

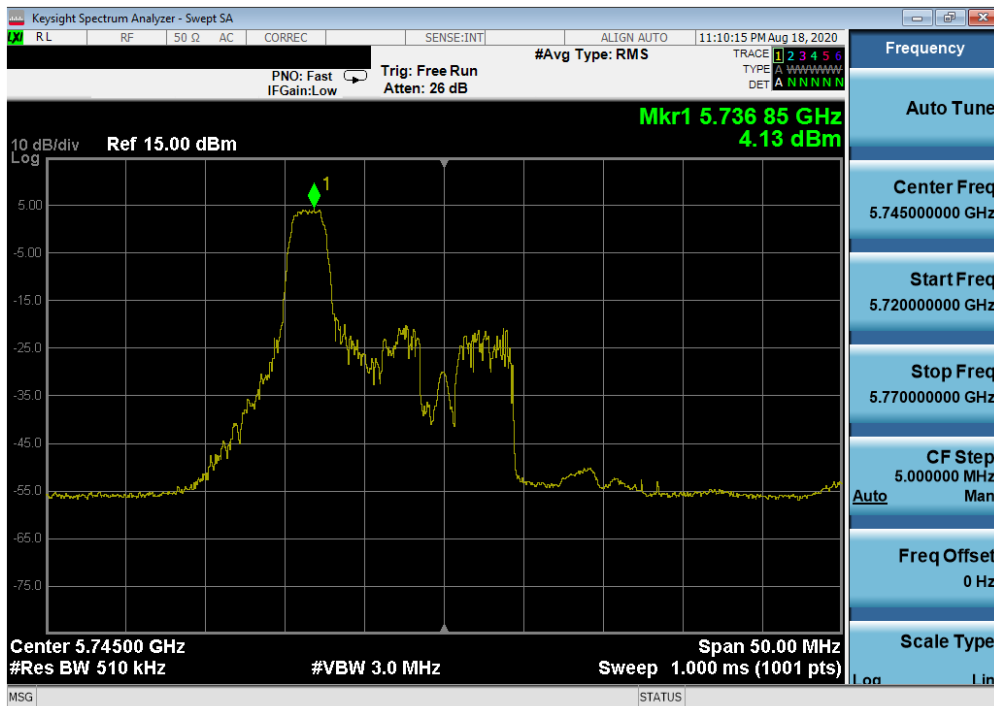
Plot 7-183. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 138)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 145 of 249

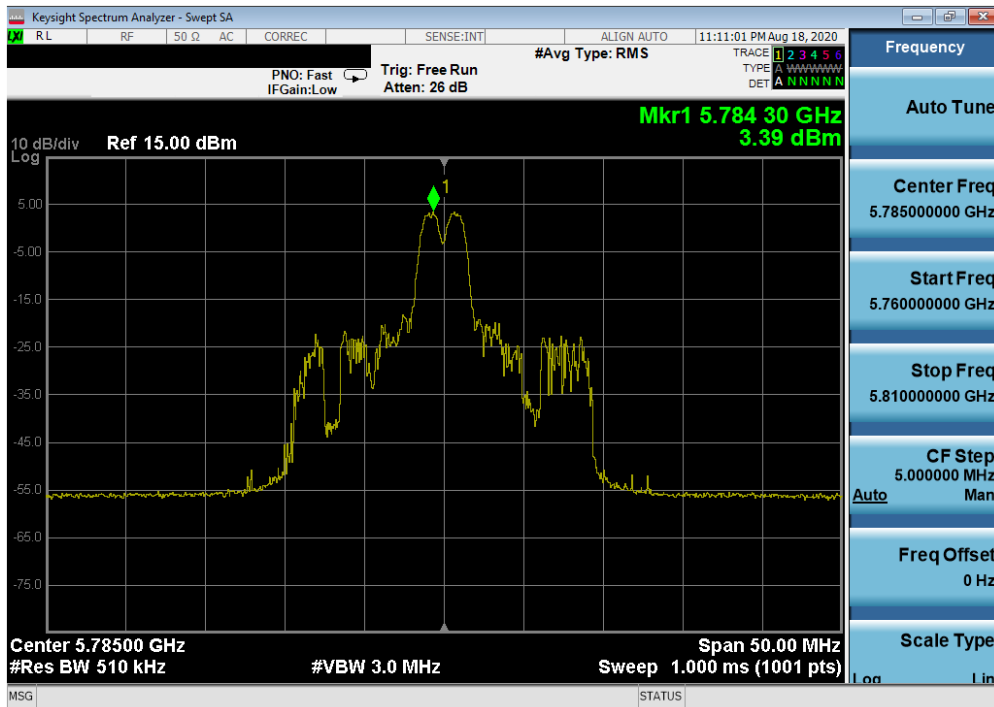
	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density	Margin [dB]
<b>Band 3</b>	5745	149	ax (20MHz)	26T	MCS0	4.13	30.00	-25.87
	5785	157	ax (20MHz)	26T	MCS0	3.39	30.00	-26.61
	5825	165	ax (20MHz)	26T	MCS0	4.04	30.00	-25.96
	5755	151	ax (40MHz)	26T	MCS0	3.67	30.00	-26.33
	5795	159	ax (40MHz)	26T	MCS0	3.64	30.00	-26.36
	5775	155	ax (80MHz)	26T	MCS0	5.24	30.00	-24.76

**Table 7-63. Band 3 Conducted Power Spectral Density Measurements SISO ANT2 (26 Tones)**

FCC ID: A3LSMF916U		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M2005200087-09.A3L	<b>Test Dates:</b> 6/11 - 8/18/2020	<b>EUT Type:</b> Portable Handset	Page 146 of 249	

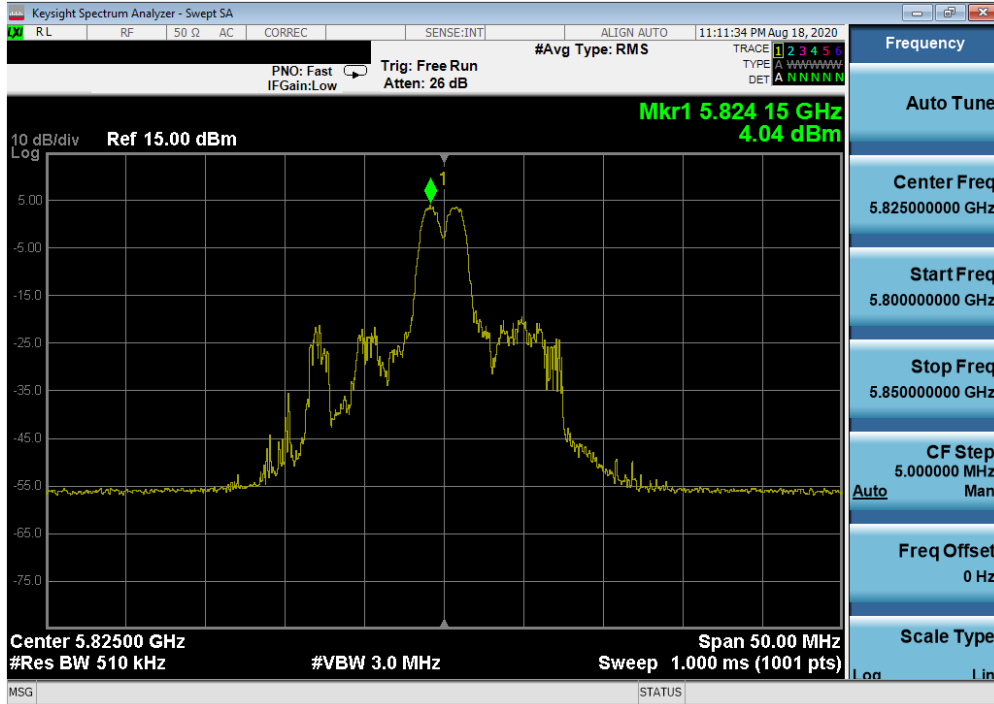


Plot 7-184. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 149)

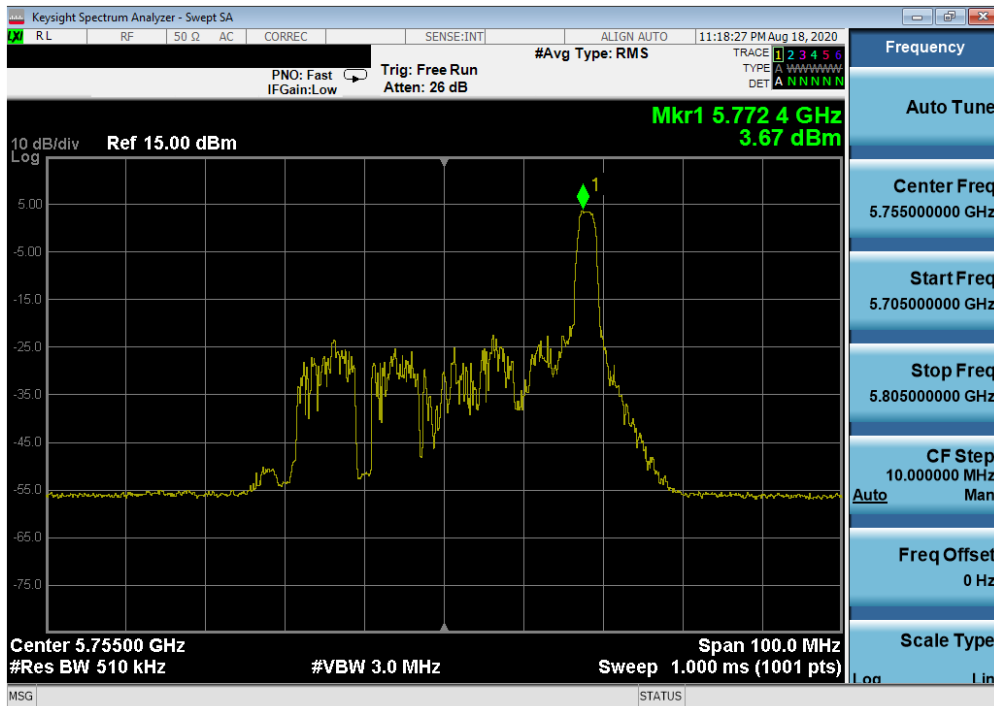


Plot 7-185. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 157)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 147 of 249

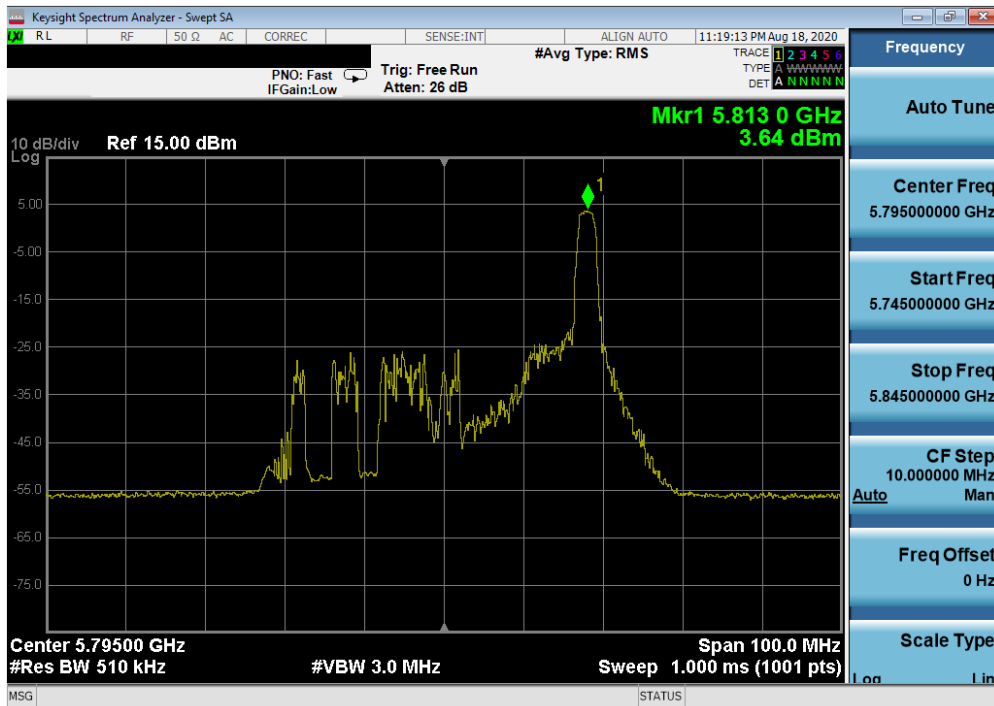


Plot 7-186. Power Spectral Density Plot SISO ANT2 (20 MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 165)

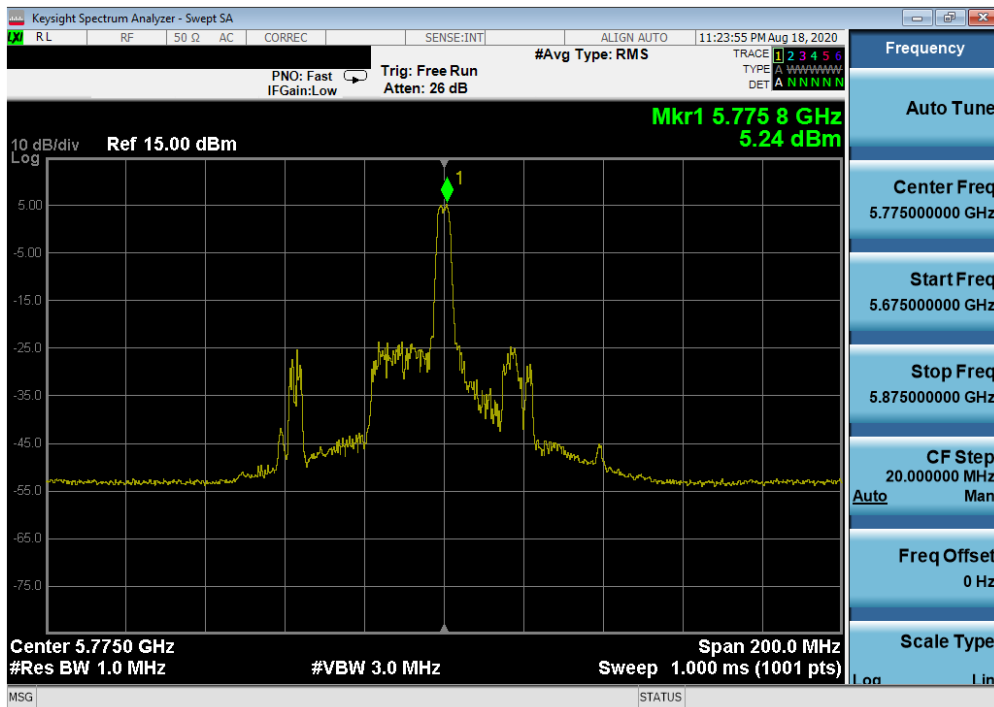


Plot 7-187. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 151)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 148 of 249



Plot 7-188. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 159)



Plot 7-189. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 155)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 149 of 249

## SISO Antenna-2 Power Spectral Density Measurements (Full Tones)

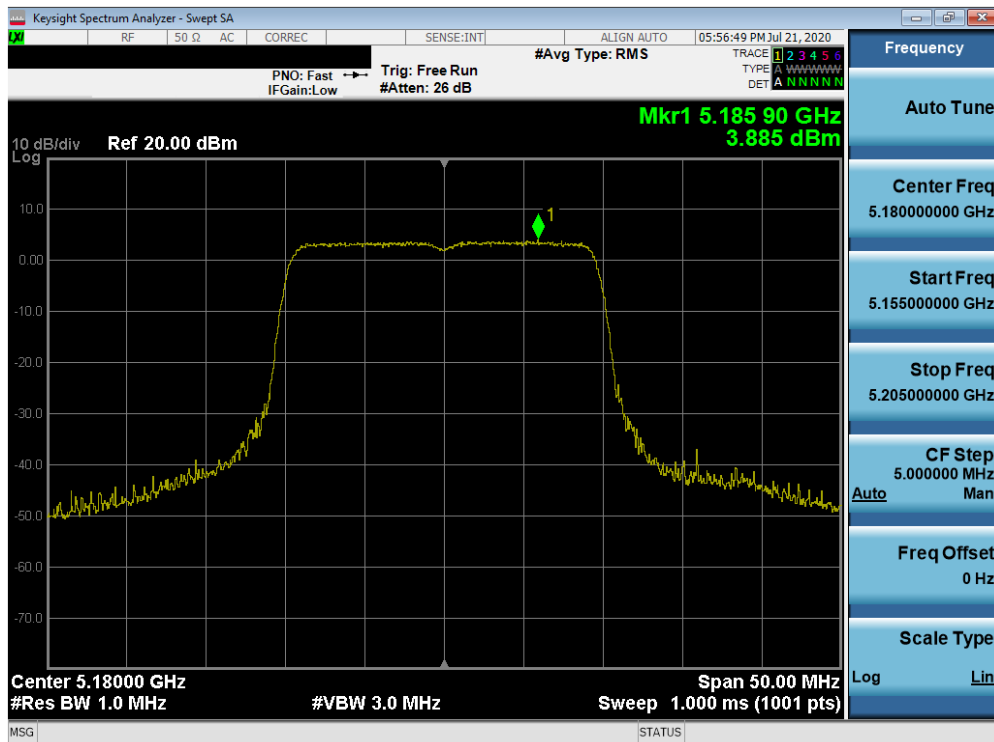
	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
Band 1	5180	36	ax (20MHz)	242T	MCS0	3.89	11.0	-7.12
	5200	40	ax (20MHz)	242T	MCS0	4.24	11.0	-6.76
	5240	48	ax (20MHz)	242T	MCS0	4.40	11.0	-6.60
	5190	38	ax (40MHz)	484T	MCS0	0.19	11.0	-10.82
	5230	46	ax (40MHz)	484T	MCS0	0.43	11.0	-10.57
	5210	42	ax (80MHz)	996T	MCS0	-3.54	11.0	-14.54
Band 2A	5260	52	ax (20MHz)	242T	MCS0	4.38	11.0	-6.62
	5280	56	ax (20MHz)	242T	MCS0	4.38	11.0	-6.62
	5320	64	ax (20MHz)	242T	MCS0	4.43	11.0	-6.57
	5270	54	ax (40MHz)	484T	MCS0	0.84	11.0	-10.16
	5310	62	ax (40MHz)	484T	MCS0	0.58	11.0	-10.42
	5290	58	ax (80MHz)	996T	MCS0	-3.12	11.0	-14.12
Band 2C	5500	100	ax (20MHz)	242T	MCS0	4.73	11.0	-6.27
	5600	120	ax (20MHz)	242T	MCS0	4.62	11.0	-6.38
	5720	144	ax (20MHz)	242T	MCS0	5.43	11.0	-5.57
	5510	102	ax (40MHz)	484T	MCS0	1.11	11.0	-9.89
	5590	118	ax (40MHz)	484T	MCS0	1.21	11.0	-9.79
	5710	142	ax (40MHz)	484T	MCS0	1.82	11.0	-9.18
	5530	106	ax (80MHz)	996T	MCS0	-2.09	11.0	-13.09
	5610	122	ax (80MHz)	996T	MCS0	-1.92	11.0	-12.92
	5690	138	ax (80MHz)	996T	MCS0	-1.51	11.0	-12.51

Table 7-64. Conducted Power Spectral Density Measurements SISO ANT2 (Full Tones)

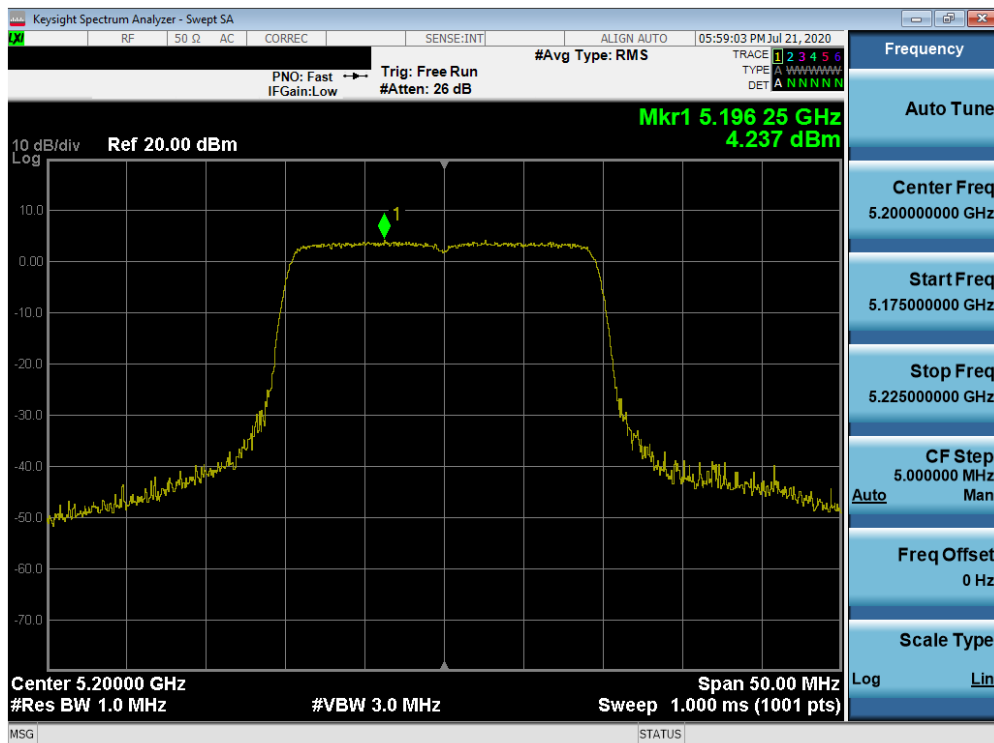
	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Antenna Gain [dBi]	e.i.r.p. Power Density [dBm/MHz]	ISED Max e.i.r.p. Power Density [dBm/MHz]	Margin [dB]
Band 1	5180	36	ax (20MHz)	242T	MCS0	3.89	-6.01	-2.13	10.0	-12.13
	5200	40	ax (20MHz)	242T	MCS0	4.24	-6.01	-1.77	10.0	-11.77
	5240	48	ax (20MHz)	242T	MCS0	4.40	-6.01	-1.61	10.0	-11.61
	5190	38	ax (40MHz)	484T	MCS0	0.19	-6.01	-5.83	10.0	-15.83
	5230	46	ax (40MHz)	484T	MCS0	0.43	-6.01	-5.58	10.0	-15.58
	5210	42	ax (80MHz)	996T	MCS0	-3.54	-6.01	-9.55	10.0	-19.55

Table 7-65. Band 1 e.i.r.p. Conducted Power Spectral Density Measurements (ISED Full Tones)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 150 of 249

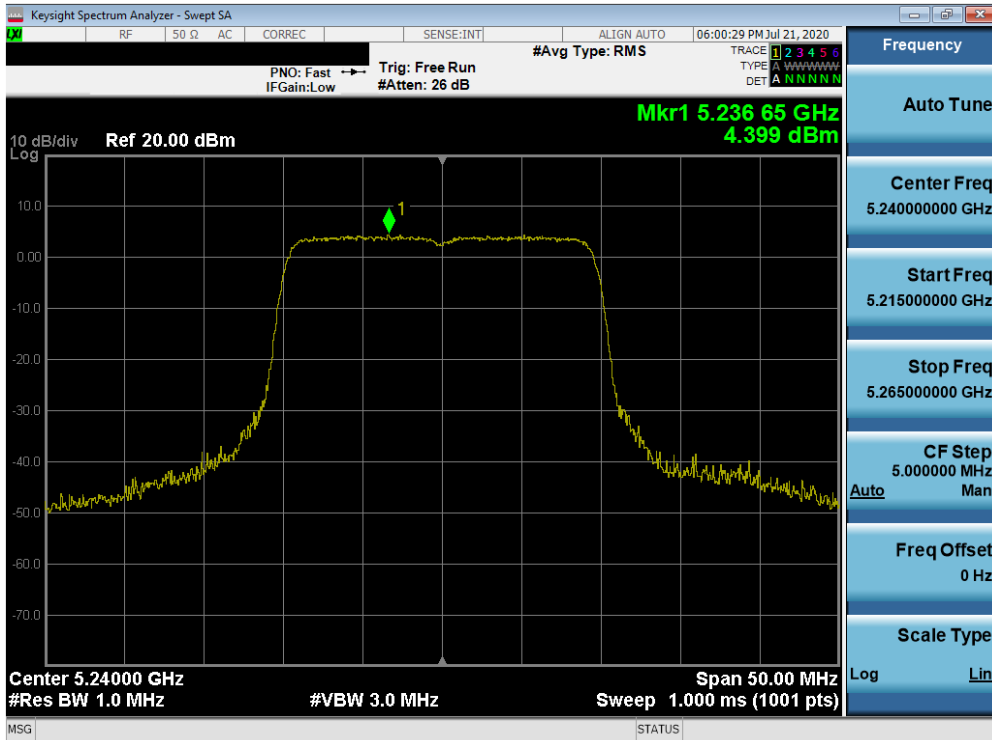


Plot 7-190. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – Full Tones (UNII Band 1) – Ch. 36)

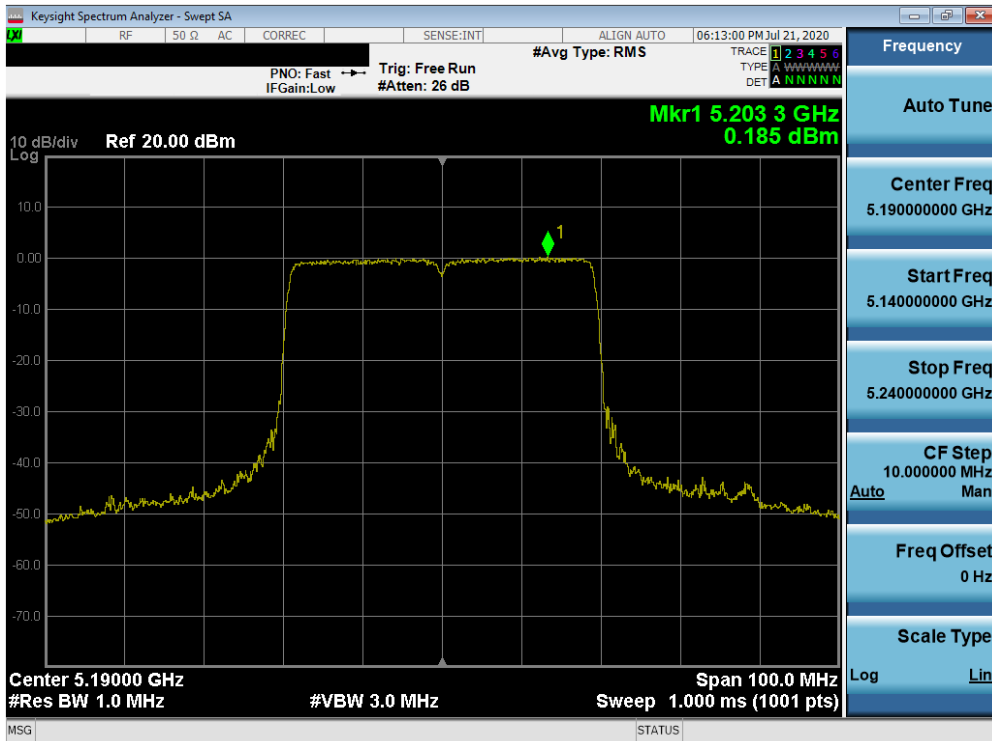


Plot 7-191. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – Full Tones (UNII Band 1) – Ch. 40)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 151 of 249



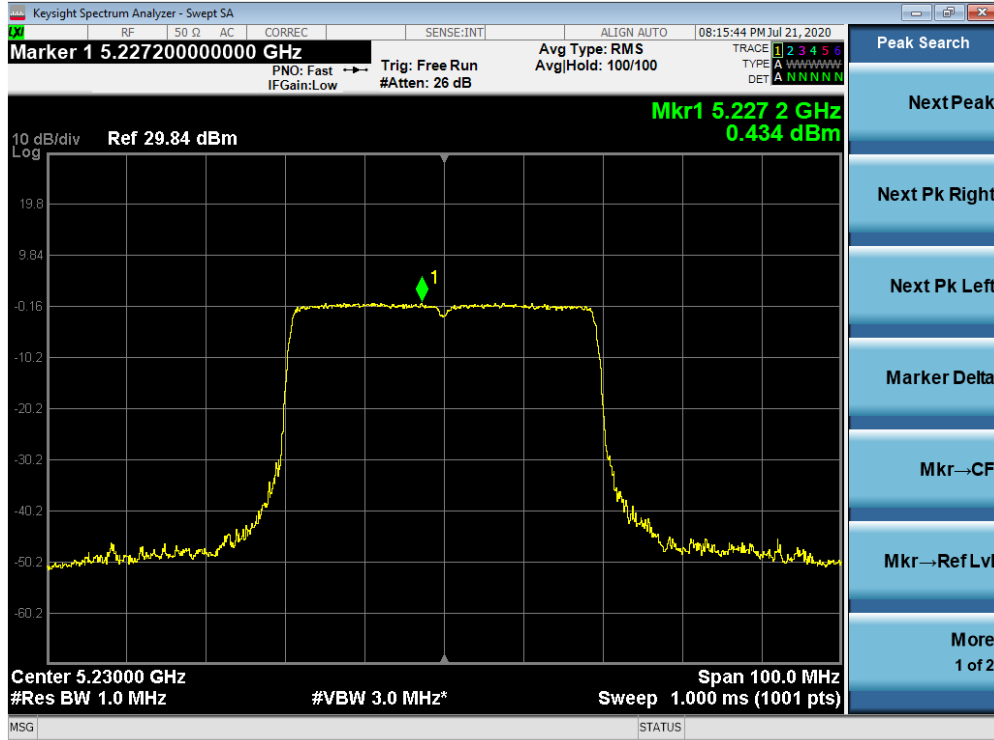
Plot 7-192. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – Full Tones (UNII Band 1) – Ch. 48)



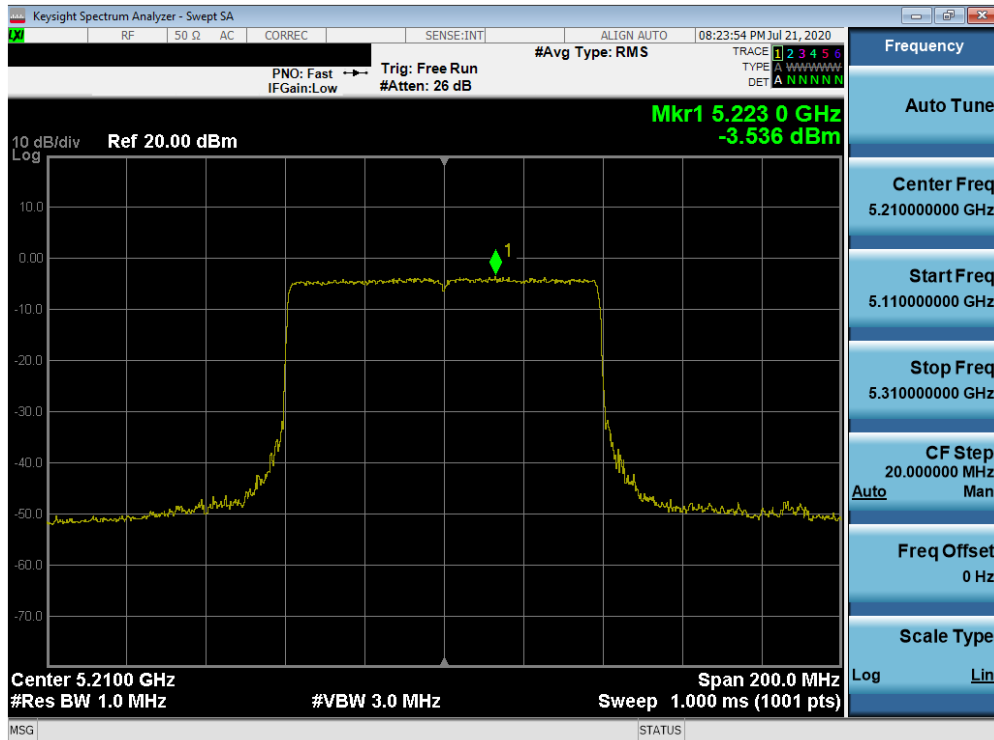
Plot 7-193. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – Full Tones (UNII Band 1) – Ch. 38)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 152 of 249





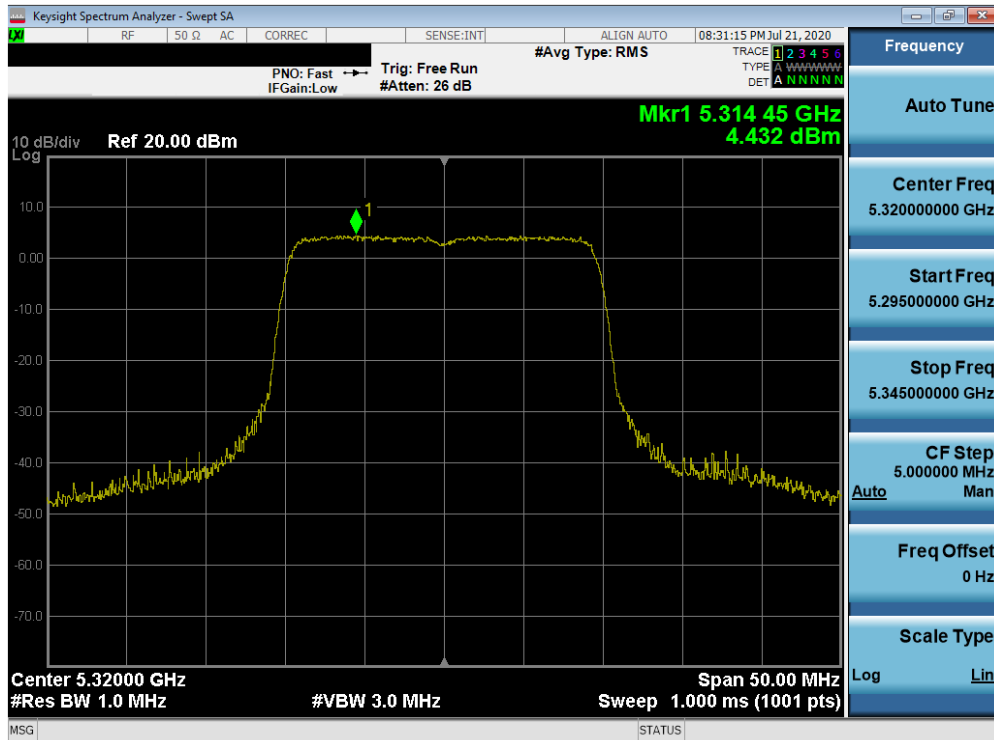
Plot 7-194. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – Full Tones (UNII Band 1) – Ch. 46)



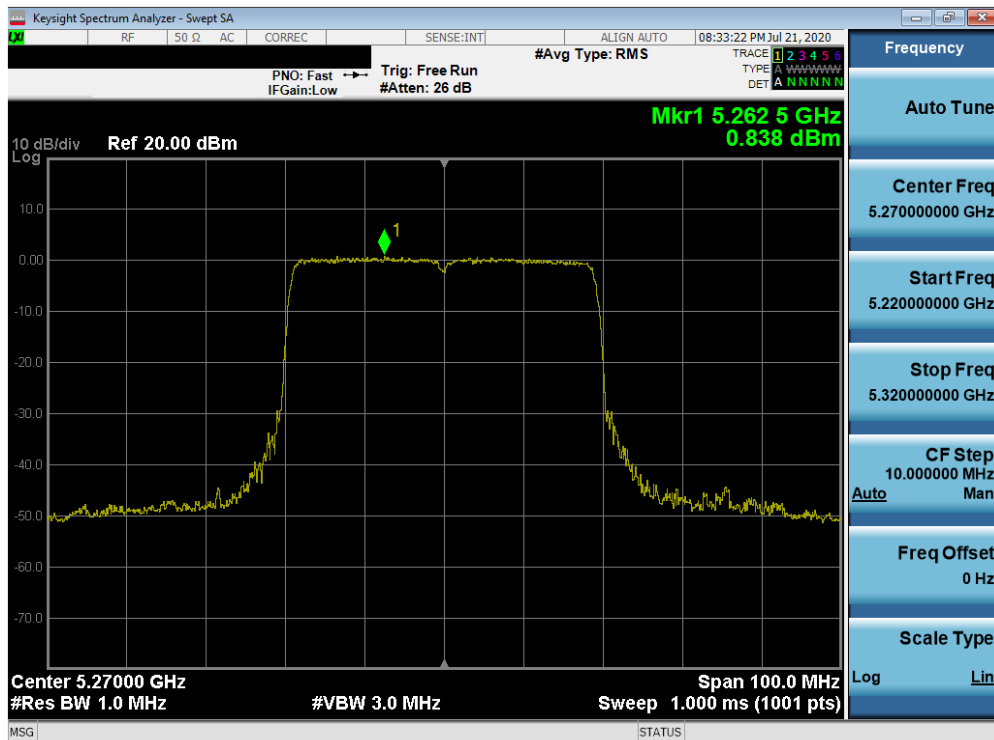
Plot 7-195. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – Full Tones (UNII Band 1) – Ch. 42)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 153 of 249



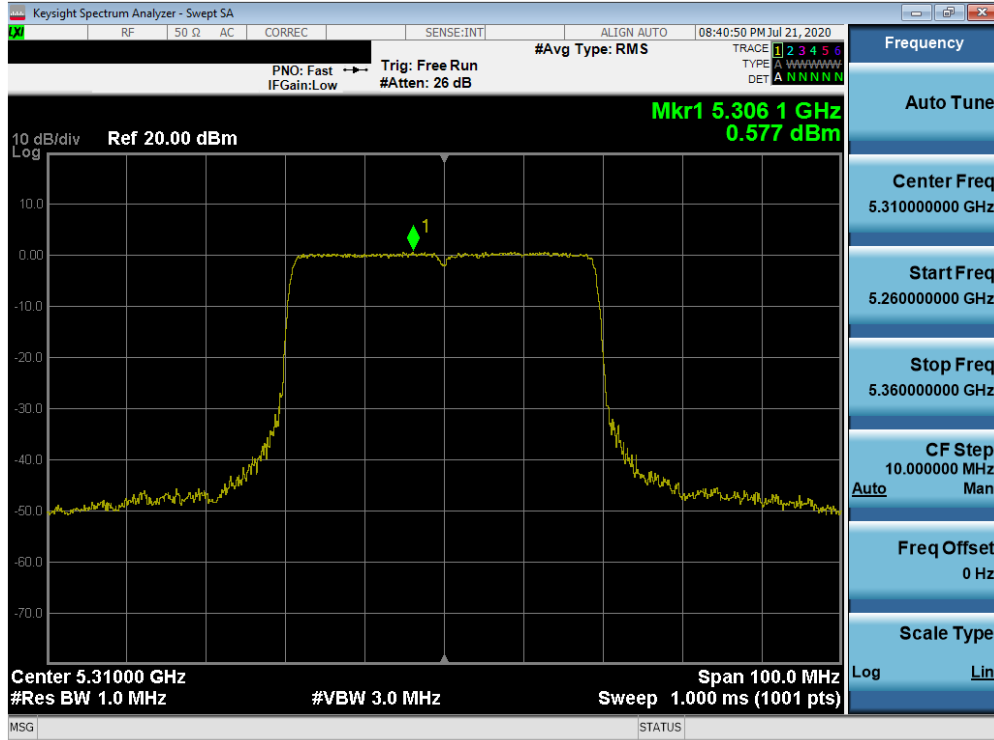


Plot 7-198. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – Full Tones (UNII Band 2A) – Ch. 64)

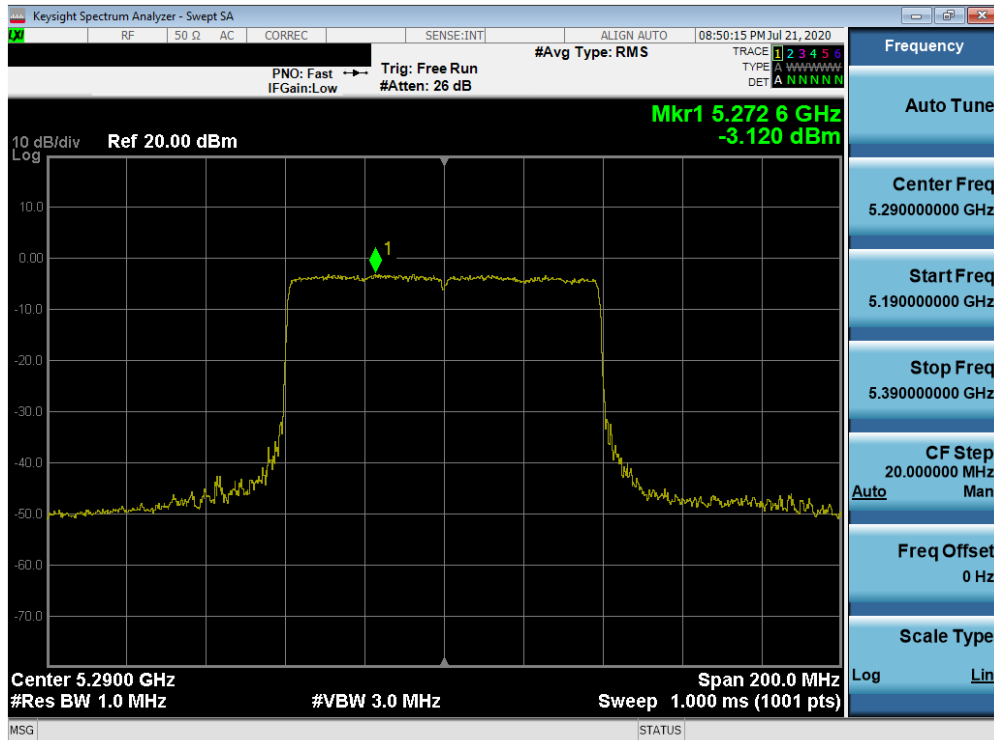


Plot 7-199. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – Full Tones (UNII Band 2A) – Ch. 54)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 155 of 249

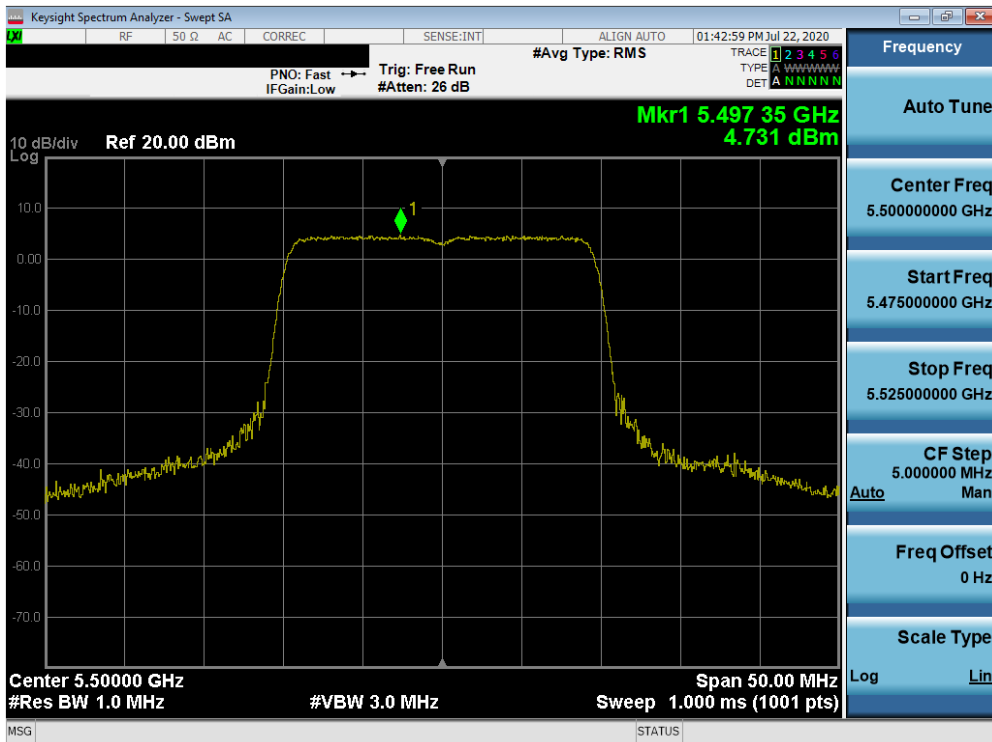


Plot 7-200. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – Full Tones (UNII Band 2A) – Ch. 62)

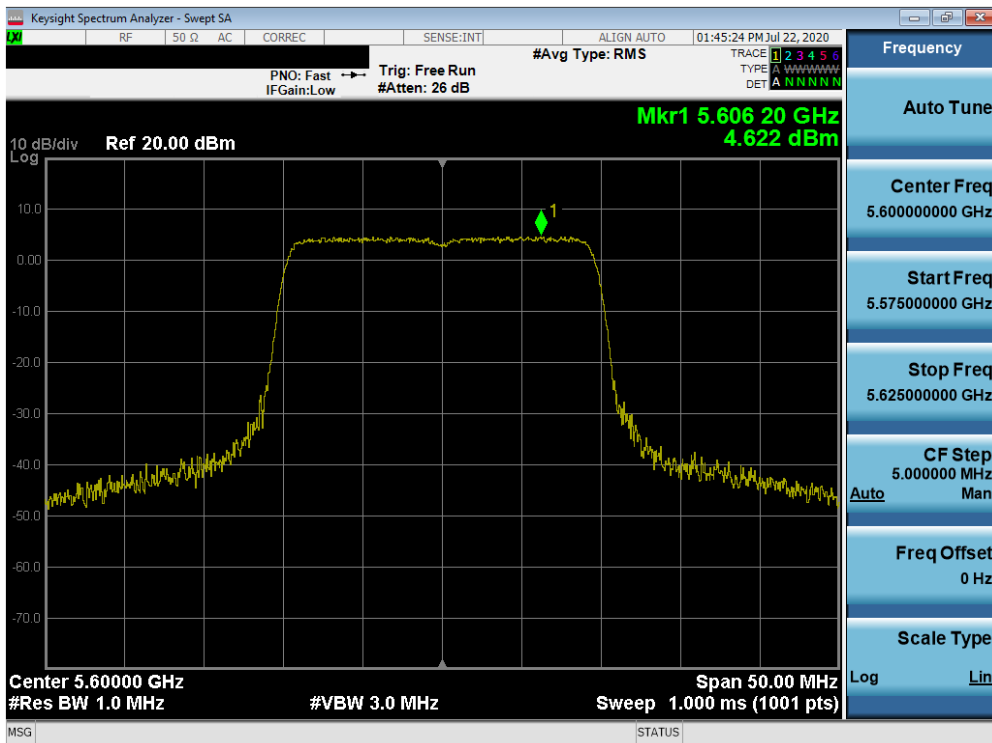


Plot 7-201. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – Full Tones (UNII Band 2A) – Ch. 58)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 156 of 249

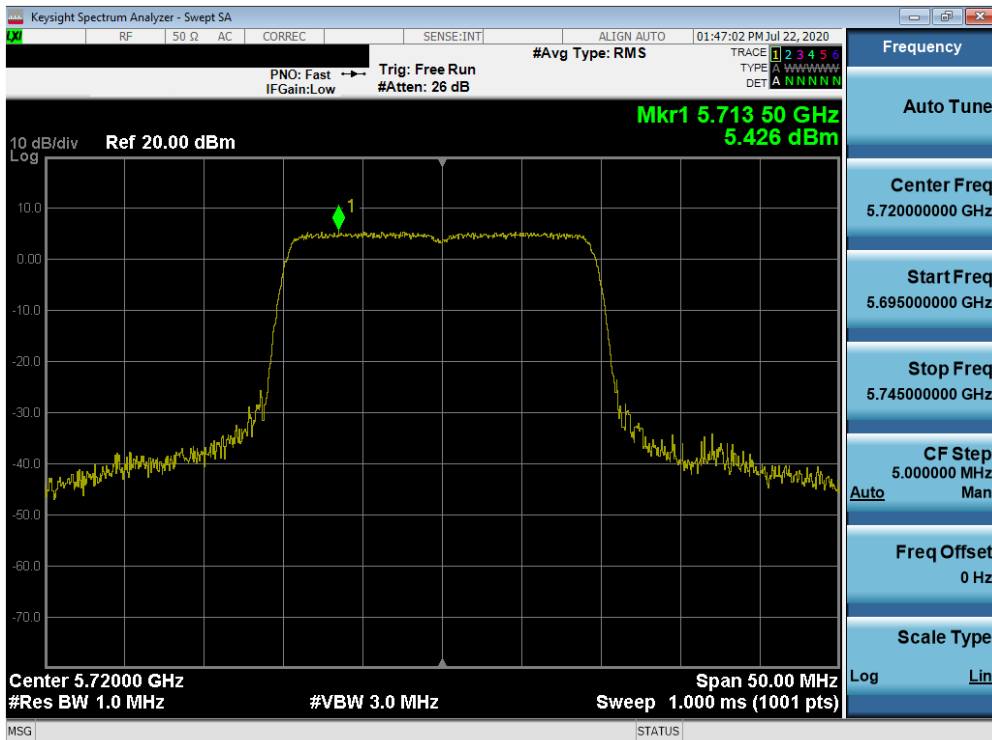


Plot 7-202. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 100)

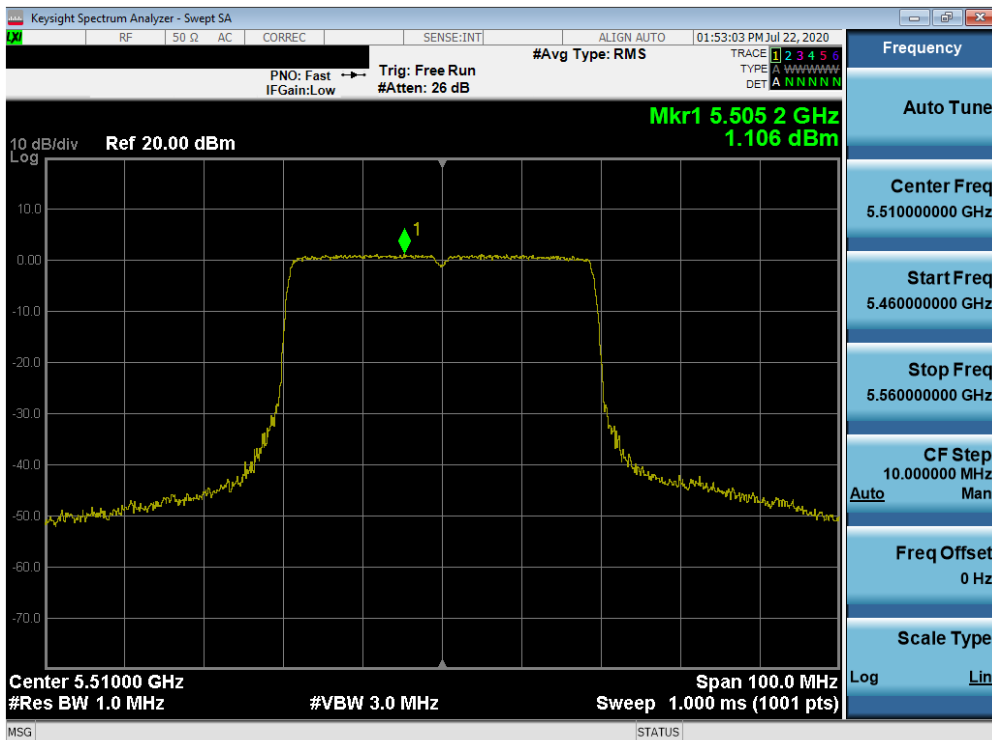


Plot 7-203. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 120)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 157 of 249

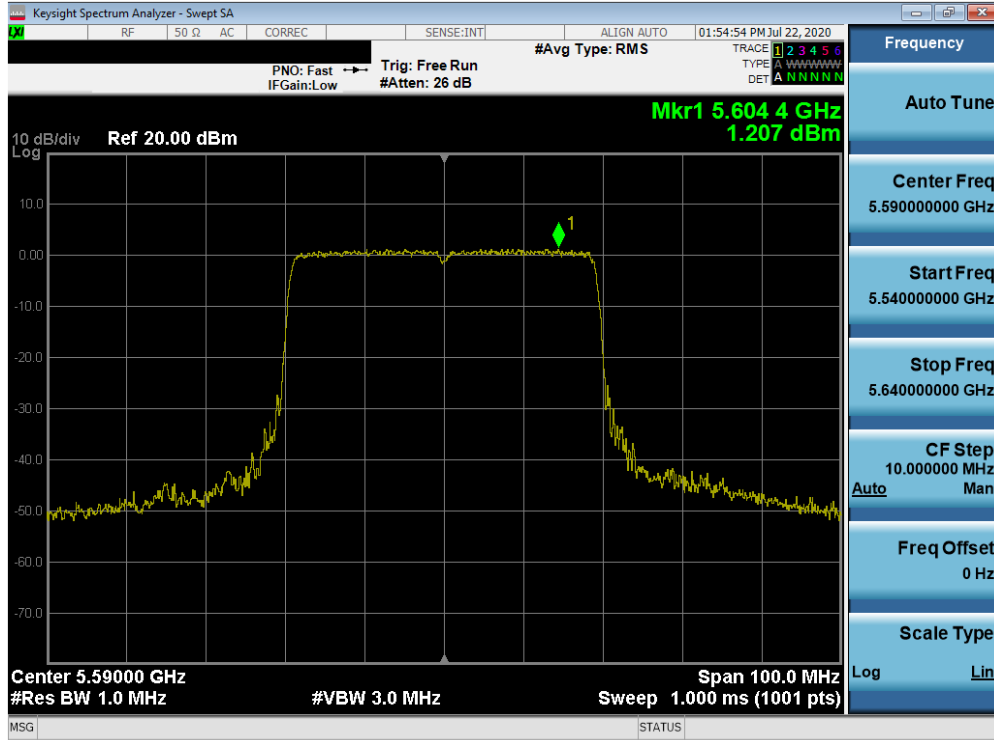


Plot 7-204. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 144)

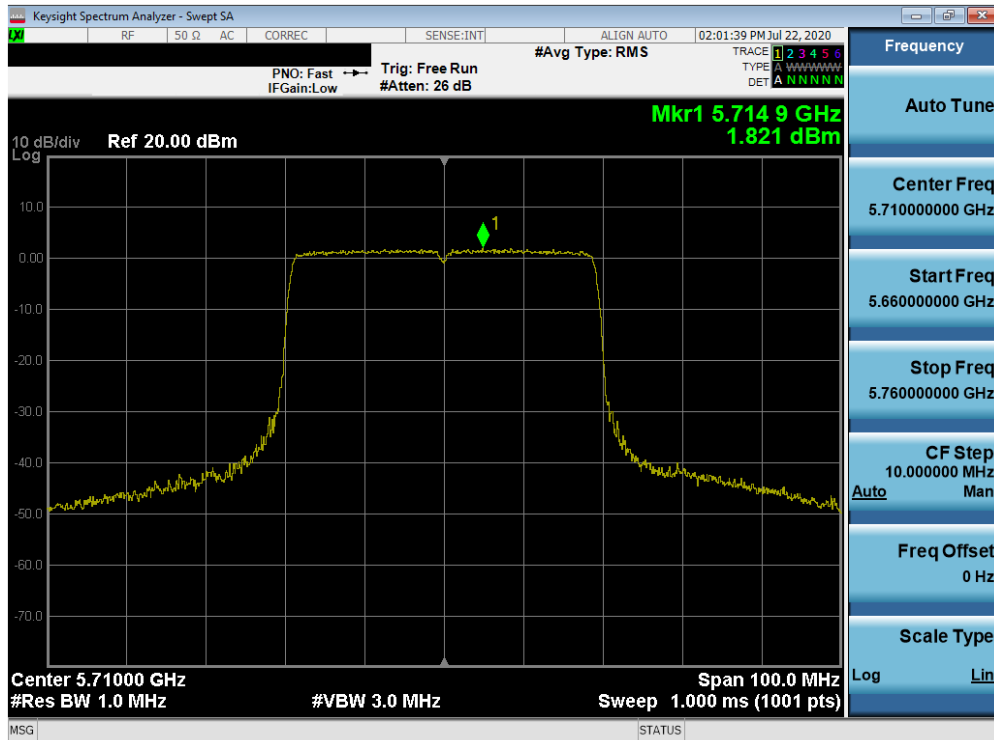


Plot 7-205. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 102)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 158 of 249

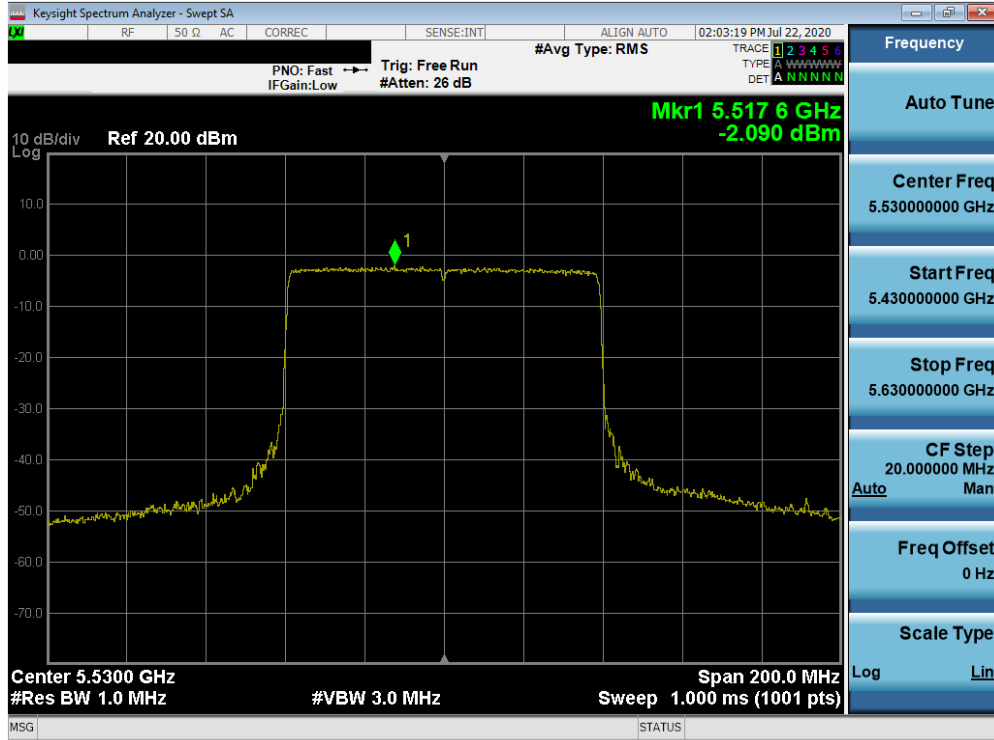


Plot 7-206. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 118)

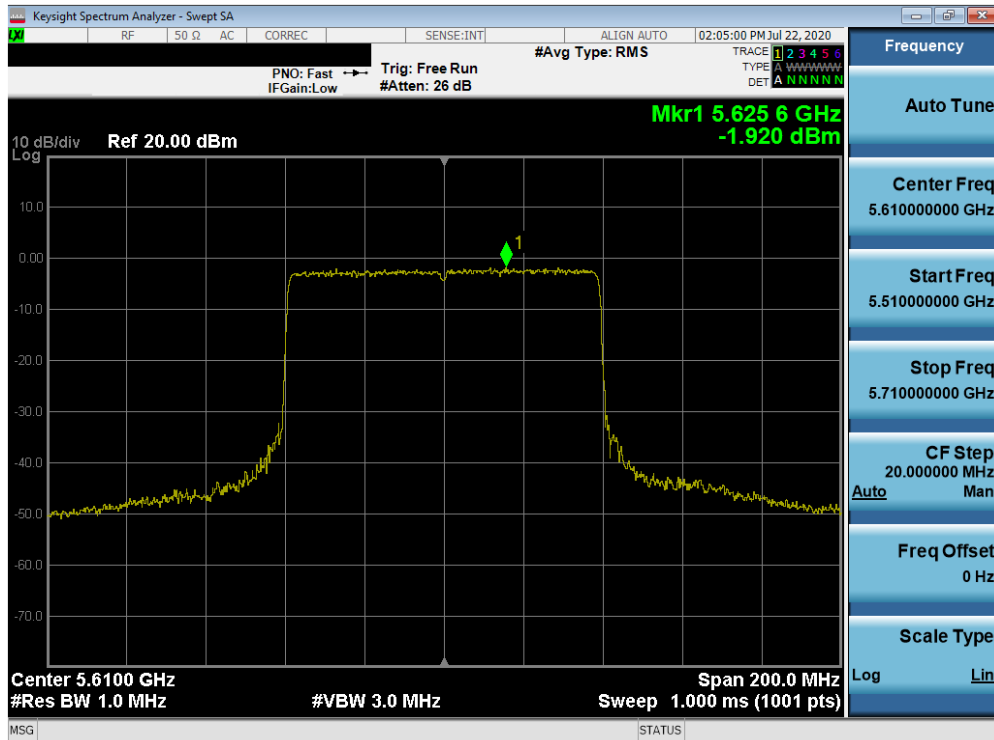


Plot 7-207. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 142)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 159 of 249



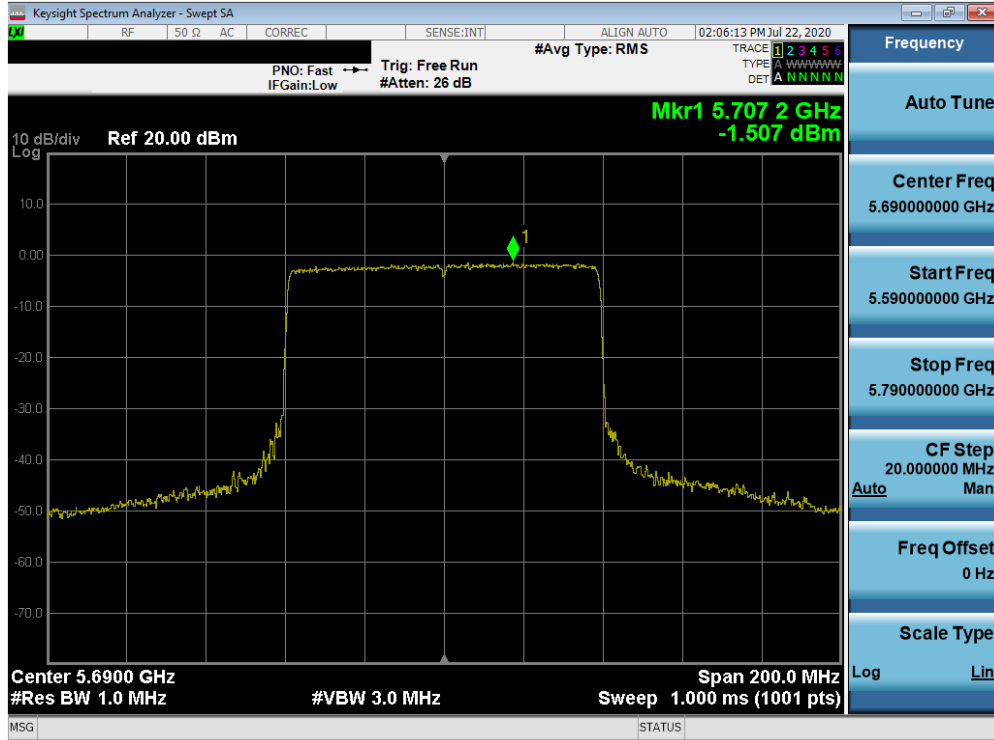
Plot 7-208. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 106)



Plot 7-209. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 122)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 160 of 249





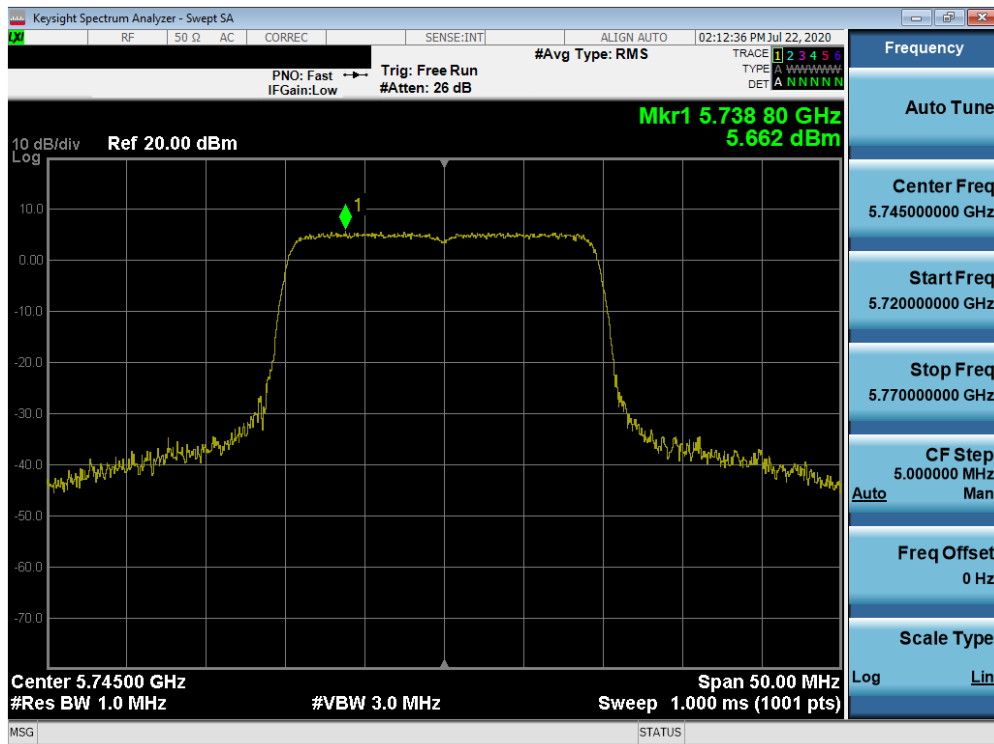
Plot 7-210. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 138)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 161 of 249

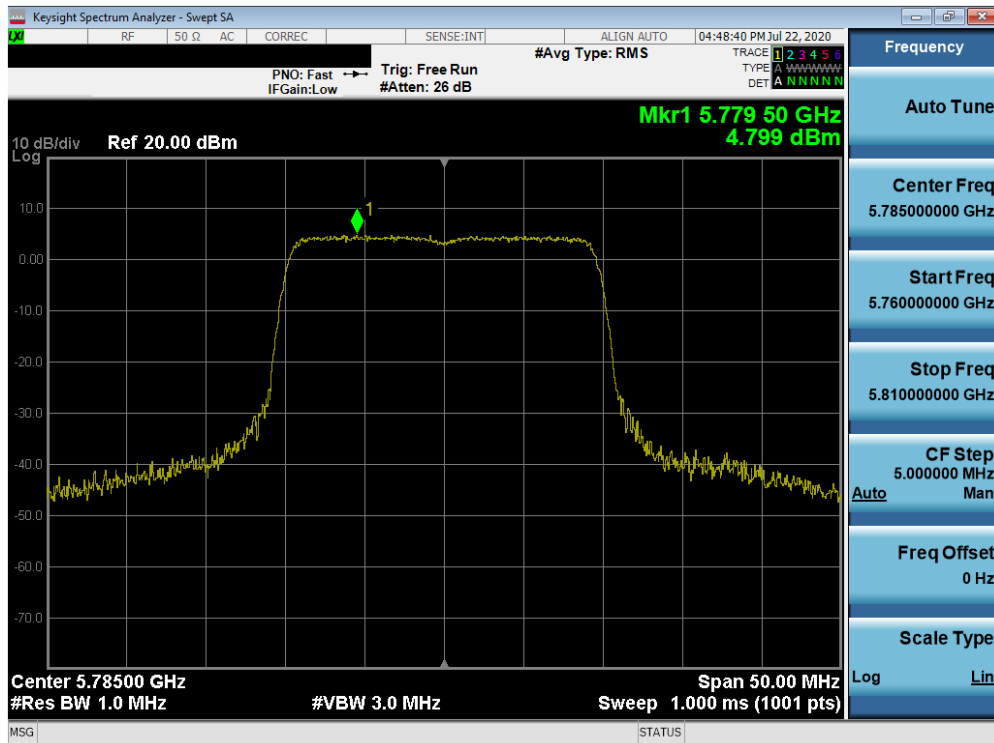
	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density	Margin [dB]
<b>Band 3</b>	5745	149	ax (20MHz)	242T	MCS0	5.66	30.00	-24.34
	5785	157	ax (20MHz)	242T	MCS0	4.80	30.00	-25.20
	5825	165	ax (20MHz)	242T	MCS0	4.92	30.00	-25.08
	5755	151	ax (40MHz)	484T	MCS0	2.01	30.00	-27.99
	5795	159	ax (40MHz)	484T	MCS0	1.40	30.00	-28.60
	5775	155	ax (80MHz)	996T	MCS0	-1.96	30.00	-31.96

**Table 7-66. Band 3 Conducted Power Spectral Density Measurements SISO ANT2 (Full Tones)**

FCC ID: A3LSMF916U		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M2005200087-09.A3L	<b>Test Dates:</b> 6/11 - 8/18/2020	<b>EUT Type:</b> Portable Handset	Page 162 of 249	

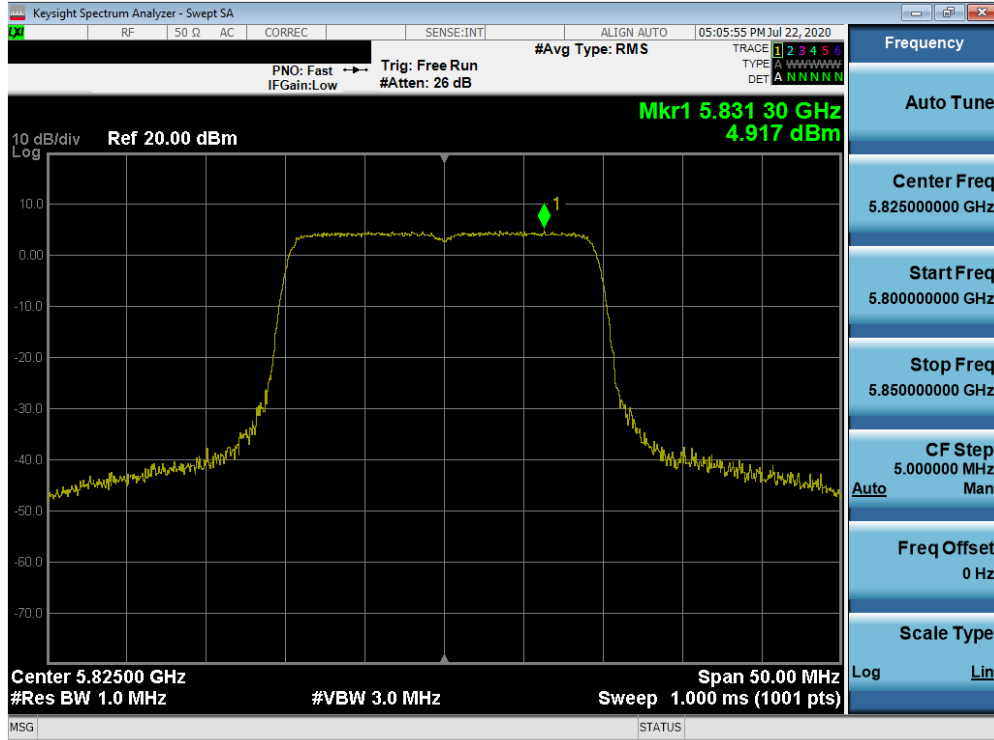


Plot 7-211. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – Full Tones (UNII Band 3) – Ch. 149)

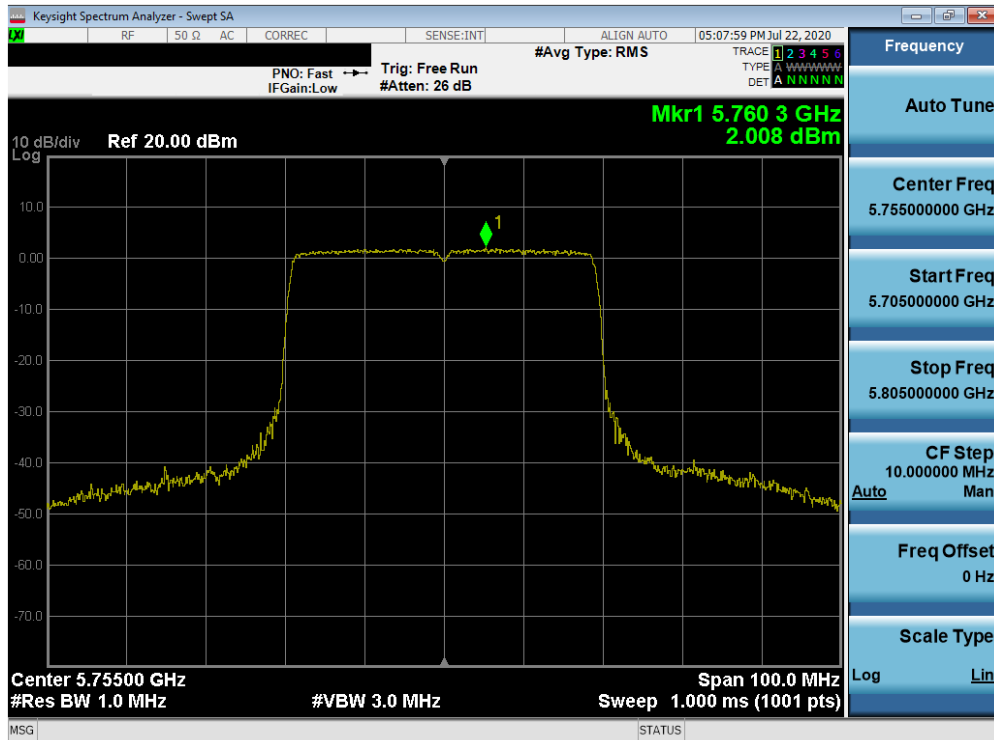


Plot 7-212. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – Full Tones (UNII Band 3) – Ch. 157)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 163 of 249



Plot 7-213. Power Spectral Density Plot SISO ANT2 (20 MHz BW 802.11ax – Full Tones (UNII Band 3) – Ch. 165)



Plot 7-214. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – Full Tones (UNII Band 3) – Ch. 151)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 164 of 249



## Summed MIMO Power Spectral Density Measurements (26 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	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]
Band 1	5180	36	ax (20MHz)	26T	MCS0	7.76	5.22	9.69	11.00	-1.31
	5200	40	ax (20MHz)	26T	MCS0	7.77	6.46	10.17	11.00	-0.83
	5240	48	ax (20MHz)	26T	MCS0	7.82	5.78	9.93	11.00	-1.07
	5190	38	ax (40MHz)	26T	MCS0	7.02	6.52	9.79	11.00	-1.21
	5230	46	ax (40MHz)	26T	MCS0	7.42	5.69	9.65	11.00	-1.35
	5210	42	ax (80MHz)	26T	MCS0	7.98	4.77	9.68	11.00	-1.32
Band 2A	5260	52	ax (20MHz)	26T	MCS0	6.74	4.92	8.93	11.00	-2.07
	5280	56	ax (20MHz)	26T	MCS0	6.73	4.79	8.88	11.00	-2.12
	5320	64	ax (20MHz)	26T	MCS0	6.51	5.37	8.99	11.00	-2.01
	5270	54	ax (40MHz)	26T	MCS0	7.31	6.04	9.73	11.00	-1.27
	5310	62	ax (40MHz)	26T	MCS0	7.05	6.34	9.72	11.00	-1.28
	5290	58	ax (80MHz)	26T	MCS0	7.34	6.17	9.81	11.00	-1.19
Band 2C	5500	100	ax (20MHz)	26T	MCS0	8.15	5.58	10.06	11.00	-0.94
	5600	120	ax (20MHz)	26T	MCS0	7.89	6.25	10.16	11.00	-0.84
	5720	144	ax (20MHz)	26T	MCS0	7.69	5.57	9.77	11.00	-1.23
	5510	102	ax (40MHz)	26T	MCS0	7.85	6.12	10.08	11.00	-0.92
	5590	118	ax (40MHz)	26T	MCS0	7.55	5.86	9.80	11.00	-1.20
	5710	142	ax (40MHz)	26T	MCS0	7.49	7.00	10.26	11.00	-0.74
	5530	106	ax (80MHz)	26T	MCS0	7.89	6.37	10.21	11.00	-0.79
	5610	122	ax (80MHz)	26T	MCS0	7.77	5.23	9.69	11.00	-1.31
5690	138	ax (80MHz)	26T	MCS0	4.61	3.60	7.15	11.00	-3.85	

Table 7-67. Bands 1, 2A, 2C MIMO Conducted Power Spectral Density Measurements MIMO (26 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	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]
Band 1	5180	36	ax (20MHz)	26T	MCS0	7.76	5.22	9.69	-2.60	7.08	10.0	-2.92
	5200	40	ax (20MHz)	26T	MCS0	7.77	6.46	10.17	-2.60	7.57	10.0	-2.43
	5240	48	ax (20MHz)	26T	MCS0	7.82	5.78	9.93	-2.60	7.33	10.0	-2.67
	5190	38	ax (40MHz)	26T	MCS0	7.02	6.52	9.79	-2.60	7.18	10.0	-2.82
	5230	46	ax (40MHz)	26T	MCS0	7.42	5.69	9.65	-2.60	7.05	10.0	-2.95
	5210	42	ax (80MHz)	26T	MCS0	7.98	4.77	9.68	-2.60	7.07	10.0	-2.93

Table 7-68. Band 1 MIMO e.i.r.p. Conducted Power Spectral Density Measurements (ISED 26 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Permissible Power Density	Margin [dB]
Band 3	5745	149	ax (20MHz)	26T	MCS0	4.49	4.13	7.33	30.00	-22.67
	5785	157	ax (20MHz)	26T	MCS0	5.31	3.39	7.46	30.00	-22.54
	5825	165	ax (20MHz)	26T	MCS0	4.48	4.04	7.28	30.00	-22.72
	5755	151	ax (40MHz)	26T	MCS0	4.84	3.67	7.31	30.00	-22.69
	5795	159	ax (40MHz)	26T	MCS0	4.91	3.64	7.33	30.00	-22.67
	5775	155	ax (80MHz)	26T	MCS0	7.90	5.24	9.78	30.00	-20.22

Table 7-69. Band 3 MIMO Conducted Power Spectral Density Measurements MIMO (26 Tones)

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	Frequency [MHz]	Channel No.	802.11 Mode	Tones	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]
Band 1	5180	36	ax (20MHz)	242T	MCS0	3.95	3.89	6.93	11.00	-4.07
	5200	40	ax (20MHz)	242T	MCS0	4.66	4.24	7.46	11.00	-3.54
	5240	48	ax (20MHz)	242T	MCS0	4.88	4.40	7.66	11.00	-3.34
	5190	38	ax (40MHz)	484T	MCS0	1.99	0.19	4.19	11.00	-6.81
	5230	46	ax (40MHz)	484T	MCS0	1.82	0.43	4.19	11.00	-6.81
	5210	42	ax (80MHz)	996T	MCS0	0.55	-3.54	1.98	11.00	-9.02
Band 2A	5260	52	ax (20MHz)	242T	MCS0	4.89	4.38	7.65	11.00	-3.35
	5280	56	ax (20MHz)	242T	MCS0	6.09	4.38	8.33	11.00	-2.67
	5320	64	ax (20MHz)	242T	MCS0	5.67	4.43	8.10	11.00	-2.90
	5270	54	ax (40MHz)	484T	MCS0	2.04	0.84	4.49	11.00	-6.51
	5310	62	ax (40MHz)	484T	MCS0	1.81	0.58	4.24	11.00	-6.76
	5290	58	ax (80MHz)	996T	MCS0	-0.36	-3.12	1.48	11.00	-9.52
Band 2C	5500	100	ax (20MHz)	242T	MCS0	6.17	4.73	8.52	11.00	-2.48
	5600	120	ax (20MHz)	242T	MCS0	5.24	4.62	7.95	11.00	-3.05
	5720	144	ax (20MHz)	242T	MCS0	5.88	5.43	8.67	11.00	-2.33
	5510	102	ax (40MHz)	484T	MCS0	2.04	1.11	4.61	11.00	-6.39
	5590	118	ax (40MHz)	484T	MCS0	1.09	1.21	4.16	11.00	-6.84
	5710	142	ax (40MHz)	484T	MCS0	1.35	1.82	4.60	11.00	-6.40
	5530	106	ax (80MHz)	996T	MCS0	-0.48	-2.09	1.80	11.00	-9.20
	5610	122	ax (80MHz)	996T	MCS0	-1.11	-1.92	1.52	11.00	-9.48
	5690	138	ax (80MHz)	996T	MCS0	-3.87	-1.51	0.48	11.00	-10.52

Table 7-70. Bands 1, 2A, 2C MIMO Conducted Power Spectral Density Measurements MIMO (Full Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	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]
Band 1	5180	36	ax (20MHz)	242T	MCS0	3.95	3.89	6.93	-2.60	4.32	10.0	-5.68
	5200	40	ax (20MHz)	242T	MCS0	4.66	4.24	7.46	-2.60	4.86	10.0	-5.14
	5240	48	ax (20MHz)	242T	MCS0	4.88	4.40	7.66	-2.60	5.05	10.0	-4.95
	5190	38	ax (40MHz)	484T	MCS0	1.99	0.19	4.19	-2.60	1.59	10.0	-8.41
	5230	46	ax (40MHz)	484T	MCS0	1.82	0.43	4.19	-2.60	1.59	10.0	-8.41
	5210	42	ax (80MHz)	996T	MCS0	0.55	-3.54	1.98	-2.60	-0.62	10.0	-10.62

Table 7-71. Band 1 MIMO e.i.r.p. Conducted Power Spectral Density Measurements (ISED Full Tones)

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	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Permissible Power Density	Margin [dB]
<b>Band 3</b>	5745	149	ax (20MHz)	242T	MCS0	6.37	5.66	9.04	30.00	-20.96
	5785	157	ax (20MHz)	242T	MCS0	6.16	4.80	8.54	30.00	-21.46
	5825	165	ax (20MHz)	242T	MCS0	5.84	4.92	8.41	30.00	-21.59
	5755	151	ax (40MHz)	484T	MCS0	2.04	2.01	5.04	30.00	-24.96
	5795	159	ax (40MHz)	484T	MCS0	2.14	1.40	4.80	30.00	-25.20
	5775	155	ax (80MHz)	996T	MCS0	-0.92	-1.96	1.60	30.00	-28.40

**Table 7-72. Band 3 MIMO Conducted Power Spectral Density Measurements MIMO (Full Tones)**

FCC ID: A3LSMF916U		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Quality Manager
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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 with reduced Antenna 1 and Antenna 2 powers per manufacture’s tune-up document. The measured values were then summed in linear power units then converted back to dBm.

**Sample Directional Gain Calculation:**

Assuming the antenna gain is -8.61 dBi for Antenna-1 and -7.68 dBi for Antenna-2.

$$\begin{aligned} \text{Directional gain} &= 10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{\text{ANT}}] \text{ dBi} \\ &= 10 \log[(10^{-8.61/20} + 10^{-7.68/20} / 2] \text{ dBi} \\ &= (-5.12) \text{ dBi} \end{aligned}$$

**Sample MIMO Calculation:**

Assuming the average conducted power spectral density was measured to be 5.88 dBm for Antenna-1 and 6.27 dBm for Antenna-2.

$$\text{Antenna 1} + \text{Antenna 2} = \text{MIMO}$$

$$(5.88 \text{ dBm} + 6.27 \text{ dBm}) = (3.87 \text{ mW} + 4.24 \text{ mW}) = 8.11 \text{ mW} = 9.09 \text{ dBm}$$

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

Assuming the average MIMO power density was calculated to be 9.09 dBm with directional gain of -5.12 dBi.

$$\text{e.i.r.p. Power Spectral Density(dBm)} = \text{Power Spectral Density (dBm)} + \text{directional gain (dBi)}$$

$$9.09 \text{ dBm} + (-5.12) \text{ dBi} = 3.97 \text{ dBm}$$

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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. 26 Tones, 52 Tones, 106 Tones, 242 Tones, 484 Tones and 996 Tones), and modulations/data rates were investigated among all UNII bands. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

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

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

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

***All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR and Table 6 of RSS-Gen (8.10) must not exceed the limits shown in Table 7-73 per Section 15.209 and RSS-Gen (8.9).***

Frequency	Field Strength [ $\mu$ V/m]	Measured Distance [Meters]
Above 960.0 MHz	500	3

Table 7-73. Radiated Limits

### Test Procedures Used

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

### Test Settings

#### Average Measurements above 1GHz (Method AD)

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

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### Peak Measurements above 1GHz

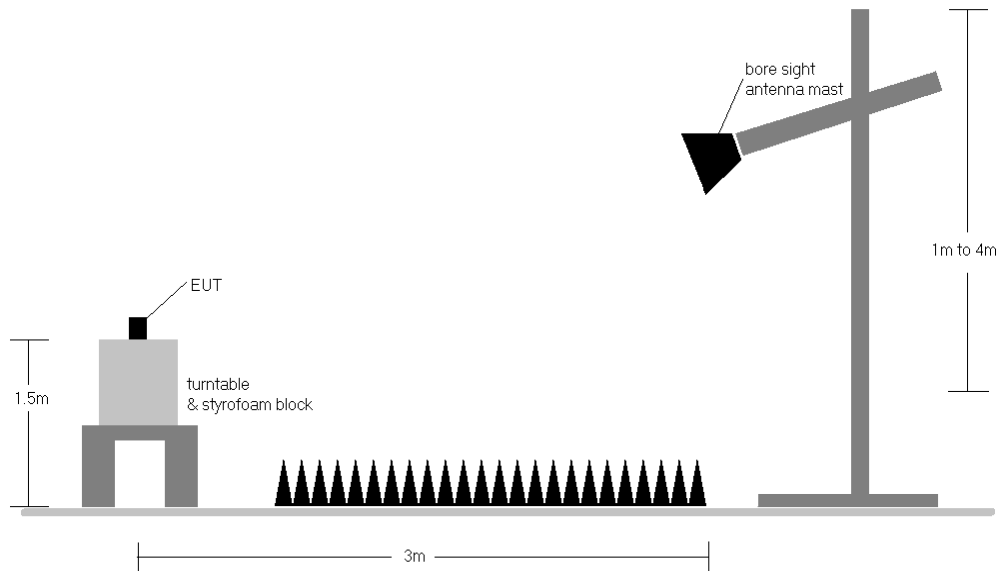
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

### Peak Measurements below 1GHz

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

### Test Setup

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



**Figure 7-5. Test Instrument & Measurement Setup**

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## Test Notes

1. All emissions that lie in the restricted bands (denoted by a \* next to the frequency) specified in §15.205 and Section 8.10 of RSS-Gen are below the limit shown in Table 7-73.
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 7-73. All spurious emissions that do not lie in a restricted band are subject to a peak limit of -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions of 68.2dBμV/m.
3. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.
4. This unit was tested with its standard battery.
5. The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter using CISPR quasi peak detector below 1GHz. Above 1 GHz, average and peak measurements were taken using linearly polarized horn antennas. The worst-case emissions are reported however emissions whose levels were not within 20dB of the respective limits were not reported.
6. Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
7. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. Any emissions found to be within 20dB of the limit are fully investigated and the results are shown in this section.
8. The "-" shown in the following RSE tables are used to denote a noise floor measurement.
9. For radiated measurements, emissions were investigated for the fully-loaded RU configuration and for all of the partially-loaded RU configurations. Among all of the available partially-loaded RU configurations, only the configuration with the worst case emissions is reported.

## Sample Calculations

### Determining Spurious Emissions Levels

- Field Strength Level [dBμV/m] = Analyzer Level [dBm] + 107 + AFCL [dB/m]
- AFCL [dB/m] = Antenna Factor [dB/m] + Cable Loss [dB]
- Margin [dB] = Field Strength Level [dBμV/m] – Limit [dBμV/m]

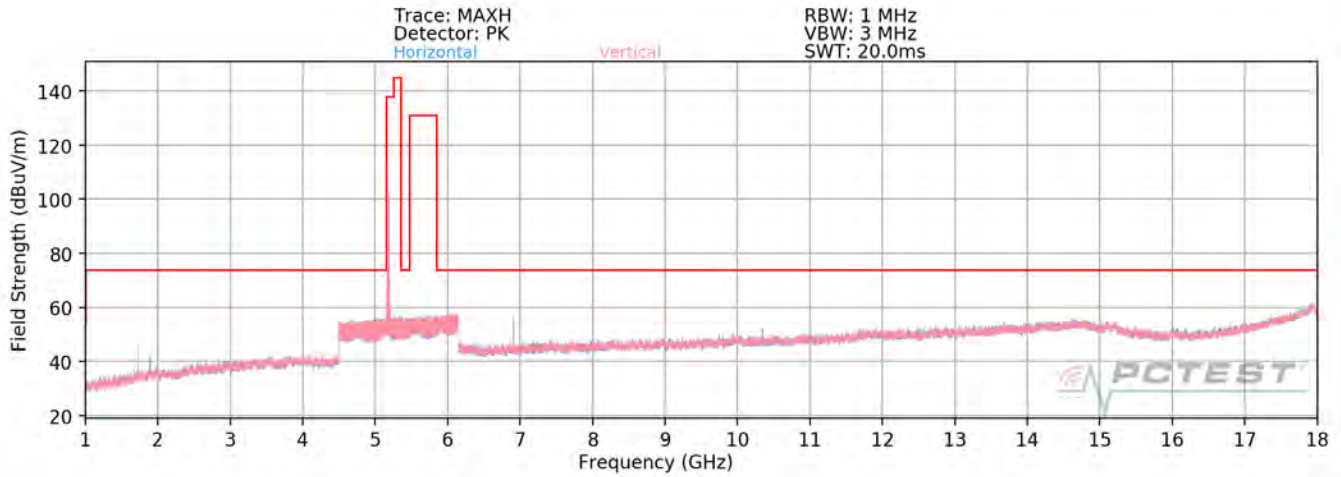
### Radiated Band Edge Measurement Offset

- The amplitude offset shown in the radiated restricted band edge plots in Section 7.6 was calculated using the formula:  
Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

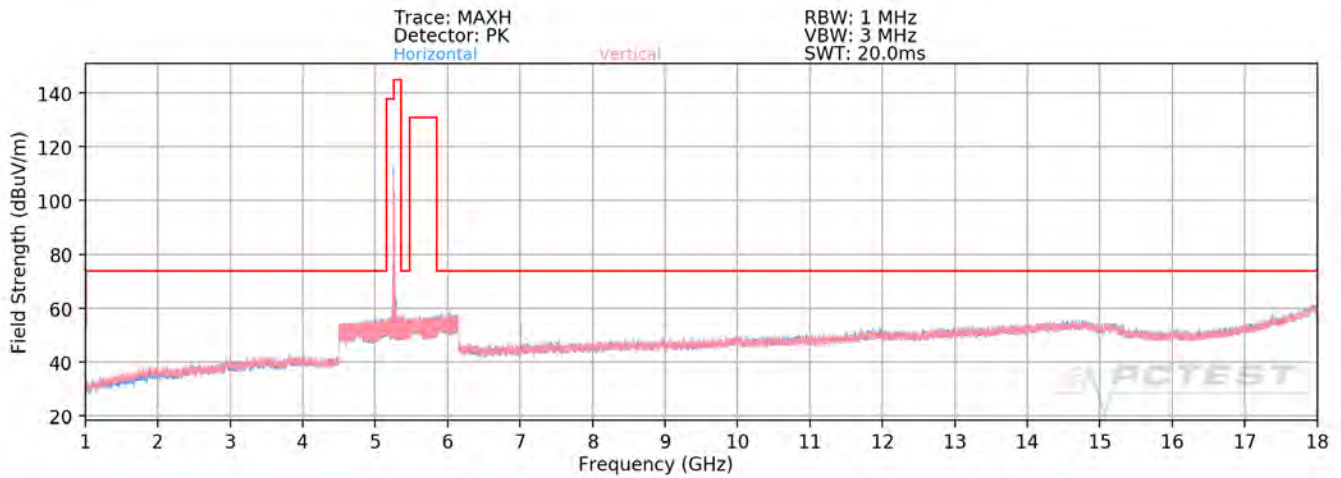
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## 7.6.1 SISO Antenna-1 Radiated Spurious Emission Measurements

### 26 Tones

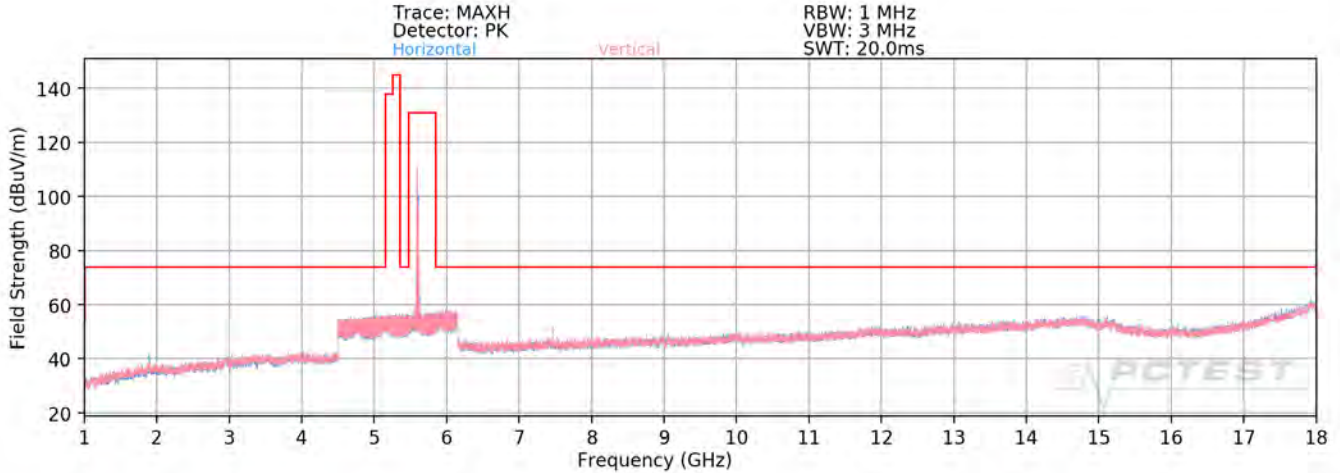


**Plot 7-217. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11ax – U1 Ch. 40 – 26 Tones)**

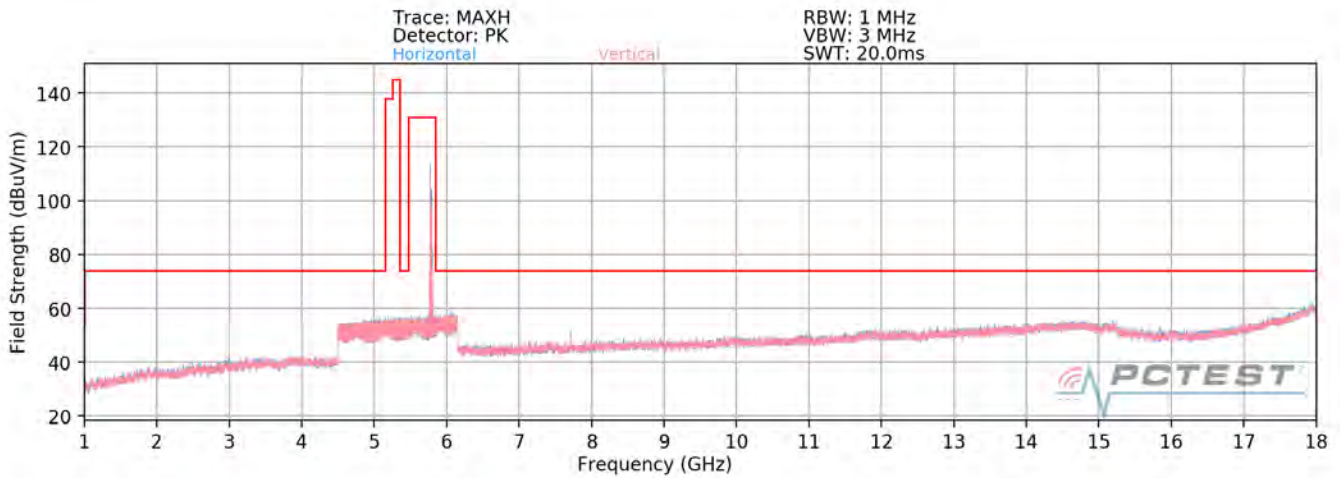


**Plot 7-218. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11ax – U2A Ch. 56 – 26 Tones)**

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**Plot 7-219. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11ax – U2C Ch. 120 – 26 Tones)**

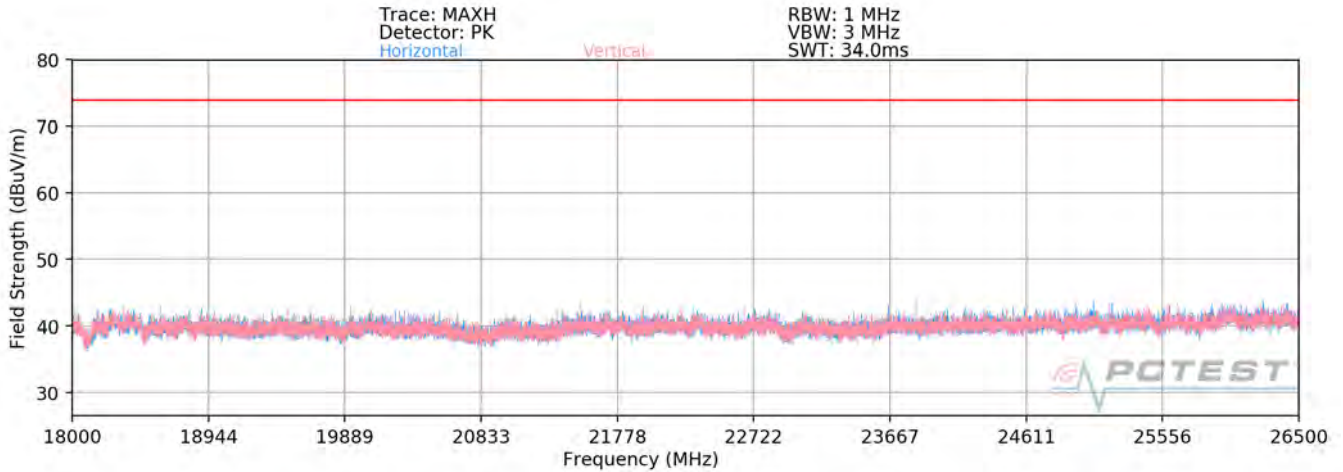


**Plot 7-220. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11ax – U3 Ch. 157 – 26 Tones)**

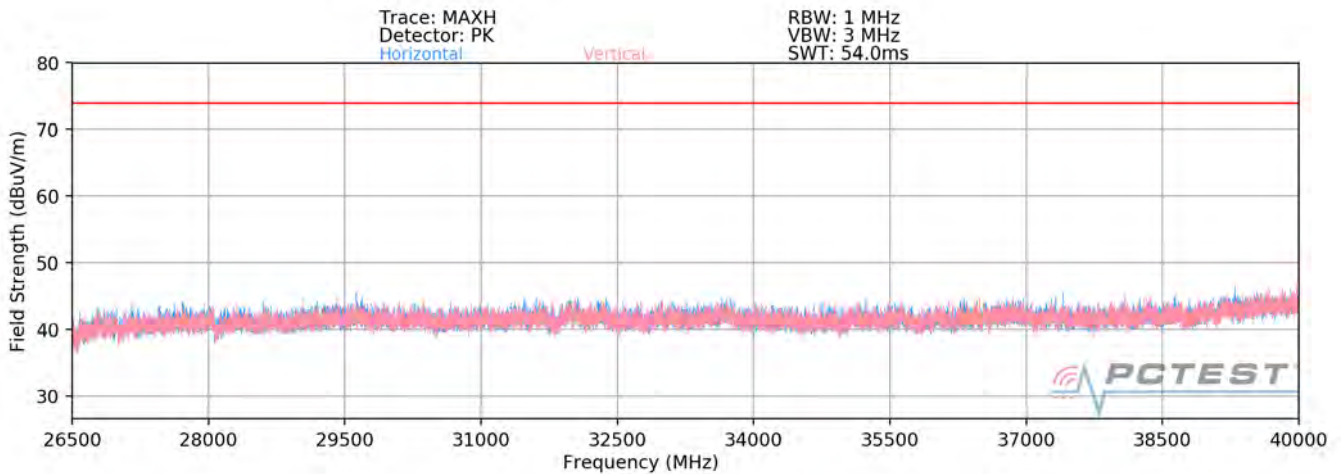
FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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## SISO Antenna-1 Radiated Spurious Emissions Measurements (Above 18GHz)



**Plot 7-221. Radiated Spurious Plot 18GHz - 26.5GHz SISO ANT1 (802.11ax – 26 Tones)**



**Plot 7-222. Radiated Spurious Plot 26.5GHz - 40GHz SISO ANT1 (802.11ax – 26 Tones)**

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## SISO Antenna-1 Radiated Spurious Emission Measurements (26 Tones)

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

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	-	-	-65.67	12.64	0.00	53.97	68.20	-14.23
* 15540.00	Average	H	-	-	-78.41	14.58	0.00	43.17	53.98	-10.81
* 15540.00	Peak	H	-	-	-66.47	14.58	0.00	55.11	73.98	-18.87
* 20720.00	Average	H	-	-	-63.59	-3.74	-9.54	30.13	53.98	-23.85
* 20720.00	Peak	H	-	-	-54.54	-3.74	-9.54	39.18	73.98	-34.80
25900.00	Peak	H	-	-	-53.69	-3.03	-9.54	40.74	68.20	-27.46

**Table 7-74. Radiated Measurements SISO ANT1 (26 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	-	-	-67.92	14.86	0.00	53.94	68.20	-14.26
* 15600.00	Average	H	-	-	-82.67	22.47	0.00	46.80	53.98	-7.18
* 15600.00	Peak	H	-	-	-68.81	22.47	0.00	60.66	73.98	-13.32
* 20800.00	Average	H	-	-	-63.74	-3.76	-9.54	29.96	53.98	-24.02
* 20800.00	Peak	H	-	-	-54.82	-3.76	-9.54	38.88	73.98	-35.10
26000.00	Peak	H	-	-	-53.05	-2.81	-9.54	41.60	68.20	-26.60

**Table 7-75. Radiated Measurements SISO ANT1 (26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	-	-	-68.54	15.17	0.00	53.63	68.20	-14.57
* 15720.00	Average	H	-	-	-83.03	21.99	0.00	45.96	53.98	-8.02
* 15720.00	Peak	H	-	-	-69.27	21.99	0.00	59.72	73.98	-14.26
* 20960.00	Average	H	-	-	-63.50	-3.71	-9.54	30.25	53.98	-23.73
* 20960.00	Peak	H	-	-	-53.64	-3.71	-9.54	40.11	73.98	-33.87
26200.00	Peak	H	-	-	-54.11	-2.65	-9.54	40.69	68.20	-27.51

**Table 7-76. Radiated Measurements SISO ANT1 (26 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	-	-	-68.88	15.64	0.00	53.76	68.20	-14.44
* 15780.00	Average	H	-	-	-83.23	21.09	0.00	44.86	53.98	-9.12
* 15780.00	Peak	H	-	-	-69.42	21.09	0.00	58.67	73.98	-15.31
* 21040.00	Average	H	-	-	-63.36	-3.87	-9.54	30.23	53.98	-23.75
* 21040.00	Peak	H	-	-	-54.45	-3.87	-9.54	39.14	73.98	-34.84
26300.00	Peak	H	-	-	-53.07	-2.82	-9.54	41.57	68.20	-26.63

**Table 7-77. Radiated Measurements SISO ANT1 (26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 177 of 249	

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	-	-	-68.98	15.65	0.00	53.67	68.20	-14.53
* 15840.00	Average	H	-	-	-83.42	23.57	0.00	47.15	53.98	-6.83
* 15840.00	Peak	H	-	-	-69.00	23.57	0.00	61.57	73.98	-12.41
* 21120.00	Average	H	-	-	-63.72	-3.66	-9.54	30.08	53.98	-23.90
* 21120.00	Peak	H	-	-	-55.37	-3.66	-9.54	38.43	73.98	-35.55
26400.00	Peak	H	-	-	-53.64	-2.63	-9.54	41.19	68.20	-27.01

**Table 7-78. Radiated Measurements SISO ANT1 (26 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	-	-	-82.72	15.76	0.00	40.04	53.98	-13.94
* 10640.00	Peak	H	-	-	-69.18	15.76	0.00	53.58	73.98	-20.40
* 15960.00	Average	H	-	-	-83.64	22.83	0.00	46.19	53.98	-7.79
* 15960.00	Peak	H	-	-	-68.75	22.83	0.00	61.08	73.98	-12.90
* 21280.00	Average	H	-	-	-63.74	-3.58	-9.54	30.13	53.98	-23.85
* 21280.00	Peak	H	-	-	-55.02	-3.58	-9.54	38.85	73.98	-35.13
26600.00	Peak	H	-	-	-54.38	-2.25	-9.54	40.83	68.20	-27.37

**Table 7-79. Radiated Measurements SISO ANT1 (26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 178 of 249	

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5500MHz  
 Channel: 100

Frequency [MHz]	Detector	Ant. Pol. [HV]	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	H	-	-	-81.42	16.02	0.00	41.60	53.98	-12.38
* 11000.00	Peak	H	-	-	-67.65	16.02	0.00	55.37	73.98	-18.61
16500.00	Peak	H	-	-	-69.27	24.10	0.00	61.83	68.20	-6.37
22000.00	Peak	H	-	-	-53.90	-3.43	-9.54	40.13	68.20	-28.07
27500.00	Peak	H	-	-	-54.14	-2.72	-9.54	40.60	68.20	-27.60

**Table 7-80. Radiated Measurements SISO ANT1 (26 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5600MHz  
 Channel: 120

Frequency [MHz]	Detector	Ant. Pol. [HV]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11200.00	Average	H	-	-	-82.08	16.98	0.00	41.90	53.98	-12.08
* 11200.00	Peak	H	-	-	-68.57	16.98	0.00	55.41	73.98	-18.57
16800.00	Peak	H	-	-	-69.53	23.78	0.00	61.25	68.20	-6.95
* 22400.00	Average	H	-	-	-63.33	-3.34	-9.54	30.79	53.98	-23.19
* 22400.00	Peak	H	-	-	-54.41	-3.34	-9.54	39.71	73.98	-34.27
28000.00	Peak	H	-	-	-53.22	-2.26	-9.54	41.97	68.20	-26.23

**Table 7-81. Radiated Measurements SISO ANT1 (26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 179 of 249	

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	-	-	-83.07	16.92	0.00	40.85	53.98	-13.13
* 11440.00	Peak	H	-	-	-68.83	16.92	0.00	55.09	73.98	-18.89
17160.00	Peak	H	-	-	-69.13	23.37	0.00	61.24	68.20	-6.96
* 22880.00	Average	H	-	-	-63.18	-3.38	-9.54	30.90	53.98	-23.08
* 22880.00	Peak	H	-	-	-54.13	-3.38	-9.54	39.95	73.98	-34.03
28600.00	Peak	H	-	-	-54.13	-2.02	-9.54	41.31	68.20	-26.89

**Table 7-82. Radiated Measurements SISO ANT1 (26 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	-	-	-82.96	17.46	0.00	41.50	53.98	-12.48
* 11490.00	Peak	H	-	-	-69.47	17.46	0.00	54.99	73.98	-18.99
17235.00	Peak	H	-	-	-69.75	24.92	0.00	62.17	68.20	-6.03
* 22980.00	Average	H	-	-	-63.08	-3.46	-9.54	30.92	53.98	-23.06
* 22980.00	Peak	H	-	-	-54.23	-3.46	-9.54	39.77	73.98	-34.21
28725.00	Peak	H	-	-	-53.88	-2.02	-9.54	41.55	68.20	-26.65

**Table 7-83. Radiated Measurements SISO ANT1 (26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 180 of 249	

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5785MHz  
 Channel: 157

Frequency [MHz]	Detector	Ant. Pol. [HV]	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	H	-	-	-82.63	16.62	0.00	40.99	53.98	-12.99
* 11570.00	Peak	H	-	-	-68.76	16.62	0.00	54.86	73.98	-19.12
17355.00	Peak	H	-	-	-69.65	24.47	0.00	61.82	68.20	-6.38
23140.00	Peak	H	-	-	-54.25	-3.47	-9.54	39.74	68.20	-28.46
28925.00	Peak	H	-	-	-55.15	-2.31	-9.54	40.00	68.20	-28.20

**Table 7-84. Radiated Measurements SISO ANT1 (26 Tones)**

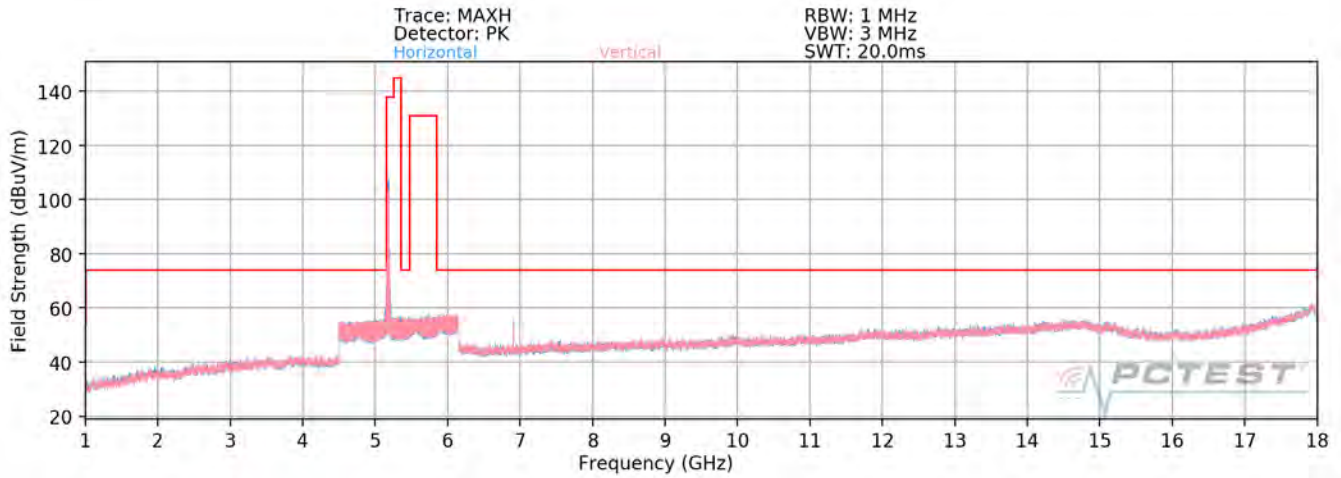
Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5825MHz  
 Channel: 165

Frequency [MHz]	Detector	Ant. Pol. [HV]	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	H	-	-	-82.93	17.51	0.00	41.58	53.98	-12.40
* 11650.00	Peak	H	-	-	-69.52	17.51	0.00	54.99	73.98	-18.99
17475.00	Peak	H	-	-	-69.86	26.14	0.00	63.28	68.20	-4.92
23300.00	Peak	H	-	-	-55.00	-3.52	-9.54	38.94	68.20	-29.26
29125.00	Peak	H	-	-	-53.49	-1.91	-9.54	42.06	68.20	-26.14

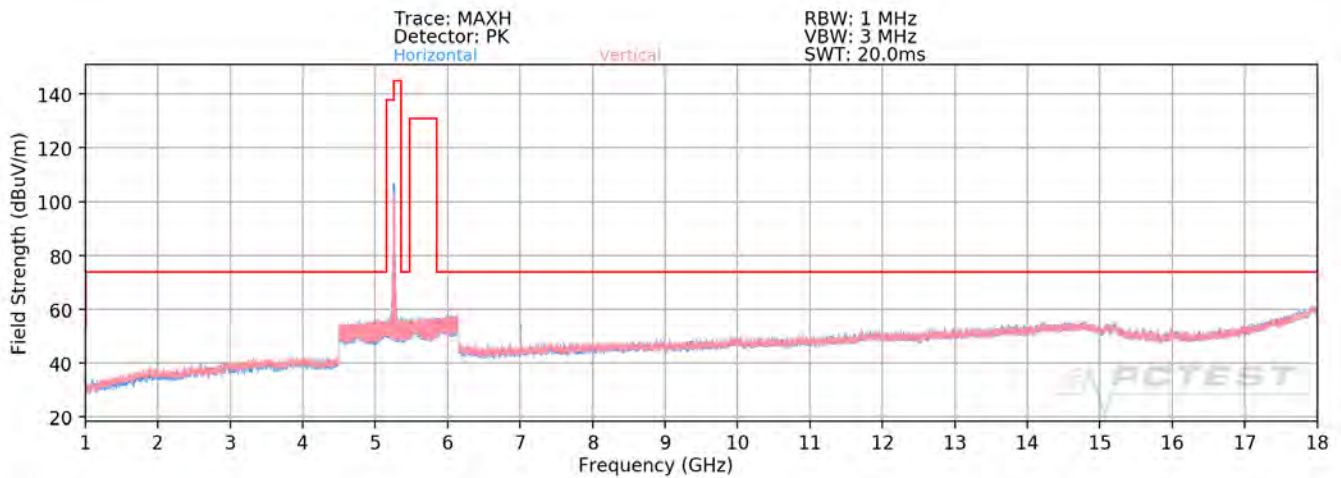
**Table 7-85. Radiated Measurements SISO ANT1 (26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 181 of 249	

## 242 Tones

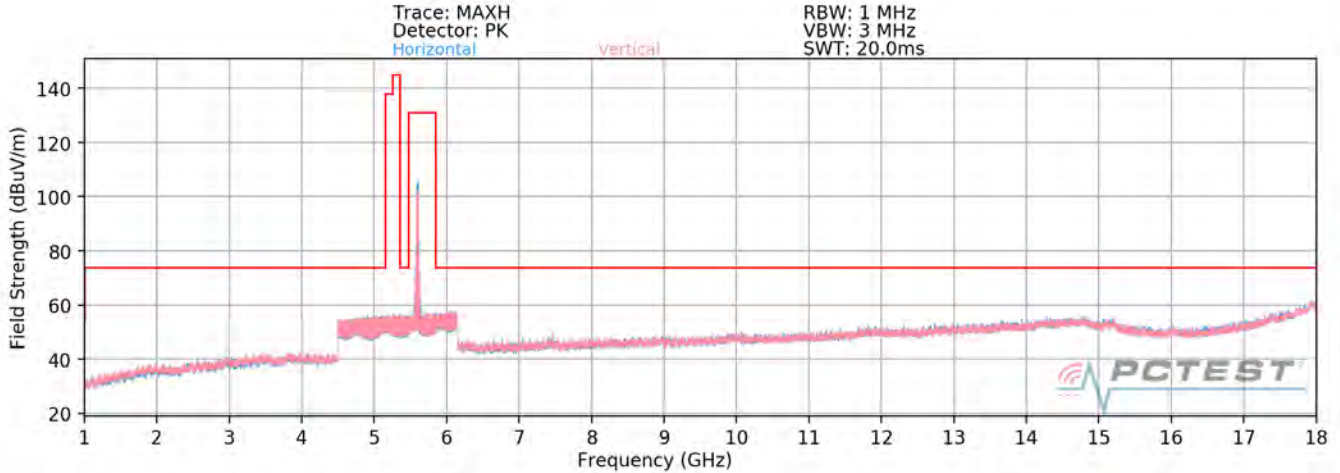


**Plot 7-223. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11ax – U1 Ch. 40 – 242 Tones)**

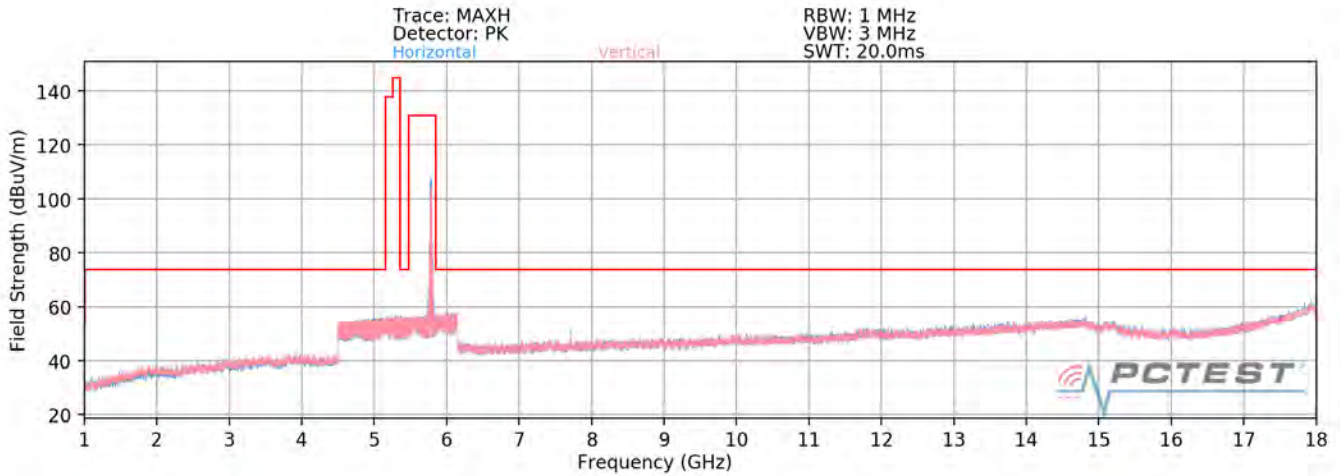


**Plot 7-224. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11ax – U2A Ch. 56 – 242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 182 of 249



**Plot 7-225. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11ax – U2C Ch. 120 – 242 Tones)**

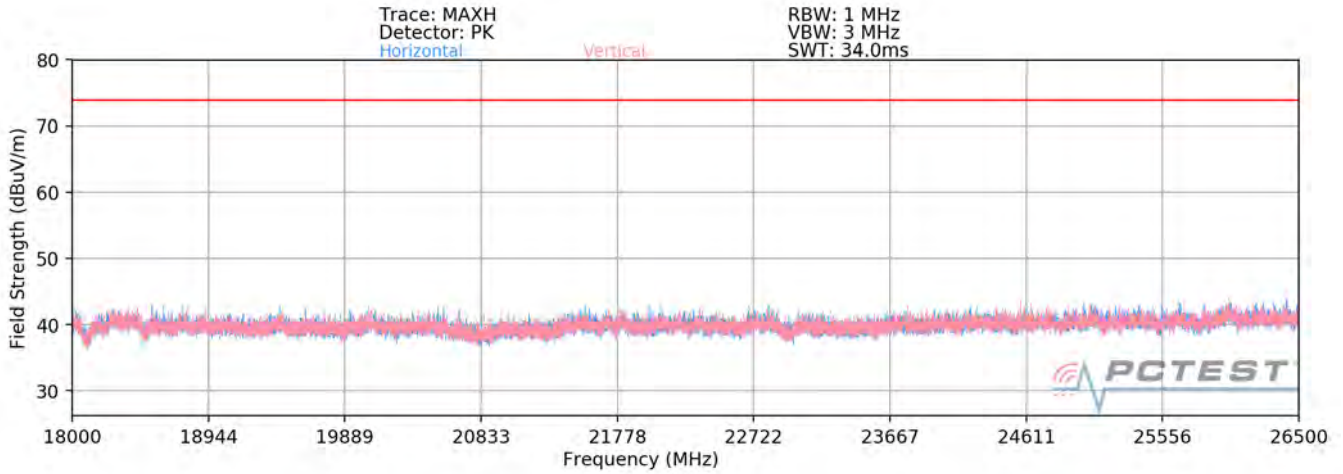


**Plot 7-226. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11ax – U3 Ch. 157 – 242 Tones)**

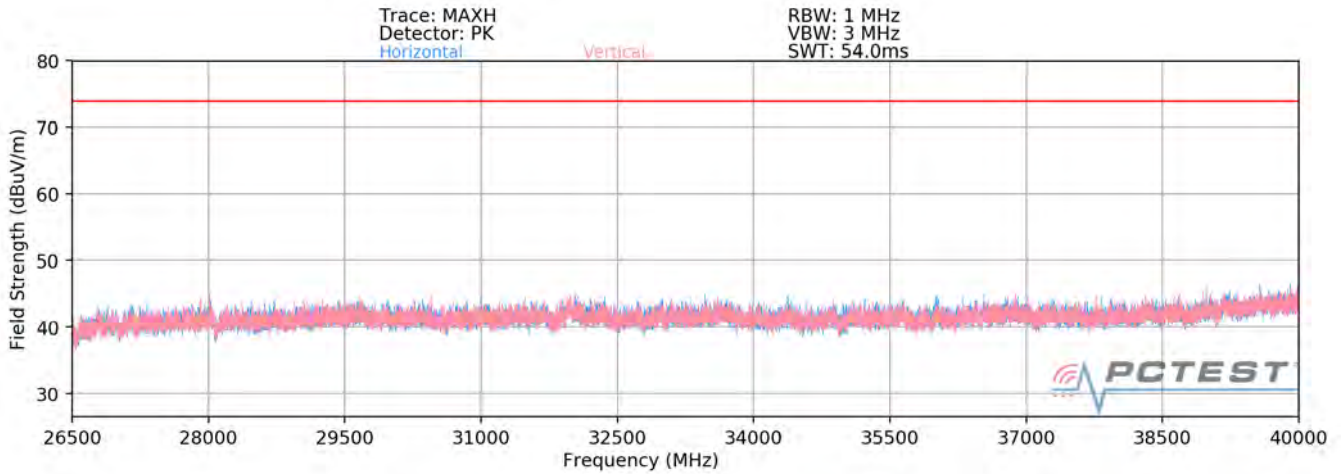
FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 183 of 249	



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



**Plot 7-227. Radiated Spurious Plot 18GHz - 26.5GHz SISO ANT1 (802.11ax – 242 Tones)**



**Plot 7-228. Radiated Spurious Plot 26.5GHz - 40GHz SISO ANT1 (802.11ax – 242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 184 of 249	



## SISO Antenna-1 Radiated Spurious Emission Measurements (242 Tones)

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

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5180MHz  
 Channel: 36

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
10360.00	Peak	H	-	-	-68.57	15.16	0.00	53.59	68.20	-14.61
* 15540.00	Average	H	-	-	-81.23	22.41	0.00	48.18	53.98	-5.80
* 15540.00	Peak	H	-	-	-69.21	22.41	0.00	60.20	73.98	-13.78
* 20720.00	Average	H	-	-	-64.22	-3.74	-9.54	29.50	53.98	-24.48
* 20720.00	Peak	H	-	-	-52.12	-3.74	-9.54	41.60	73.98	-32.38
25900.00	Peak	H	-	-	-51.45	-3.03	-9.54	42.98	68.20	-25.22

Table 7-86. Radiated Measurements SISO ANT1 (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5200MHz  
 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	H	-	-	-68.65	14.86	0.00	53.21	68.20	-14.99
* 15600.00	Average	H	-	-	-82.33	22.47	0.00	47.14	53.98	-6.84
* 15600.00	Peak	H	-	-	-69.06	22.47	0.00	60.41	73.98	-13.57
* 20800.00	Average	H	-	-	-63.84	-3.76	-9.54	29.86	53.98	-24.12
* 20800.00	Peak	H	-	-	-52.67	-3.76	-9.54	41.03	73.98	-32.95
26000.00	Peak	H	-	-	-50.86	-2.81	-9.54	43.79	68.20	-24.41

Table 7-87. Radiated Measurements SISO ANT1 (242 Tones)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 185 of 249

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5240MHz  
 Channel: 48

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
10480.00	Peak	H	-	-	-68.26	15.17	0.00	53.91	68.20	-14.29
* 15720.00	Average	H	-	-	-83.08	21.99	0.00	45.91	53.98	-8.07
* 15720.00	Peak	H	-	-	-69.36	21.99	0.00	59.63	73.98	-14.35
* 20960.00	Average	H	-	-	-63.38	-3.71	-9.54	30.37	53.98	-23.61
* 20960.00	Peak	H	-	-	-51.81	-3.71	-9.54	41.94	73.98	-32.04
26200.00	Peak	H	-	-	-51.85	-2.65	-9.54	42.95	68.20	-25.25

**Table 7-88. Radiated Measurements SISO ANT1 (242 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5260MHz  
 Channel: 52

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
10520.00	Peak	H	-	-	-68.43	15.64	0.00	54.21	68.20	-13.99
* 15780.00	Average	H	-	-	-83.26	21.09	0.00	44.83	53.98	-9.15
* 15780.00	Peak	H	-	-	-69.91	21.09	0.00	58.18	73.98	-15.80
* 21040.00	Average	H	-	-	-63.87	-3.87	-9.54	29.72	53.98	-24.26
* 21040.00	Peak	H	-	-	-52.34	-3.87	-9.54	41.25	73.98	-32.73
26300.00	Peak	H	-	-	-50.81	-2.82	-9.54	43.83	68.20	-24.37

**Table 7-89. Radiated Measurements SISO ANT1 (242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 186 of 249	

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5280MHz  
 Channel: 56

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10560.00	Peak	H	-	-	-69.00	15.65	0.00	53.65	68.20	-14.55
* 15840.00	Average	H	-	-	-83.38	23.57	0.00	47.19	53.98	-6.79
* 15840.00	Peak	H	-	-	-69.24	23.57	0.00	61.33	73.98	-12.65
* 21120.00	Average	H	-	-	-64.24	-3.66	-9.54	29.56	53.98	-24.42
* 21120.00	Peak	H	-	-	-52.05	-3.66	-9.54	41.75	73.98	-32.23
26400.00	Peak	H	-	-	-50.84	-2.63	-9.54	43.99	68.20	-24.21

**Table 7-90. Radiated Measurements SISO ANT1 (242 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5320MHz  
 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	H	-	-	-82.38	15.76	0.00	40.38	53.98	-13.60
* 10640.00	Peak	H	-	-	-68.68	15.76	0.00	54.08	73.98	-19.90
* 15960.00	Average	H	-	-	-83.52	22.83	0.00	46.31	53.98	-7.67
* 15960.00	Peak	H	-	-	-69.02	22.83	0.00	60.81	73.98	-13.17
* 21280.00	Average	H	-	-	-64.04	-3.58	-9.54	29.83	53.98	-24.15
* 21280.00	Peak	H	-	-	-51.73	-3.58	-9.54	42.14	73.98	-31.84
26600.00	Peak	H	-	-	-51.35	-2.25	-9.54	43.86	68.20	-24.34

**Table 7-91. Radiated Measurements SISO ANT1 (242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 187 of 249	

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5500MHz  
 Channel: 100

Frequency [MHz]	Detector	Ant. Pol. [HV]	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	H	-	-	-81.39	16.02	0.00	41.63	53.98	-12.35
* 11000.00	Peak	H	-	-	-68.33	16.02	0.00	54.69	73.98	-19.29
16500.00	Peak	H	-	-	-69.47	24.10	0.00	61.63	68.20	-6.57
22000.00	Peak	H	-	-	-51.35	-3.43	-9.54	42.68	68.20	-25.52
27500.00	Peak	H	-	-	-51.00	-2.72	-9.54	43.74	68.20	-24.46

**Table 7-92. Radiated Measurements SISO ANT1 (242 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5600MHz  
 Channel: 120

Frequency [MHz]	Detector	Ant. Pol. [HV]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11200.00	Average	H	-	-	-82.06	16.98	0.00	41.92	53.98	-12.06
* 11200.00	Peak	H	-	-	-68.30	16.98	0.00	55.68	73.98	-18.30
16800.00	Peak	H	-	-	-69.45	23.78	0.00	61.33	68.20	-6.87
* 22400.00	Average	H	-	-	-63.70	-3.34	-9.54	30.42	53.98	-23.56
* 22400.00	Peak	H	-	-	-52.43	-3.34	-9.54	41.69	73.98	-32.29
28000.00	Peak	H	-	-	-50.81	-2.26	-9.54	44.38	68.20	-23.82

**Table 7-93. Radiated Measurements SISO ANT1 (242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 188 of 249	

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5720MHz  
 Channel: 144

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
* 11440.00	Average	H	-	-	-82.71	16.92	0.00	41.21	53.98	-12.77
* 11440.00	Peak	H	-	-	-68.99	16.92	0.00	54.93	73.98	-19.05
17160.00	Peak	H	-	-	-68.62	23.37	0.00	61.75	68.20	-6.45
* 22880.00	Average	H	-	-	-63.23	-3.38	-9.54	30.85	53.98	-23.13
* 22880.00	Peak	H	-	-	-51.92	-3.38	-9.54	42.16	73.98	-31.82
28600.00	Peak	H	-	-	-51.58	-2.02	-9.54	43.86	68.20	-24.34

**Table 7-94. Radiated Measurements SISO ANT1 (242 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5745MHz  
 Channel: 149

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
* 11490.00	Average	H	-	-	-82.57	17.46	0.00	41.89	53.98	-12.09
* 11490.00	Peak	H	-	-	-69.10	17.46	0.00	55.36	73.98	-18.62
17235.00	Peak	H	-	-	-69.85	24.92	0.00	62.07	68.20	-6.13
* 22980.00	Average	H	-	-	-63.53	-3.46	-9.54	30.47	53.98	-23.51
* 22980.00	Peak	H	-	-	-51.76	-3.46	-9.54	42.24	73.98	-31.74
28725.00	Peak	H	-	-	-50.65	-2.02	-9.54	44.78	68.20	-23.42

**Table 7-95. Radiated Measurements SISO ANT1 (242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 189 of 249	

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5785MHz  
 Channel: 157

Frequency [MHz]	Detector	Ant. Pol. [HV]	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	H	-	-	-82.24	16.62	0.00	41.38	53.98	-12.60
* 11570.00	Peak	H	-	-	-68.82	16.62	0.00	54.80	73.98	-19.18
17355.00	Peak	H	-	-	-70.07	24.47	0.00	61.40	68.20	-6.80
23140.00	Peak	H	-	-	-51.05	-3.47	-9.54	42.94	68.20	-25.26
28925.00	Peak	H	-	-	-51.78	-2.31	-9.54	43.37	68.20	-24.83

**Table 7-96. Radiated Measurements SISO ANT1 (242 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5825MHz  
 Channel: 165

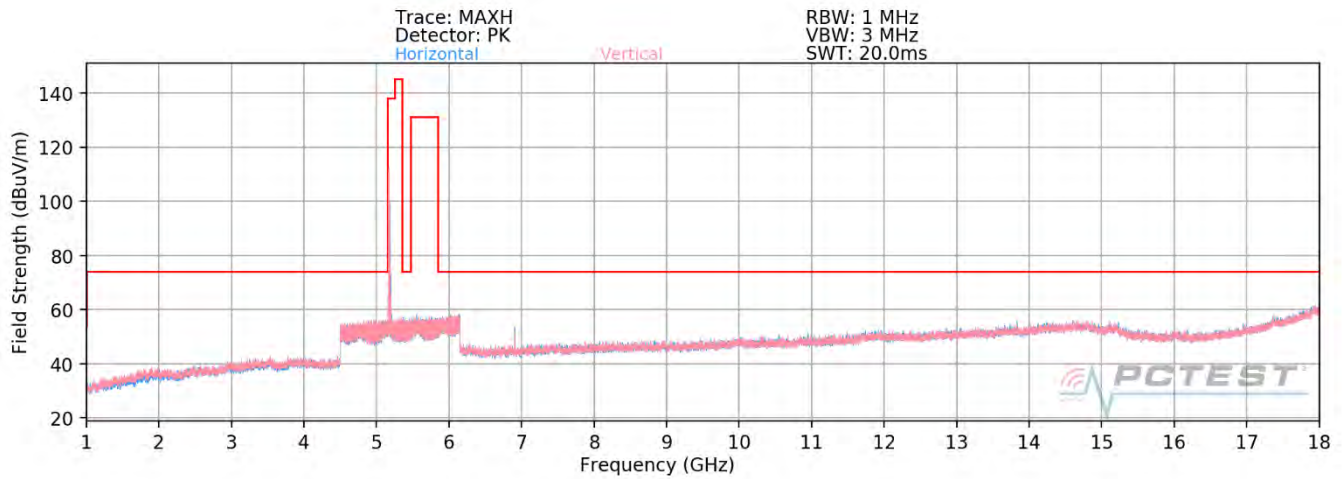
Frequency [MHz]	Detector	Ant. Pol. [HV]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11650.00	Average	H	-	-	-82.84	17.51	0.00	41.67	53.98	-12.31
* 11650.00	Peak	H	-	-	-69.32	17.51	0.00	55.19	73.98	-18.79
17475.00	Peak	H	-	-	-69.07	26.14	0.00	64.07	68.20	-4.13
23300.00	Peak	H	-	-	-51.51	-3.52	-9.54	42.43	68.20	-25.77
29125.00	Peak	H	-	-	-52.03	-1.91	-9.54	43.52	68.20	-24.68

**Table 7-97. Radiated Measurements SISO ANT1 (242 Tones)**

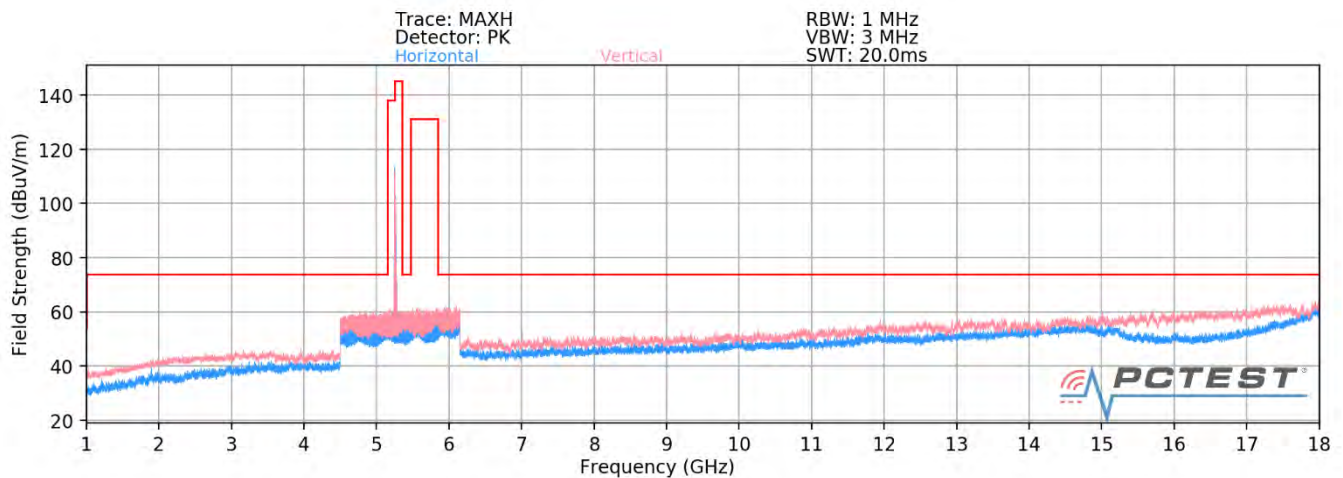
FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 190 of 249	

## 7.6.2 SISO Antenna-2 Radiated Spurious Emission Measurements

### 26 Tones



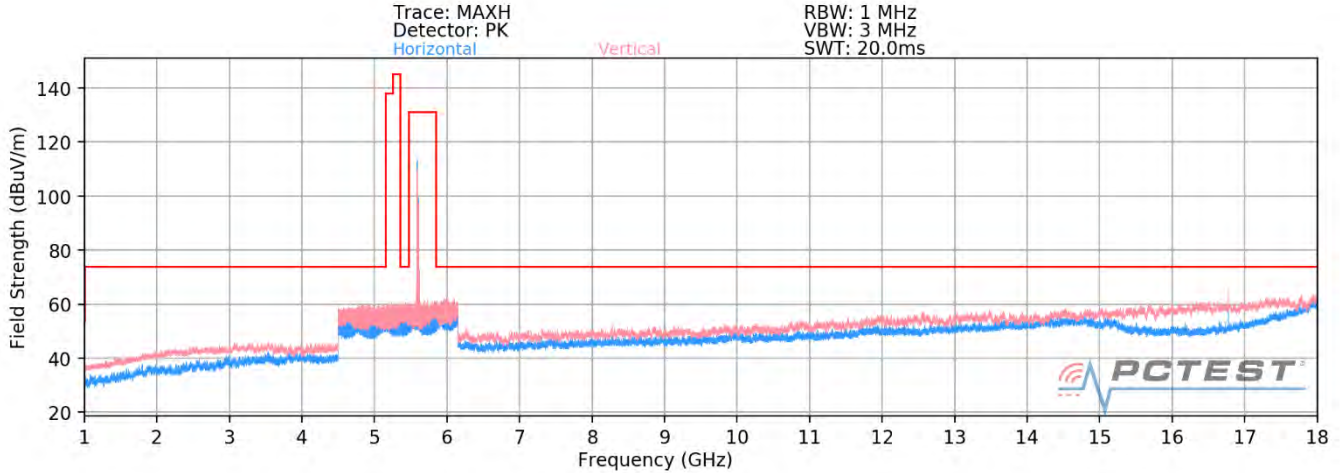
**Plot 7-229. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax – U1 Ch. 40 – 26 Tones)**



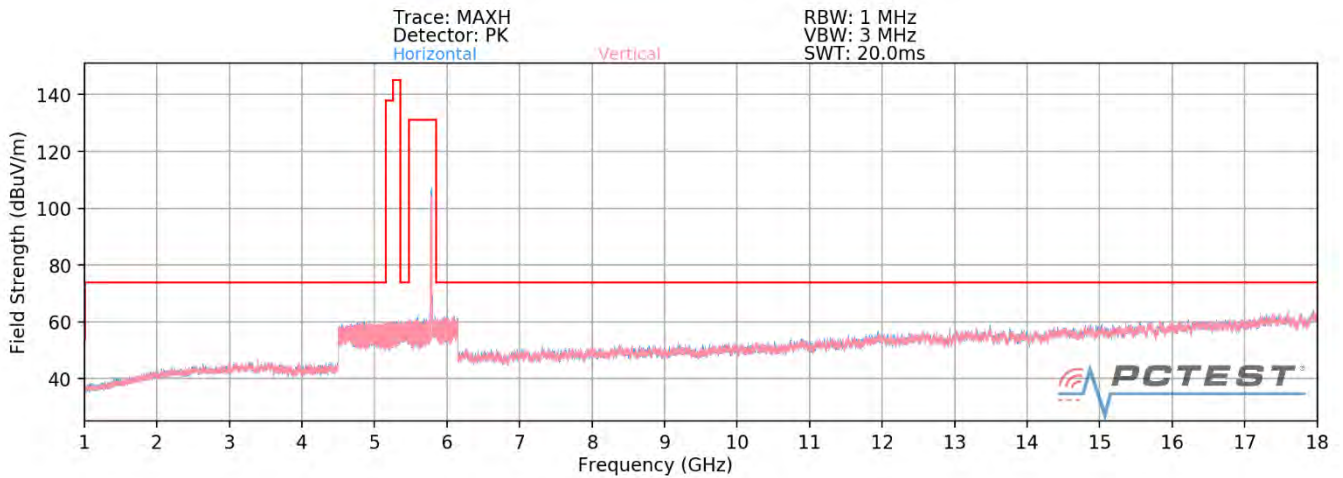
**Plot 7-230. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax – U2A Ch. 56 – 26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 191 of 249





**Plot 7-231. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax – U2C Ch. 120 – 26 Tones)**

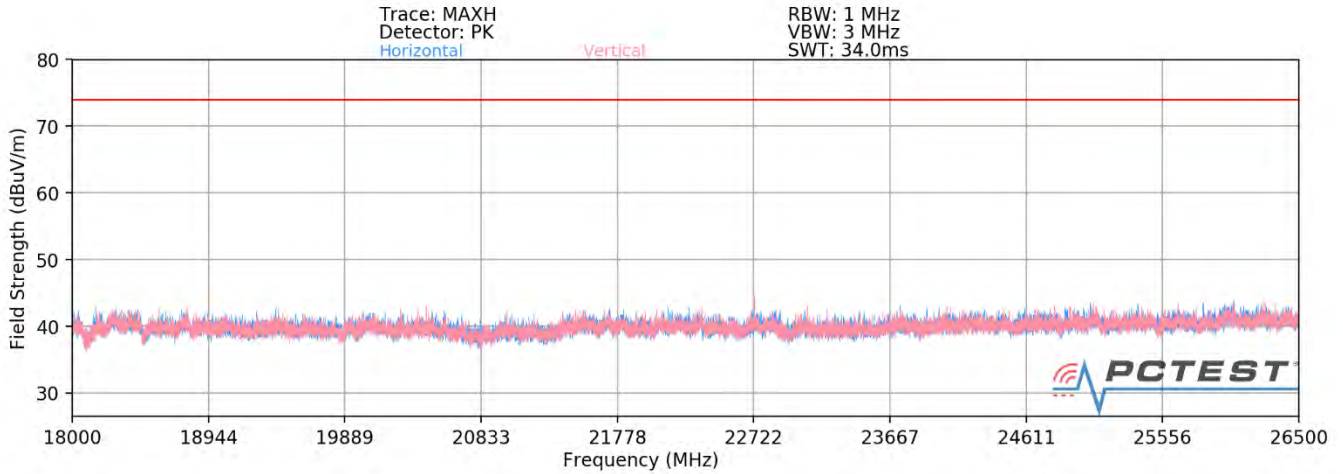


**Plot 7-232. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax – U3 Ch. 157 – 26 Tones)**

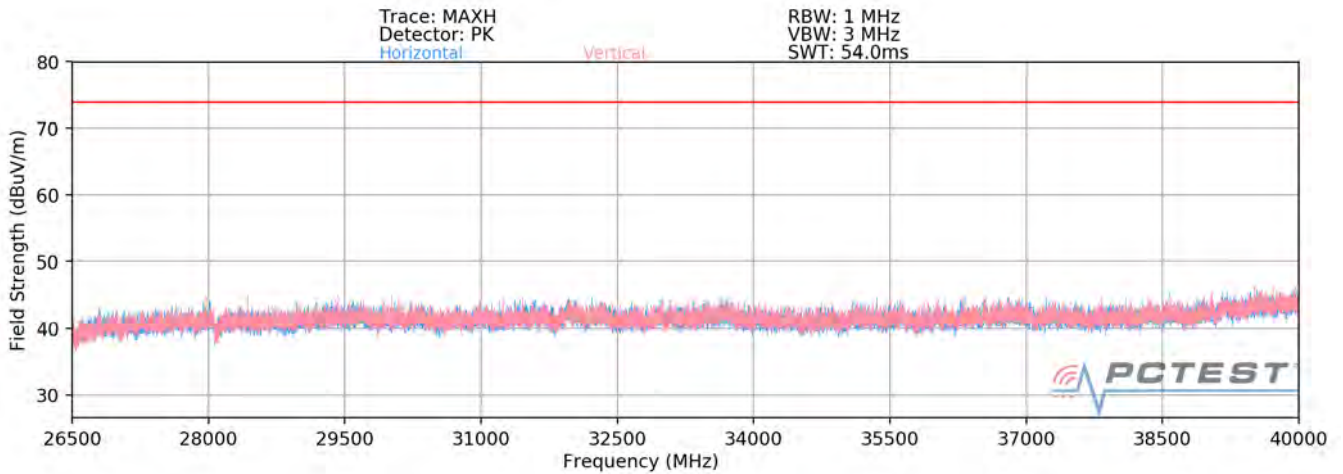
FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 192 of 249	



## SISO Antenna-2 Radiated Spurious Emissions Measurements (Above 18GHz)



**Plot 7-233. Radiated Spurious Plot 18GHz - 26.5GHz SISO ANT2 (802.11ax – 26 Tones)**



**Plot 7-234. Radiated Spurious Plot 26.5GHz - 40GHz SISO ANT2 (802.11ax – 26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)	 Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 193 of 249

## SISO Antenna-2 Radiated Spurious Emission Measurements

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

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	400	322	-68.66	12.76	0.00	51.10	68.20	-17.10
* 15540.00	Average	H	-	-	-82.84	15.66	0.00	39.82	53.98	-14.15
* 15540.00	Peak	H	-	-	-70.31	15.66	0.00	52.35	73.98	-21.62
* 20720.00	Average	H	-	-	-63.91	-3.74	-9.54	29.81	53.98	-24.17
* 20720.00	Peak	H	-	-	-54.91	-3.74	-9.54	38.81	73.98	-35.17
25900.00	Peak	H	-	-	-53.86	-3.03	-9.54	40.57	68.20	-27.63

Table 7-98. Radiated Measurements SISO ANT2 (26 Tones)

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	390	342	-68.41	12.52	0.00	51.11	68.20	-17.09
* 15600.00	Average	H	-	-	-82.91	16.09	0.00	40.18	53.98	-13.80
* 15600.00	Peak	H	-	-	-70.53	16.09	0.00	52.56	73.98	-21.42
* 20800.00	Average	H	-	-	-63.57	-3.76	-9.54	30.13	53.98	-23.85
* 20800.00	Peak	H	-	-	-54.99	-3.76	-9.54	38.71	73.98	-35.27
26000.00	Peak	H	-	-	-53.28	-2.81	-9.54	41.37	68.20	-26.83

Table 7-99. Radiated Measurements SISO ANT2 (26 Tones)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 194 of 249

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	398	228	-69.49	12.52	0.00	50.03	68.20	-18.17
* 15720.00	Average	H	-	-	-82.98	16.17	0.00	40.19	53.98	-13.79
* 15720.00	Peak	H	-	-	-70.70	16.17	0.00	52.47	73.98	-21.51
* 20960.00	Average	H	-	-	-63.37	-3.71	-9.54	30.38	53.98	-23.60
* 20960.00	Peak	H	-	-	-54.16	-3.71	-9.54	39.59	73.98	-34.39
26200.00	Peak	H	-	-	-54.15	-2.65	-9.54	40.65	68.20	-27.55

**Table 7-100. Radiated Measurements SISO ANT2 (26 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	400	263	-70.16	13.09	0.00	49.93	68.20	-18.27
* 15780.00	Average	H	-	-	-83.46	16.22	0.00	39.76	53.98	-14.22
* 15780.00	Peak	H	-	-	-74.96	16.22	0.00	48.26	73.98	-25.72
* 21040.00	Average	H	-	-	-63.54	-3.87	-9.54	30.05	53.98	-23.93
* 21040.00	Peak	H	-	-	-54.14	-3.87	-9.54	39.45	73.98	-34.53
26300.00	Peak	H	-	-	-53.20	-2.82	-9.54	41.44	68.20	-26.76

**Table 7-101. Radiated Measurements SISO ANT2 (26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 195 of 249	

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	-	-	-70.67	13.76	0.00	50.09	68.20	-18.11
* 15840.00	Average	H	-	-	-84.11	15.82	0.00	38.71	53.98	-15.27
* 15840.00	Peak	H	-	-	-72.03	15.82	0.00	50.79	73.98	-23.19
* 21120.00	Average	H	-	-	-63.91	-3.66	-9.54	29.89	53.98	-24.09
* 21120.00	Peak	H	-	-	-54.54	-3.66	-9.54	39.26	73.98	-34.72
26400.00	Peak	H	-	-	-53.45	-2.63	-9.54	41.38	68.20	-26.82

**Table 7-102. Radiated Measurements SISO ANT2 (26 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	-	-	-83.03	13.66	0.00	37.63	53.98	-16.35
* 10640.00	Peak	H	-	-	-70.26	13.66	0.00	50.40	73.98	-23.58
* 15960.00	Average	H	-	-	-84.15	15.05	0.00	37.90	53.98	-16.07
* 15960.00	Peak	H	-	-	-72.19	15.05	0.00	49.86	73.98	-24.11
* 21280.00	Average	H	-	-	-63.89	-3.58	-9.54	29.98	53.98	-24.00
* 21280.00	Peak	H	-	-	-54.84	-3.58	-9.54	39.03	73.98	-34.95
26600.00	Peak	H	-	-	-54.30	-2.25	-9.54	40.91	68.20	-27.29

**Table 7-103. Radiated Measurements SISO ANT2 (26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 196 of 249	

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5500MHz  
 Channel: 100

Frequency [MHz]	Detector	Ant. Pol. [HV]	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	H	-	-	-82.85	13.62	0.00	37.77	53.98	-16.21
* 11000.00	Peak	H	-	-	-70.24	13.62	0.00	50.38	73.98	-23.60
16500.00	Peak	H	-	-	-70.79	15.75	0.00	51.96	68.20	-16.24
22000.00	Peak	H	-	-	-54.17	-3.43	-9.54	39.86	68.20	-28.34
27500.00	Peak	H	-	-	-53.93	-2.72	-9.54	40.81	68.20	-27.39

**Table 7-104. Radiated Measurements SISO ANT2 (26 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5600MHz  
 Channel: 120

Frequency [MHz]	Detector	Ant. Pol. [HV]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11200.00	Average	H	-	-	-82.72	14.26	0.00	38.54	53.98	-15.44
* 11200.00	Peak	H	-	-	-70.31	14.26	0.00	50.95	73.98	-23.03
16800.00	Peak	H	-	-	-70.82	16.67	0.00	52.85	68.20	-15.35
* 22400.00	Average	H	-	-	-63.31	-3.34	-9.54	30.81	53.98	-23.17
* 22400.00	Peak	H	-	-	-53.62	-3.34	-9.54	40.50	73.98	-33.48
28000.00	Peak	H	-	-	-53.34	-2.26	-9.54	41.85	68.20	-26.35

**Table 7-105. Radiated Measurements SISO ANT2 (26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 197 of 249	

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	-	-	-82.89	14.25	0.00	38.36	53.98	-15.61
* 11440.00	Peak	H	-	-	-71.12	14.25	0.00	50.13	73.98	-23.84
17160.00	Peak	H	-	-	-71.00	18.43	0.00	54.43	68.20	-13.77
* 22880.00	Average	H	-	-	-63.14	-3.38	-9.54	30.94	53.98	-23.04
* 22880.00	Peak	H	-	-	-54.61	-3.38	-9.54	39.47	73.98	-34.51
28600.00	Peak	H	-	-	-54.45	-2.02	-9.54	40.99	68.20	-27.21

**Table 7-106. Radiated Measurements SISO ANT2 (26 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	-	-	-83.29	14.74	0.00	38.45	53.98	-15.53
* 11490.00	Peak	H	-	-	-69.35	14.74	0.00	52.39	73.98	-21.59
17235.00	Peak	H	-	-	-71.32	18.65	0.00	54.33	68.20	-13.87
* 22980.00	Average	H	-	-	-63.30	-3.46	-9.54	30.70	53.98	-23.28
* 22980.00	Peak	H	-	-	-53.58	-3.46	-9.54	40.42	73.98	-33.56
28725.00	Peak	H	-	-	-53.79	-2.02	-9.54	41.64	68.20	-26.56

**Table 7-107. Radiated Measurements SISO ANT2 (26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 198 of 249	

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	-	-	-82.88	14.20	0.00	38.32	53.98	-15.66
* 11570.00	Peak	H	-	-	-70.60	14.20	0.00	50.60	73.98	-23.38
17355.00	Peak	H	-	-	-72.29	21.29	0.00	56.00	68.20	-12.20
23140.00	Peak	H	-	-	-53.53	-3.47	-9.54	40.46	68.20	-27.74
28925.00	Peak	H	-	-	-54.42	-2.31	-9.54	40.73	68.20	-27.47

**Table 7-108. Radiated Measurements SISO ANT2 (26 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5825MHz  
 Channel: 165

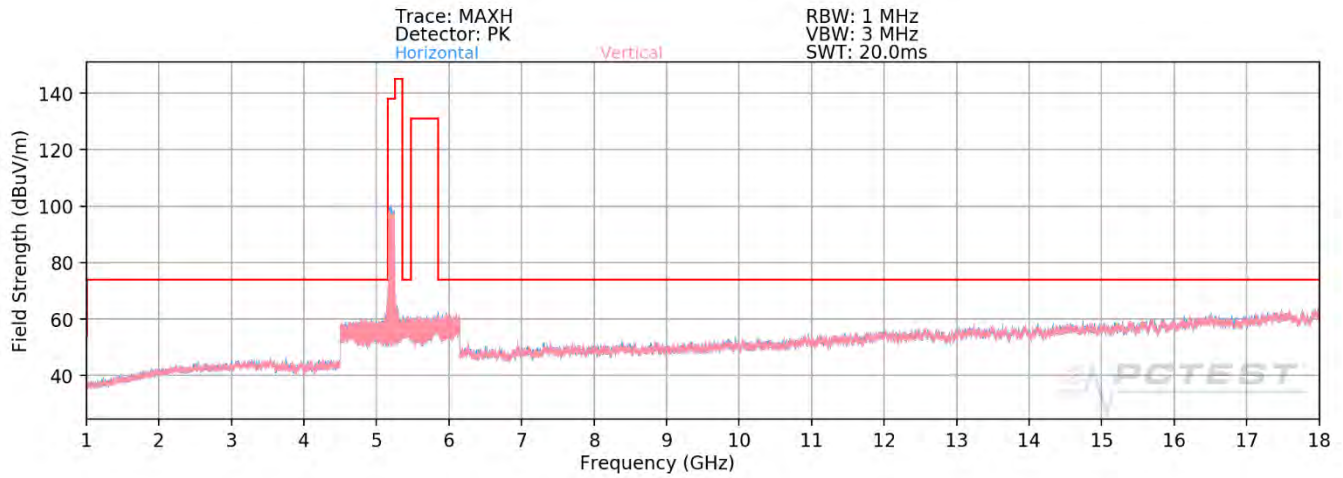
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11650.00	Average	H	-	-	-82.34	14.27	0.00	38.93	53.98	-15.05
* 11650.00	Peak	H	-	-	-70.70	14.27	0.00	50.57	73.98	-23.41
17475.00	Peak	H	-	-	-72.19	20.81	0.00	55.62	68.20	-12.58
23300.00	Peak	H	-	-	-54.82	-3.52	-9.54	39.12	68.20	-29.08
29125.00	Peak	H	-	-	-54.15	-1.91	-9.54	41.40	68.20	-26.80

**Table 7-109. Radiated Measurements SISO ANT2 (26 Tones)**

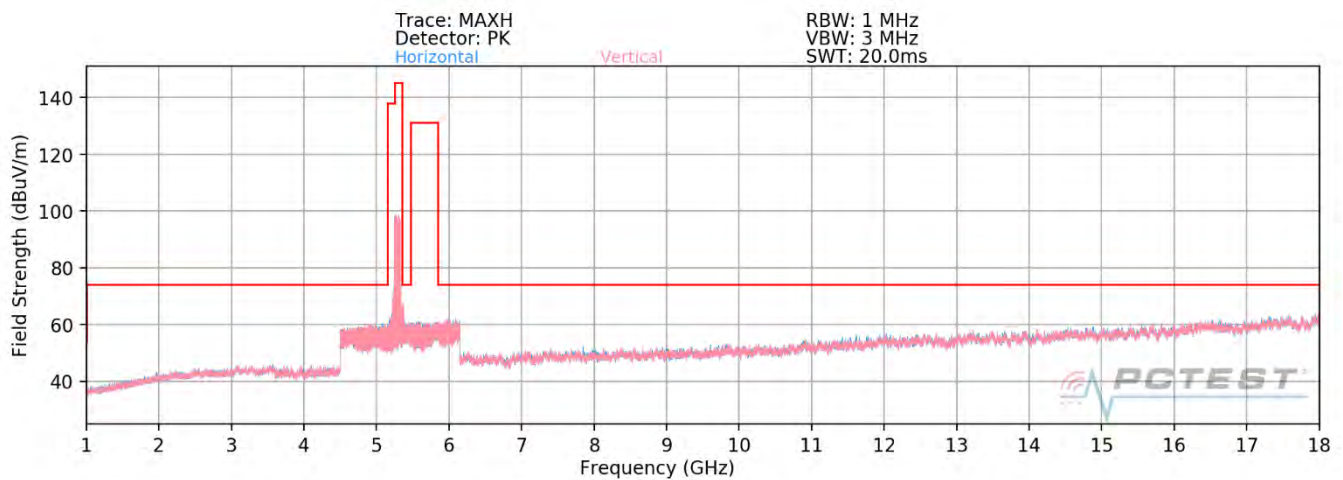
FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 199 of 249	



## 242 Tones



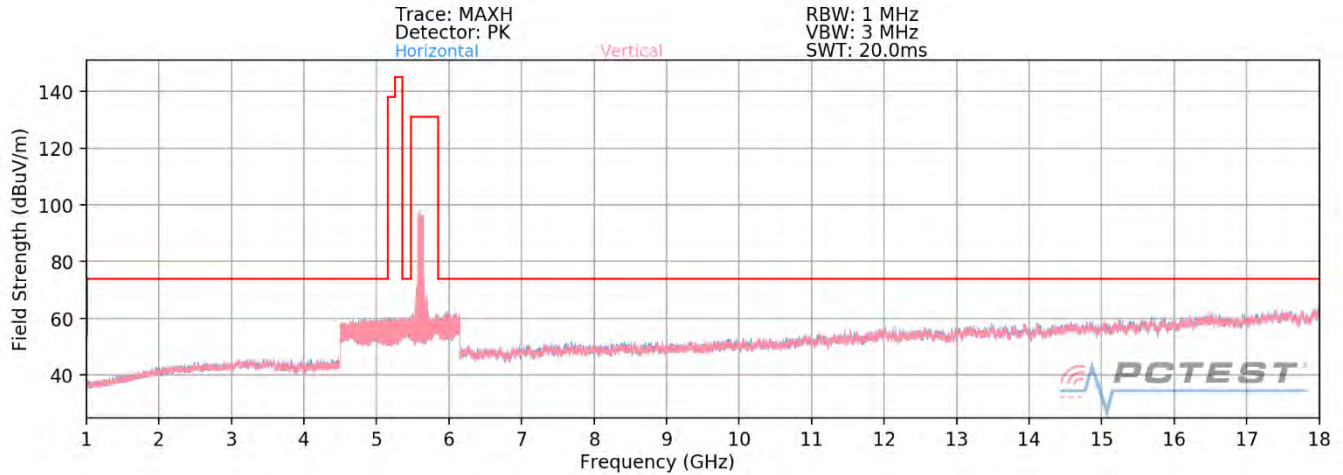
**Plot 7-235. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax – U1 Ch. 40 – 242 Tones)**



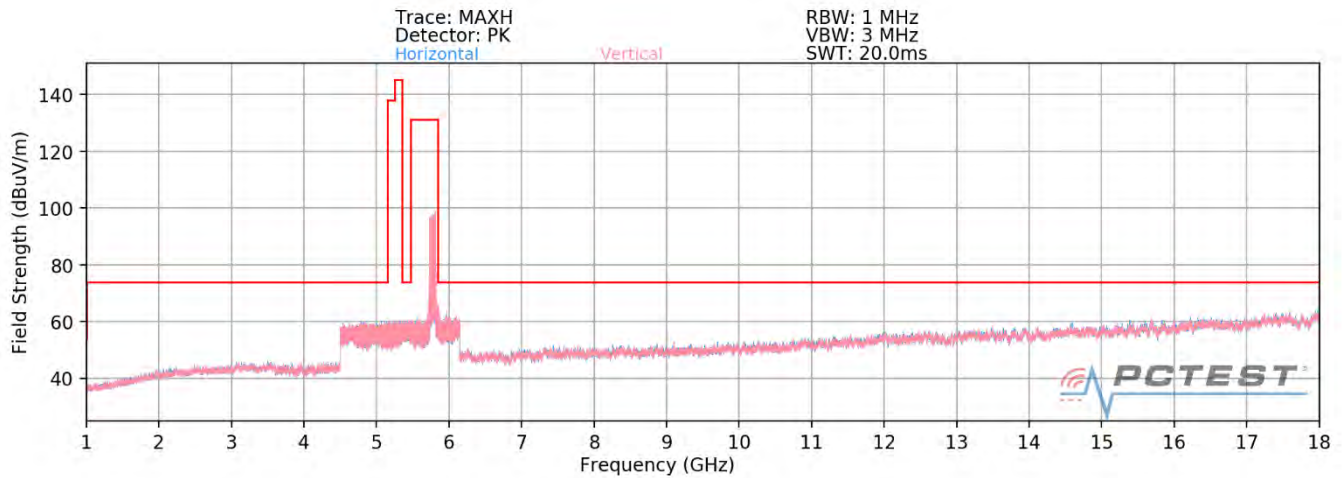
**Plot 7-236. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax – U2A Ch. 56 – 242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 200 of 249





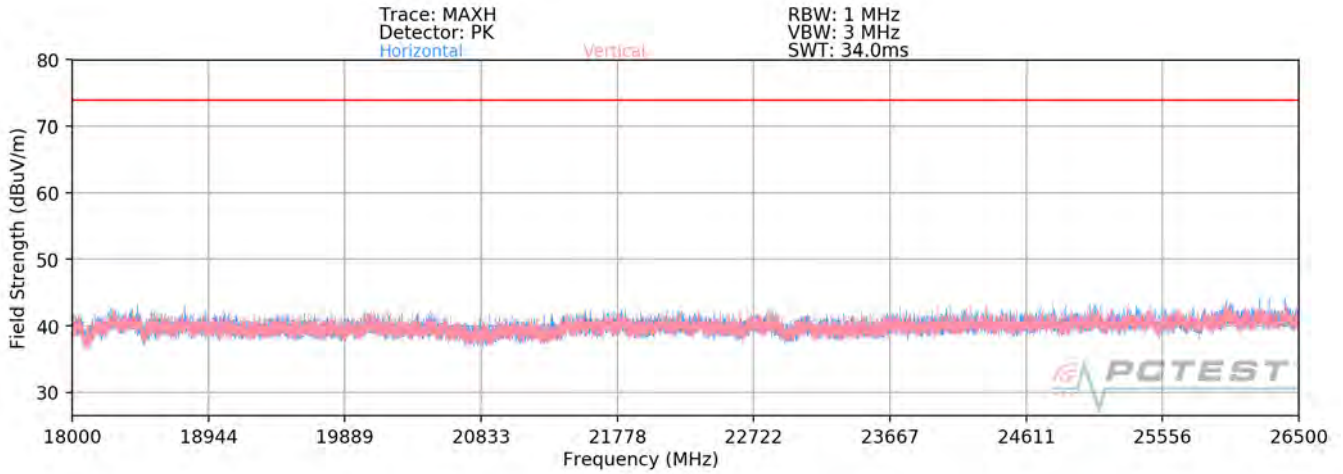
**Plot 7-237. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax – U2C Ch. 120 – 242 Tones)**



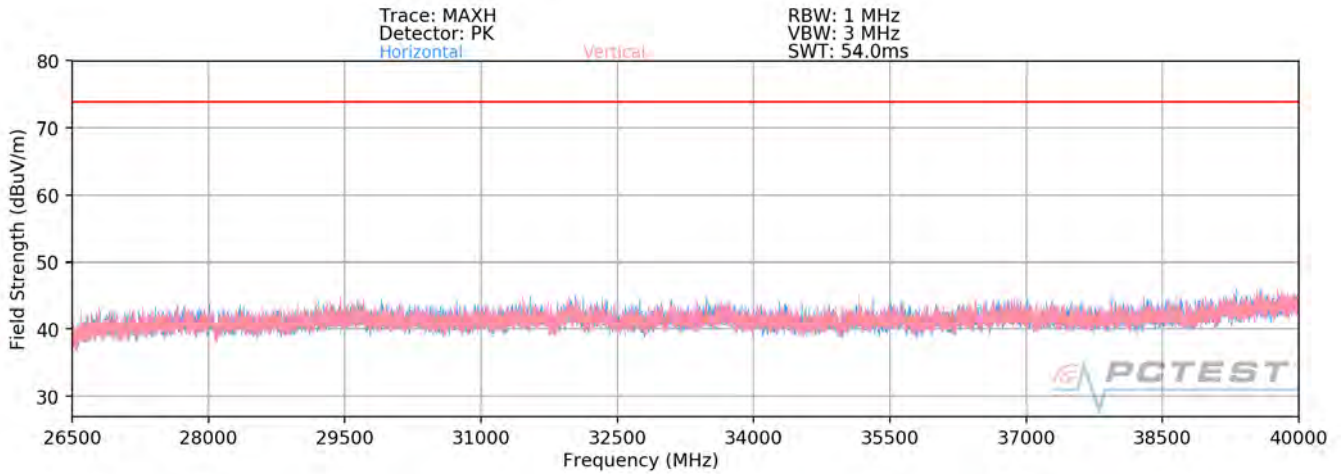
**Plot 7-238. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax – U3 Ch. 157 – 242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 201 of 249

## SISO Antenna-2 Radiated Spurious Emissions Measurements (Above 18GHz)



**Plot 7-239. Radiated Spurious Plot 18GHz - 26.5GHz SISO ANT2 (802.11ax – 242 Tones)**



**Plot 7-240. Radiated Spurious Plot 26.5GHz - 40GHz SISO ANT2 (802.11ax – 242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 202 of 249

## SISO Antenna-2 Radiated Spurious Emission Measurements

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

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5180MHz  
 Channel: 36

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
10360.00	Peak	H	400	314	-68.79	12.76	0.00	50.97	68.20	-17.23
* 15540.00	Average	H	-	-	-83.25	15.66	0.00	39.41	53.98	-14.56
* 15540.00	Peak	H	-	-	-71.31	15.66	0.00	51.35	73.98	-22.62
* 20720.00	Average	H	-	-	-63.78	-3.74	-9.54	29.94	53.98	-24.04
* 20720.00	Peak	H	-	-	-54.87	-3.74	-9.54	38.85	73.98	-35.13
25900.00	Peak	H	-	-	-53.64	-3.03	-9.54	40.79	68.20	-27.41

Table 7-110. Radiated Measurements SISO ANT2 (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 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	H	-	-	-69.30	12.52	0.00	50.22	68.20	-17.98
* 15600.00	Average	H	-	-	-83.69	16.09	0.00	39.40	53.98	-14.58
* 15600.00	Peak	H	-	-	-71.47	16.09	0.00	51.62	73.98	-22.36
* 20800.00	Average	H	-	-	-63.69	-3.76	-9.54	30.01	53.98	-23.97
* 20800.00	Peak	H	-	-	-55.08	-3.76	-9.54	38.62	73.98	-35.36
26000.00	Peak	H	-	-	-53.64	-2.81	-9.54	41.01	68.20	-27.19

Table 7-111. Radiated Measurements SISO ANT2 (242 Tones)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 203 of 249

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5240MHz  
 Channel: 48

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
10480.00	Peak	H	-	-	-69.74	12.52	0.00	49.78	68.20	-18.42
* 15720.00	Average	H	-	-	-84.57	16.17	0.00	38.60	53.98	-15.38
* 15720.00	Peak	H	-	-	-72.64	16.17	0.00	50.53	73.98	-23.45
* 20960.00	Average	H	-	-	-63.33	-3.71	-9.54	30.42	53.98	-23.56
* 20960.00	Peak	H	-	-	-55.02	-3.71	-9.54	38.73	73.98	-35.25
26200.00	Peak	H	-	-	-53.84	-2.65	-9.54	40.96	68.20	-27.24

**Table 7-112. Radiated Measurements SISO ANT2 (242 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5260MHz  
 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	H	-	-	-70.29	13.09	0.00	49.80	68.20	-18.40
* 15780.00	Average	H	-	-	-83.93	16.22	0.00	39.29	53.98	-14.69
* 15780.00	Peak	H	-	-	-71.51	16.22	0.00	51.71	73.98	-22.27
* 21040.00	Average	H	-	-	-63.37	-3.87	-9.54	30.22	53.98	-23.76
* 21040.00	Peak	H	-	-	-53.97	-3.87	-9.54	39.62	73.98	-34.36
26300.00	Peak	H	-	-	-53.88	-2.82	-9.54	40.76	68.20	-27.44

**Table 7-113. Radiated Measurements SISO ANT2 (242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 204 of 249	

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5280MHz  
 Channel: 56

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10560.00	Peak	H	-	-	-70.65	13.76	0.00	50.11	68.20	-18.09
* 15840.00	Average	H	-	-	-84.18	15.82	0.00	38.64	53.98	-15.34
* 15840.00	Peak	H	-	-	-72.36	15.82	0.00	50.46	73.98	-23.52
* 21120.00	Average	H	-	-	-63.77	-3.66	-9.54	30.03	53.98	-23.95
* 21120.00	Peak	H	-	-	-55.14	-3.66	-9.54	38.66	73.98	-35.32
26400.00	Peak	H	-	-	-53.90	-2.63	-9.54	40.93	68.20	-27.27

**Table 7-114. Radiated Measurements SISO ANT2 (242 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5320MHz  
 Channel: 64

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 10640.00	Average	H	-	-	-83.34	13.66	0.00	37.32	53.98	-16.66
* 10640.00	Peak	H	-	-	-70.72	13.66	0.00	49.94	73.98	-24.04
* 15960.00	Average	H	-	-	-83.61	15.05	0.00	38.44	53.98	-15.53
* 15960.00	Peak	H	-	-	-71.23	15.05	0.00	50.82	73.98	-23.15
* 21280.00	Average	H	-	-	-63.56	-3.58	-9.54	30.31	53.98	-23.67
* 21280.00	Peak	H	-	-	-54.84	-3.58	-9.54	39.03	73.98	-34.95
26600.00	Peak	H	-	-	-54.04	-2.25	-9.54	41.17	68.20	-27.03

**Table 7-115. Radiated Measurements SISO ANT2 (242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 205 of 249	

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5500MHz  
 Channel: 100

Frequency [MHz]	Detector	Ant. Pol. [HV]	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	H	-	-	-83.09	13.62	0.00	37.53	53.98	-16.45
* 11000.00	Peak	H	-	-	-70.44	13.62	0.00	50.18	73.98	-23.80
16500.00	Peak	H	-	-	-71.54	15.75	0.00	51.21	68.20	-16.99
22000.00	Peak	H	-	-	-54.18	-3.43	-9.54	39.85	68.20	-28.35
27500.00	Peak	H	-	-	-53.18	-2.72	-9.54	41.56	68.20	-26.64

**Table 7-116. Radiated Measurements SISO ANT2 (242 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5600MHz  
 Channel: 120

Frequency [MHz]	Detector	Ant. Pol. [HV]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
* 11200.00	Average	H	-	-	-82.82	14.26	0.00	38.44	53.98	-15.54
* 11200.00	Peak	H	-	-	-70.52	14.26	0.00	50.74	73.98	-23.24
16800.00	Peak	H	-	-	-71.77	16.67	0.00	51.90	68.20	-16.30
* 22400.00	Average	H	-	-	-63.36	-3.34	-9.54	30.76	53.98	-23.22
* 22400.00	Peak	H	-	-	-54.98	-3.34	-9.54	39.14	73.98	-34.84
28000.00	Peak	H	-	-	-52.82	-2.26	-9.54	42.37	68.20	-25.83

**Table 7-117. Radiated Measurements SISO ANT2 (242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 206 of 249	

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5720MHz  
 Channel: 144

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
* 11440.00	Average	H	-	-	-82.84	14.25	0.00	38.41	53.98	-15.56
* 11440.00	Peak	H	-	-	-70.59	14.25	0.00	50.66	73.98	-23.31
17160.00	Peak	H	-	-	-70.72	18.43	0.00	54.71	68.20	-13.49
* 22880.00	Average	H	-	-	-63.23	-3.38	-9.54	30.85	53.98	-23.13
* 22880.00	Peak	H	-	-	-54.50	-3.38	-9.54	39.58	73.98	-34.40
28600.00	Peak	H	-	-	-53.45	-2.02	-9.54	41.99	68.20	-26.21

**Table 7-118. Radiated Measurements SISO ANT2 (242 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5745MHz  
 Channel: 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	H	-	-	-82.91	14.74	0.00	38.83	53.98	-15.15
* 11490.00	Peak	H	-	-	-70.67	14.74	0.00	51.07	73.98	-22.91
17235.00	Peak	H	-	-	-70.91	18.65	0.00	54.74	68.20	-13.46
* 22980.00	Average	H	-	-	-63.23	-3.46	-9.54	30.77	53.98	-23.21
* 22980.00	Peak	H	-	-	-54.87	-3.46	-9.54	39.13	73.98	-34.85
28725.00	Peak	H	-	-	-53.72	-2.02	-9.54	41.71	68.20	-26.49

**Table 7-119. Radiated Measurements SISO ANT2 (242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 207 of 249	



Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5785MHz  
 Channel: 157

Frequency [MHz]	Detector	Ant. Pol. [HV]	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	H	-	-	-82.74	14.20	0.00	38.46	53.98	-15.52
* 11570.00	Peak	H	-	-	-70.79	14.20	0.00	50.41	73.98	-23.57
17355.00	Peak	H	-	-	-71.64	21.29	0.00	56.65	68.20	-11.55
23140.00	Peak	H	-	-	-53.37	-3.47	-9.54	40.62	68.20	-27.58
28925.00	Peak	H	-	-	-54.46	-2.31	-9.54	40.69	68.20	-27.51

**Table 7-120. Radiated Measurements SISO ANT2 (242 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5825MHz  
 Channel: 165

Frequency [MHz]	Detector	Ant. Pol. [HV]	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	H	-	-	-83.09	14.27	0.00	38.18	53.98	-15.80
* 11650.00	Peak	H	-	-	-70.82	14.27	0.00	50.45	73.98	-23.53
17475.00	Peak	H	-	-	-72.13	20.81	0.00	55.68	68.20	-12.52
23300.00	Peak	H	-	-	-54.94	-3.52	-9.54	39.00	68.20	-29.20
29125.00	Peak	H	-	-	-53.80	-1.91	-9.54	41.75	68.20	-26.45

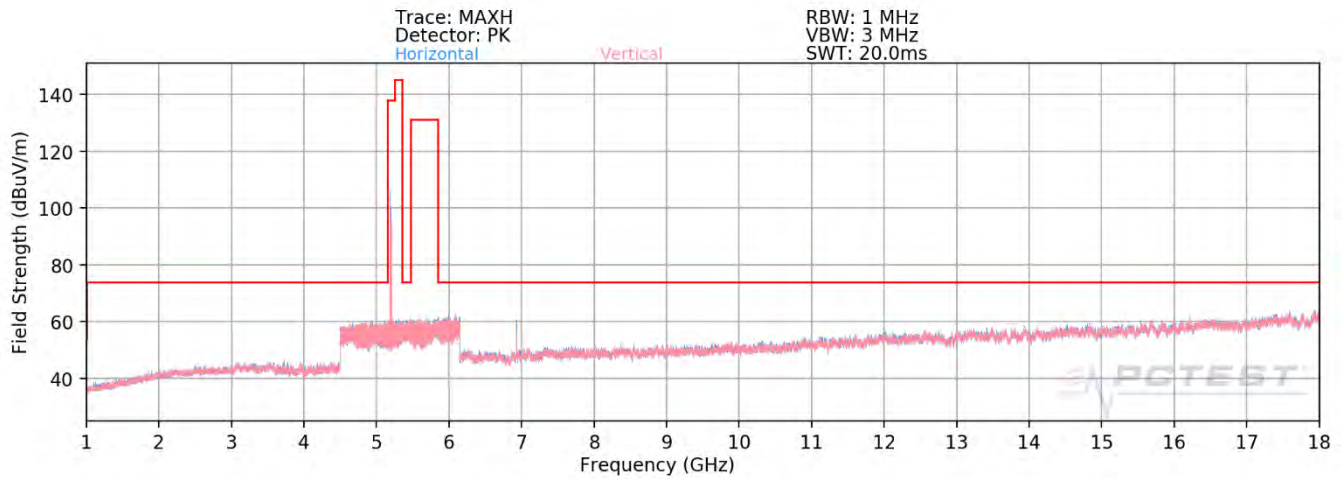
**Table 7-121. Radiated Measurements SISO ANT2 (242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 208 of 249	

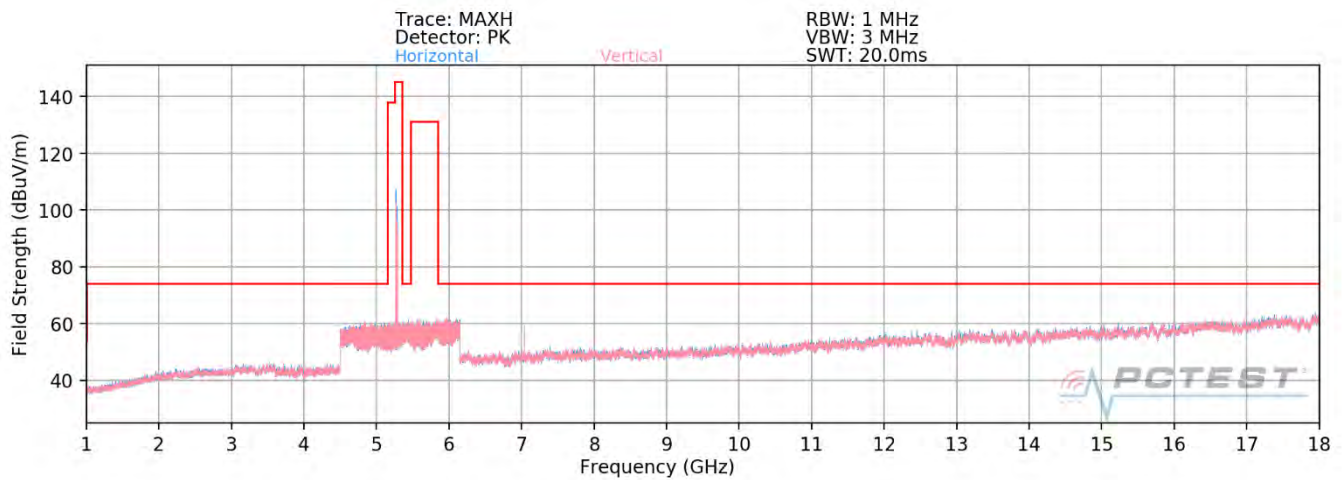


## 7.6.3 MIMO Radiated Spurious Emission Measurements

### 26 Tones

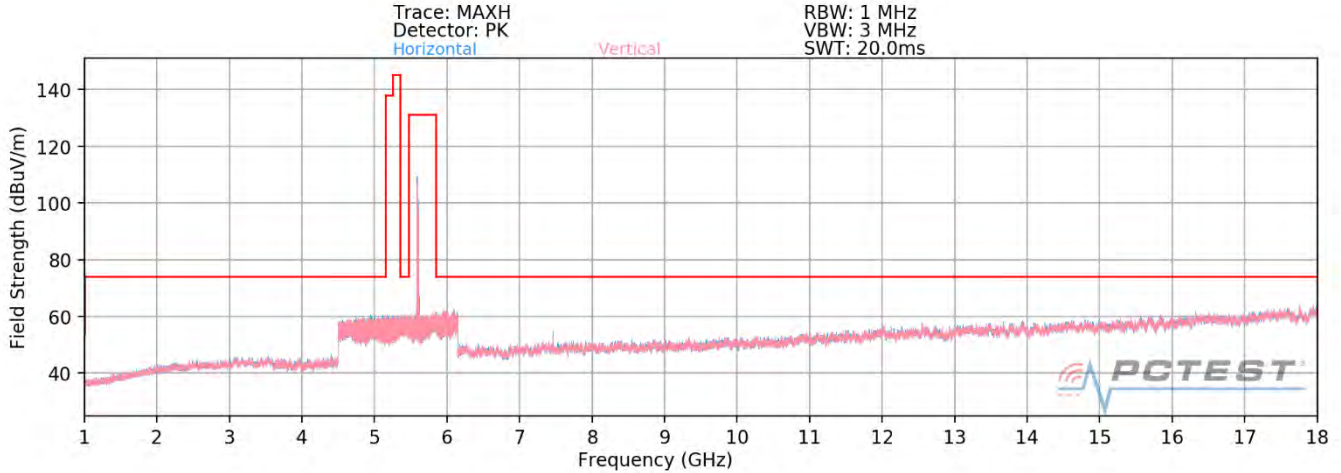


**Plot 7-241. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U1 Ch. 40 – 26 Tones)**

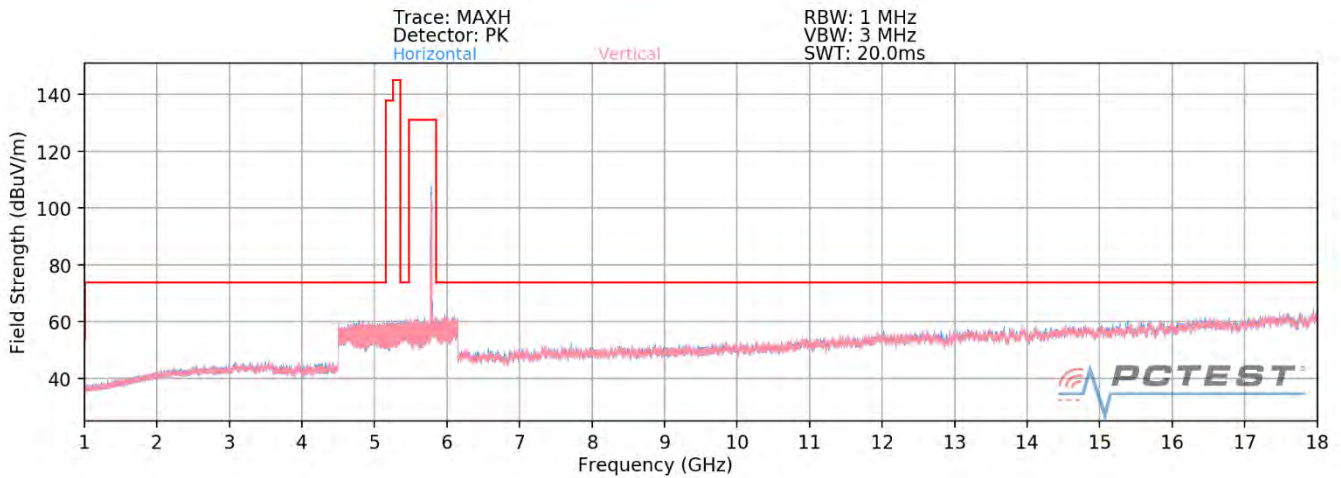


**Plot 7-242. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U2A Ch. 56 – 26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 209 of 249



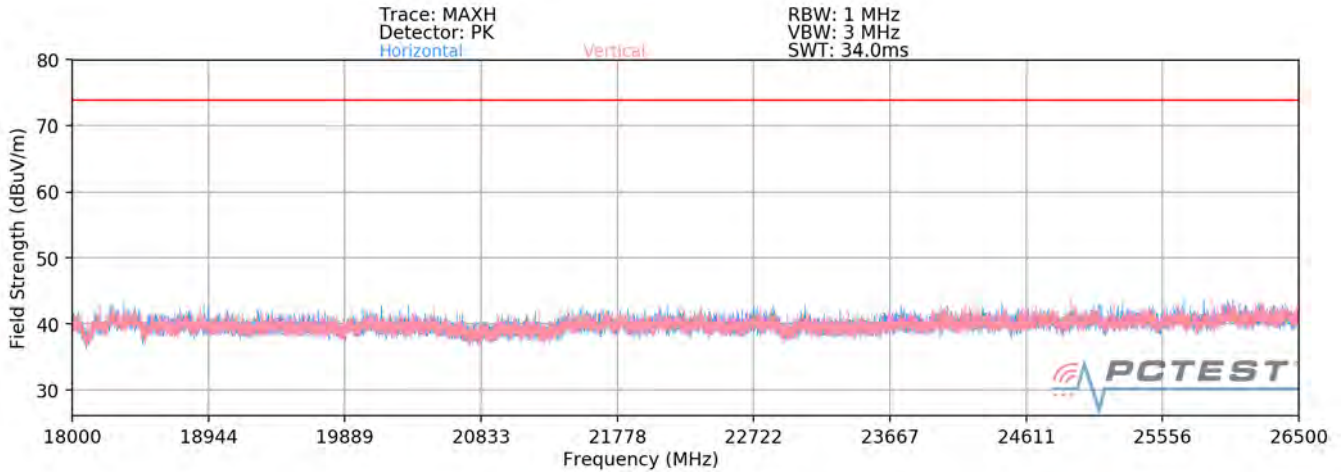
**Plot 7-243. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U2C Ch. 120 – 26 Tones)**



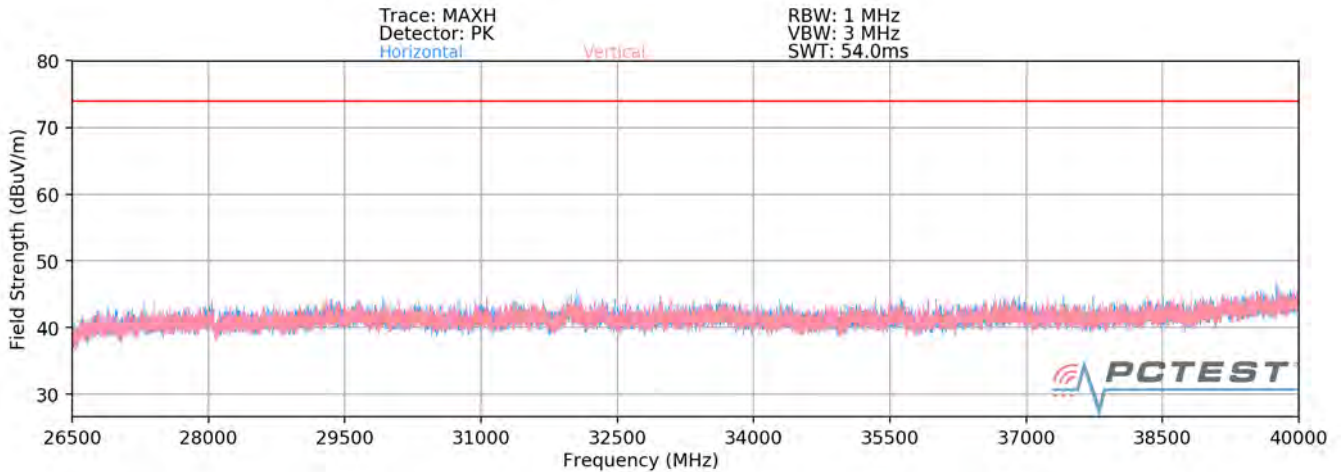
**Plot 7-244. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U3 Ch. 157 – 26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 210 of 249	

### MIMO Radiated Spurious Emissions Measurements (Above 18GHz)



**Plot 7-245. Radiated Spurious Plot 18GHz - 26.5GHz MIMO (802.11ax – 26 Tones)**



**Plot 7-246. Radiated Spurious Plot 26.5GHz - 40GHz MIMO (802.11ax – 26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 211 of 249	

## MIMO Radiated Spurious Emission Measurements (26 Tones)

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

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	151	39	-69.11	12.76	0.00	50.65	68.20	-17.55
* 15540.00	Average	H	-	-	-82.49	15.66	0.00	40.17	53.98	-13.80
* 15540.00	Peak	H	-	-	-70.82	15.66	0.00	51.84	73.98	-22.13
* 20720.00	Average	H	-	-	-64.03	-3.74	-9.54	29.69	53.98	-24.29
* 20720.00	Peak	H	-	-	-52.33	-3.74	-9.54	41.39	73.98	-32.59
25900.00	Peak	H	-	-	-54.85	-3.03	-9.54	39.58	68.20	-28.62

Table 7-122. Radiated Measurements MIMO (26 Tones)

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	137	40	-69.95	12.52	0.00	49.57	68.20	-18.63
* 15600.00	Average	H	-	-	-84.01	16.09	0.00	39.08	53.98	-14.90
* 15600.00	Peak	H	-	-	-71.51	16.09	0.00	51.58	73.98	-22.40
* 20800.00	Average	H	-	-	-63.76	-3.76	-9.54	29.94	53.98	-24.04
* 20800.00	Peak	H	-	-	-52.14	-3.76	-9.54	41.56	73.98	-32.42
26000.00	Peak	H	-	-	-51.17	-2.81	-9.54	43.48	68.20	-24.72

Table 7-123. Radiated Measurements MIMO (26 Tones)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 212 of 249

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	128	55	-69.71	12.52	0.00	49.81	68.20	-18.39
* 15720.00	Average	H	-	-	-84.64	16.17	0.00	38.53	53.98	-15.45
* 15720.00	Peak	H	-	-	-72.02	16.17	0.00	51.15	73.98	-22.83
* 20960.00	Average	H	-	-	-63.61	-3.71	-9.54	30.14	53.98	-23.84
* 20960.00	Peak	H	-	-	-52.05	-3.71	-9.54	41.70	73.98	-32.28
26200.00	Peak	H	-	-	-51.12	-2.65	-9.54	43.68	68.20	-24.52

**Table 7-124. Radiated Measurements MIMO (26 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	140	63	-70.16	13.09	0.00	49.93	68.20	-18.27
* 15780.00	Average	H	-	-	-84.43	16.22	0.00	38.79	53.98	-15.19
* 15780.00	Peak	H	-	-	-72.36	16.22	0.00	50.86	73.98	-23.12
* 21040.00	Average	H	-	-	-63.78	-3.87	-9.54	29.81	53.98	-24.17
* 21040.00	Peak	H	-	-	-50.91	-3.87	-9.54	42.68	73.98	-31.30
26300.00	Peak	H	-	-	-51.36	-2.82	-9.54	43.28	68.20	-24.92

**Table 7-125. Radiated Measurements MIMO (26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 213 of 249	

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	132	58	-70.78	13.76	0.00	49.98	68.20	-18.22
* 15840.00	Average	H	-	-	-83.91	15.82	0.00	38.91	53.98	-15.07
* 15840.00	Peak	H	-	-	-72.21	15.82	0.00	50.61	73.98	-23.37
* 21120.00	Average	H	-	-	-64.02	-3.66	-9.54	29.78	53.98	-24.20
* 21120.00	Peak	H	-	-	-52.68	-3.66	-9.54	41.12	73.98	-32.86
* 26400.00	Peak	H	-	-	-51.34	-2.63	-9.54	43.49	68.20	-24.71

**Table 7-126. Radiated Measurements MIMO (26 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	400	301	-82.38	13.66	0.00	38.28	53.98	-15.70
* 10640.00	Peak	H	400	301	-70.76	13.66	0.00	49.90	73.98	-24.08
* 15960.00	Average	H	-	-	-83.84	15.05	0.00	38.21	53.98	-15.76
* 15960.00	Peak	H	-	-	-71.50	15.05	0.00	50.55	73.98	-23.42
* 21280.00	Average	H	-	-	-63.79	-3.58	-9.54	30.08	53.98	-23.90
* 21280.00	Peak	H	-	-	-52.84	-3.58	-9.54	41.03	73.98	-32.95
* 26600.00	Peak	H	-	-	-51.35	-2.25	-9.54	43.86	68.20	-24.34

**Table 7-127. Radiated Measurements MIMO (26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 214 of 249	



Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	-	-	-82.73	13.62	0.00	37.89	53.98	-16.09
* 11000.00	Peak	H	-	-	-70.34	13.62	0.00	50.28	73.98	-23.70
16500.00	Peak	H	-	-	-70.93	15.75	0.00	51.82	68.20	-16.38
22000.00	Peak	H	-	-	-51.55	-3.43	-9.54	42.48	68.20	-25.72
27500.00	Peak	H	-	-	-50.41	-2.72	-9.54	44.33	68.20	-23.87

**Table 7-128. Radiated Measurements MIMO (26 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5580MHz  
 Channel: 120

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
* 11200.00	Average	H	-	-	-82.81	14.26	0.00	38.45	53.98	-15.53
* 11200.00	Peak	H	-	-	-70.34	14.26	0.00	50.92	73.98	-23.06
16800.00	Peak	H	-	-	-70.97	16.67	0.00	52.70	68.20	-15.50
* 22400.00	Average	H	-	-	-63.66	-3.34	-9.54	30.46	53.98	-23.52
* 22400.00	Peak	H	-	-	-52.11	-3.34	-9.54	42.01	73.98	-31.97
28000.00	Peak	H	-	-	-50.62	-2.26	-9.54	44.57	68.20	-23.63

**Table 7-129. Radiated Measurements MIMO (26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 215 of 249	

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5700MHz  
 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	H	-	-	-82.71	14.25	0.00	38.54	53.98	-15.43
* 11440.00	Peak	H	-	-	-71.21	14.25	0.00	50.04	73.98	-23.93
17160.00	Peak	H	-	-	-71.04	18.43	0.00	54.39	68.20	-13.81
* 22880.00	Average	H	-	-	-63.21	-3.38	-9.54	30.87	53.98	-23.11
* 22880.00	Peak	H	-	-	-51.31	-3.38	-9.54	42.77	73.98	-31.21
28600.00	Peak	H	-	-	-51.70	-2.02	-9.54	43.74	68.20	-24.46

**Table 7-130. Radiated Measurements MIMO (26 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	-	-	-83.37	14.74	0.00	38.37	53.98	-15.61
* 11490.00	Peak	H	-	-	-69.55	14.74	0.00	52.19	73.98	-21.79
17235.00	Peak	H	-	-	-71.21	18.65	0.00	54.44	68.20	-13.76
* 22980.00	Average	H	-	-	-63.46	-3.46	-9.54	30.54	53.98	-23.44
* 22980.00	Peak	H	-	-	-52.01	-3.46	-9.54	41.99	73.98	-31.99
28725.00	Peak	H	-	-	-49.98	-2.02	-9.54	45.45	68.20	-22.75

**Table 7-131. Radiated Measurements MIMO (26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 216 of 249	



Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 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	H	-	-	-82.67	14.20	0.00	38.53	53.98	-15.45
* 11570.00	Peak	H	-	-	-70.21	14.20	0.00	50.99	73.98	-22.99
17355.00	Peak	H	-	-	-70.49	21.29	0.00	57.80	68.20	-10.40
23140.00	Peak	H	-	-	-51.04	-3.47	-9.54	42.95	68.20	-25.25
28925.00	Peak	H	-	-	-51.55	-2.31	-9.54	43.60	68.20	-24.60

**Table 7-132. Radiated Measurements MIMO (26 Tones)**

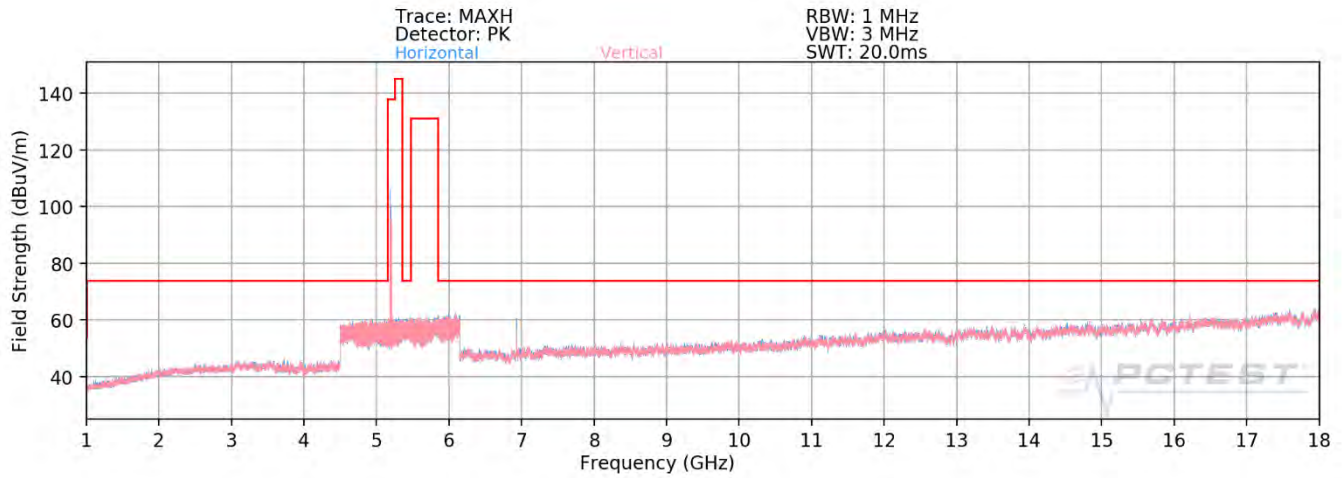
Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 54  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5825MHz  
 Channel: 165

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	H	-	-	-82.61	14.27	0.00	38.66	53.98	-15.32
* 11650.00	Peak	H	-	-	-70.91	14.27	0.00	50.36	73.98	-23.62
17475.00	Peak	H	-	-	-71.94	20.81	0.00	55.87	68.20	-12.33
23300.00	Peak	H	-	-	-52.14	-3.52	-9.54	41.80	68.20	-26.40
29125.00	Peak	H	-	-	-50.86	-1.91	-9.54	44.69	68.20	-23.51

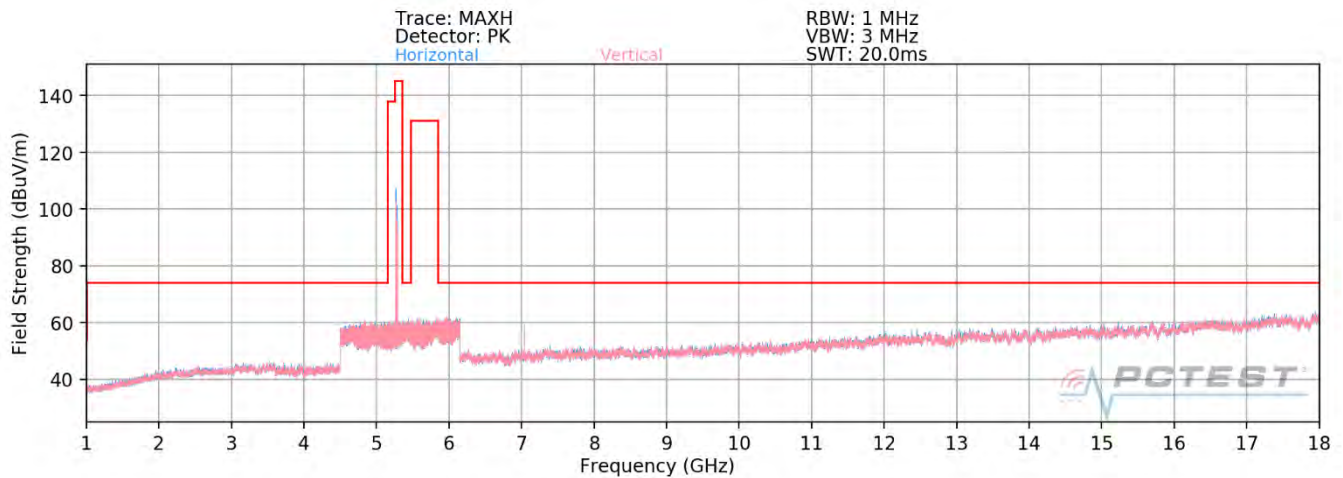
**Table 7-133. Radiated Measurements MIMO (26 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 217 of 249	

## 242 Tones

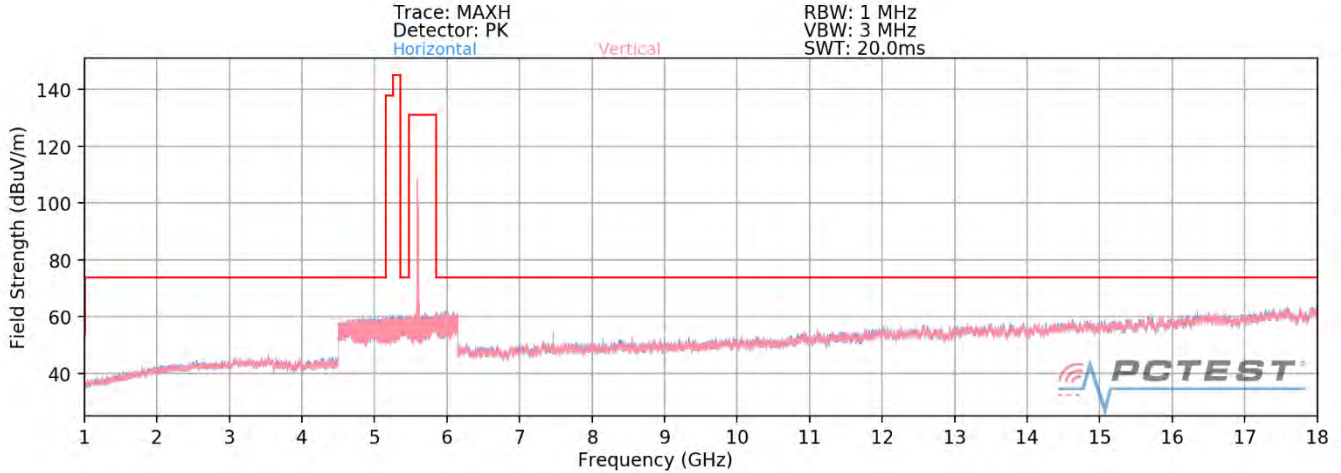


**Plot 7-247. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U1 Ch. 40 – 242 Tones)**

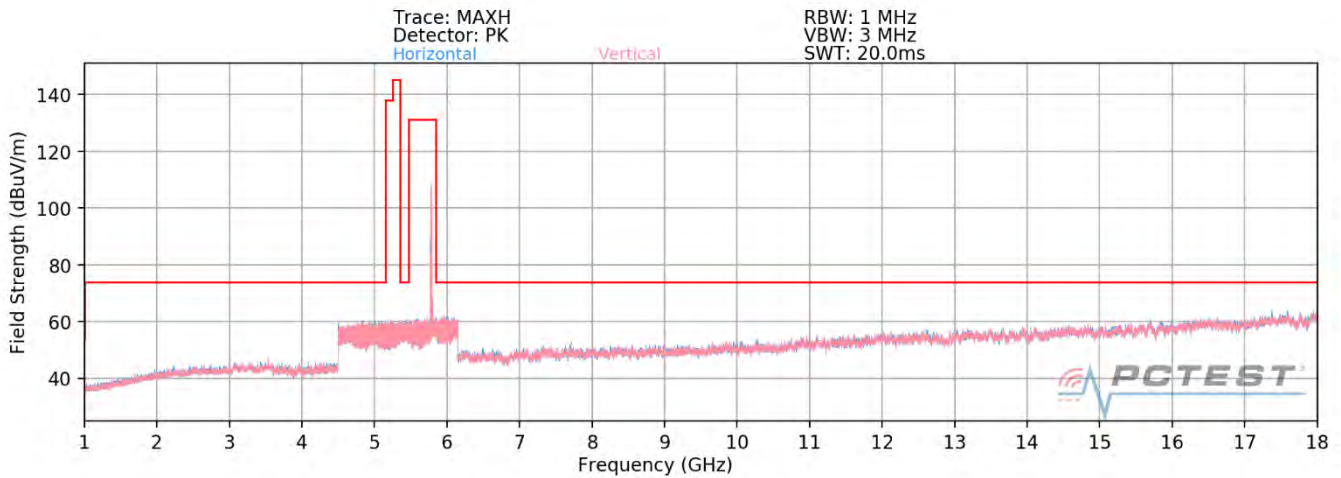


**Plot 7-248. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U2A Ch. 56 – 242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 218 of 249



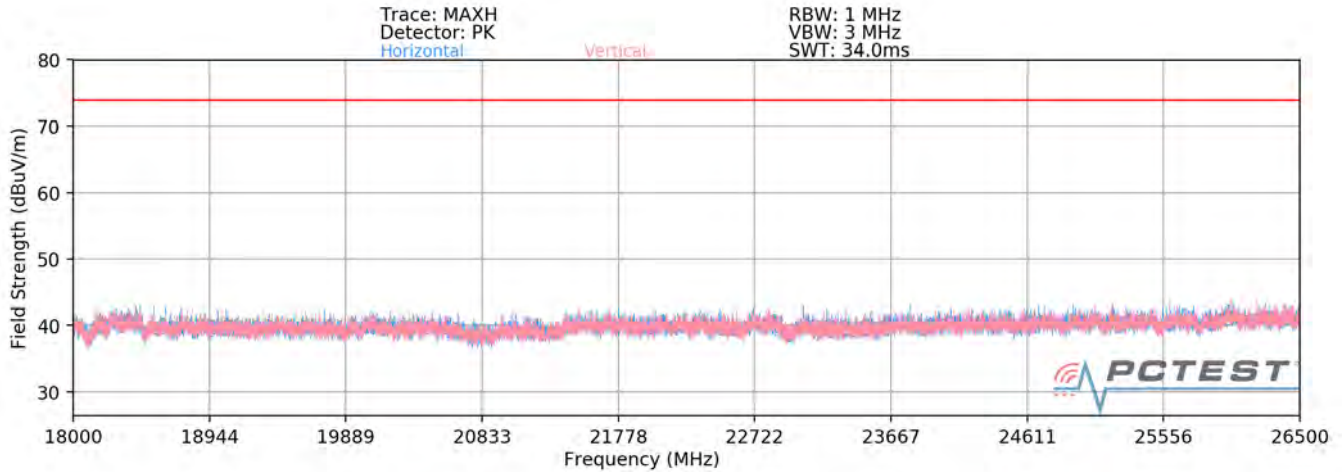
**Plot 7-249. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U2C Ch. 120 – 242 Tones)**



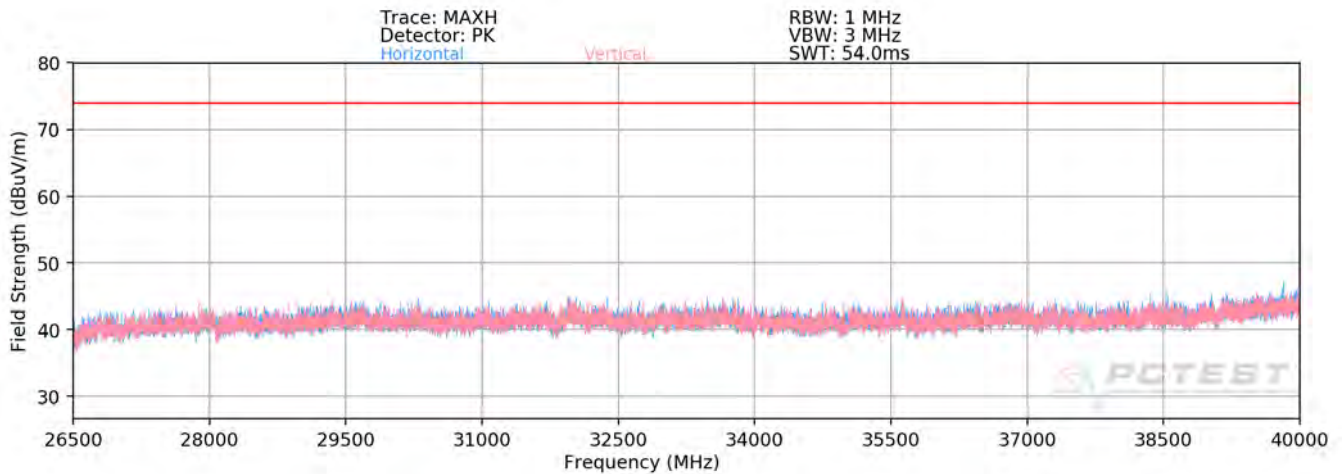
**Plot 7-250. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U3 Ch. 157 – 242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 219 of 249	

## MIMO Radiated Spurious Emissions Measurements (Above 18GHz)



**Plot 7-251. Radiated Spurious Plot 18GHz - 26.5GHz MIMO (802.11ax – 242 Tones)**



**Plot 7-252. Radiated Spurious Plot 26.5GHz - 40GHz MIMO (802.11ax – 242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 220 of 249	

## MIMO Radiated Spurious Emission Measurements (242 Tones)

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

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5180MHz  
 Channel: 36

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
10360.00	Peak	H	132	11	-69.50	12.76	0.00	50.26	68.20	-17.94
* 15540.00	Average	H	-	-	-83.28	15.66	0.00	39.38	53.98	-14.59
* 15540.00	Peak	H	-	-	-71.58	15.66	0.00	51.08	73.98	-22.89
* 20720.00	Average	H	-	-	-63.80	-3.74	-9.54	29.92	53.98	-24.06
* 20720.00	Peak	H	-	-	-55.00	-3.74	-9.54	38.72	73.98	-35.26
25900.00	Peak	H	-	-	-53.38	-3.03	-9.54	41.05	68.20	-27.15

Table 7-134. Radiated Measurements MIMO (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5200MHz  
 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	H	-	-	-69.08	12.52	0.00	50.44	68.20	-17.76
* 15600.00	Average	H	-	-	-83.33	16.09	0.00	39.76	53.98	-14.22
* 15600.00	Peak	H	-	-	-71.23	16.09	0.00	51.86	73.98	-22.12
* 20800.00	Average	H	-	-	-63.56	-3.76	-9.54	30.14	53.98	-23.84
* 20800.00	Peak	H	-	-	-55.21	-3.76	-9.54	38.49	73.98	-35.49
26000.00	Peak	H	-	-	-53.20	-2.81	-9.54	41.45	68.20	-26.75

Table 7-135. Radiated Measurements MIMO (242 Tones)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 221 of 249

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5240MHz  
 Channel: 48

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10480.00	Peak	H	-	-	-69.67	12.52	0.00	49.85	68.20	-18.35
* 15720.00	Average	H	-	-	-84.33	16.17	0.00	38.84	53.98	-15.14
* 15720.00	Peak	H	-	-	-71.92	16.17	0.00	51.25	73.98	-22.73
* 20960.00	Average	H	-	-	-63.27	-3.71	-9.54	30.48	53.98	-23.50
* 20960.00	Peak	H	-	-	-54.38	-3.71	-9.54	39.37	73.98	-34.61
26200.00	Peak	H	-	-	-53.78	-2.65	-9.54	41.02	68.20	-27.18

**Table 7-136. Radiated Measurements MIMO (242 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5260MHz  
 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	H	-	-	-70.61	13.09	0.00	49.48	68.20	-18.72
* 15780.00	Average	H	-	-	-84.12	16.22	0.00	39.10	53.98	-14.88
* 15780.00	Peak	H	-	-	-71.43	16.22	0.00	51.79	73.98	-22.19
* 21040.00	Average	H	-	-	-63.13	-3.87	-9.54	30.46	53.98	-23.52
* 21040.00	Peak	H	-	-	-51.85	-3.87	-9.54	41.74	73.98	-32.24
26300.00	Peak	H	-	-	-50.40	-2.82	-9.54	44.24	68.20	-23.96

**Table 7-137. Radiated Measurements MIMO (242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 222 of 249	



Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5280MHz  
 Channel: 56

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10560.00	Peak	H	-	-	-70.22	13.76	0.00	50.54	68.20	-17.66
* 15840.00	Average	H	-	-	-84.08	15.82	0.00	38.74	53.98	-15.24
* 15840.00	Peak	H	-	-	-72.62	15.82	0.00	50.20	73.98	-23.78
* 21120.00	Average	H	-	-	-64.02	-3.66	-9.54	29.78	53.98	-24.20
* 21120.00	Peak	H	-	-	-52.60	-3.66	-9.54	41.20	73.98	-32.78
* 26400.00	Peak	H	-	-	-50.24	-2.63	-9.54	44.59	68.20	-23.61

**Table 7-138. Radiated Measurements MIMO (242 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5320MHz  
 Channel: 64

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 10640.00	Average	H	-	-	-83.41	13.66	0.00	37.25	53.98	-16.73
* 10640.00	Peak	H	-	-	-70.88	13.66	0.00	49.78	73.98	-24.20
* 15960.00	Average	H	-	-	-83.92	15.05	0.00	38.13	53.98	-15.84
* 15960.00	Peak	H	-	-	-72.05	15.05	0.00	50.00	73.98	-23.97
* 21280.00	Average	H	-	-	-63.85	-3.58	-9.54	30.02	53.98	-23.96
* 21280.00	Peak	H	-	-	-52.96	-3.58	-9.54	40.91	73.98	-33.07
* 26600.00	Peak	H	-	-	-51.41	-2.25	-9.54	43.80	68.20	-24.40

**Table 7-139. Radiated Measurements MIMO (242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 223 of 249	



Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5500MHz  
 Channel: 100

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11000.00	Average	H	-	-	-83.27	13.62	0.00	37.35	53.98	-16.63
* 11000.00	Peak	H	-	-	-70.61	13.62	0.00	50.01	73.98	-23.97
16500.00	Peak	H	-	-	-71.22	15.75	0.00	51.53	68.20	-16.67
22000.00	Peak	H	-	-	-51.45	-3.43	-9.54	42.58	68.20	-25.62
27500.00	Peak	H	-	-	-51.44	-2.72	-9.54	43.30	68.20	-24.90

**Table 7-140. Radiated Measurements MIMO (242 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5580MHz  
 Channel: 120

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11200.00	Average	H	-	-	-82.93	14.26	0.00	38.33	53.98	-15.65
* 11200.00	Peak	H	-	-	-70.77	14.26	0.00	50.49	73.98	-23.49
16800.00	Peak	H	-	-	-71.34	16.67	0.00	52.33	68.20	-15.87
* 22400.00	Average	H	-	-	-63.48	-3.34	-9.54	30.64	53.98	-23.34
* 22400.00	Peak	H	-	-	-52.35	-3.34	-9.54	41.77	73.98	-32.21
28000.00	Peak	H	-	-	-50.05	-2.26	-9.54	45.14	68.20	-23.06

**Table 7-141. Radiated Measurements MIMO (242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 224 of 249	

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5700MHz  
 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	H	-	-	-82.99	14.25	0.00	38.26	53.98	-15.71
* 11440.00	Peak	H	-	-	-70.68	14.25	0.00	50.57	73.98	-23.40
17160.00	Peak	H	-	-	-70.84	18.43	0.00	54.59	68.20	-13.61
* 22880.00	Average	H	-	-	-63.30	-3.38	-9.54	30.78	53.98	-23.20
* 22880.00	Peak	H	-	-	-50.90	-3.38	-9.54	43.18	73.98	-30.80
28600.00	Peak	H	-	-	-51.41	-2.02	-9.54	44.03	68.20	-24.17

**Table 7-142. Radiated Measurements MIMO (242 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5745MHz  
 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	H	-	-	-82.88	14.74	0.00	38.86	53.98	-15.12
* 11490.00	Peak	H	-	-	-70.52	14.74	0.00	51.22	73.98	-22.76
17235.00	Peak	H	-	-	-70.95	18.65	0.00	54.70	68.20	-13.50
* 22980.00	Average	H	-	-	-63.38	-3.46	-9.54	30.62	53.98	-23.36
* 22980.00	Peak	H	-	-	-52.31	-3.46	-9.54	41.69	73.98	-32.29
28725.00	Peak	H	-	-	-51.09	-2.02	-9.54	44.34	68.20	-23.86

**Table 7-143. Radiated Measurements MIMO (242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 225 of 249	

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5785MHz  
 Channel: 157

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11570.00	Average	H	-	-	-82.65	14.20	0.00	38.55	53.98	-15.43
* 11570.00	Peak	H	-	-	-70.91	14.20	0.00	50.29	73.98	-23.69
17355.00	Peak	H	-	-	-81.22	21.29	0.00	47.07	68.20	-21.13
23140.00	Peak	H	-	-	-51.42	-3.47	-9.54	42.57	68.20	-25.63
28925.00	Peak	H	-	-	-51.73	-2.31	-9.54	43.42	68.20	-24.78

**Table 7-144. Radiated Measurements MIMO (242 Tones)**

Worst Case Mode: 802.11ax (20MHz BW)  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5825MHz  
 Channel: 165

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11650.00	Average	H	-	-	-82.81	14.27	0.00	38.46	53.98	-15.52
* 11650.00	Peak	H	-	-	-70.68	14.27	0.00	50.59	73.98	-23.39
17475.00	Peak	H	-	-	-71.37	20.81	0.00	56.44	68.20	-11.76
23300.00	Peak	H	-	-	-51.89	-3.52	-9.54	42.05	68.20	-26.15
29125.00	Peak	H	-	-	-51.45	-1.91	-9.54	44.10	68.20	-24.10

**Table 7-145. Radiated Measurements MIMO (242 Tones)**

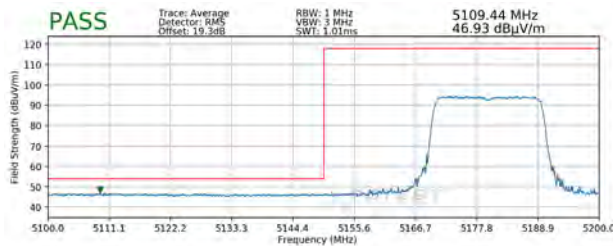
FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 226 of 249	

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

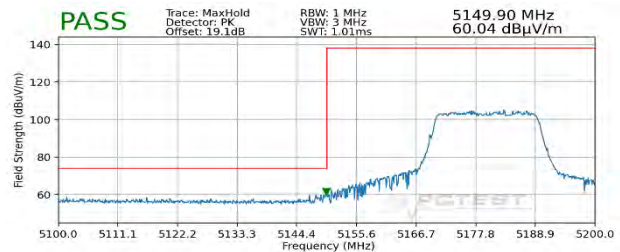
§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]; RSS-Gen [8.9]

### 242 Tones

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

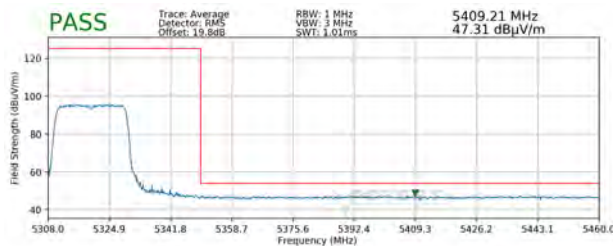


**Plot 7-253. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1 – 242 Tones)**

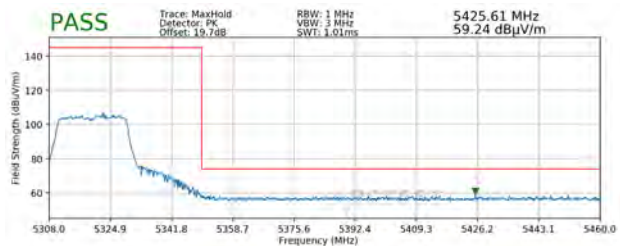


**Plot 7-254. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 1 – 242 Tones)**

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



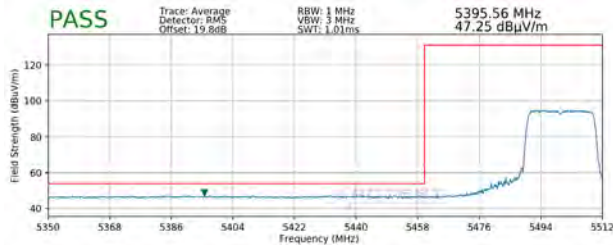
**Plot 7-255. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A – 242 Tones)**



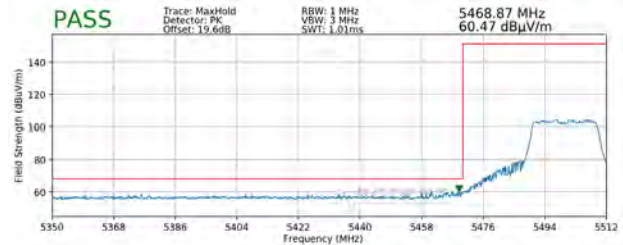
**Plot 7-256. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 2A – 242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 227 of 249

Worst Case Mode: 802.11ax  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 3 Meters  
 Operating Frequency: 5500MHz  
 Channel: 100

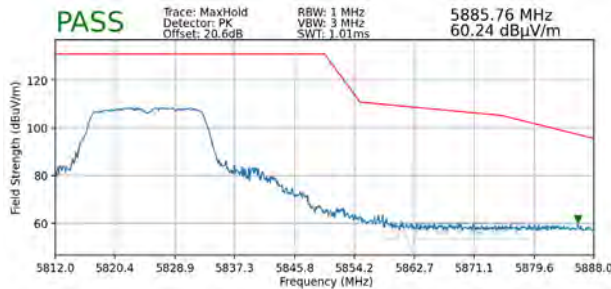


**Plot 7-257. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C – 242 Tones)**



**Plot 7-258. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 2C – 242 Tones)**

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



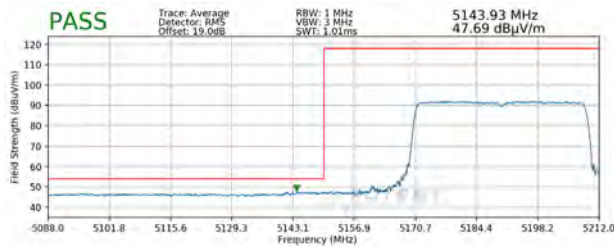
**Plot 7-259. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 3 – 242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 228 of 249	

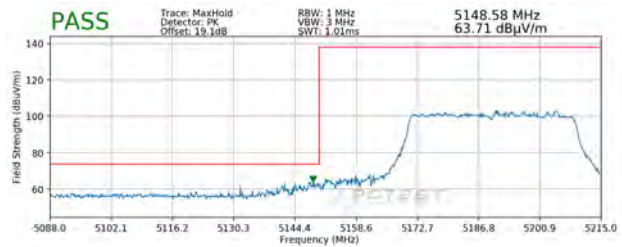
## 7.6.5 SISO Antenna-1 Radiated Band Edge Measurements (40MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

### 484 Tones

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	65
Distance of Measurements:	3 Meters
Operating Frequency:	5190MHz
Channel:	38

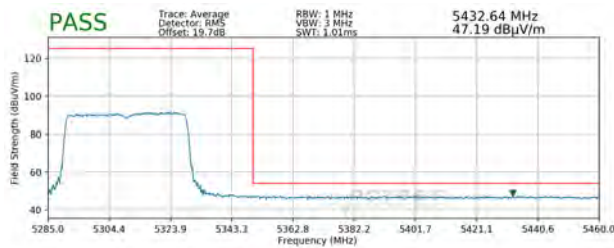


**Plot 7-260. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1 – 484 Tones)**

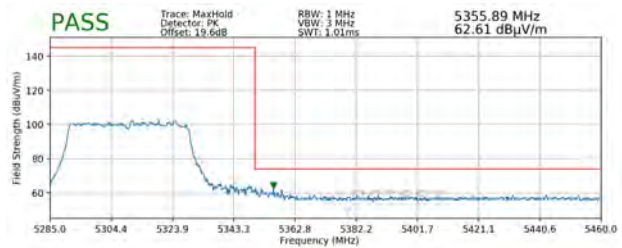


**Plot 7-261. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 1 – 484 Tones)**

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



**Plot 7-262. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A – 484 Tones)**



**Plot 7-263. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 2A – 484 Tones)**

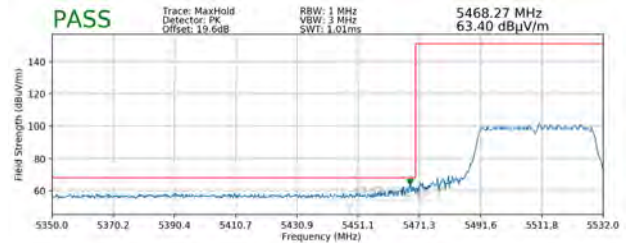
FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 229 of 249



Worst Case Mode: 802.11ax  
 Worst Case Transfer Rate: MCS0  
 RU Index: 65  
 Distance of Measurements: 3 Meters  
 Operating Frequency: 5510MHz  
 Channel: 102

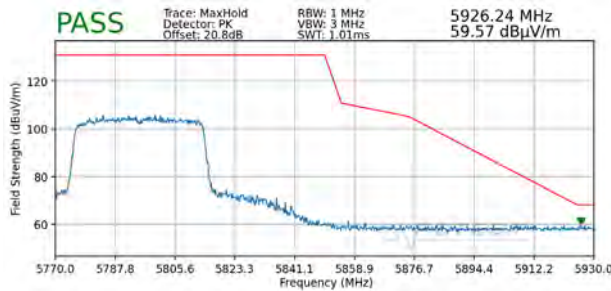


**Plot 7-264. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C – 484 Tones)**



**Plot 7-265. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 2C – 484 Tones)**

Worst Case Mode: 802.11ax  
 Worst Case Transfer Rate: MCS0  
 RU Index: 65  
 Distance of Measurements: 3 Meters  
 Operating Frequency: 5795MHz  
 Channel: 159



**Plot 7-266. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 3 – 484 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 230 of 249

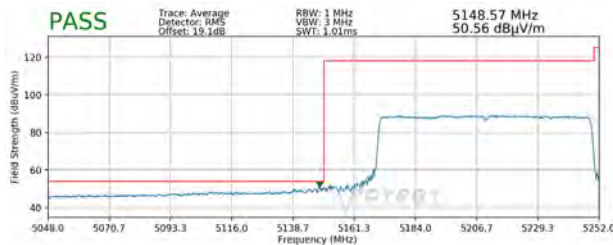


## 7.6.6 SISO Antenna-1 Radiated Band Edge Measurements (80MHz BW)

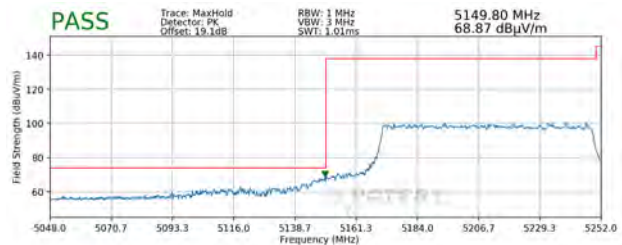
§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

### 996 Tones

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

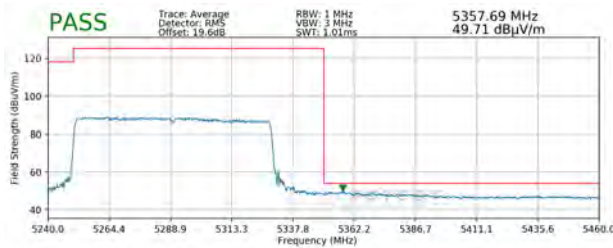


**Plot 7-267. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1 – 996 Tones)**

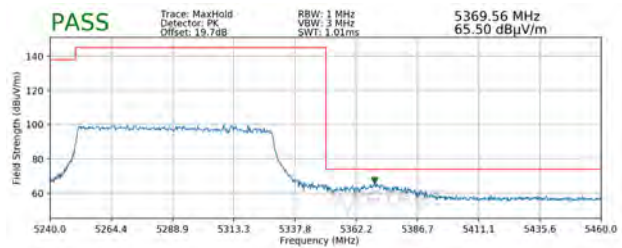


**Plot 7-268. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 1 – 996 Tones)**

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	67
Distance of Measurements:	3 Meters
Operating Frequency:	5290MHz
Channel:	58



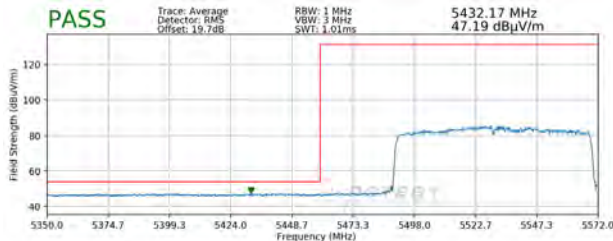
**Plot 7-269. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A – 996 Tones)**



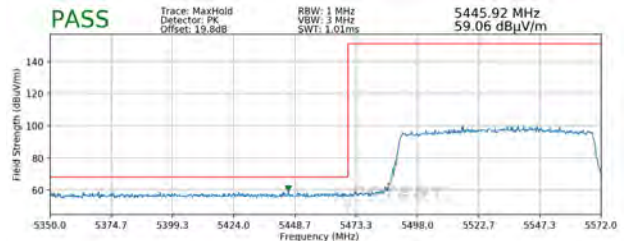
**Plot 7-270. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 2A – 996 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 231 of 249

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

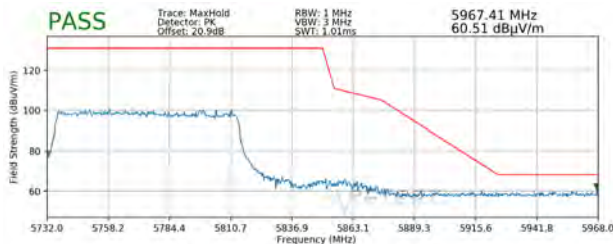


**Plot 7-271. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C – 996 Tones)**



**Plot 7-272. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 2C – 996 Tones)**

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



**Plot 7-273. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 3 – 996 Tones)**

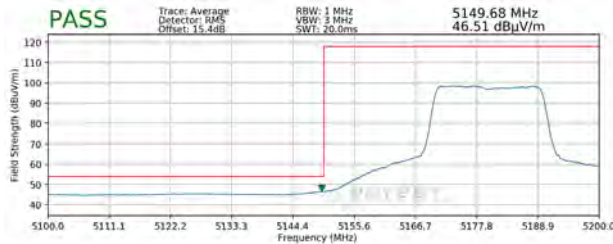
FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)	 Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 232 of 249

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

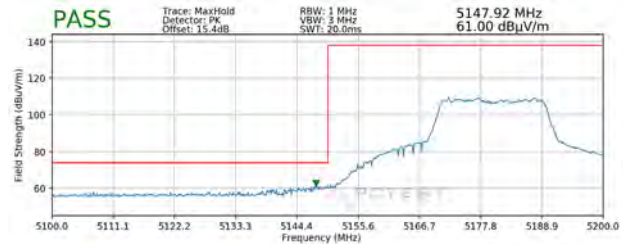
§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

### 242 Tones

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

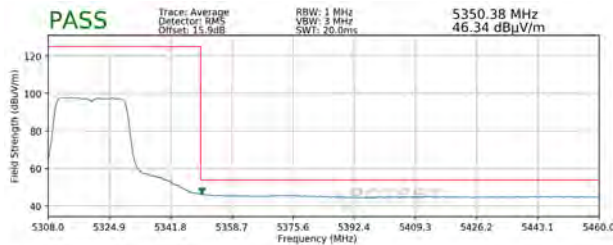


**Plot 7-274. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 1 – 242 Tones)**

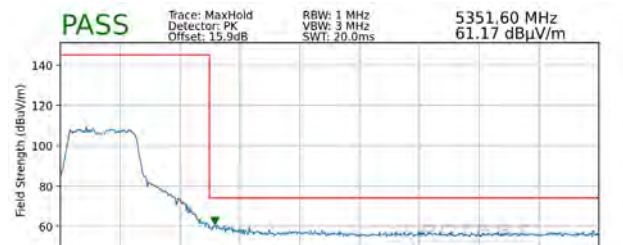


**Plot 7-275. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 1 – 242 Tones)**

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



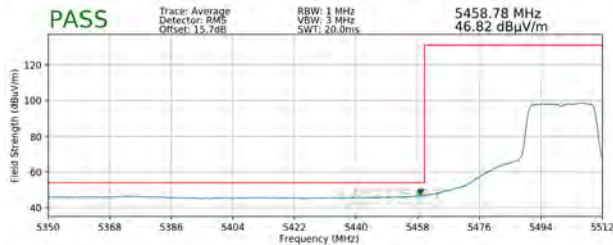
**Plot 7-276. Radiated Upper Band Edge Plot SISO ANT2 (Average – UNII Band 2A – 242 Tones)**



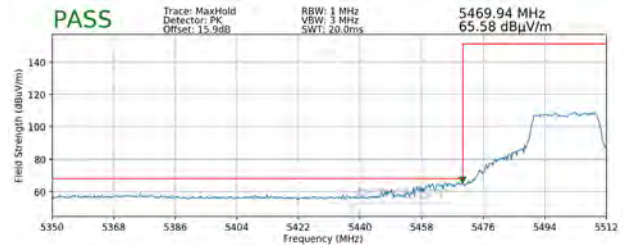
**Plot 7-277. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 2A – 242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 233 of 249

Worst Case Mode: 802.11ax  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 3 Meters  
 Operating Frequency: 5500MHz  
 Channel: 100

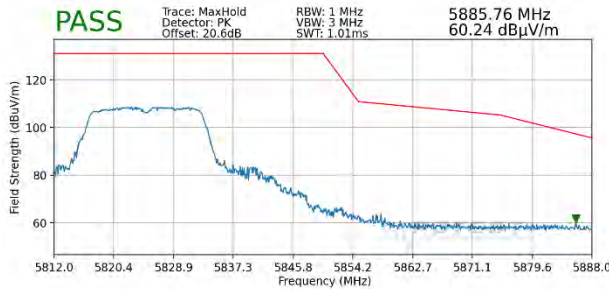


**Plot 7-278. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 2C – 242 Tones)**



**Plot 7-279. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 2C – 242 Tones)**

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



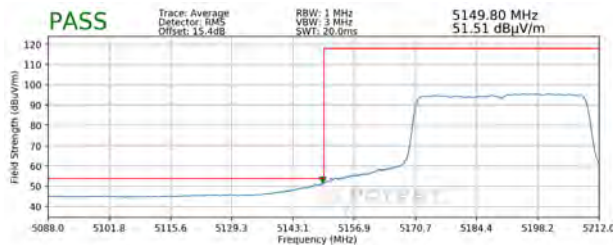
**Plot 7-280. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 3 – 242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 234 of 249	

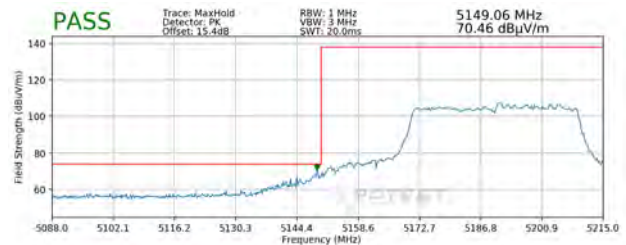
## 7.6.8 SISO Antenna-2 Radiated Band Edge Measurements (40MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

### 484 Tones

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	65
Distance of Measurements:	3 Meters
Operating Frequency:	5190MHz
Channel:	38

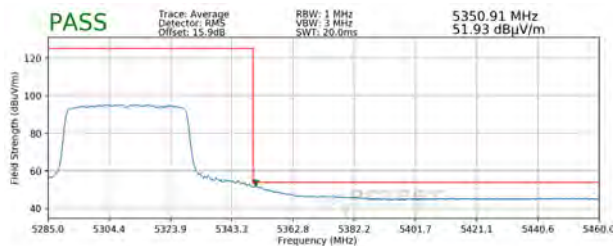


**Plot 7-281. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 1 – 484 Tones)**

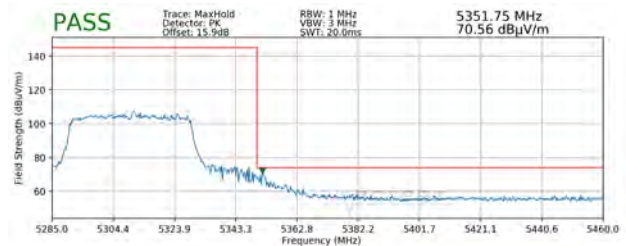


**Plot 7-282. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 1 – 484 Tones)**

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



**Plot 7-283. Radiated Upper Band Edge Plot SISO ANT2 (Average – UNII Band 2A – 484 Tones)**

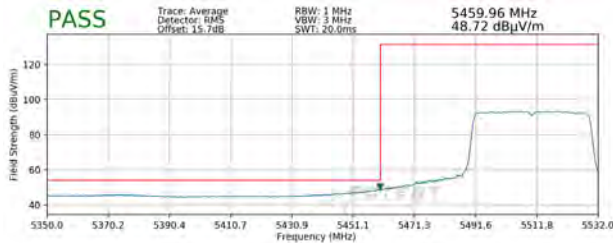


**Plot 7-284. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 2A – 484 Tones)**

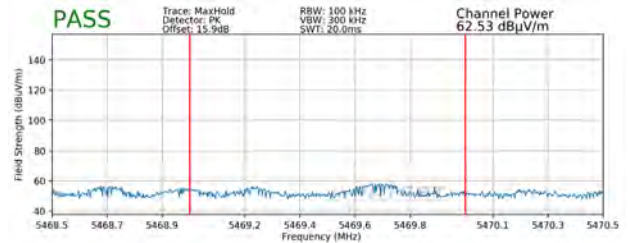
FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 235 of 249



Worst Case Mode: 802.11ax  
 Worst Case Transfer Rate: MCS0  
 RU Index: 65  
 Distance of Measurements: 3 Meters  
 Operating Frequency: 5510MHz  
 Channel: 102

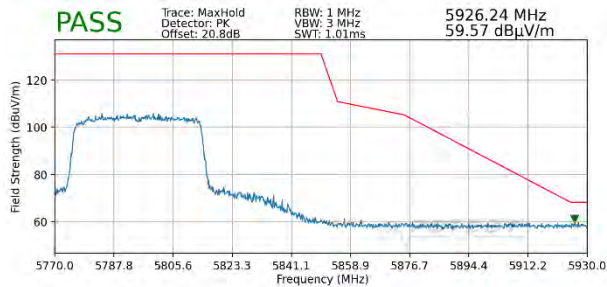


**Plot 7-285. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 2C – 484 Tones)**



**Plot 7-286. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 2C – 484 Tones)**

Worst Case Mode: 802.11ax  
 Worst Case Transfer Rate: MCS0  
 RU Index: 65  
 Distance of Measurements: 3 Meters  
 Operating Frequency: 5795MHz  
 Channel: 159



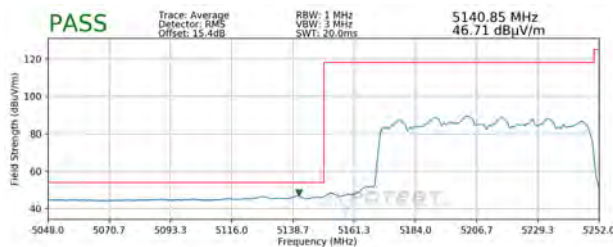
**Plot 7-287. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 3 – 484 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 236 of 249

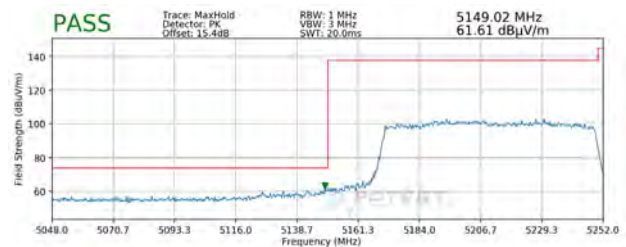
## 7.6.9 SISO Antenna-2 Radiated Band Edge Measurements (80MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

### 996 Tones

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

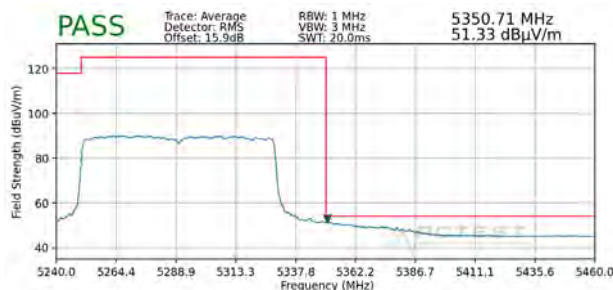


**Plot 7-288. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 1 – 996 Tones)**

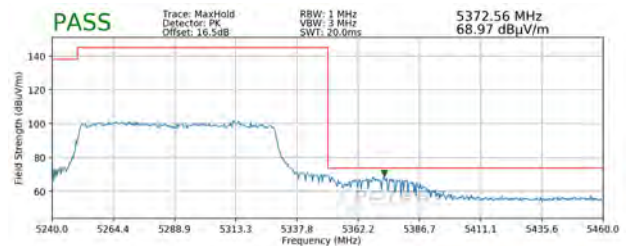


**Plot 7-289. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 1 – 996 Tones)**

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	67
Distance of Measurements:	3 Meters
Operating Frequency:	5290MHz
Channel:	58



**Plot 7-290. Radiated Upper Band Edge Plot SISO ANT2 (Average – UNII Band 2A – 996 Tones)**

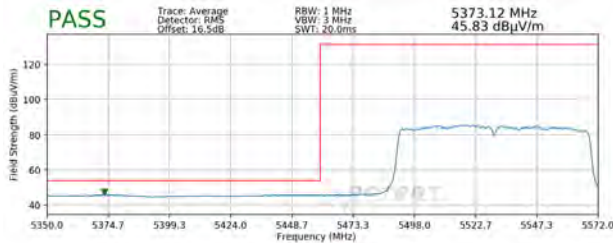


**Plot 7-291. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 2A – 996 Tones)**

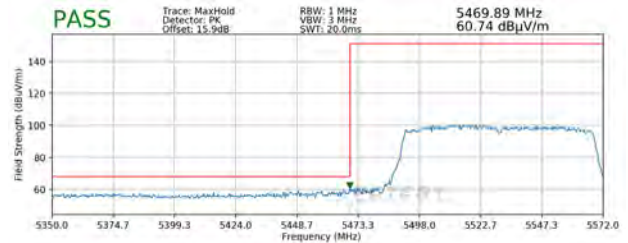
FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 237 of 249



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

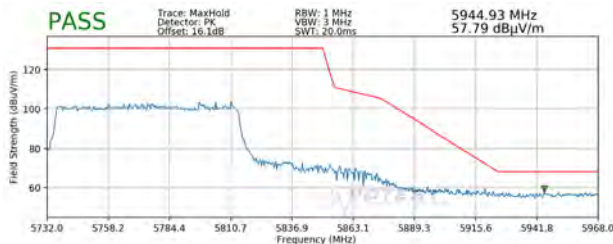


**Plot 7-292. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 2C – 996 Tones)**



**Plot 7-293. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 2C – 996 Tones)**

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



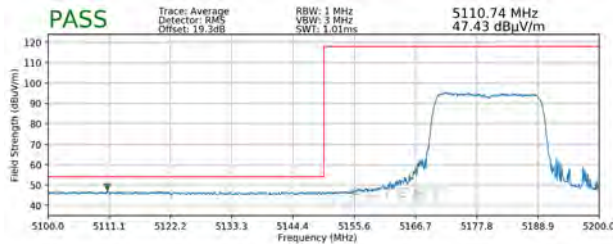
**Plot 7-294. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 3 – 996 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)	 Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 238 of 249

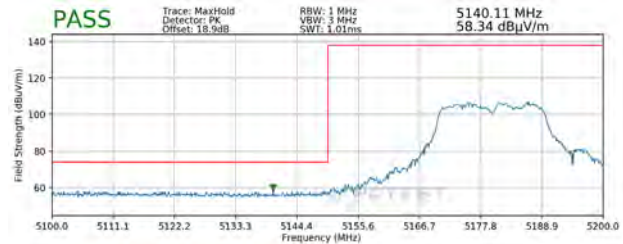
### 7.6.10 MIMO Radiated Band Edge Measurements (20MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

#### 242 Tones

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

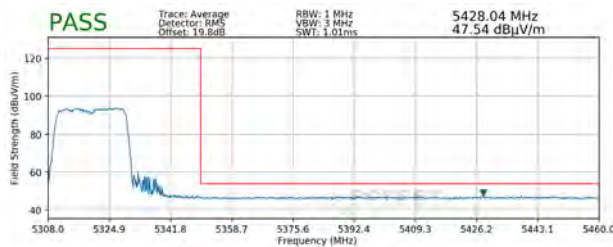


**Plot 7-295. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1 – 242 Tones)**

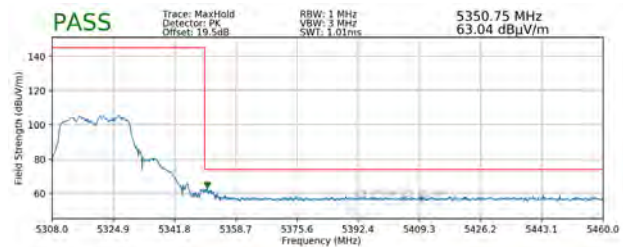


**Plot 7-296. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1 – 242 Tones)**

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



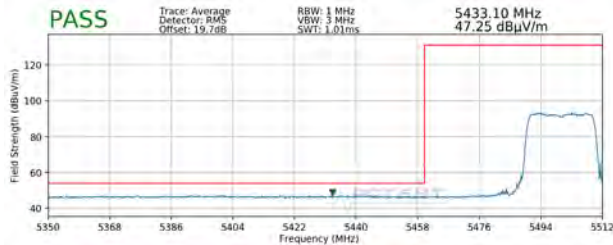
**Plot 7-297. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A – 242 Tones)**



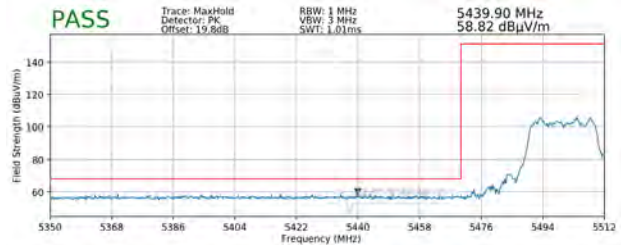
**Plot 7-298. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A – 242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 239 of 249

Worst Case Mode: 802.11ax  
 Worst Case Transfer Rate: MCS0  
 RU Index: 61  
 Distance of Measurements: 3 Meters  
 Operating Frequency: 5500MHz  
 Channel: 100

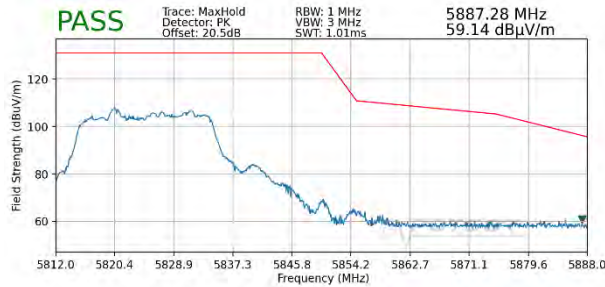


**Plot 7-299. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C – 242 Tones)**



**Plot 7-300. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C – 242 Tones)**

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



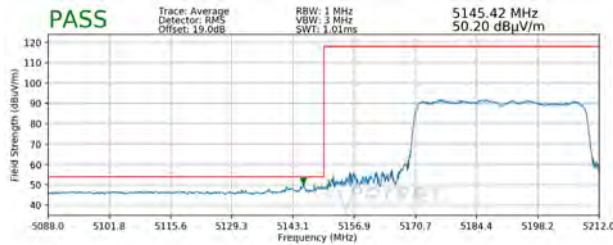
**Plot 7-301. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3 – 242 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)	 Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 240 of 249

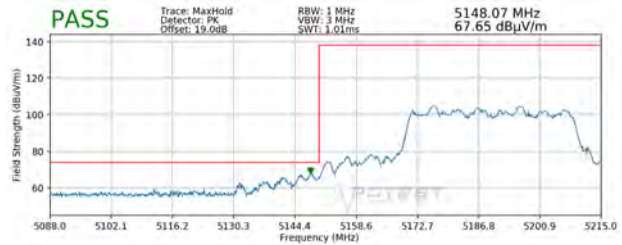
## 7.6.11 MIMO Radiated Band Edge Measurements (40MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

### 484 Tones

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	65
Distance of Measurements:	3 Meters
Operating Frequency:	5190MHz
Channel:	38

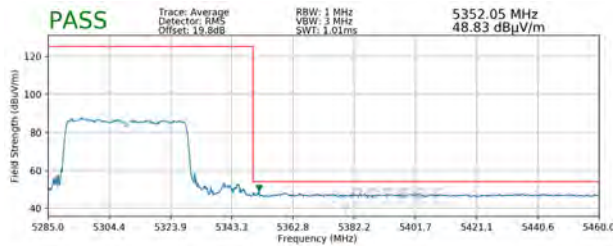


**Plot 7-302. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1 – 484 Tones)**

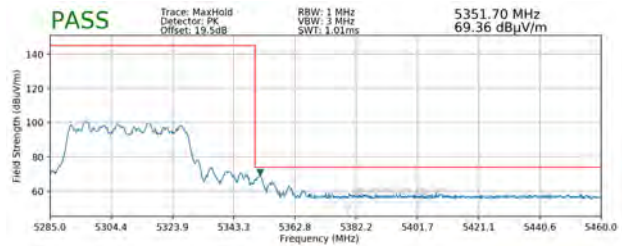


**Plot 7-303. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1 – 484 Tones)**

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



**Plot 7-304. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A – 484 Tones)**



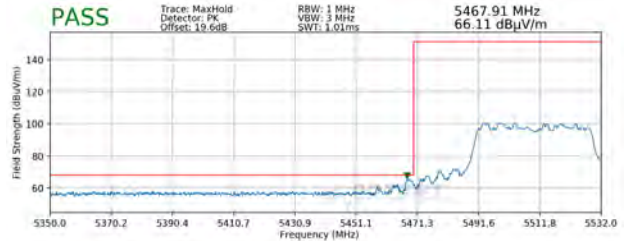
**Plot 7-305. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A – 484 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 241 of 249

Worst Case Mode: 802.11ax  
 Worst Case Transfer Rate: MCS0  
 RU Index: 65  
 Distance of Measurements: 3 Meters  
 Operating Frequency: 5510MHz  
 Channel: 102

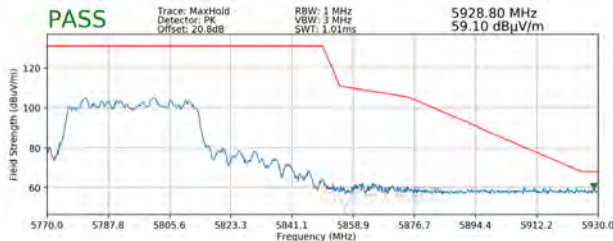


Plot 7-306. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C – 484 Tones)



Plot 7-307. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C – 484 Tones)

Worst Case Mode: 802.11ax  
 Worst Case Transfer Rate: MCS0  
 RU Index: 65  
 Distance of Measurements: 3 Meters  
 Operating Frequency: 5795MHz  
 Channel: 159



Plot 7-308. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3 – 484 Tones)

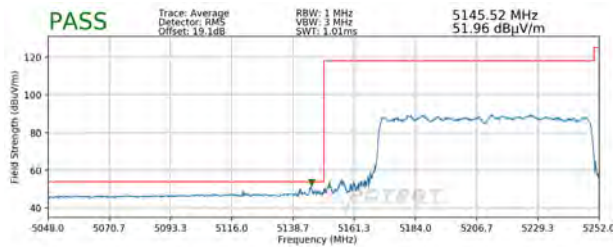
FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 242 of 249	



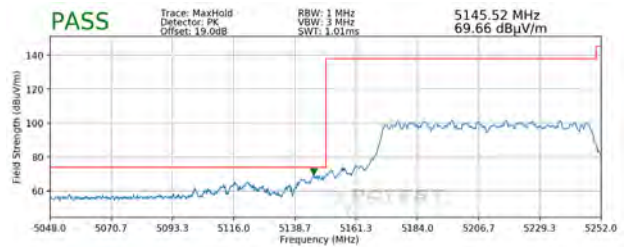
## 7.6.12 MIMO Radiated Band Edge Measurements (80MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

### 996 Tones

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



**Plot 7-309. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1 – 996 Tones)**

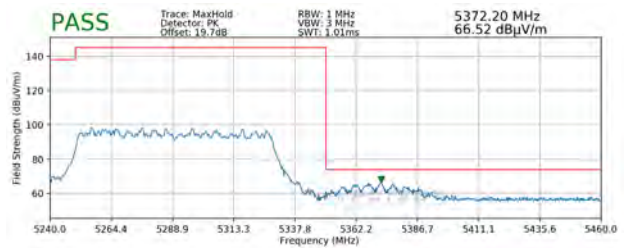


**Plot 7-310. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1 – 996 Tones)**

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	67
Distance of Measurements:	3 Meters
Operating Frequency:	5290MHz
Channel:	58



**Plot 7-311. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A – 996 Tones)**



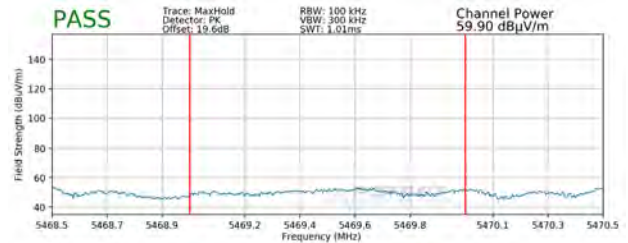
**Plot 7-312. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A – 996 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset		Page 243 of 249

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

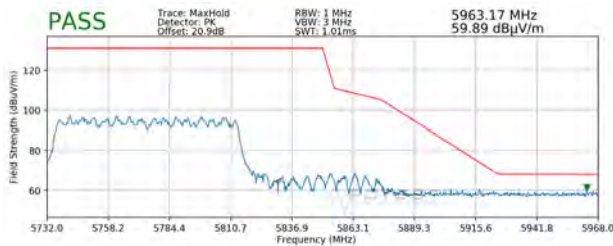


**Plot 7-313. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C – 996 Tones)**



**Plot 7-314. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C – 996 Tones)**

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



**Plot 7-315. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3 – 996 Tones)**

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)	 Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 244 of 249



## 7.7 Radiated Spurious Emissions Measurements – Below 1GHz

§15.209; RSS-Gen [8.9]

### Test Overview and Limit

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for radiated spurious emissions. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

**All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR and Table 6 of RSS-Gen (8.10) must not exceed the limits shown in Table 7-146 per Section 15.209 and RSS-Gen (8.9).**

Frequency	Field Strength [ $\mu$ V/m]	Measured Distance [Meters]
0.009 – 0.490 MHz	2400/F (kHz)	300
0.490 – 1.705 MHz	24000/F (kHz)	30
1.705 – 30.00 MHz	30	30
30.00 – 88.00 MHz	100	3
88.00 – 216.0 MHz	150	3
216.0 – 960.0 MHz	200	3
Above 960.0 MHz	500	3

**Table 7-146. Radiated Limits**

### Test Procedures Used

ANSI C63.10-2013

### Test Settings

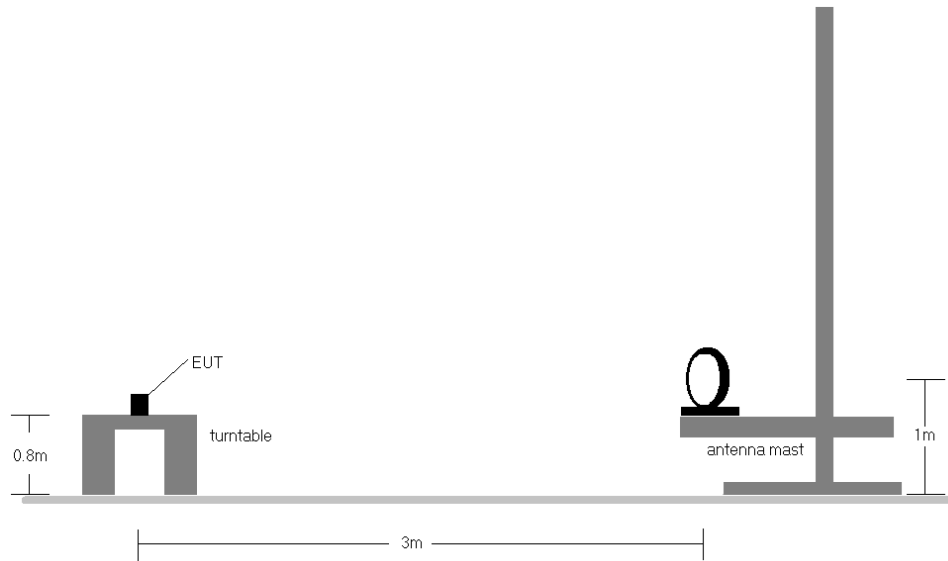
#### Quasi-Peak Field Strength Measurements

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

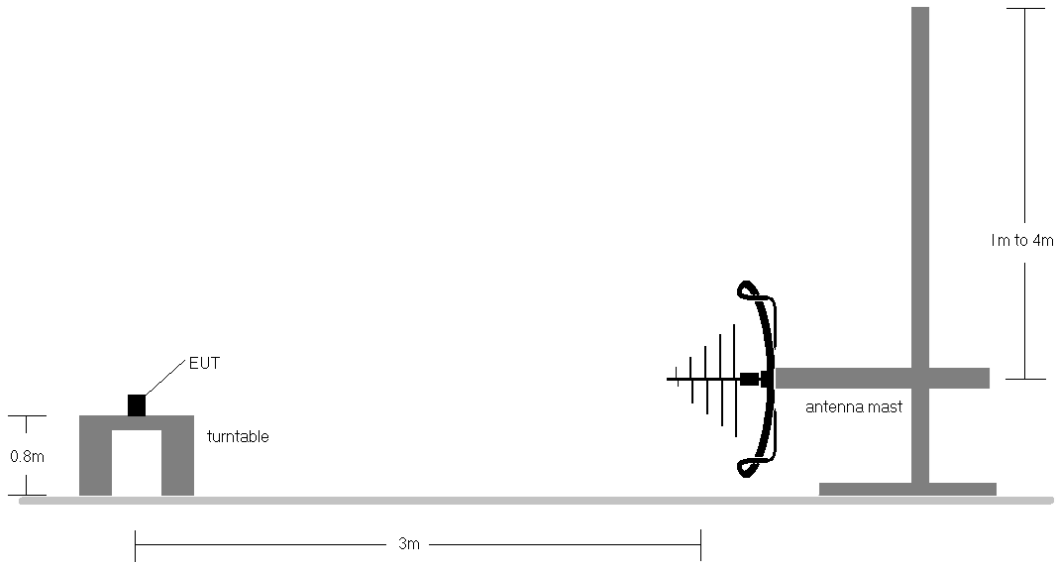
FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-09.A3L	Test Dates: 6/11 - 8/18/2020	EUT Type: Portable Handset	Page 245 of 249	

**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**

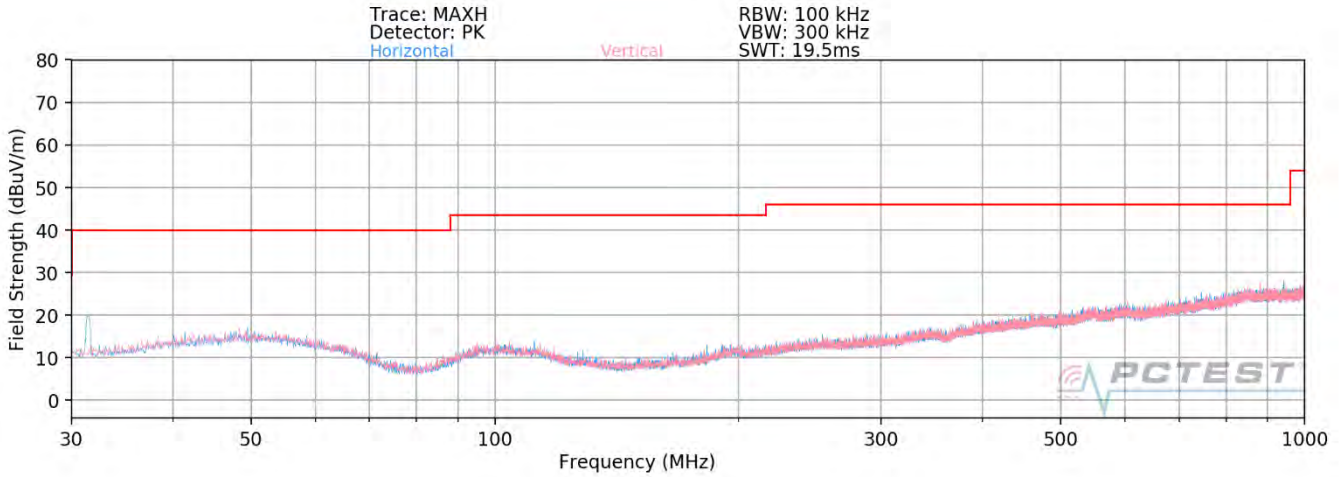
<b>FCC ID:</b> A3LSMF916U		<b>MEASUREMENT REPORT (CERTIFICATION)</b>	 <b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M2005200087-09.A3L	<b>Test Dates:</b> 6/11 - 8/18/2020	<b>EUT Type:</b> Portable Handset	Page 246 of 249

**Test Notes**

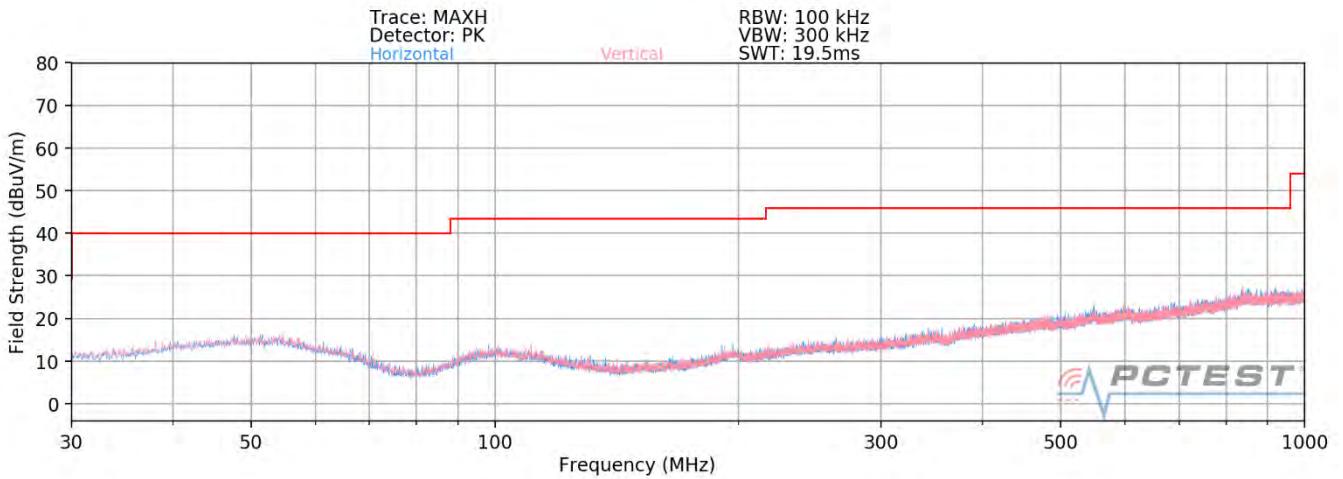
1. All emissions lying in restricted bands specified in §15.205 and RSS-Gen (8.10) are below the limit shown in Table 7-146.
2. The broadband receive antenna is manipulated through vertical and horizontal polarizations during the tests. The EUT is manipulated through three orthogonal planes.
3. This 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.

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



**Plot 7-316. Radiated Spurious Plot below 1GHz MIMO (802.11ax – 26 Tones – U3 Ch. 157)**



**Plot 7-317. Radiated Spurious Plot below 1GHz MIMO (802.11ax – 242 Tones – U3 Ch. 157)**

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## 8.0 CONCLUSION

The data collected relate only the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSMF916U** is in compliance with Part 15 Subpart E (15.407) of the FCC Rules.

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