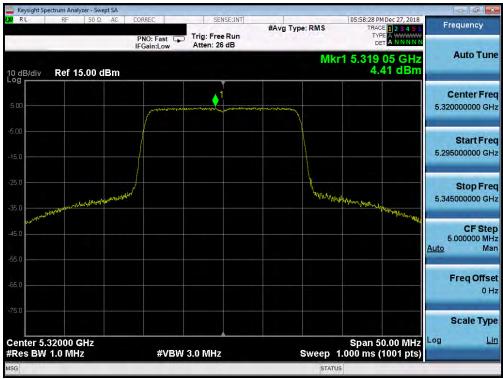
Plot 7-220. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 2A) - Ch. 52)



Plot 7-221. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 2A) - Ch. 56)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-222. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 2A) - Ch. 64)



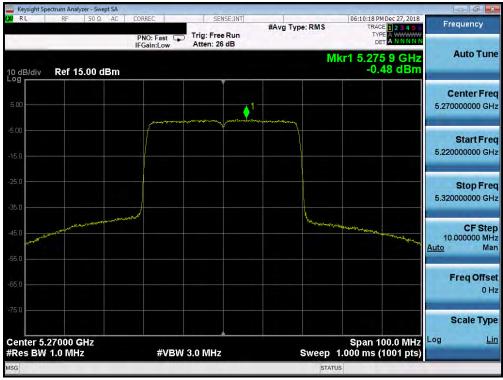
Plot 7-223. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2A) - Ch. 54)

FCC ID: A3LSMG9750	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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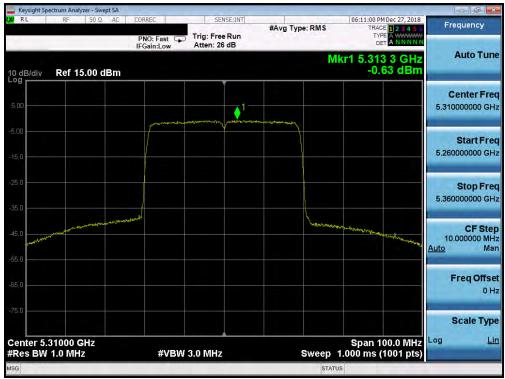
Plot 7-224. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2A) - Ch. 62)



Plot 7-225. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 2A) - Ch. 54)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	ING	Approved by: Quality Manager
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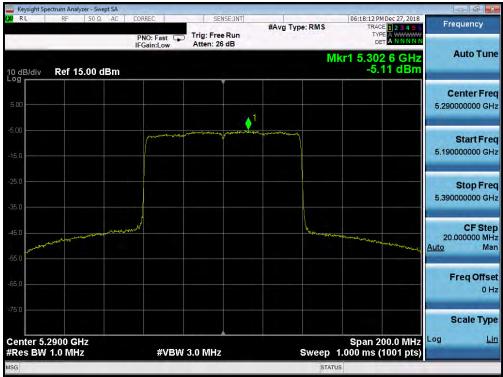
Plot 7-226. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 2A) - Ch. 62)



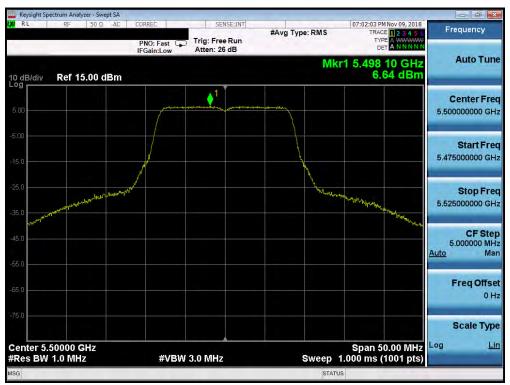
Plot 7-227. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 2A) - Ch. 58)

FCC ID: A3LSMG9750	INCHIENCE CAMPASSAY, 194	MEASUREMENT REPORT (CERTIFICATION)	Approved by:  Quality Manager
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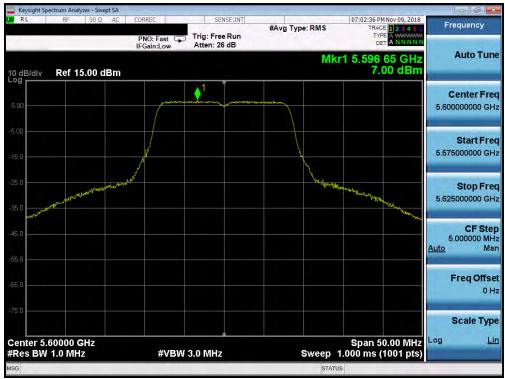
Plot 7-228. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax (UNII Band 2A) - Ch. 58)



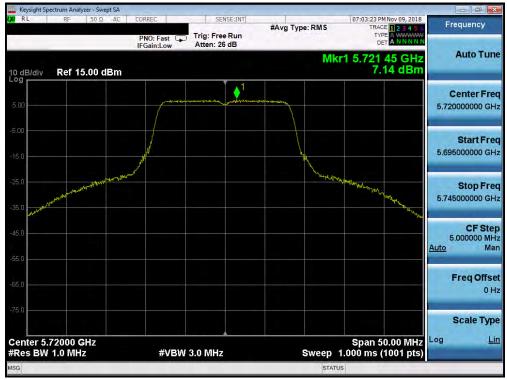
Plot 7-229. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2C) - Ch. 100)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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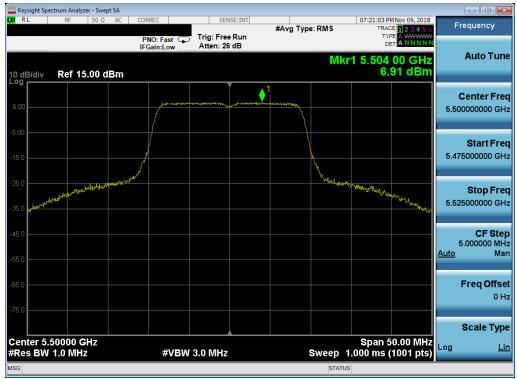
Plot 7-230. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2C) - Ch. 120)



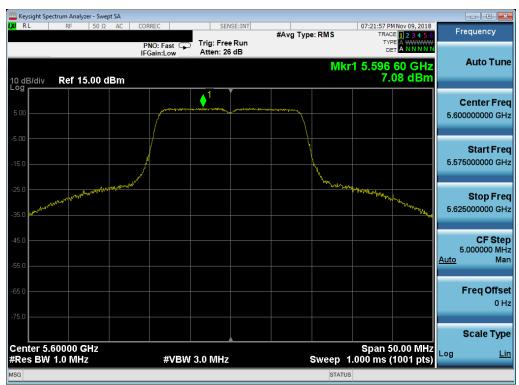
Plot 7-231. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2C) - Ch. 144)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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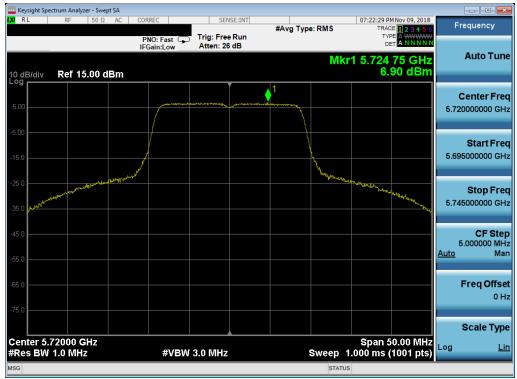
Plot 7-232. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2C) - Ch. 100)



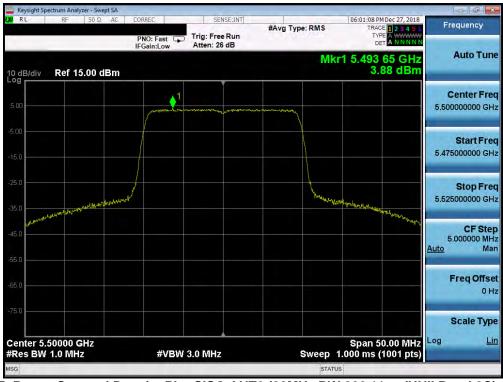
Plot 7-233. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2C) - Ch. 120)

FCC ID: A3LSMG9750	PETEST INSIDENTE SANDO (227, 19)	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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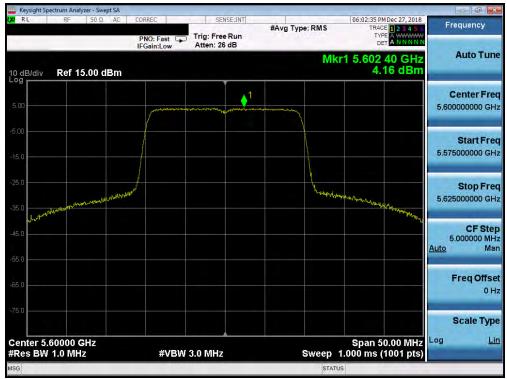
Plot 7-234. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2C) - Ch. 144)



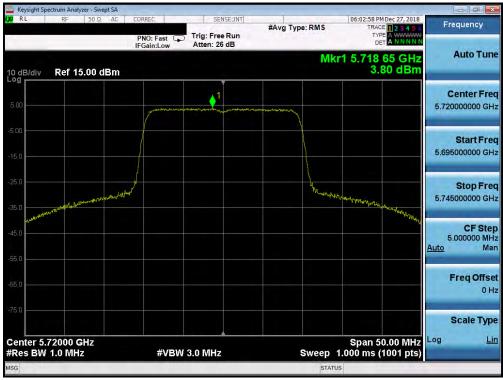
Plot 7-235. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 2C) - Ch. 100)

FCC ID: A3LSMG9750	TA POTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-236. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 2C) - Ch. 120)



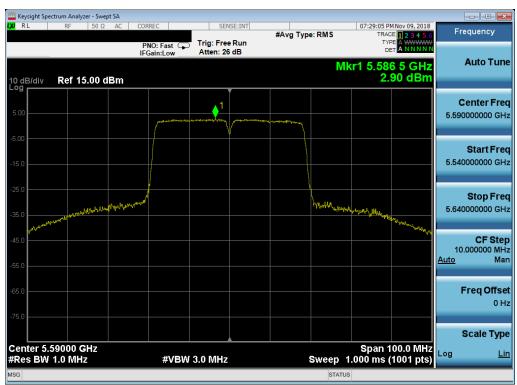
Plot 7-237. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 2C) - Ch. 144)

FCC ID: A3LSMG9750	POTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-238. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2C) - Ch. 102)



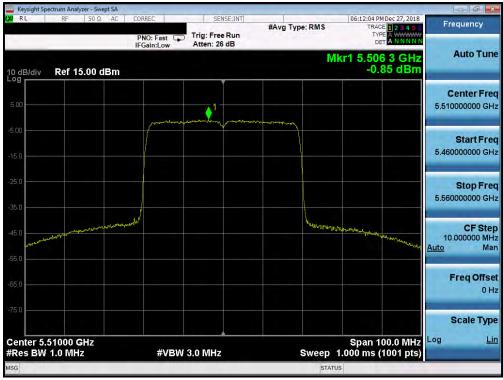
Plot 7-239. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2C) - Ch. 118)

FCC ID: A3LSMG9750	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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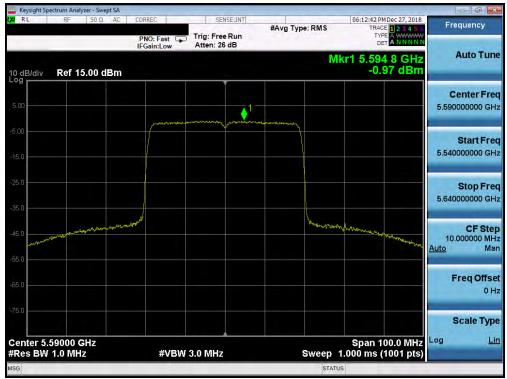
Plot 7-240. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2C) - Ch. 142)



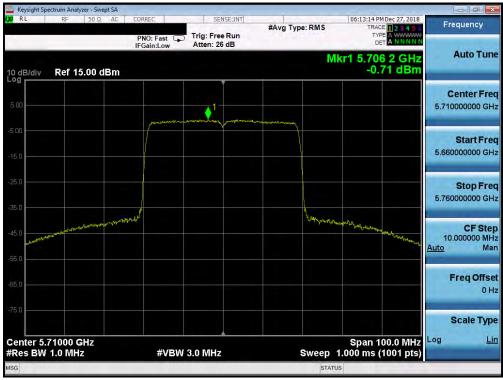
Plot 7-241. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 2C) - Ch. 102)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-242. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 2C) - Ch. 118)



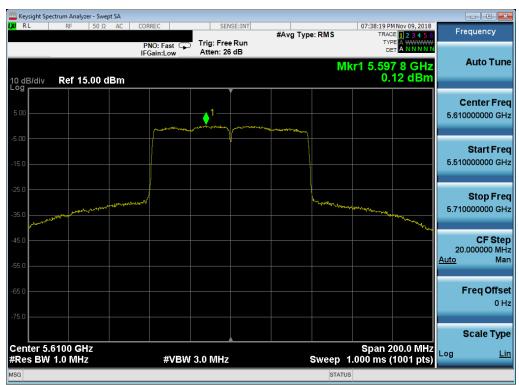
Plot 7-243. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 2C) - Ch. 142)

FCC ID: A3LSMG9750	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-244. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 2C) - Ch. 106)



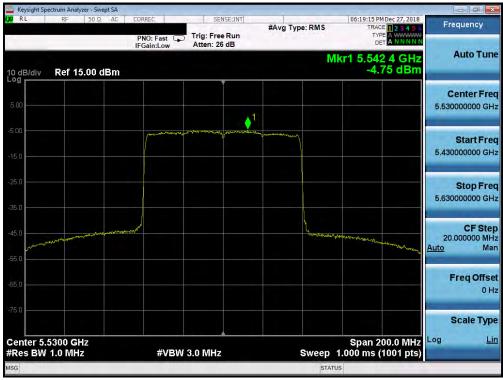
Plot 7-245. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 2C) - Ch. 122)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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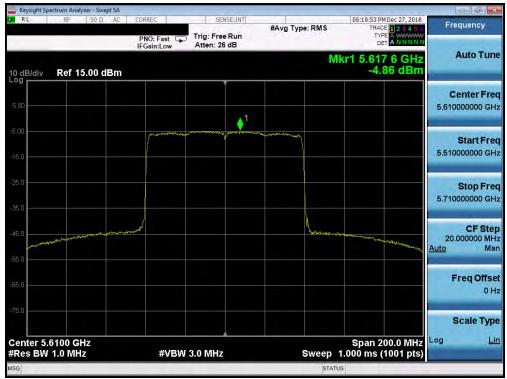
Plot 7-246. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 2C) - Ch. 138)



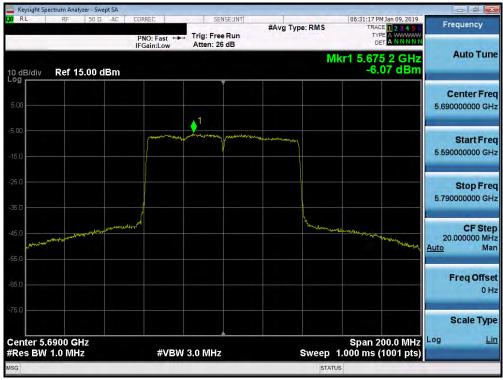
Plot 7-247. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax (UNII Band 2C) - Ch. 106)

FCC ID: A3LSMG9750	PETEST INSIDERING AND PARTY. IN.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-248. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax (UNII Band 2C) - Ch. 122)



Plot 7-249. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax (UNII Band 2C) - Ch. 138)

FCC ID: A3LSMG9750	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
	5745	149	а	6	3.76	30.0	-26.24
	5785	157	а	6	3.49	30.0	-26.51
	5825	165	а	6	3.30	30.0	-26.70
	5745	149	n (20MHz)	6.5/7.2 (MCS0)	3.79	30.0	-26.21
	5785	157	n (20MHz)	6.5/7.2 (MCS0)	3.32	30.0	-26.68
	5825	165	n (20MHz)	6.5/7.2 (MCS0)	3.23	30.0	-26.77
က	5745	149	ax (20MHz)	6.5/7.2 (MCS0)	0.82	30.0	-29.18
Band	5785	157	ax (20MHz)	6.5/7.2 (MCS0)	0.58	30.0	-29.42
ä	5825	165	ax (20MHz)	6.5/7.2 (MCS0)	0.26	30.0	-29.74
	5755	151	n (40MHz)	13.5/15 (MCS0)	-0.28	30.0	-30.28
	5795	159	n (40MHz)	13.5/15 (MCS0)	-0.42	30.0	-30.42
	5755	151	ax (40MHz)	13.5/15 (MCS0)	-3.54	30.0	-33.54
	5795	159	ax (40MHz)	13.5/15 (MCS0)	-3.67	30.0	-33.67
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-0.01	30.0	-30.01
	5775	155	ax (80MHz)	29.3/32.5 (MCS0)	-4.21	30.0	-34.21

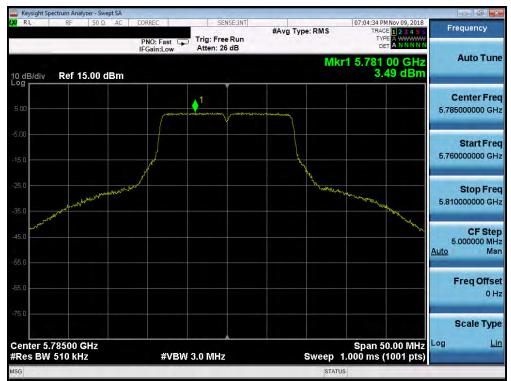
Table 7-23. Band 3 Conducted Power Spectral Density Measurements SISO ANT2



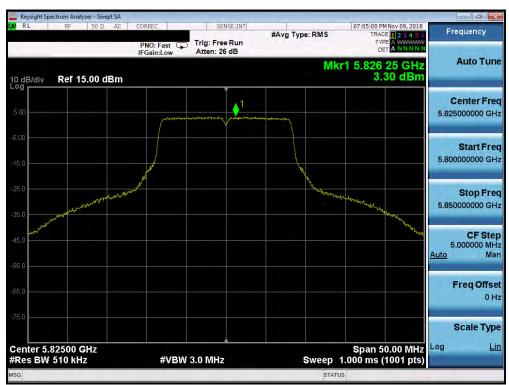
Plot 7-250. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 3) - Ch. 149)

FCC ID: A3LSMG9750	PCTEST'	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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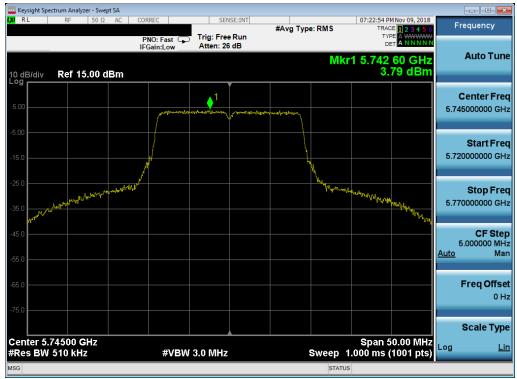
Plot 7-251. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 3) - Ch. 157)



Plot 7-252. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 3) - Ch. 165)

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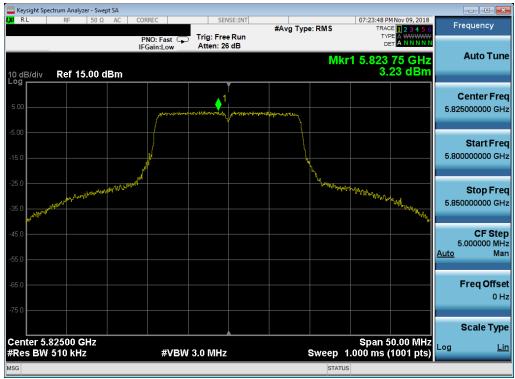
Plot 7-253. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) - Ch. 149)



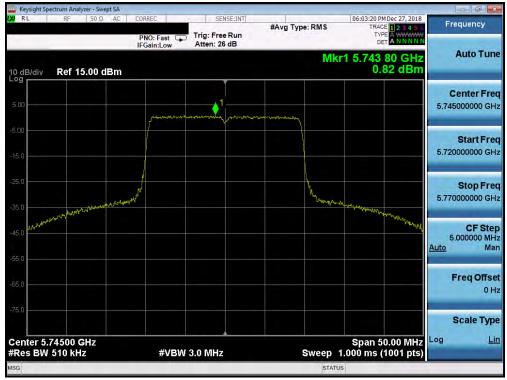
Plot 7-254. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) - Ch. 157)

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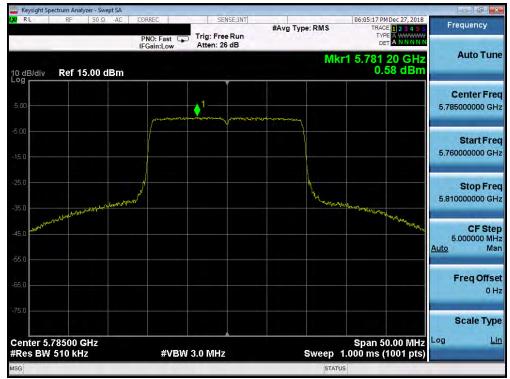
Plot 7-255. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) - Ch. 165)



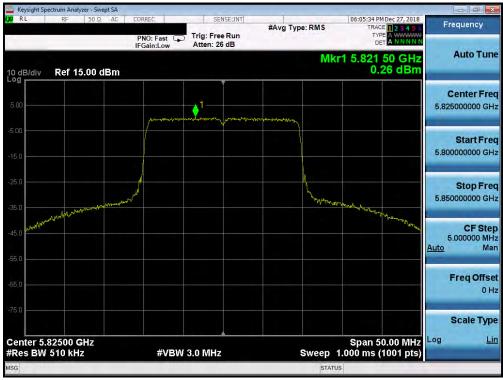
Plot 7-256. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 3) - Ch. 149)

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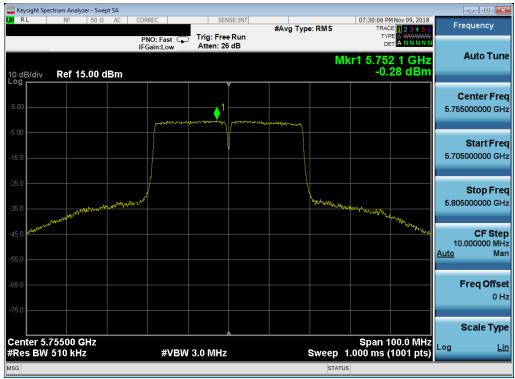
Plot 7-257. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 3) - Ch. 157)



Plot 7-258. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 3) - Ch. 165)

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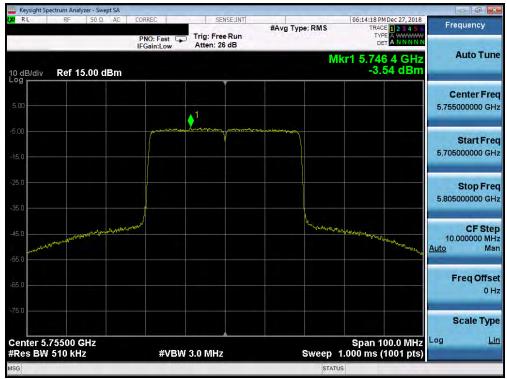
Plot 7-259. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 3) - Ch. 151)



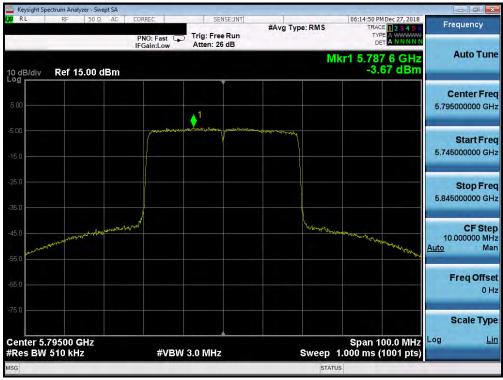
Plot 7-260. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 3) - Ch. 159)

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Plot 7-261. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 3) - Ch. 151)



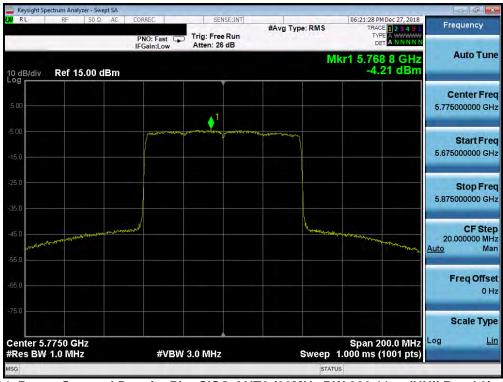
Plot 7-262. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 3) - Ch. 159)

FCC ID: A3LSMG9750	PETEST	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Plot 7-263. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 3) - Ch. 155)



Plot 7-264. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax (UNII Band 3) - Ch. 155)

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## **Summed MIMO Power Spectral Density Measurements**

	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
	5180	36	а	6.5/7.2 (MCS0)	6.22	6.40	9.32	11.0	-1.68
	5200	40	а	6.5/7.2 (MCS0)	6.41	6.61	9.52	11.0	-1.48
	5240	48	а	6.5/7.2 (MCS0)	6.23	6.75	9.51	11.0	-1.49
	5180	36	n (20MHz)	6.5/7.2 (MCS0)	4.93	6.60	8.86	11.0	-2.14
	5200	40	n (20MHz)	6.5/7.2 (MCS0)	5.64	6.73	9.23	11.0	-1.77
	5240	48	n (20MHz)	6.5/7.2 (MCS0)	5.84	6.94	9.43	11.0	-1.57
-	5180	36	ax (20MHz)	6.5/7.2 (MCS0)	2.55	4.35	6.55	11.0	-4.45
Band 1	5200	40	ax (20MHz)	6.5/7.2 (MCS0)	3.18	4.40	6.84	11.0	-4.16
Ä	5240	48	ax (20MHz)	6.5/7.2 (MCS0)	3.35	4.31	6.87	11.0	-4.13
	5190	38	n (40MHz)	13.5/15 (MCS0)	2.45	2.87	5.68	11.0	-5.32
	5230	46	n (40MHz)	13.5/15 (MCS0)	2.68	2.86	5.78	11.0	-5.22
	5190	38	ax (40MHz)	13.5/15 (MCS0)	-0.95	-0.51	2.29	11.0	-8.71
	5230	46	ax (40MHz)	13.5/15 (MCS0)	-0.69	-0.29	2.52	11.0	-8.48
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	-1.81	0.00	2.20	11.0	-8.80
	5210	42	ax (80MHz)	29.3/32.5 (MCS0)	-4.18	-4.43	-1.29	11.0	-12.29
	5260	52	а	6.5/7.2 (MCS0)	6.13	6.52	9.34	11.0	-1.66
	5280	56	а	6.5/7.2 (MCS0)	6.06	6.49	9.29	11.0	-1.71
	5320	64	а	6.5/7.2 (MCS0)	6.25	6.65	9.46	11.0	-1.54
	5260	52	n (20MHz)	6.5/7.2 (MCS0)	6.27	6.49	9.39	11.0	-1.61
	5280	56	n (20MHz)	6.5/7.2 (MCS0)	5.94	6.50	9.24	11.0	-1.76
	5320	64	n (20MHz)	6.5/7.2 (MCS0)	5.81	7.13	9.53	11.0	-1.47
₹.	5260	52	ax (20MHz)	6.5/7.2 (MCS0)	3.71	3.94	6.84	11.0	-4.16
Band 2A	5280	56	ax (20MHz)	6.5/7.2 (MCS0)	3.91	4.07	7.00	11.0	-4.00
Ваі	5320	64	ax (20MHz)	6.5/7.2 (MCS0)	4.59	4.41	7.51	11.0	-3.49
	5270	54	n (40MHz)	13.5/15 (MCS0)	2.31	2.54	5.44	11.0	-5.56
	5310	62	n (40MHz)	13.5/15 (MCS0)	2.89	2.44	5.68	11.0	-5.32
	5270	54	ax (40MHz)	13.5/15 (MCS0)	-0.68	-0.48	2.43	11.0	-8.57
	5310	62	ax (40MHz)	13.5/15 (MCS0)	-0.54	-0.63	2.43	11.0	-8.57
	5290	58	ac (80MHz)	29.3/32.5 (MCS0)	-2.03	-0.35	1.90	11.0	-9.10
	5290	58	ax (80MHz)	29.3/32.5 (MCS0)	-3.62	-5.11	-1.29	11.0	-12.29
	5500	100	а	6.5/7.2 (MCS0)	5.74	6.64	9.22	11.0	-1.78
	5600	120	а	6.5/7.2 (MCS0)	5.19	7.00	9.20	11.0	-1.80
	5720	144	а	6.5/7.2 (MCS0)	5.87	7.14	9.56	11.0	-1.44
	5500	100	n (20MHz)	6.5/7.2 (MCS0)	5.60	6.91	9.31	11.0	-1.69
	5600	120	n (20MHz)	6.5/7.2 (MCS0)	5.48	7.08	9.37	11.0	-1.63
	5720	144	n (20MHz)	6.5/7.2 (MCS0)	5.61	6.90	9.31	11.0	-1.69
	5500	100	ax (20MHz)	6.5/7.2 (MCS0)	4.88	3.88	7.42	11.0	-3.58
	5600	120	ax (20MHz)	6.5/7.2 (MCS0)	4.78	4.16	7.49	11.0	-3.51
	5720	144	ax (20MHz)	6.5/7.2 (MCS0)	4.49	3.80	7.17	11.0	-3.83
2C	5510	102	n (40MHz)	13.5/15 (MCS0)	2.05	2.78	5.44	11.0	-5.56
, p	5590	118	n (40MHz)	13.5/15 (MCS0)	1.39	2.90	5.22	11.0	-5.78
Band	5710	142	n (40MHz)	13.5/15 (MCS0)	1.47	2.63	5.10	11.0	-5.90
	5510	102	ax (40MHz)	13.5/15 (MCS0)	-0.53	-0.85	2.32	11.0	-8.68
	5590	118	ax (40MHz)	13.5/15 (MCS0)	-0.20	-0.97	2.44	11.0	-8.56
	5710	142	ax (40MHz)	29.3/32.5 (MCS0)	-0.11	-0.71	2.61	11.0	-8.39
	5530	106	ac (80MHz)	29.3/32.5 (MCS0)	-2.41	0.04	2.00	11.0	-9.00
	5610	122	ac (80MHz)	29.3/32.5 (MCS0)	-2.57	0.12	1.99	11.0	-9.01
	5690	138	ac (80MHz)	29.3/32.5 (MCS0)	-4.84	-2.70	-0.62	11.0	-11.62
	5530	106	ac (80MHz)	29.3/32.5 (MCS0)	-4.35	-4.75	-1.54	11.0	-12.54
	5610	122	ac (80MHz)	29.3/32.5 (MCS0)	-4.29	-4.86	-1.56	11.0	-12.56
	5690	138	ac (80MHz)	29.3/32.5 (MCS0)	-6.59	-7.61	-4.06	11.0	-15.06

Table 7-24. Bands 1, 2A, 2C MIMO Conducted Power Spectral Density Measurements

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	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Directional Antenna Gain [dBi]	e.i.r.p. Power Density [dBm/MHz]	ISED Max e.i.r.p. Power Density [dBm/MHz]	Margin [dB]
	5180	36	а	6.5/7.2 (MCS0)	6.22	6.40	9.32	-4.79	4.53	10.0	-5.47
	5200	40	а	6.5/7.2 (MCS0)	6.41	6.61	9.52	-4.92	4.60	10.0	-5.40
	5240	48	а	6.5/7.2 (MCS0)	6.23	6.75	9.51	-4.64	4.87	10.0	-5.13
	5180	36	n (20MHz)	6.5/7.2 (MCS0)	4.93	6.60	8.86	-4.79	4.07	10.0	-5.93
	5200	40	n (20MHz)	6.5/7.2 (MCS0)	5.64	6.73	9.23	-4.92	4.31	10.0	-5.69
	5240	48	n (20MHz)	6.5/7.2 (MCS0)	5.84	6.94	9.43	-4.64	4.80	10.0	-5.20
_	5180	36	ax (20MHz)	6.5/7.2 (MCS0)	3.18	4.35	6.81	-4.79	2.02	10.0	-7.98
Band	5200	40	ax (20MHz)	6.5/7.2 (MCS0)	3.35	4.40	6.92	-4.92	2.00	10.0	-8.00
ä	5240	48	ax (20MHz)	6.5/7.2 (MCS0)	2.45	4.31	6.49	-4.64	1.85	10.0	-8.15
	5190	38	n (40MHz)	13.5/15 (MCS0)	2.45	2.87	5.68	-4.92	0.76	10.0	-9.24
	5230	46	n (40MHz)	13.5/15 (MCS0)	2.68	2.86	5.78	-4.92	0.87	10.0	-9.13
	5190	38	ax (40MHz)	13.5/15 (MCS0)	-0.95	-0.51	2.29	-4.92	-2.63	10.0	-12.63
	5230	46	ax (40MHz)	13.5/15 (MCS0)	-0.69	-0.29	2.52	-4.92	-2.39	10.0	-12.39
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	-1.81	0.00	2.20	-4.64	-2.44	10.0	-12.44
	5210	42	ax (80MHz)	29.3/32.5 (MCS0)	-4.18	-4.43	-1.29	-4.64	-5.93	11.0	-16.93

Table 7-25. Band 1 MIMO e.i.r.p. Conducted Power Spectral Density Measurements (ISED)

	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Antenn-1 Power Density [dBm]	Antenn-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
	5745	149	а	6.5/7.2 (MCS0)	3.46	3.76	6.62	30.0	-23.38
	5785	157	а	6.5/7.2 (MCS0)	3.67	3.49	6.60	30.0	-23.40
	5825	165	а	6.5/7.2 (MCS0)	3.56	3.30	6.44	30.0	-23.56
	5745	149	n (20MHz)	6.5/7.2 (MCS0)	3.24	3.79	6.54	30.0	-23.46
	5785	157	n (20MHz)	6.5/7.2 (MCS0)	3.68	3.32	6.52	30.0	-23.48
	5825	165	n (20MHz)	6.5/7.2 (MCS0)	3.28	3.23	6.26	30.0	-23.74
က	5745	149	ax (20MHz)	6.5/7.2 (MCS0)	0.59	0.82	3.72	30.0	-26.28
Band	5785	157	ax (20MHz)	6.5/7.2 (MCS0)	1.05	0.58	3.83	30.0	-26.17
ĕ	5825	165	ax (20MHz)	6.5/7.2 (MCS0)	1.95	0.26	4.20	30.0	-25.80
	5755	151	n (40MHz)	13.5/15 (MCS0)	-0.46	-0.28	2.64	30.0	-27.36
	5795	159	n (40MHz)	13.5/15 (MCS0)	-0.38	-0.42	2.61	30.0	-27.39
	5755	151	ax (40MHz)	13.5/15 (MCS0)	-2.96	-3.54	-0.23	30.0	-30.23
	5795	159	ax (40MHz)	13.5/15 (MCS0)	-3.19	-3.67	-0.41	30.0	-30.41
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-1.72	-0.01	2.23	30.0	-27.77
	5775	155	ax (80MHz)	29.3/32.5 (MCS0)	-3.35	-4.21	-0.75	30.0	-30.75

Table 7-26. Band 3 MIMO Conducted Power Spectral Density Measurements

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### Note:

Per ANSI C63.10-2013 Section 14.3.2.2 and KDB 662911 v02r01 Section E)2), the power spectral density at Antenna 1 and Antenna 2 were first measured separately as shown in the section above. The measured values were then summed in linear power units then converted back to dBm.

### **Sample MIMO Calculation:**

At 5180MHz in 802.11n (20MHz BW) mode, the average conducted power spectral density was measured to be N/A dBm for Antenna-1 and N/A dBm for Antenna-2.

$$(4.93 \text{ dBm} + 6.60 \text{ dBm}) = (3.11 \text{ mW} + 4.57 \text{ mW}) = 7.69 \text{ mW} = 8.86 \text{ dBm}$$

### Sample e.i.r.p Power Spectral Density Calculation:

At 5180MHz in 802.11n (20MHz BW) mode, the average MIMO power density was calculated to be N/A dBm with directional gain of N/A dBi.

e.i.r.p. Power Spectral Density(dBm) = Power Spectral Density (dBm) + Ant gain (dBi)

$$8.86 \text{ dBm} + -4.79 \text{ dBi} = 4.07 \text{ dBm}$$

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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. 802.11a, 802.11n (20MHz BW), 802.11n (40MHz BW), 802.11ax (20MHz BW), 802.11ax (40MHz), 802.11ax (80MHz) and 802.11ac (80MHz)), 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 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 7-27. 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)
- Number of measurement points = 1001 (Number of points must be ≥ 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
- 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.

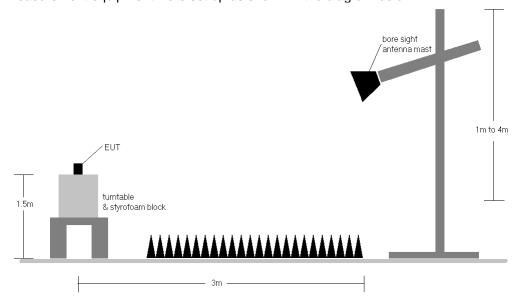


Figure 7-5. Test Instrument & Measurement Setup

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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 7-27.
- 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. Radiated spurious emissions were investigated while operating in MIMO mode, however, it was determined that single antenna operation produced the worst case emissions. Since the emissions produced from MIMO operation were found to be more than 20dB below the limit, the MIMO emissions are not reported.
- 8. 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.
- 9. The "-" shown in the following RSE tables are used to denote a noise floor measurement.

#### **Sample Calculations**

#### **Determining Spurious Emissions Levels**

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

#### Radiated Band Edge Measurement Offset

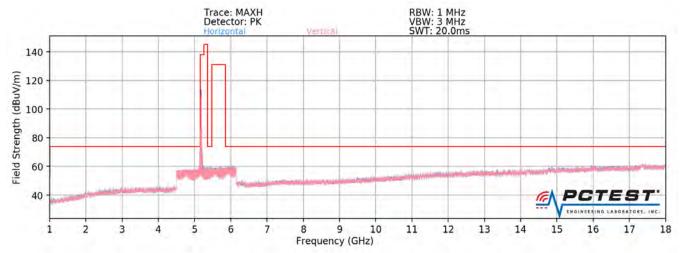
The amplitude offset shown in the radiated restricted band edge plots in Section 6.6.5 was calculated using the formula:

Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

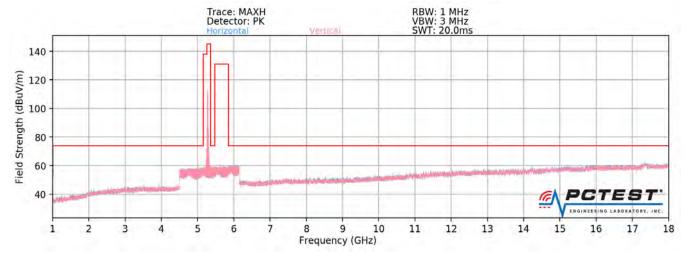
FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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### 6.6.1 SISO Antenna-1 Radiated Spurious Emission Measurements



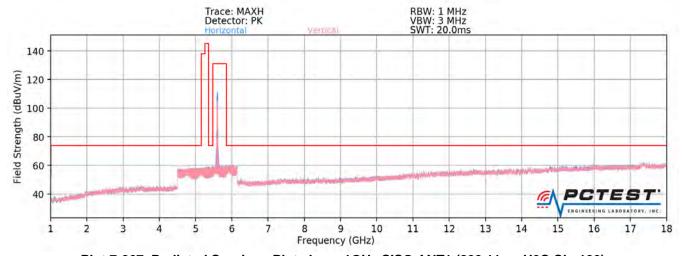
Plot 7-265. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a - U1 Ch. 40)



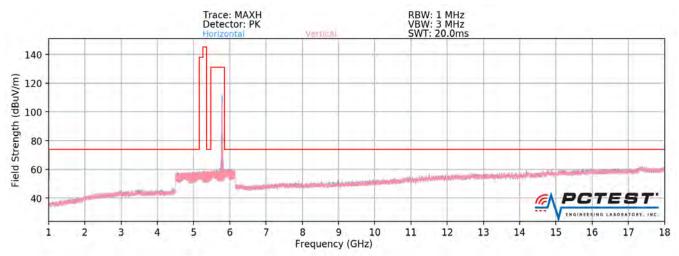
Plot 7-266. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a - U2A Ch. 56)

FCC ID: A3LSMG9750	POTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-267. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a - U2C Ch. 120)

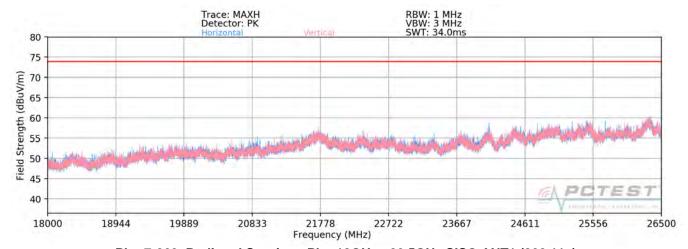


Plot 7-268. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a - U3 Ch. 157)

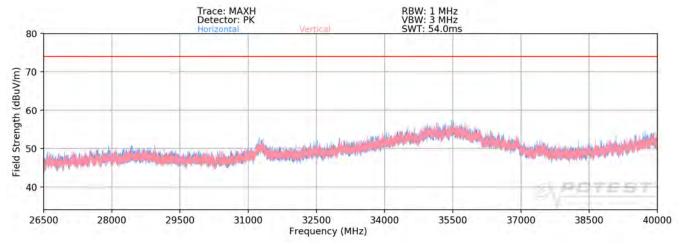
FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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## SISO Antenna-1 Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-269. Radiated Spurious Plot 18GHz - 26.5GHz SISO ANT1 (802.11a)



Plot 7-270. Radiated Spurious Plot 26.5GHz - 40GHz SISO ANT1 (802.11a)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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## SISO Antenna-1 Radiated Spurious Emission Measurements

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

Worst Case Mode: 802.11a Worst Case Transfer Rate: 6Mbps 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	74	-67.64	12.97	0.00	52.33	68.20	-15.87
*	15540.00	Average	Н	158	360	-84.47	15.88	0.00	38.41	53.98	-15.57
*	15540.00	Peak	Н	158	360	-68.11	15.88	0.00	54.77	73.98	-19.21
*	20720.00	Average	Н	-	-	-81.39	16.92	-9.54	32.99	53.98	-20.99
*	20720.00	Peak	Н	-	-	-70.48	16.92	-9.54	43.90	73.98	-30.08
•	25900.00	Peak	Н	-	-	-67.91	19.39	-9.54	48.94	68.20	-19.26

#### Table 7-28. Radiated Measurements SISO ANT1

Worst Case Mode: 802.11a Worst Case Transfer Rate: 6Mbps 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	277	79	-66.95	12.44	0.00	52.49	68.20	-15.71
*	15600.00	Average	Н	170	10	-84.70	15.60	0.00	37.90	53.98	-16.08
*	15600.00	Peak	Н	170	10	-69.18	15.60	0.00	53.42	73.98	-20.56
*	20800.00	Average	Н	-	-	-80.97	17.39	-9.54	33.87	53.98	-20.10
*	20800.00	Peak	Н	-	-	-69.39	17.39	-9.54	45.45	73.98	-28.52
	26000.00	Peak	Н	-	-	-68.73	19.98	-9.54	48.70	68.20	-19.50

Table 7-29. Radiated Measurements SISO ANT1

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Channel:

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5240MHz

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	247	1	-67.80	12.95	0.00	52.15	68.20	-16.05
*	15720.00	Average	Н	208	322	-83.30	16.00	0.00	39.70	53.98	-14.28
*	15720.00	Peak	Н	208	322	-67.32	16.00	0.00	55.68	73.98	-18.30
*	20960.00	Average	Н	-	-	-81.23	17.29	-9.54	33.52	53.98	-20.46
*	20960.00	Peak	Н	-	-	-70.06	17.29	-9.54	44.69	73.98	-29.29
	26200.00	Peak	Н	-	-	-67.77	19.80	-9.54	49.49	68.20	-18.71

#### Table 7-30. Radiated Measurements SISO ANT1

5240MHz

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters

Channel: 48

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]
	10480.00	Peak	Н	289	201	-68.02	12.95	0.00	51.93	68.20	-16.27
*	15720.00	Average	Н	167	128	-83.68	16.00	0.00	39.32	53.98	-14.66
*	15720.00	Peak	Н	167	128	-68.02	16.00	0.00	54.98	73.98	-19.00
*	20960.00	Average	Н	-	-	-81.61	17.29	-9.54	33.14	53.98	-20.84
*	20960.00	Peak	Н	-	-	-70.31	17.29	-9.54	44.44	73.98	-29.54
	26200.00	Peak	Н	-	-	-67.45	19.80	-9.54	49.81	68.20	-18.39

Table 7-31. Radiated Measurements SISO ANT1 with WCP

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode: 802.11a Worst Case Transfer Rate: 6Mbps 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	258	78	-67.48	13.43	0.00	52.95	68.20	-15.25
*	15780.00	Average	Н	208	315	-83.97	15.72	0.00	38.75	53.98	-15.23
*	15780.00	Peak	Н	208	315	-67.60	15.72	0.00	55.12	73.98	-18.86
*	21040.00	Average	Н	-	-	-81.00	17.32	-9.54	33.78	53.98	-20.20
*	21040.00	Peak	Н	-	-	-70.12	17.32	-9.54	44.66	73.98	-29.32
	26300.00	Peak	Н	-	-	-67.25	20.12	-9.54	50.33	68.20	-17.87

Table 7-32. Radiated Measurements SISO ANT1

Worst Case Mode: 802.11a

Worst Case Transfer Rate: 6Mbps

Distance of Measurements: 1 & 3 Meters Operating Frequency: 5280MHz

	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	252	352	-67.03	13.44	0.00	53.41	68.20	-14.79
*	15840.00	Average	Н	206	315	-82.87	15.30	0.00	39.43	53.98	-14.55
*	15840.00	Peak	Н	206	315	-66.90	15.30	0.00	55.40	73.98	-18.58
*	21120.00	Average	Н	-	-	-81.02	17.26	-9.54	33.70	53.98	-20.28
*	21120.00	Peak	Н	-	-	-70.27	17.26	-9.54	44.45	73.98	-29.53
	26400.00	Peak	Н	-	-	-68.06	19.67	-9.54	49.07	68.20	-19.13

Table 7-33. Radiated Measurements SISO ANT1

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode:

Worst Case Transfer Rate:

Distance of Measurements:

Operating Frequency:

Channel:

802.11a

6Mbps

1 & 3 Meters

5320MHz

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	268	77	-82.76	13.14	0.00	37.38	53.98	-16.60
*	10640.00	Peak	Н	268	77	-67.93	13.14	0.00	52.21	73.98	-21.77
*	15960.00	Average	Н	203	313	-82.55	16.05	0.00	40.50	53.98	-13.48
*	15960.00	Peak	Н	203	313	-65.10	16.05	0.00	57.95	73.98	-16.03
*	21280.00	Average	Н	-	-	-80.71	17.51	-9.54	34.26	53.98	-19.72
*	21280.00	Peak	Н	-	-	-69.85	17.51	-9.54	45.12	73.98	-28.86
	26600.00	Peak	Н	-	-	-49.67	1.44	-9.54	49.23	68.20	-18.97

Table 7-34. Radiated Measurements SISO ANT1

Worst Case Mode:

Worst Case Transfer Rate:

Distance of Measurements:

Operating Frequency:

Channel:

802.11a

6Mbps

1 & 3 Meters

5320MHz

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	138	86	-82.89	13.14	0.00	37.25	53.98	-16.73
*	10640.00	Peak	Н	138	86	-69.35	13.14	0.00	50.79	73.98	-23.19
*	15960.00	Average	Н	-	-	-83.68	16.05	0.00	39.37	53.98	-14.61
*	15960.00	Peak	Н	-	-	-66.38	16.05	0.00	56.67	73.98	-17.31
*	21280.00	Average	Н	-	-	-81.35	17.51	-9.54	33.62	53.98	-20.36
*	21280.00	Peak	Н	-	-	-70.38	17.51	-9.54	44.59	73.98	-29.39
	26600.00	Peak	Н	-	-	-50.69	1.44	-9.54	48.21	68.20	-19.99

#### Table 7-35. Radiated Measurements SISO ANT1 with WCP

FCC ID: A3LSMG9750	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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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	Н	224	171	-84.25	13.50	0.00	36.25	53.98	-17.73
*	11000.00	Peak	н	224	171	-69.32	13.50	0.00	51.18	73.98	-22.80
	16500.00	Peak	Н	206	318	-64.76	16.35	0.00	58.59	68.20	-9.61
	22000.00	Peak	Н	-	-	-69.07	18.25	-9.54	46.64	68.20	-21.56
	27500.00	Peak	Н	-	-	-49.05	0.12	-9.54	48.53	68.20	-19.67

Table 7-36. Radiated Measurements SISO ANT1

Worst Case Mode: 802.11a Worst Case Transfer Rate: 6Mbps

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]
*	11160.00	Average	Ι	233	6	-83.63	13.26	0.00	36.63	53.98	-17.35
*	11160.00	Peak	Н	233	6	-68.53	13.26	0.00	51.73	73.98	-22.25
	16740.00	Peak	Н	169	296	-66.16	17.87	0.00	58.71	68.20	-9.49
*	22320.00	Average	Н	-	-	-80.60	19.00	-9.54	35.86	53.98	-18.12
*	22320.00	Peak	Н	-	-	-70.19	19.00	-9.54	46.27	73.98	-27.71
	27900.00	Peak	Н	-	-	-48.69	0.74	-9.54	49.50	68.20	-18.70

Table 7-37, Radiated Measurements SISO ANT1

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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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	Н	230	17	-83.88	15.19	0.00	38.31	53.98	-15.67
*	11440.00	Peak	Н	230	17	-69.62	15.19	0.00	52.57	73.98	-21.41
	17160.00	Peak	Н	194	302	-67.24	19.08	0.00	58.84	68.20	-9.36
*	22880.00	Average	Н	-	-	-81.50	18.40	-9.54	34.36	53.98	-19.62
*	22880.00	Peak	Н	-	-	-69.67	18.40	-9.54	46.19	73.98	-27.79
	28600.00	Peak	Н	-	-	-48.89	0.41	-9.54	48.98	68.20	-19.22

#### Table 7-38. Radiated Measurements SISO ANT1

Worst Case Mode: 802.11a Worst Case Transfer Rate: 6Mbps Distance of Measurements: 1 & 3 Meters

Operating Frequency: 5720MHz

	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	I	163	320	-84.35	15.19	0.00	37.84	53.98	-16.14
*	11440.00	Peak	Н	163	320	-69.38	15.19	0.00	52.81	73.98	-21.17
	17160.00	Peak	Н	203	108	-68.32	19.08	0.00	57.76	68.20	-10.44
*	22880.00	Average	Н	-	-	-81.12	19.00	-9.54	35.34	53.98	-18.64
*	22880.00	Peak	Н	-	-	-69.84	19.00	-9.54	46.62	73.98	-27.36
	28600.00	Peak	Н	-	-	-49.02	0.74	-9.54	49.17	68.20	-19.03

Table 7-39. Radiated Measurements SISO ANT1 with WCP

FCC ID: A3LSMG9750	POTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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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	Н	231	360	-88.89	15.31	0.00	33.42	53.98	-20.56
*	11490.00	Peak	Н	231	360	-69.35	15.31	0.00	52.96	73.98	-21.02
	17235.00	Peak	Н	388	314	-66.62	19.82	0.00	60.20	68.20	-8.00
*	22980.00	Average	Н	-	-	-81.66	17.92	-9.54	33.72	53.98	-20.26
*	22980.00	Peak	Н	-	-	-70.75	17.92	-9.54	44.63	73.98	-29.35
	28725.00	Peak	Н	-	-	-49.47	0.67	-9.54	48.66	68.20	-19.54

**Table 7-40. Radiated Measurements SISO ANT1** 

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	Н	228	6	-82.44	15.04	0.00	39.60	53.98	-14.38
*	11570.00	Peak	н	228	6	-67.64	15.04	0.00	54.40	73.98	-19.58
	17355.00	Peak	Н	374	318	-68.69	23.45	0.00	61.76	68.20	-6.44
	23140.00	Peak	I	-	-	-70.60	18.32	-9.54	45.18	68.20	-23.02
	28925.00	Peak	Н	-	-	-48.68	0.75	-9.54	49.53	68.20	-18.67

Table 7-41. Radiated Measurements SISO ANT1

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Channel:

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

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	223	4	-82.09	15.42	0.00	40.33	53.98	-13.65
*	11650.00	Peak	Н	223	4	-66.76	15.42	0.00	55.66	73.98	-18.32
	17475.00	Peak	Н	298	14	-66.30	21.84	0.00	62.54	68.20	-5.66
	23300.00	Peak	Н	-	-	-70.14	18.77	-9.54	46.09	68.20	-22.11
	29125.00	Peak	Н	-	-	-49.34	-0.12	-9.54	48.00	68.20	-20.20

Table 7-42. Radiated Measurements SISO ANT1

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

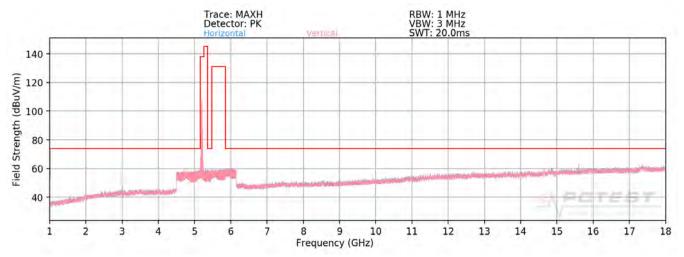
	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11650.00	Average	Н	156	267	-83.97	15.42	0.00	38.45	53.98	-15.53
*	11650.00	Peak	Н	156	267	-66.98	15.42	0.00	55.44	73.98	-18.54
	17475.00	Peak	Н	127	208	-68.20	21.84	0.00	60.64	68.20	-7.56
	23300.00	Peak	Н	-	-	-70.31	18.32	-9.54	45.47	68.20	-22.73
	29125.00	Peak	Н	-	-	-50.12	0.75	-9.54	48.09	68.20	-20.11

Table 7-43. Radiated Measurements SISO ANT1 with WCP

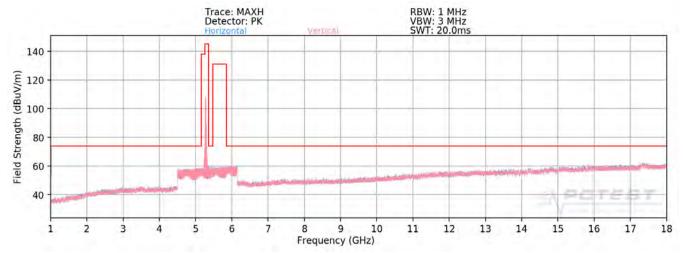
FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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### 6.6.2 SISO Antenna-2 Radiated Spurious Emission Measurements



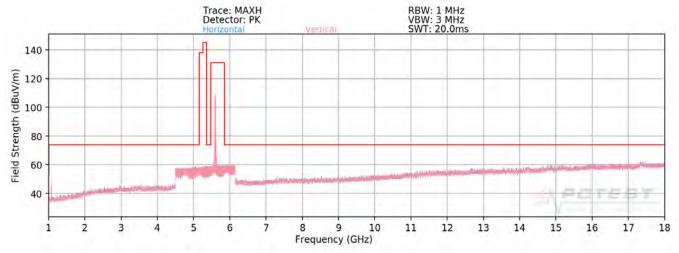
Plot 7-271. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11a - U1 Ch. 40)



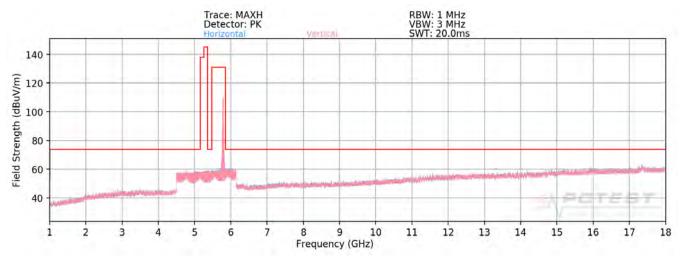
Plot 7-272. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11a - U2A Ch. 56)

FCC ID: A3LSMG9750	POTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-273. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11a - U2C Ch. 120)

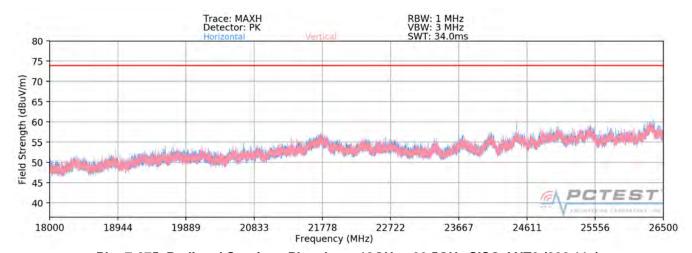


Plot 7-274. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11a - U3 Ch. 157)

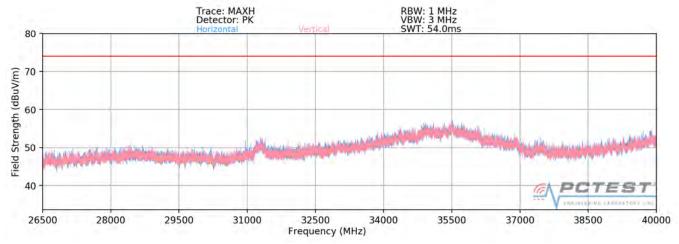
FCC ID: A3LSMG9750	POTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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## SISO Antenna-2 Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-275. Radiated Spurious Plot above 18GHz - 26.5GHz SISO ANT2 (802.11a)



Plot 7-276. Radiated Spurious Plot 26.5GHz - 40GHz SISO ANT2 (802.11a)

FCC ID: A3LSMG9750	POTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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## SISO Antenna-2 Radiated Spurious Emission Measurements

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

Worst Case Mode: 802.11a Worst Case Transfer Rate: 6Mbps 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	V	112	334	-69.17	12.97	0.00	50.80	68.20	-17.40
*	15540.00	Average	V	168	645	-80.86	15.88	0.00	42.02	53.98	-11.96
*	15540.00	Peak	V	168	645	-64.61	15.88	0.00	58.27	73.98	-15.71
*	20720.00	Average	V	-	-	-81.43	16.92	-9.54	32.95	53.98	-21.03
*	20720.00	Peak	V	-	-	-69.97	16.92	-9.54	44.41	73.98	-29.57
	25900.00	Peak	V	-	-	-68.20	19.39	-9.54	48.65	68.20	-19.55

Table 7-44. Radiated Measurements SISO ANT2

Worst Case Mode: 802.11a Worst Case Transfer Rate: 6Mbps 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	V	199	214	-68.39	12.44	0.00	51.05	68.20	-17.15
*	15600.00	Average	٧	179	349	-80.70	15.60	0.00	41.90	53.98	-12.08
*	15600.00	Peak	٧	179	349	-64.83	15.60	0.00	57.77	73.98	-16.21
*	20800.00	Average	٧	-	-	-81.28	17.39	-9.54	33.56	53.98	-20.41
*	20800.00	Peak	٧	-	-	-70.12	17.39	-9.54	44.72	73.98	-29.25
	26000.00	Peak	V	-	-	-68.12	19.98	-9.54	49.31	68.20	-18.89

Table 7-45. Radiated Measurements SISO ANT2

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode: 802.11a Worst Case Transfer Rate: 6Mbps 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	V	205	195	-68.46	12.95	0.00	51.49	68.20	-16.71
*	15720.00	Average	٧	114	33	-79.24	16.00	0.00	43.76	53.98	-10.22
*	15720.00	Peak	V	114	33	-62.54	16.00	0.00	60.46	73.98	-13.52
*	20960.00	Average	٧	-	-	-81.26	17.29	-9.54	33.49	53.98	-20.49
*	20960.00	Peak	V	-	-	-70.19	17.29	-9.54	44.56	73.98	-29.42
	26200.00	Peak	V	-	-	-68.26	19.80	-9.54	49.00	68.20	-19.20

Table 7-46. Radiated Measurements SISO ANT2

Worst Case Mode: 802.11a

Worst Case Transfer Rate: 6Mbps

Distance of Measurements: 1 & 3 Meters Operating Frequency: 5240MHz

	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	V	138	120	-69.57	12.95	0.00	50.38	68.20	-17.82
*	15720.00	Average	٧	158	351	-80.28	16.00	0.00	42.72	53.98	-11.26
*	15720.00	Peak	٧	158	351	-63.28	16.00	0.00	59.72	73.98	-14.26
*	20960.00	Average	٧	-	-	-81.58	17.39	-9.54	33.26	53.98	-20.71
*	20960.00	Peak	V	-	-	-70.27	17.39	-9.54	44.57	73.98	-29.40
	26200.00	Peak	V	-	-	-68.22	19.98	-9.54	49.21	68.20	-18.99

Table 7-47. Radiated Measurements SISO ANT2 with WCP

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode: 802.11a Worst Case Transfer Rate: 6Mbps 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	284	285	-69.11	13.43	0.00	51.32	68.20	-16.88
*	15780.00	Average	V	141	338	-81.13	15.72	0.00	41.59	53.98	-12.39
*	15780.00	Peak	V	141	338	-65.47	15.72	0.00	57.25	73.98	-16.73
*	21040.00	Average	V	-	-	-81.00	17.32	-9.54	33.78	53.98	-20.20
*	21040.00	Peak	V	-	-	-70.08	17.32	-9.54	44.70	73.98	-29.28
	26300.00	Peak	V	-	-	-68.51	20.12	-9.54	49.07	68.20	-19.13

**Table 7-48. Radiated Measurements SISO ANT2** 

Worst Case Mode: 802.11a

Worst Case Transfer Rate: 6Mbps

Distance of Measurements: 1 & 3 Meters Operating Frequency: 5280MHz

	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	220	360	-68.71	13.44	0.00	51.73	68.20	-16.47
*	15840.00	Average	٧	113	41	-79.67	15.30	0.00	42.63	53.98	-11.35
*	15840.00	Peak	V	113	41	-64.14	15.30	0.00	58.16	73.98	-15.82
*	21120.00	Average	V	-	-	-81.24	17.26	-9.54	33.48	53.98	-20.50
*	21120.00	Peak	V	-	-	-69.82	17.26	-9.54	44.90	73.98	-29.08
•	26400.00	Peak	V	-	-	-67.41	19.67	-9.54	49.72	68.20	-18.48

Table 7-49. Radiated Measurements SISO ANT2

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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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	216	363	-81.88	13.14	0.00	38.26	53.98	-15.72
*	10640.00	Peak	<b>V</b>	216	363	-68.39	13.14	0.00	51.75	73.98	-22.23
*	15960.00	Average	V	114	31	-80.52	16.05	0.00	42.53	53.98	-11.45
*	15960.00	Peak	٧	114	31	-63.98	16.05	0.00	59.07	73.98	-14.91
*	21280.00	Average	V	-	-	-80.63	17.51	-9.54	34.34	53.98	-19.64
*	21280.00	Peak	V	-	-	-69.46	17.51	-9.54	45.51	73.98	-28.47
	26600.00	Peak	V	-	-	-50.15	1.44	-9.54	48.75	68.20	-19.45

**Table 7-50. Radiated Measurements SISO ANT2** 

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	138	239	-69.32	13.44	0.00	51.12	68.20	-17.08
*	15840.00	Average	٧	147	281	-80.28	15.30	0.00	42.02	53.98	-11.96
*	15840.00	Peak	V	147	281	-65.88	15.30	0.00	56.42	73.98	-17.56
*	21120.00	Average	V	-	-	-80.96	17.26	-9.54	33.76	53.98	-20.22
*	21120.00	Peak	V	-	-	-69.42	17.26	-9.54	45.30	73.98	-28.68
	26400.00	Peak	V	-	-	-67.93	19.67	-9.54	49.20	68.20	-19.00

Table 7-51. Radiated Measurements SISO ANT2 with WCP

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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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	332	8	-80.34	13.50	0.00	40.16	53.98	-13.82
*	11000.00	Peak	٧	332	8	-65.86	13.50	0.00	54.64	73.98	-19.34
	16500.00	Peak	V	119	327	-68.28	16.35	0.00	55.07	68.20	-13.13
	22000.00	Peak	V	-	-	-69.33	18.25	-9.54	46.38	68.20	-21.82
	27500.00	Peak	V	-	-	-49.78	0.12	-9.54	47.80	68.20	-20.40

Table 7-52. Radiated Measurements SISO ANT2

Worst Case Mode: 802.11a

Worst Case Transfer Rate: 6Mbps

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]
*	11160.00	Average	>	333	335	-79.98	13.26	0.00	40.28	53.98	-13.70
*	11160.00	Peak	٧	333	335	-64.19	13.26	0.00	56.07	73.98	-17.91
	16740.00	Peak	V	115	339	-66.72	17.87	0.00	58.15	68.20	-10.05
*	22320.00	Average	V	-	-	-80.63	19.00	-9.54	35.83	53.98	-18.15
*	22320.00	Peak	V	-	-	-69.92	19.00	-9.54	46.54	73.98	-27.44
	27900.00	Peak	V	-	-	-49.96	0.74	-9.54	48.23	68.20	-19.97

Table 7-53. Radiated Measurements SISO ANT2

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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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	310	336	-81.91	15.19	0.00	40.28	53.98	-13.70
*	11440.00	Peak	٧	310	336	-68.44	15.19	0.00	53.75	73.98	-20.23
	17160.00	Peak	V	117	326	-67.46	19.08	0.00	58.62	68.20	-9.58
*	22880.00	Average	V	-	-	-81.39	18.40	-9.54	34.47	53.98	-19.51
*	22880.00	Peak	V	-	-	-69.74	18.40	-9.54	46.12	73.98	-27.86
	28600.00	Peak	V	-	-	-49.12	0.41	-9.54	48.75	68.20	-19.45

#### Table 7-54. Radiated Measurements SISO ANT2

Worst Case Mode: 802.11a Worst Case Transfer Rate: 6Mbps Distance of Measurements: 1 & 3 Meters Operating Frequency: 5720MHz

	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	156	197	-82.68	15.19	0.00	39.51	53.98	-14.47
*	11440.00	Peak	<b>V</b>	156	197	-69.32	15.19	0.00	52.87	73.98	-21.11
	17160.00	Peak	٧	139	153	-69.08	19.08	0.00	57.00	68.20	-11.20
*	22880.00	Average	V	-	-	-81.52	19.00	-9.54	34.94	53.98	-19.04
*	22880.00	Peak	V	-	-	-70.12	19.00	-9.54	46.34	73.98	-27.64
	28600.00	Peak	V	-	-	-49.81	0.74	-9.54	48.38	68.20	-19.82

Table 7-55. Radiated Measurements SISO ANT2 with WCP

FCC ID: A3LSMG9750	POTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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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	137	170	-80.98	15.31	0.00	41.33	53.98	-12.65
*	11490.00	Peak	٧	137	170	-68.82	15.31	0.00	53.49	73.98	-20.49
	17235.00	Peak	V	112	321	-66.99	19.82	0.00	59.83	68.20	-8.37
*	22980.00	Average	V	-	-	-81.53	17.92	-9.54	33.85	53.98	-20.13
*	22980.00	Peak	٧	-	-	-69.17	17.92	-9.54	46.21	73.98	-27.77
	28725.00	Peak	V	-	-	-48.37	0.67	-9.54	49.76	68.20	-18.44

Table 7-56. Radiated Measurements SISO ANT2

Worst Case Mode: 802.11a

Worst Case Transfer Rate: 6Mbps

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	V	400	8	-80.19	15.04	0.00	41.85	53.98	-12.13
*	11570.00	Peak	V	400	8	-67.37	15.04	0.00	54.67	73.98	-19.31
	17355.00	Peak	V	116	321	-69.27	23.45	0.00	61.18	68.20	-7.02
	23140.00	Peak	V	-	-	-70.02	17.92	-9.54	45.36	68.20	-22.84
	28925.00	Peak	V	-	-	-48.05	0.67	-9.54	50.08	68.20	-18.12

Table 7-57. Radiated Measurements SISO ANT2

FCC ID: A3LSMG9750	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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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	195	10	-79.81	15.42	0.00	42.61	53.98	-11.37
*	11650.00	Peak	٧	195	10	-65.67	15.42	0.00	56.75	73.98	-17.23
	17475.00	Peak	٧	115	330	-68.39	21.84	0.00	60.45	68.20	-7.75
	23300.00	Peak	V	-	-	-69.65	18.77	-9.54	46.58	68.20	-21.62
	29125.00	Peak	V	-	-	-48.83	-0.12	-9.54	48.51	68.20	-19.69

Table 7-58. Radiated Measurements SISO ANT2

Worst Case Mode: 802.11a

Worst Case Transfer Rate: 6Mbps

Distance of Measurements: 1 & 3 Meters Operating Frequency: 5785MHz

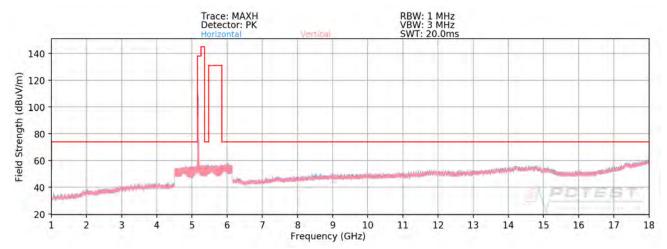
	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11570.00	Average	V	156	59	-81.68	15.04	0.00	40.36	53.98	-13.62
*	11570.00	Peak	٧	156	59	-69.28	15.04	0.00	52.76	73.98	-21.22
	17355.00	Peak	V	238	157	-70.37	23.45	0.00	60.08	68.20	-8.12
	23140.00	Peak	٧	-	-	-71.37	17.92	-9.54	44.01	68.20	-24.19
	28925.00	Peak	V	-	-	-48.68	0.67	-9.54	49.45	68.20	-18.75

Table 7-59. Radiated Measurements SISO ANT2 with WCP

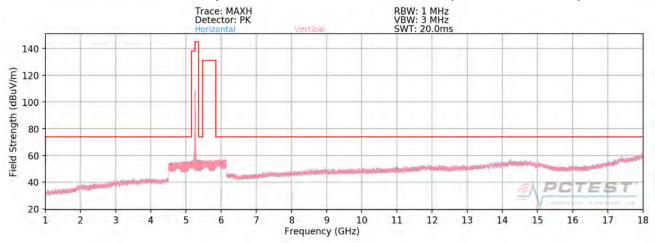
FCC ID: A3LSMG9750	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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## 6.6.3 MIMO/CDD Radiated Spurious Emission Measurements



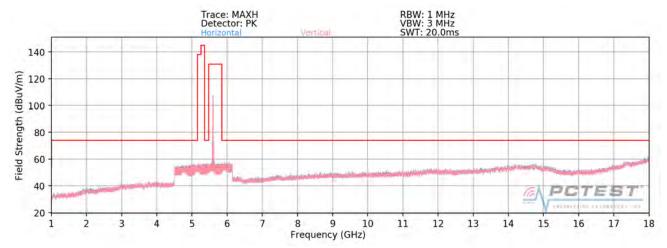
Plot 7-277. Radiated Spurious Plot above 1GHz MIMO/CDD (802.11a - U1 Ch. 40)



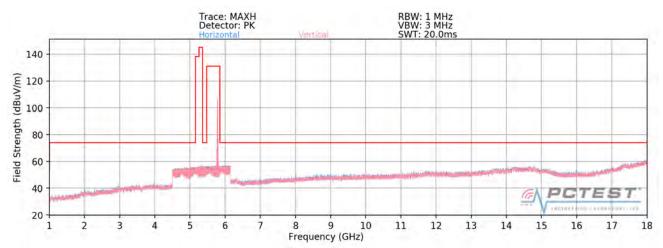
Plot 7-278. Radiated Spurious Plot above 1GHz MIMO/CDD (802.11a - U2A Ch. 56)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-279. Radiated Spurious Plot above 1GHz MIMO/CDD (802.11a - U2C Ch. 116120)

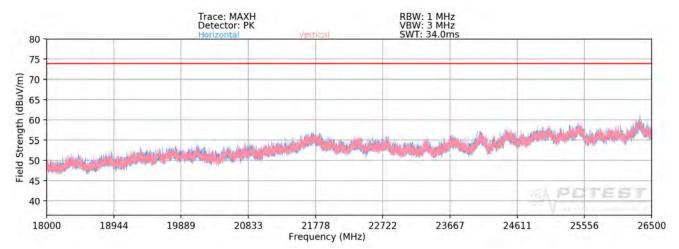


Plot 7-280. Radiated Spurious Plot above 1GHz MIMO/CDD (802.11a - U3 Ch. 157)

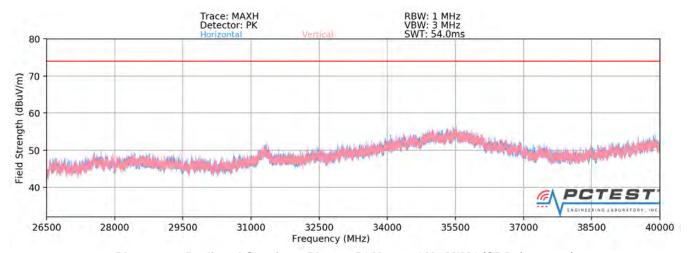
FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 193 of 243
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## MIMO/CDD Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-281. Radiated Spurious Plot above 18GHz - 26.5GHz MIMO/CDD (802.11a)



Plot 7-282. Radiated Spurious Plot 26.5GHz - 40GHz MIMO/CDD (802.11a)

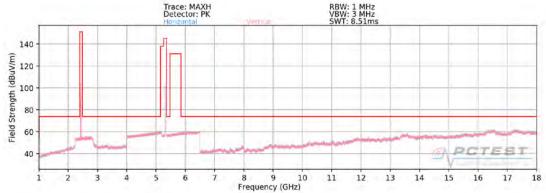
FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 194 of 243
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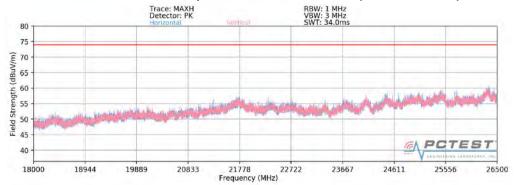
# 6.6.4 Simultaneous Tx Radiated Spurious Emissions Measurements §15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

Description	2.4 GHz Emission	5 GHz Emission
Antenna	1	2
Channel	6	165
Operating Frequency (MHz)	2437	5825
Data Rate (Mbps)	1Mbps	MCS0
Mode	802.11b	802.11ac

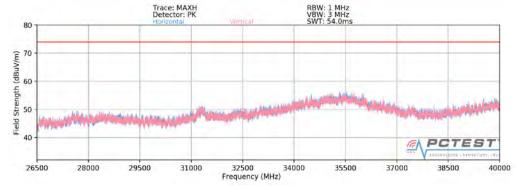
Table 7-60. Config-1 (ANT1 2.4GHz & ANT2 5GHz)



Plot 7-283. Radiated Spurious Plot above 1GHz (2.4GHz - 5GHz)



Plot 7-284. Radiated Spurious Plot 18GHz – 26.5GHz (2.4GHz – 5GHz)



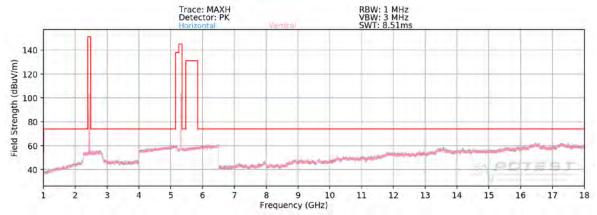
Plot 7-285. Radiated Spurious Plot above 26.5GHz (2.4GHz – 5GHz)

FCC ID: A3LSMG9750	INSTITUTE CAMPONERS IN	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 195 of 243
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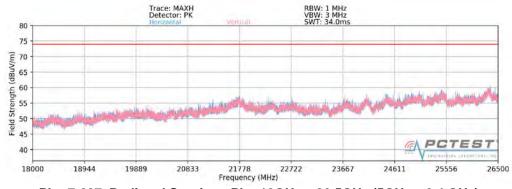


Description	2.4 GHz Emission	5 GHz Emission
Antenna	2	1
Channel	6	144
Operating Frequency (MHz)	2437	5720
Data Rate (Mbps)	1Mbps	MCS0
Mode	802.11b	802.11ac

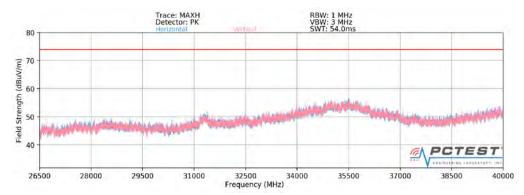
Table 7-61. Config-2 (ANT1 5GHz & ANT2 2.4GHz)



Plot 7-286. Radiated Spurious Plot above 1GHz (5GHz - 2.4 GHz)



Plot 7-287. Radiated Spurious Plot 18GHz - 26.5GHz (5GHz - 2.4 GHz)



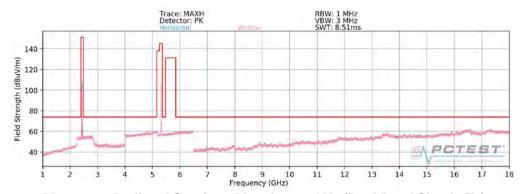
Plot 7-288. Radiated Spurious Plot above 26.5GHz (5GHz – 2.4 GHz)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by:  Quality Manager	
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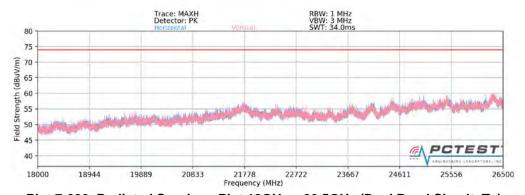


Description	2.4 GHz Emission	5 GHz Emission
Antenna	1, 2	1, 2
Channel	1	144
Operating Frequency (MHz)	2412	5720
Data Rate (Mbps)	MCS0	MCS8
Mode	802.11n	802.11ac

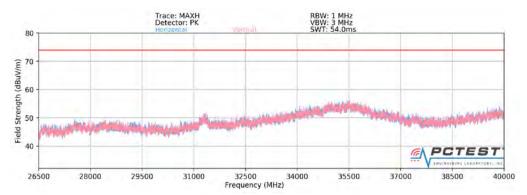
Table 7-62. Config-3 (ANT1 MIMO & ANT2 MIMO)



Plot 7-289. Radiated Spurious Plot above 1GHz (Dual Band Simult. Tx)



Plot 7-290. Radiated Spurious Plot 18GHz - 26.5GHz (Dual Band Simult. Tx)



Plot 7-291. Radiated Spurious Plot above 26.5GHz (Dual Band Simult. Tx)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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# 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]

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

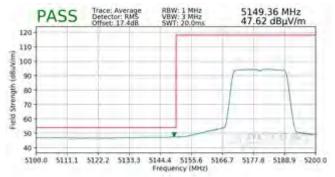
802.11ax

MCS0

3 Meters

5180MHz

36



Plot 7-292. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1)



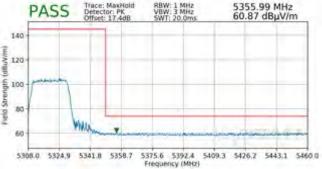
Plot 7-293. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 1)

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

802.1ax
MCS0
3 Meters
5320MHz
64



Plot 7-294. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A)



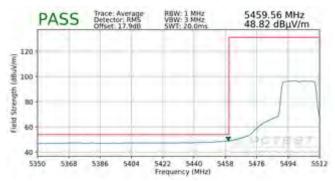
Plot 7-295. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 2A)

FCC ID: A3LSMG9750	POTEST*	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
3 Meters
5500MHz
100



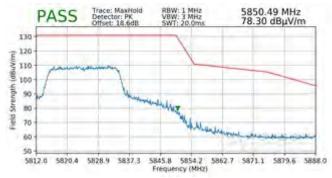
Plot 7-296. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C)

PASS Trace: MaxHold Detector: PK VSW: 3 MHz VSW: 3 MHz 64.09 dBμV/m

Plot 7-297. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 2C)

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

802.11ax
MCS0
3 Meters
5825MHz
165



Plot 7-298. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 3)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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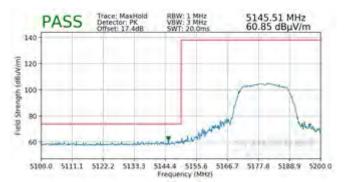


Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
3 Meters
5180MHz
36



Plot 7-299. Radiated Band Edge Plot SISO ANT1 (Average – WCP)



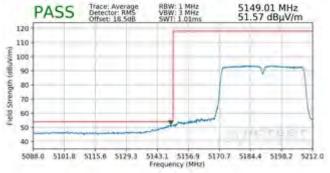
Plot 7-300. Radiated Band Edge Plot SISO ANT1 (Peak – WCP)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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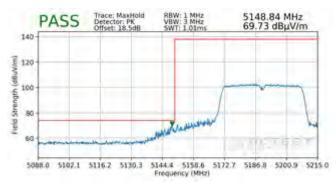


#### 6.6.6 SISO Antenna-1 Radiated Band Edge Measurements (40MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS<sub>0</sub> Distance of Measurements: 3 Meters Operating Frequency: 5190MHz Channel: 38

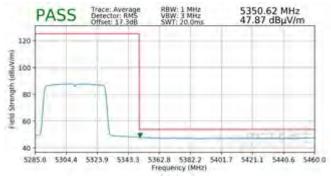


Plot 7-301. Radiated Lower Band Edge Plot SISO ANT1 (Average - UNII Band 1)

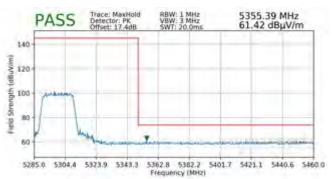


Plot 7-302. Radiated Lower Band Edge Plot SISO ANT1 (Peak - UNII Band 1)

Worst Case Mode: 802.11ax MCS<sub>0</sub> Worst Case Transfer Rate: Distance of Measurements: 3 Meters Operating Frequency: 5310MHz Channel: 62



Plot 7-303. Radiated Upper Band Edge Plot SISO ANT1 (Average - UNII Band 2A)



Plot 7-304. Radiated Upper Band Edge Plot SISO ANT1 (Peak - UNII Band 2A)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax

MCS0

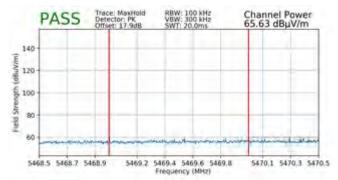
3 Meters

5510MHz

102



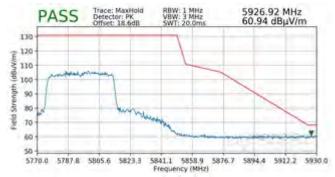
Plot 7-305. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C)



Plot 7-306. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 2C)

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

802.11ax
MCS0
3 Meters
5795MHz
159



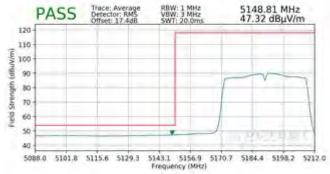
Plot 7-307. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 3)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	ISUNG	Approved by: Quality Manager
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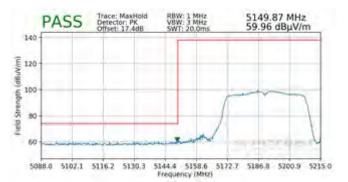


Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
3 Meters
5190MHz
38



Plot 7-308. Radiated Band Edge Plot SISO ANT1 (Average – WCP)



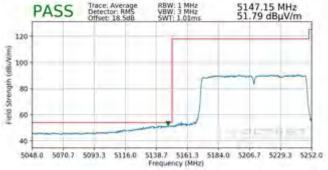
Plot 7-309. Radiated Band Edge Plot SISO ANT1 (Peak – WCP)

FCC ID: A3LSMG9750	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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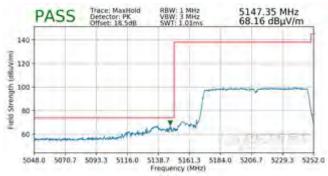


## 6.6.7 SISO Antenna-1 Radiated Band Edge Measurements (80MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

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

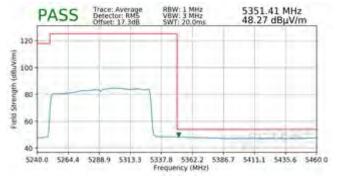


Plot 7-310. Radiated Lower Band Edge Plot SISO ANT1 (Average - UNII Band 1)

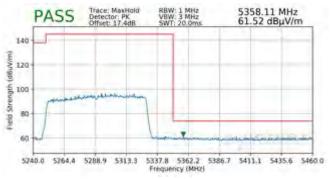


Plot 7-311. Radiated Lower Band Edge Plot SISO ANT1 (Peak - UNII Band 1)

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



Plot 7-312. Radiated Upper Band Edge Plot SISO ANT1 (Average - UNII Band 2A)

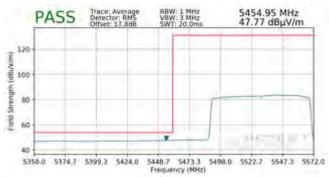


Plot 7-313. Radiated Upper Band Edge Plot SISO ANT1 (Peak - UNII Band 2A)

FCC ID: A3LSMG9750	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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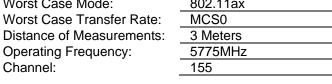


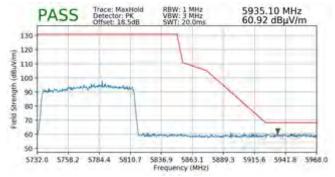
Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS<sub>0</sub> Distance of Measurements: 3 Meters Operating Frequency: 5530MHz Channel: 106



Plot 7-314. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C)

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





Plot 7-316. Radiated Upper Band Edge Plot SISO ANT1 (Peak - UNII Band 3)

PASS	Trace: MaxHold Detector: PK Offset: 17.8dB	RBW: 1 MHz VBW: 3 MHz SWT: 20.0ms	5452.82 MHz 61.05 dBµV/m
10			
20-			
00-			
80		T	de la companya de la
50	Access no to the same of	7	- PETRAL
5350.0 5374.7	5399.3 5424.0	5448.7 5473.3 549	08.0 5522.7 5547.3 S

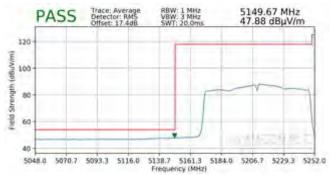
Plot 7-315. Radiated Lower Band Edge Plot SISO ANT1 (Peak - UNII Band 2C)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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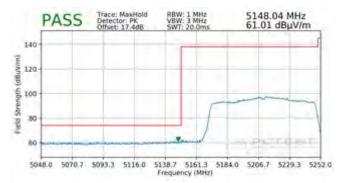


Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
3 Meters
5210MHz
42



Plot 7-317. Radiated Band Edge Plot SISO ANT1 (Average – WCP)



Plot 7-318. Radiated Band Edge Plot SISO ANT1 (Peak – WCP)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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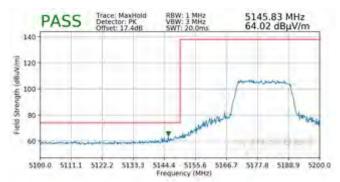


## 6.6.8 SISO Antenna-2 Radiated Band Edge Measurements (20MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode: 802.1ax Worst Case Transfer Rate: MCS0 Distance of Measurements: 3 Meters Operating Frequency: 5180MHz Channel: 36



Plot 7-319. Radiated Lower Band Edge Plot SISO ANT2 (Average - UNII Band 1)

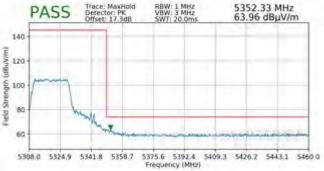


Plot 7-320. Radiated Lower Band Edge Plot SISO ANT2 (Peak - UNII Band 1)

Worst Case Mode: 802.1ax MCS<sub>0</sub> Worst Case Transfer Rate: Distance of Measurements: 3 Meters Operating Frequency: 5320MHz Channel: 64



Plot 7-321. Radiated Upper Band Edge Plot SISO ANT2 (Average - UNII Band 2A)



Plot 7-322. Radiated Upper Band Edge Plot SISO ANT2 (Peak - UNII Band 2A)

FCC ID: A3LSMG9750	TANDELINE CARRESTERS, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

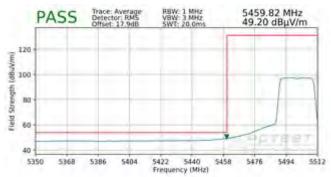
802.1ax

MCS0

3 Meters

5500MHz

100



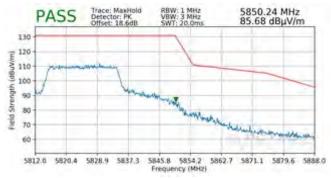
Plot 7-323. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 2C)



Plot 7-324. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 2C)

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

802.1ax
MCS0
3 Meters
5825MHz
165



Plot 7-325. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 3)

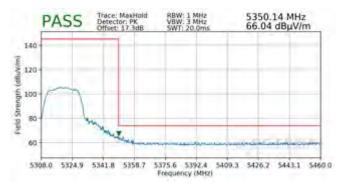
FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode: 802.1ax Worst Case Transfer Rate: MCS0 Distance of Measurements: 3 Meters Operating Frequency: 5320MHz Channel: 64



Plot 7-326. Radiated Band Edge Plot SISO ANT2 (Average - WCP)



Plot 7-327. Radiated Band Edge Plot SISO ANT2 (Peak - WCP)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dags 200 of 242
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## 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:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.1ax

MCS0

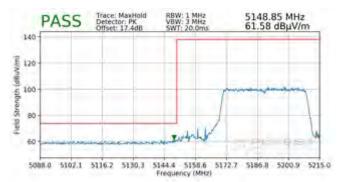
3 Meters

5190MHz

38



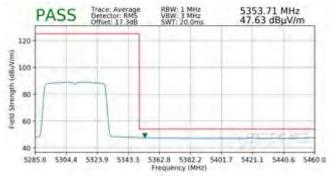
Plot 7-328. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 1)



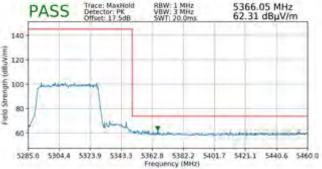
Plot 7-329. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 1)

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

802.1ax
MCS0
3 Meters
5310MHz
62



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: A3LSMG9750	POTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 210 of 243
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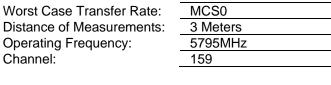


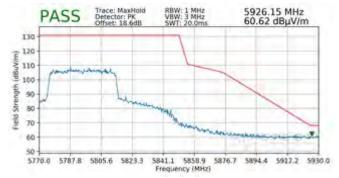
Worst Case Mode: 802.1ax Worst Case Transfer Rate: MCS<sub>0</sub> Distance of Measurements: 3 Meters Operating Frequency: 5510MHz Channel: 102



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

Worst Case Mode: 802.1ax MCS0 3 Meters 5795MHz





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

PASS	Trace: MaxHold Detector; PK Offset: 17.9dB	RBW: 1 MHz VBW: 3 MHz SWT: 20.0ms	5468.42 MHz 66.28 dBμV/m
40			
20			
.00-			- was seen and
80			
60		And the same of th	

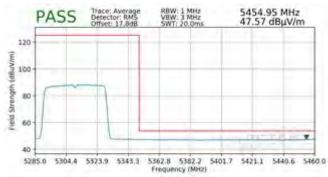
Plot 7-333. Radiated Lower Band Edge Plot SISO ANT2 (Peak - UNII Band 2C)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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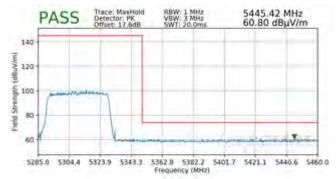


Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.1ax
MCS0
3 Meters
5310MHz
62



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



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

FCC ID: A3LSMG9750	POTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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## 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:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

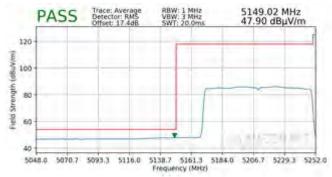
802.1ax

MCS0

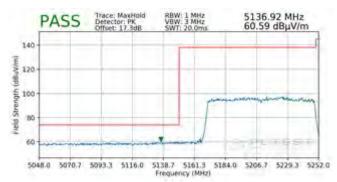
3 Meters

5210MHz

42

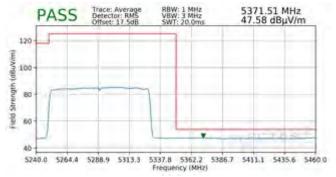


Plot 7-337. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 1)

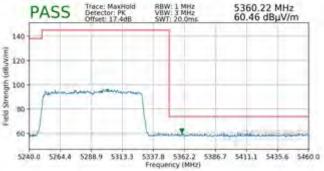


Plot 7-338. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 1)

Worst Case Mode:	802.1ax
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5290MHz
Channel:	58



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

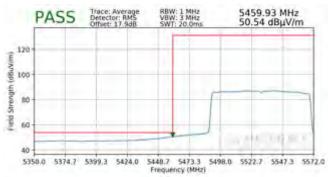


Plot 7-340. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 2A)

FCC ID: A3LSMG9750	POTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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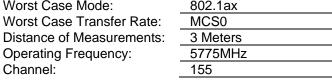


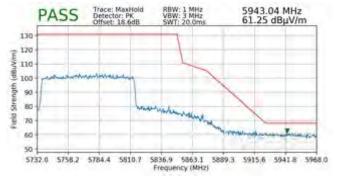
Worst Case Mode: 802.1ax Worst Case Transfer Rate: MCS<sub>0</sub> Distance of Measurements: 3 Meters Operating Frequency: 5530MHz Channel: 106



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

Worst Case Mode: 802.1ax Worst Case Transfer Rate: MCS0 Distance of Measurements: 3 Meters Operating Frequency: 5775MHz





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

PA	-	Detector: PK Offset: 17.9d	B SW	W: 3 MHz T: 20.0ms	64.74	dBµV/m
40			-	-		
20				-		
100		+				
80		-			1	
60	-	4,4,4,4,4,4,4	-	humal		are see

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

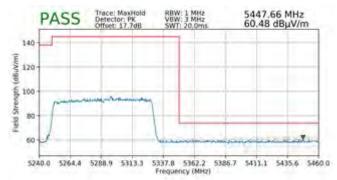
FCC ID: A3LSMG9750	TANKILLING GARRESTEN, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 214 of 242
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Worst Case Mode: 802.1ax Worst Case Transfer Rate: MCS0 Distance of Measurements: 3 Meters Operating Frequency: 5290MHz Channel: 58



Plot 7-344. Radiated Band Edge Plot SISO ANT2 (Average - WCP)



Plot 7-345. Radiated Band Edge Plot SISO ANT2 (Peak - WCP)

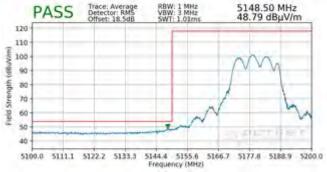
FCC ID: A3LSMG9750	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 215 of 243
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## 6.6.11 CDD Radiated Band Edge Measurements (20MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

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

802.11a
6Mbps
3 Meters
5180MHz
36



Plot 7-346. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1)



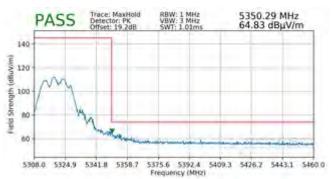
Plot 7-347. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1)

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

802.11a
6Mbps
3 Meters
5320MHz
64



Plot 7-348. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A)



Plot 7-349. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A)

FCC ID: A3LSMG9750	POTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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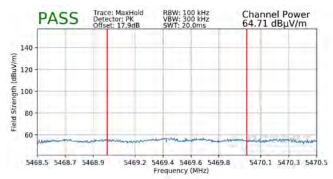


Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11a
6Mbps
3 Meters
5500MHz
100



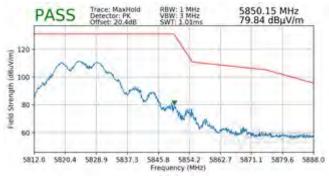
Plot 7-350. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C)



Plot 7-351. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C)

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

802.11ax
MCS0
3 Meters
5825MHz
165



Plot 7-352. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode: 802.11a Worst Case Transfer Rate: 6Mbps Distance of Measurements: 3 Meters Operating Frequency: 5320MHz Channel: 64



Plot 7-353. Radiated Band Edge Plot MIMO (Average - WCP)



Plot 7-354. Radiated Band Edge Plot MIMO (Peak -WCP)

FCC ID: A3LSMG9750	POTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 218 of 243
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## 6.6.12 MIMO Radiated Band Edge Measurements (20MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS<sub>0</sub> Distance of Measurements: 3 Meters Operating Frequency: 5180MHz Channel: 36

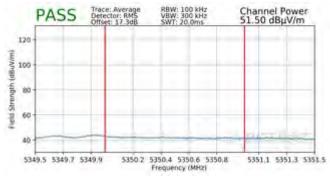


Plot 7-355. Radiated Lower Band Edge Plot MIMO (Average - UNII Band 1)

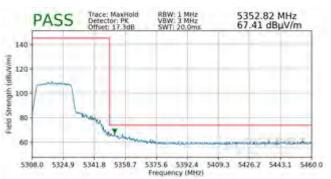


Plot 7-356. Radiated Lower Band Edge Plot MIMO (Peak - UNII Band 1)

Worst Case Mode: 802.11ax MCS<sub>0</sub> Worst Case Transfer Rate: Distance of Measurements: 3 Meters Operating Frequency: 5320MHz Channel: 64



Plot 7-357. Radiated Upper Band Edge Plot MIMO (Average - UNII Band 2A)



Plot 7-358. Radiated Upper Band Edge Plot MIMO (Peak - UNII Band 2A)

FCC ID: A3LSMG9750	INSTITUTE CAMERA TEACH	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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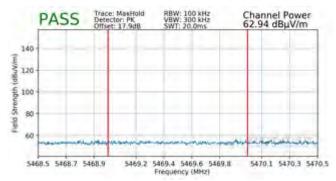


Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
3 Meters
5500MHz
100



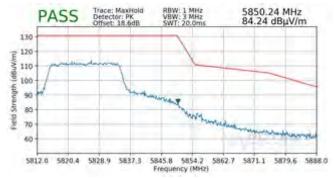
Plot 7-359. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C)



Plot 7-360. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C)

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

802.11ax
MCS0
3 Meters
5825MHz
165

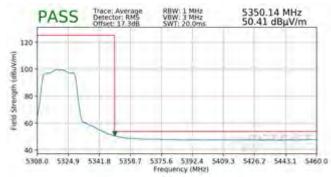


Plot 7-361. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3)

FCC ID: A3LSMG9750	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 Distance of Measurements: 3 Meters Operating Frequency: 5320MHz Channel: 64



Plot 7-362. Radiated Band Edge Plot MIMO (Average - WCP)



Plot 7-363. Radiated Band Edge Plot MIMO (Peak -

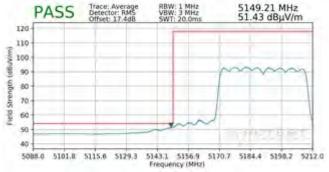
FCC ID: A3LSMG9750	PETEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 221 of 243
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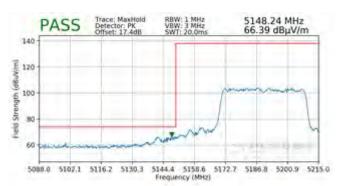
## 6.6.13 MIMO Radiated Band Edge Measurements (40MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode: 802.11ax

Worst Case Transfer Rate: MCS<sub>0</sub> Distance of Measurements: 3 Meters Operating Frequency: 5190MHz Channel: 38

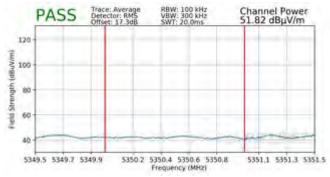


Plot 7-364. Radiated Lower Band Edge Plot MIMO (Average - UNII Band 1)

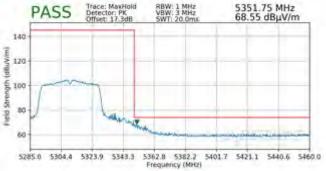


Plot 7-365. Radiated Lower Band Edge Plot MIMO (Peak - UNII Band 1)

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



Plot 7-366. Radiated Upper Band Edge Plot MIMO (Average - UNII Band 2A)



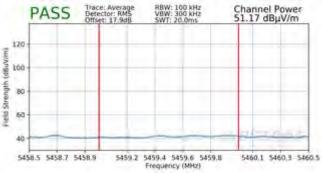
Plot 7-367. Radiated Upper Band Edge Plot MIMO (Peak - UNII Band 2A)

FCC ID: A3LSMG9750	POTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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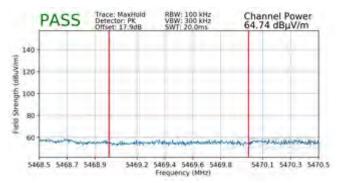


Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS0
3 Meters
5510MHz
102



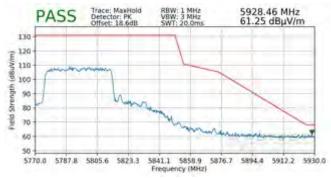
Plot 7-368. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C)



Plot 7-369. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C)

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

802.11ax
MCS0
3 Meters
5795MHz
159

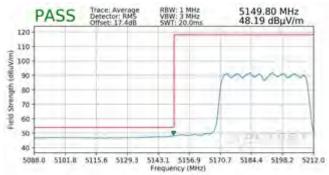


Plot 7-370. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3)

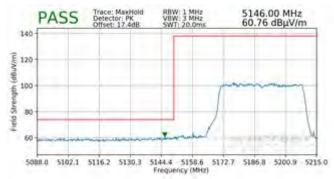
FCC ID: A3LSMG9750	PETEST	MEASUREMENT REPORT (CERTIFICATION)	NG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 223 of 243
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Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 Distance of Measurements: 3 Meters Operating Frequency: 5190MHz Channel: 38



Plot 7-371. Radiated Band Edge Plot ANT (Average



Plot 7-372. Radiated Band Edge Plot ANT (Peak -

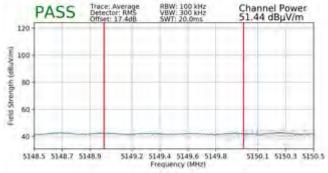
FCC ID: A3LSMG9750	PETEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 224 of 243
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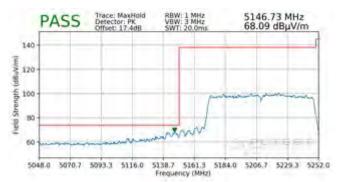
## 6.6.14 MIMO Radiated Band Edge Measurements (80MHz BW)

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

Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS<sub>0</sub> Distance of Measurements: 3 Meters Operating Frequency: 5210MHz Channel: 42

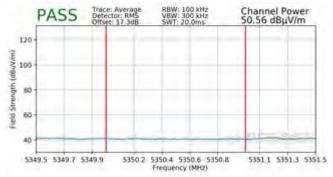


Plot 7-373. Radiated Lower Band Edge Plot MIMO (Average - UNII Band 1)

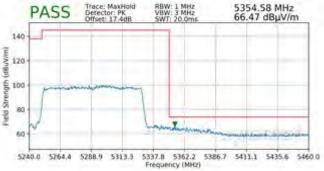


Plot 7-374. Radiated Lower Band Edge Plot MIMO (Peak - UNII Band 1)

Worst Case Mode: 802.11ax MCS<sub>0</sub> Worst Case Transfer Rate: Distance of Measurements: 3 Meters Operating Frequency: 5290MHz Channel: 58



Plot 7-375. Radiated Upper Band Edge Plot MIMO (Average - UNII Band 2A)



Plot 7-376. Radiated Upper Band Edge Plot MIMO (Peak - UNII Band 2A)

FCC ID: A3LSMG9750	INSTITUTE CAMERA TEACH	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

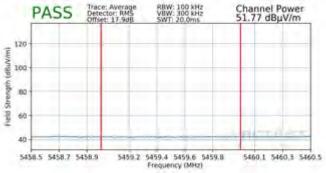
802.11ax

MCS0

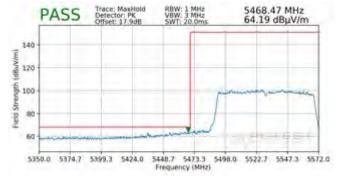
3 Meters

5530MHz

106



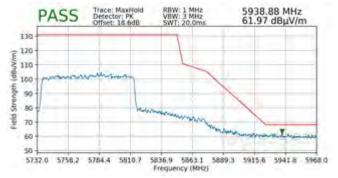
Plot 7-377. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C)



Plot 7-378. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C)

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

802.11ax
MCS0
3 Meters
5775MHz
155

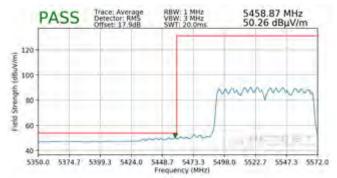


Plot 7-379. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3)

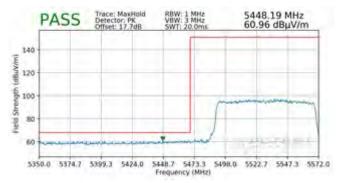
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Worst Case Mode: 802.11ax Worst Case Transfer Rate: MCS0 Distance of Measurements: 3 Meters Operating Frequency: 5530MHz Channel: 106



Plot 7-380. Radiated Band Edge Plot ANT (Average - WCP)



Plot 7-381. Radiated Band Edge Plot ANT (Peak -WCP)

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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 7-66 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 7-63. 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
- 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.

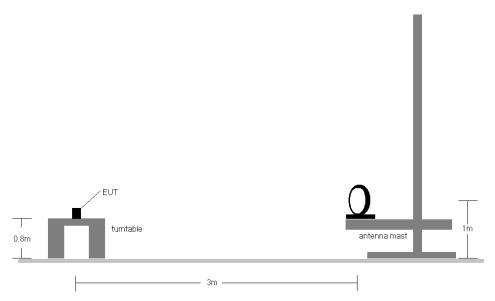


Figure 7-6. Radiated Test Setup < 30MHz

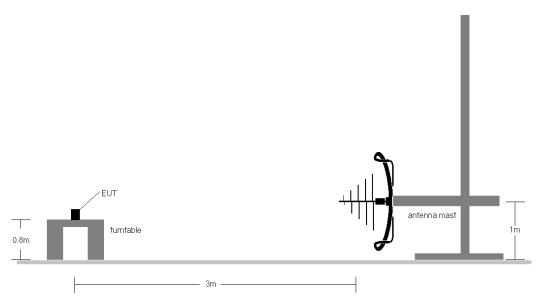


Figure 7-7. Radiated Test Setup < 1GHz

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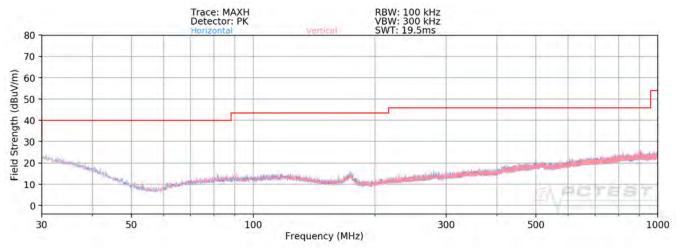


#### **Test Notes**

- 1. All emissions lying in restricted bands specified in §15.205 and RSS-Gen (8.10) are below the limit shown in Table 7-66.
- 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.

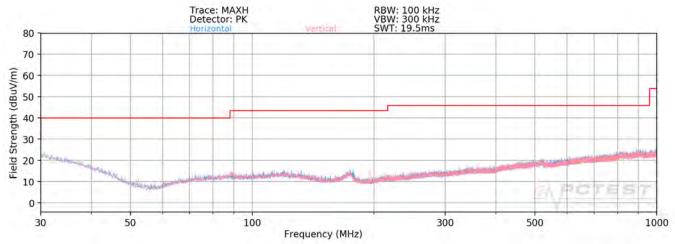


# SISO Antenna-1 Radiated Spurious Emissions Measurements (Below 1GHz) §15.209; RSS-Gen [8.9]



Plot 7-382. 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]

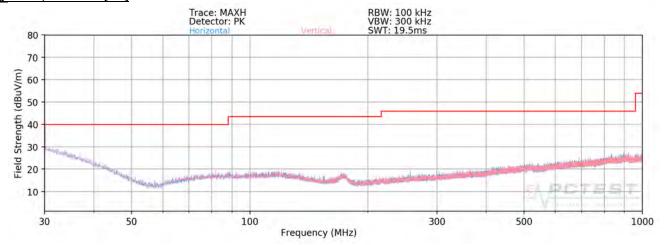


Plot 7-383. Radiated Spurious Plot below 1GHz SISO ANT2 (802.11a - U3 Ch. 157)

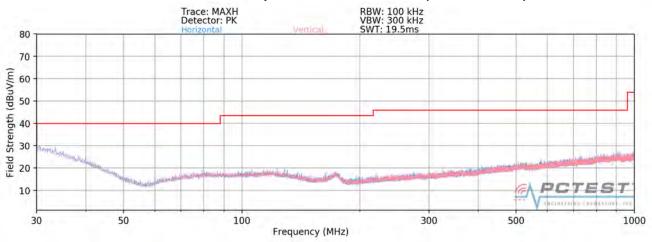
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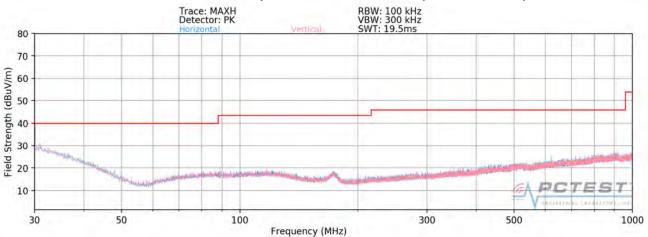
# Simultaneous Tx Radiated Spurious Emissions Measurements (Below 1GHz) §15.209; RSS-Gen [8.9]



Plot 7-384. Radiated Spurious Plot below 1GHz (2.4GHz - 5GHz)



Plot 7-385. Radiated Spurious Plot below 1GHz (5GHz - 2.4 GHz)



Plot 7-386. Radiated Spurious Plot below 1GHz (Dual Band Simult. Tx)

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#### Line-Conducted Test Data 7.8

§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)
(IVITIZ)	Quasi-peak	Average
0.15 – 0.5	66 to 56*	56 to 46*
0.5 - 5	56	46
5 – 30	60	50

**Table 7-64. Conducted Limits** 

#### **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
- 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
- RBW = 9kHz (for emissions from 150kHz 30MHz)
- Detector = RMS
- 4. Sweep time = auto couple
- 5. Trace mode = max hold
- 6. Trace was allowed to stabilize

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<sup>\*</sup>Decreases with the logarithm of the frequency.



#### **Test Setup**

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

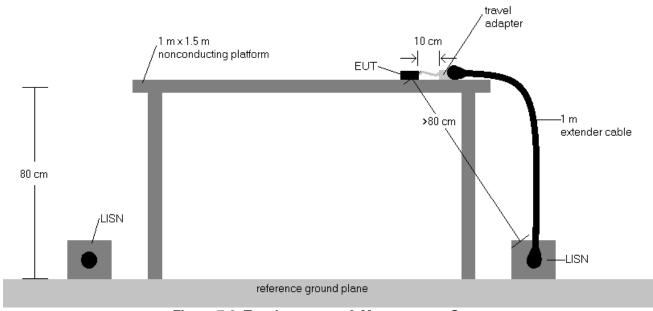


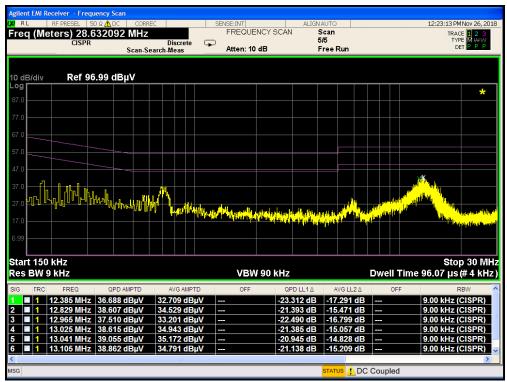
Figure 7-8. Test Instrument & Measurement Setup

#### **Test Notes**

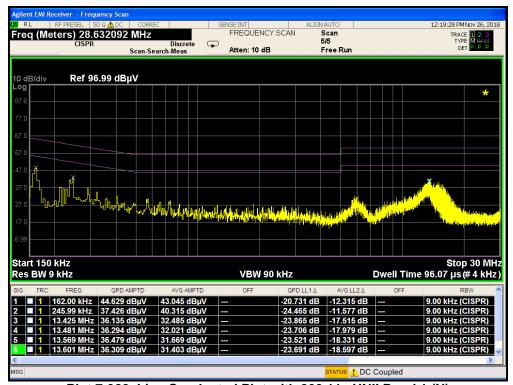
- All modes of operation were investigated and the worst-case emissions are reported using mid channel. 1. The emissions found were not affected by the choice of channel used during testing.
- 2. The limit for an intentional radiator from 150kHz to 30MHz are specified in 15.207 and RSS-Gen (8.8).
- Corr.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

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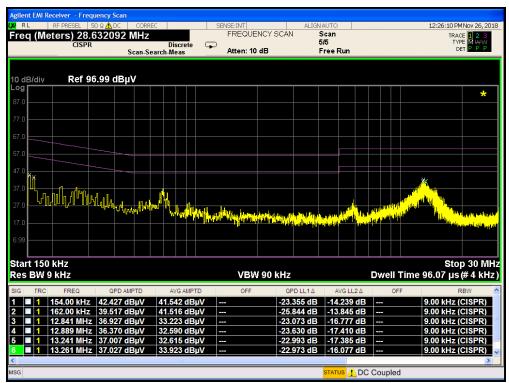
Plot 7-387. Line Conducted Plot with 802.11a UNII Band 1 (L1)



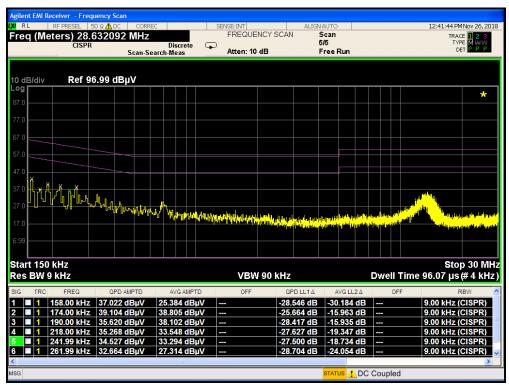
Plot 7-388. Line Conducted Plot with 802.11a UNII Band 1 (N)

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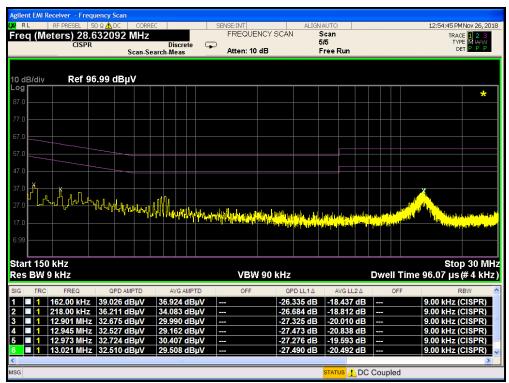
Plot 7-389. Line Conducted Plot with 802.11a UNII Band 2A (L1)



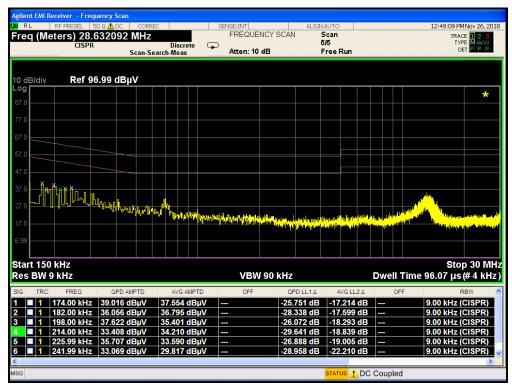
Plot 7-390. Line Conducted Plot with 802.11a UNII Band 2A (N)

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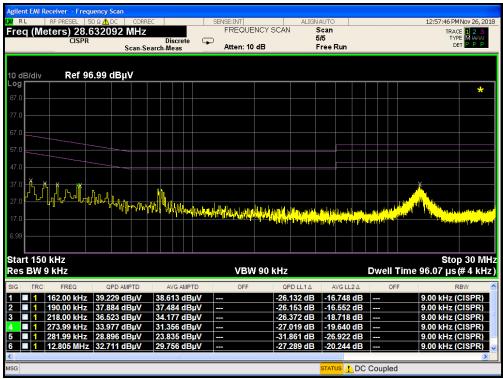
Plot 7-391. Line Conducted Plot with 802.11a UNII Band 2C (L1)



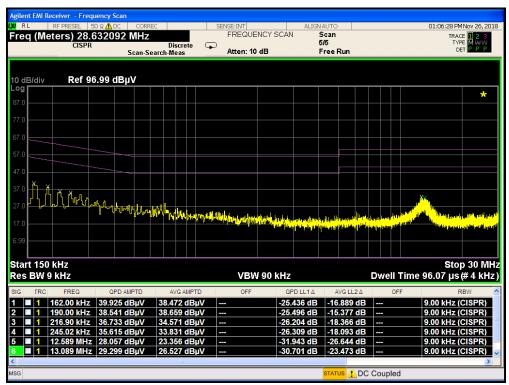
Plot 7-392. Line Conducted Plot with 802.11a UNII Band 2C (N)

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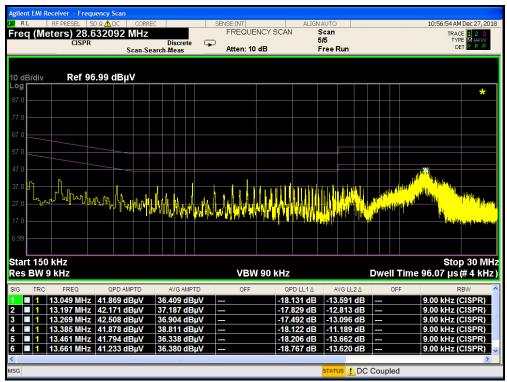
Plot 7-393. Line Conducted Plot with 802.11a UNII Band 3 (L1)



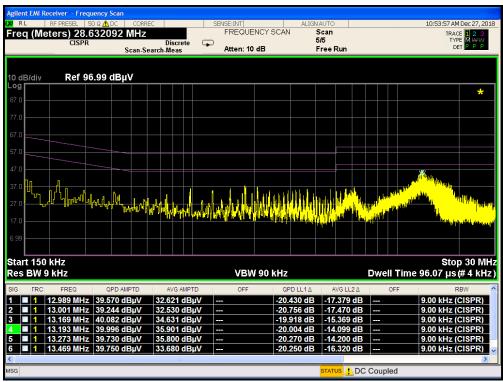
Plot 7-394. Line Conducted Plot with 802.11a UNII Band 3 (N)

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Plot 7-395. Line Conducted Plot with 802.11a UNII Band 1 with WCP (L1)



Plot 7-396. Line Conducted Plot with 802.11a UNII Band 1 with WCP (N)

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