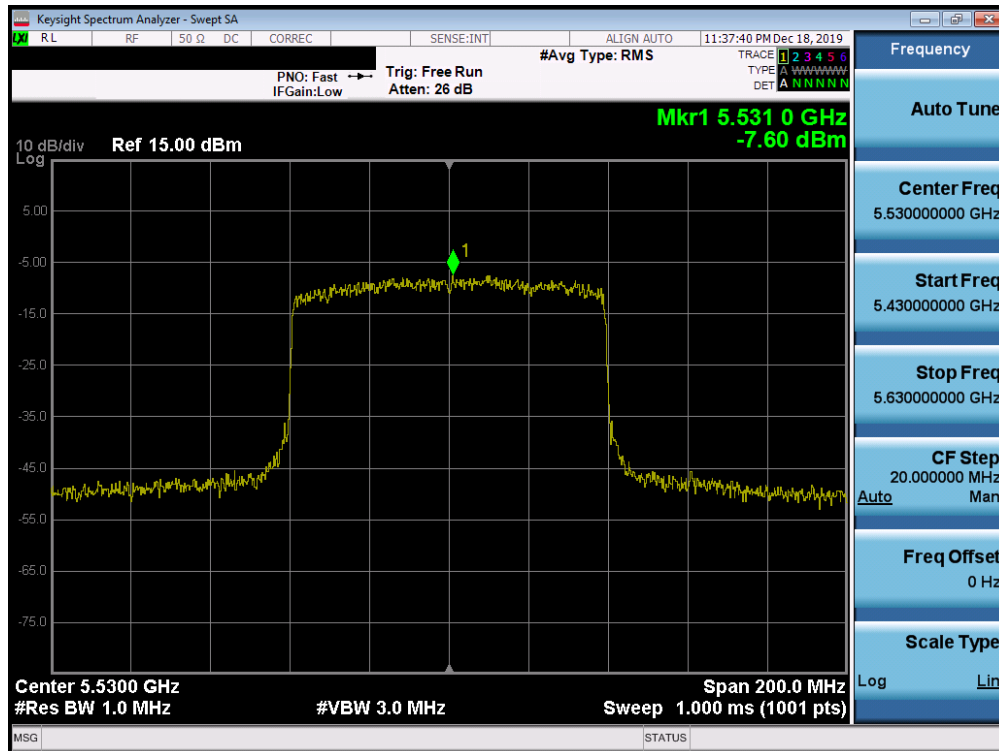
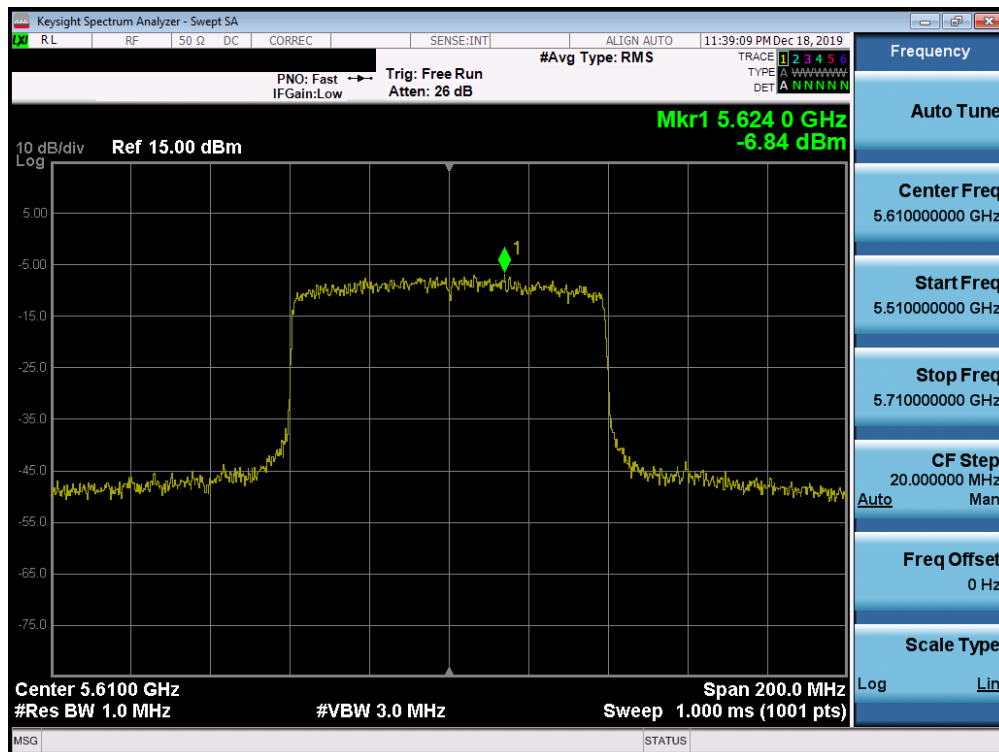


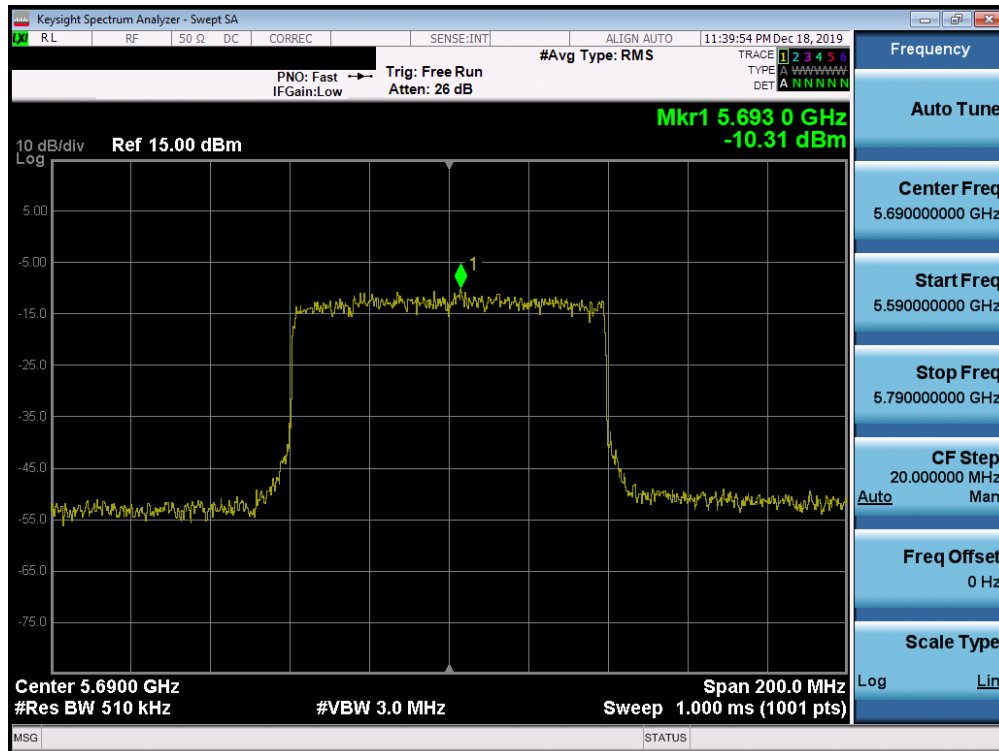


Plot 7-326. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax (UNII Band 2C) – Ch. 106)



Plot 7-327. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax (UNII Band 2C) – Ch. 122)

FCC ID: ZNFV600TM	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 198 of 291



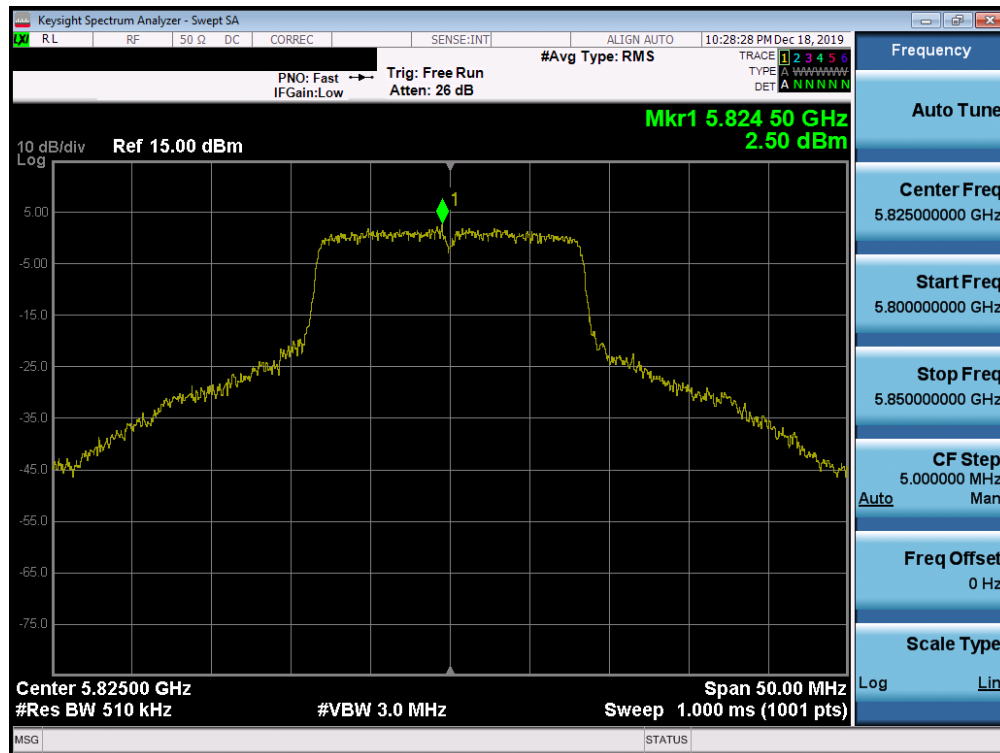
Plot 7-328. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax (UNII Band 2C) – Ch. 138)

FCC ID: ZNFV600TM	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 199 of 291

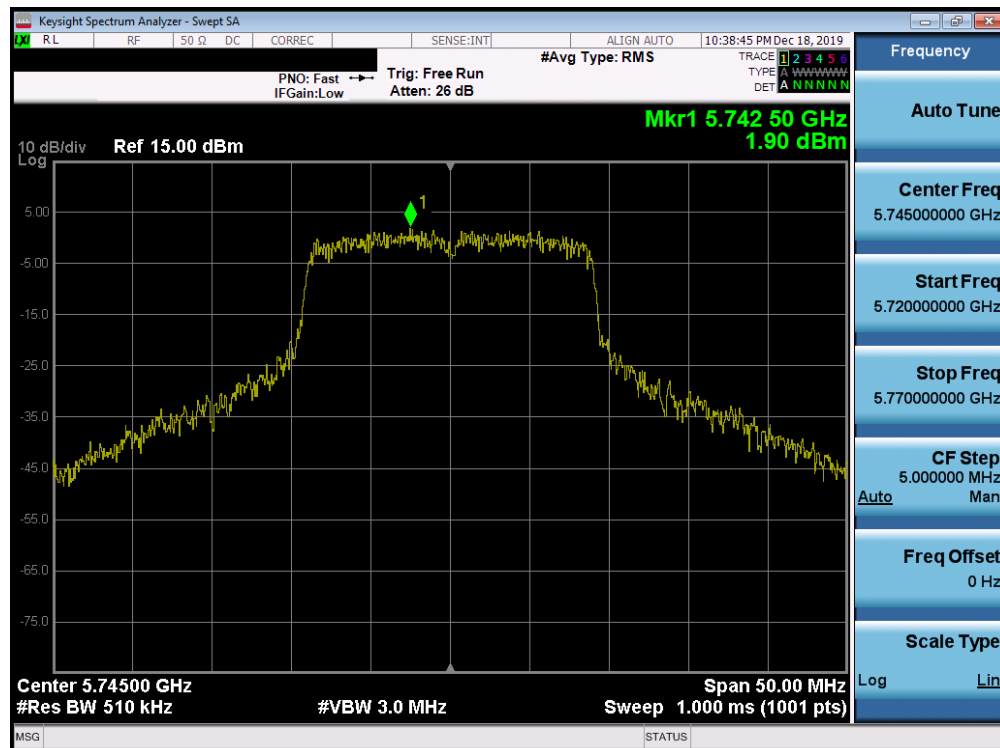
	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
Band 3	5745	149	a	6	0.98	30.0	-29.02
	5785	157	a	6	2.71	30.0	-27.29
	5825	165	a	6	2.50	30.0	-27.50
	5745	149	n (20MHz)	6.5/7.2 (MCS0)	1.90	30.0	-28.10
	5785	157	n (20MHz)	6.5/7.2 (MCS0)	3.25	30.0	-26.75
	5825	165	n (20MHz)	6.5/7.2 (MCS0)	2.56	30.0	-27.44
	5745	149	ac (20MHz)	6.5/7.2 (MCS0)	1.42	30.0	-28.58
	5785	157	ac (20MHz)	6.5/7.2 (MCS0)	3.03	30.0	-26.97
	5825	165	ac (20MHz)	6.5/7.2 (MCS0)	2.43	30.0	-27.57
	5745	149	ax (20MHz)	6.5/7.2 (MCS0)	-0.62	30.0	-30.62
	5785	157	ax (20MHz)	6.5/7.2 (MCS0)	0.22	30.0	-29.78
	5825	165	ax (20MHz)	6.5/7.2 (MCS0)	-0.72	30.0	-30.72
	5755	151	n (40MHz)	13.5/15 (MCS0)	-2.48	30.0	-32.48
	5795	159	n (40MHz)	13.5/15 (MCS0)	-2.78	30.0	-32.78
	5755	151	ac (40MHz)	13.5/15 (MCS0)	-2.27	30.0	-32.27
	5795	159	ac (40MHz)	13.5/15 (MCS0)	-2.37	30.0	-32.37
	5755	151	ax (40MHz)	13.5/15 (MCS0)	-6.04	30.0	-36.04
	5795	159	ax (40MHz)	13.5/15 (MCS0)	-5.74	30.0	-35.74
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-4.62	30.0	-34.62
	5775	155	ax (80MHz)	29.3/32.5 (MCS0)	-6.94	30.0	-36.94

Table 7-24. Band 3 Conducted Power Spectral Density Measurements SISO ANT2

FCC ID: ZNFV600TM			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset			Page 200 of 291

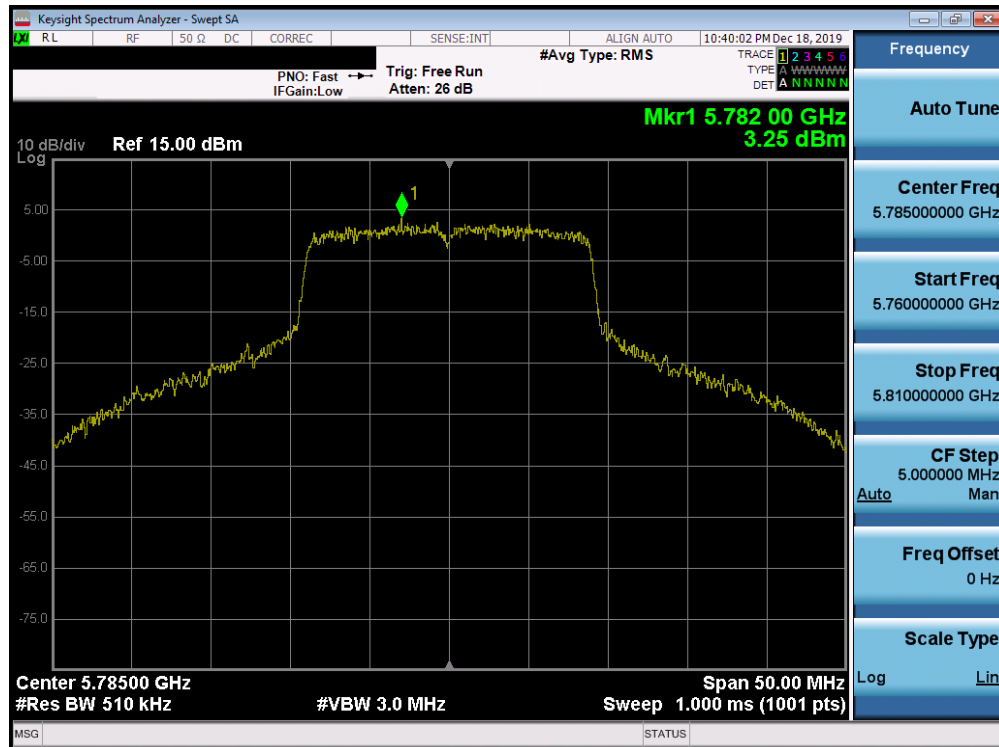


Plot 7-331. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 3) – Ch. 165)

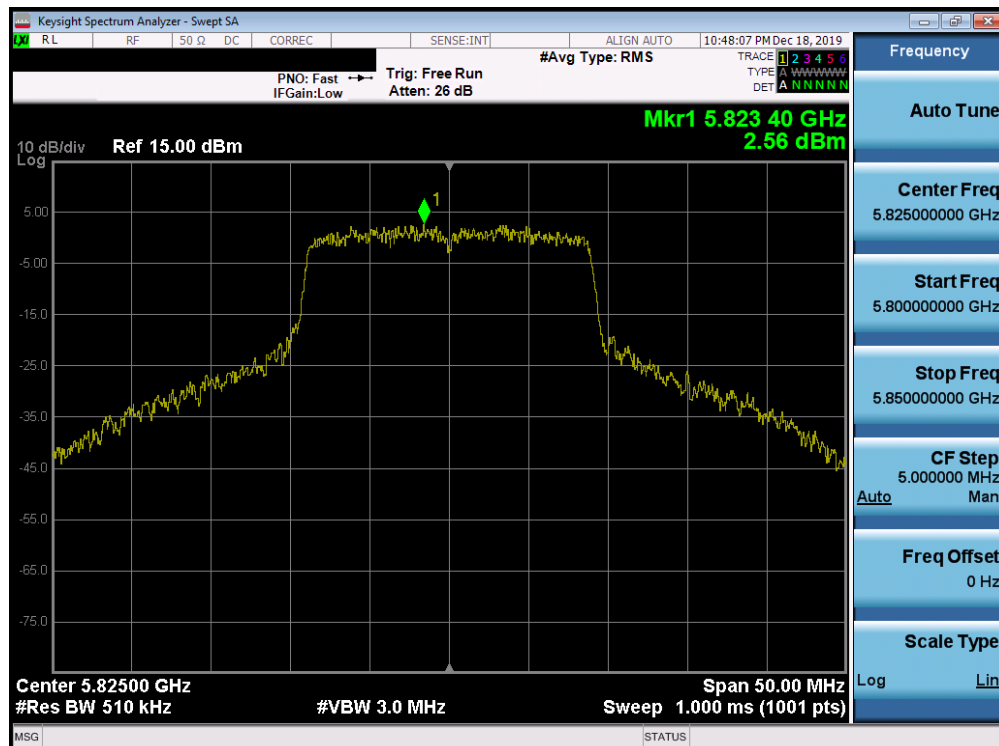


Plot 7-332. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) – Ch. 149)

FCC ID: ZNFV600TM	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 202 of 291

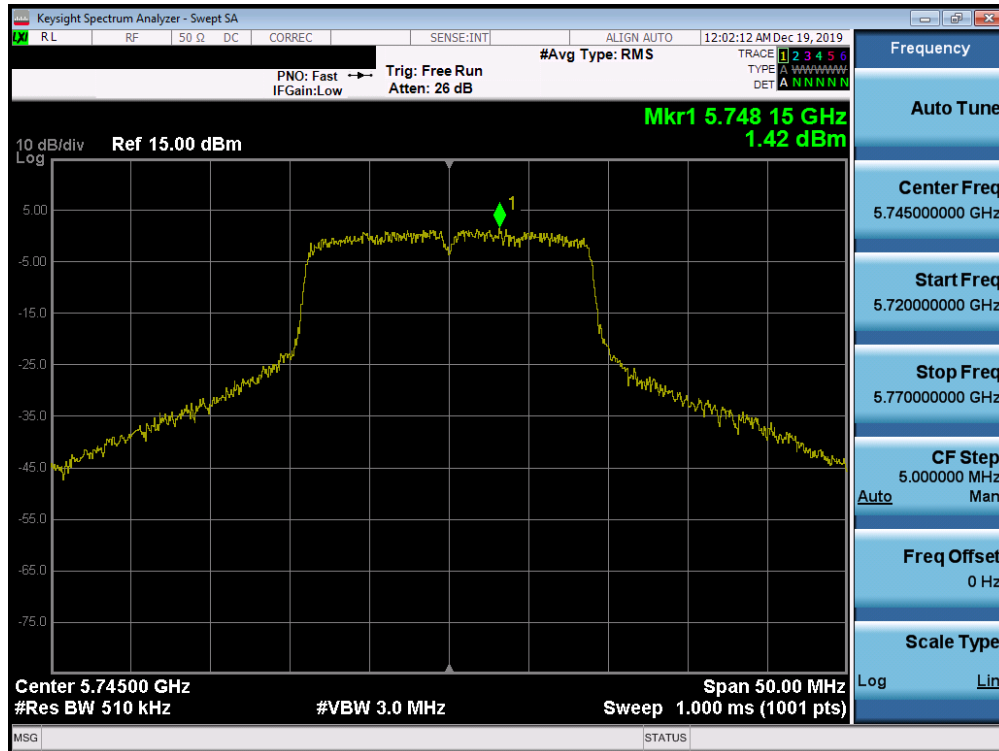


Plot 7-333. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) – Ch. 157)

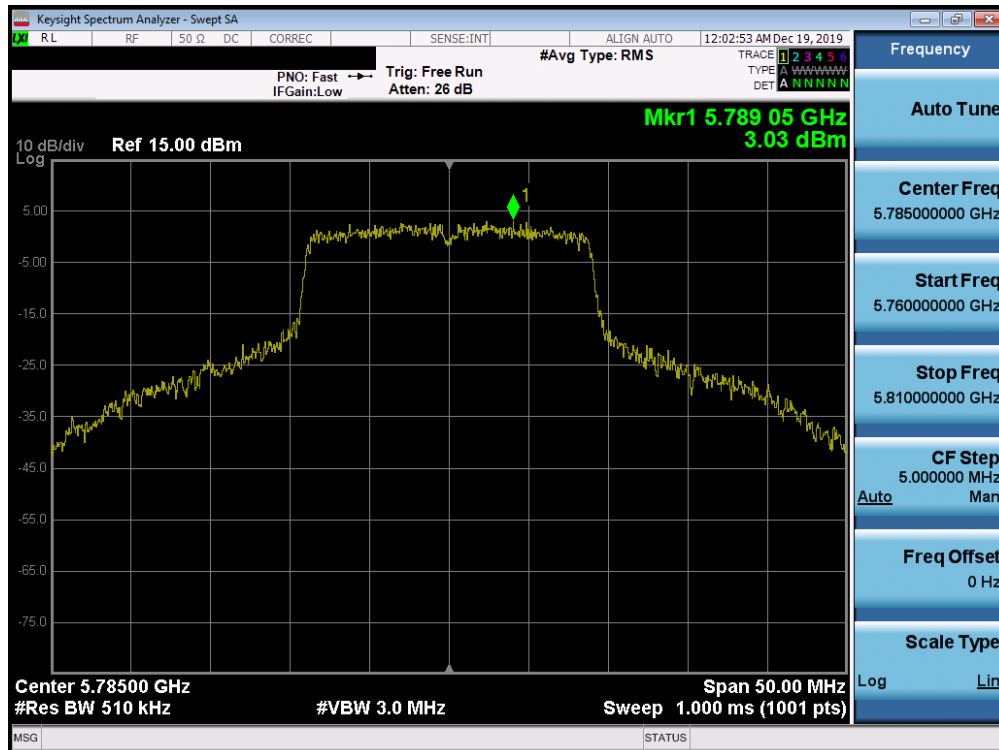


Plot 7-334. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) – Ch. 165)

FCC ID: ZNFV600TM	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 203 of 291

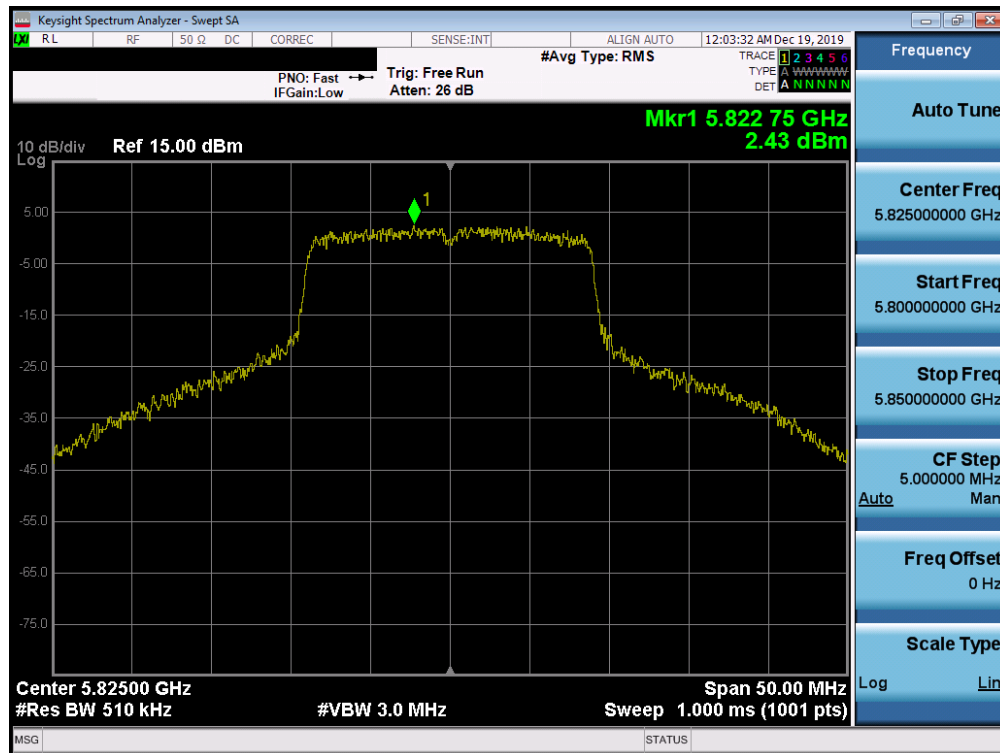


Plot 7-335. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ac (UNII Band 3) – Ch. 149)

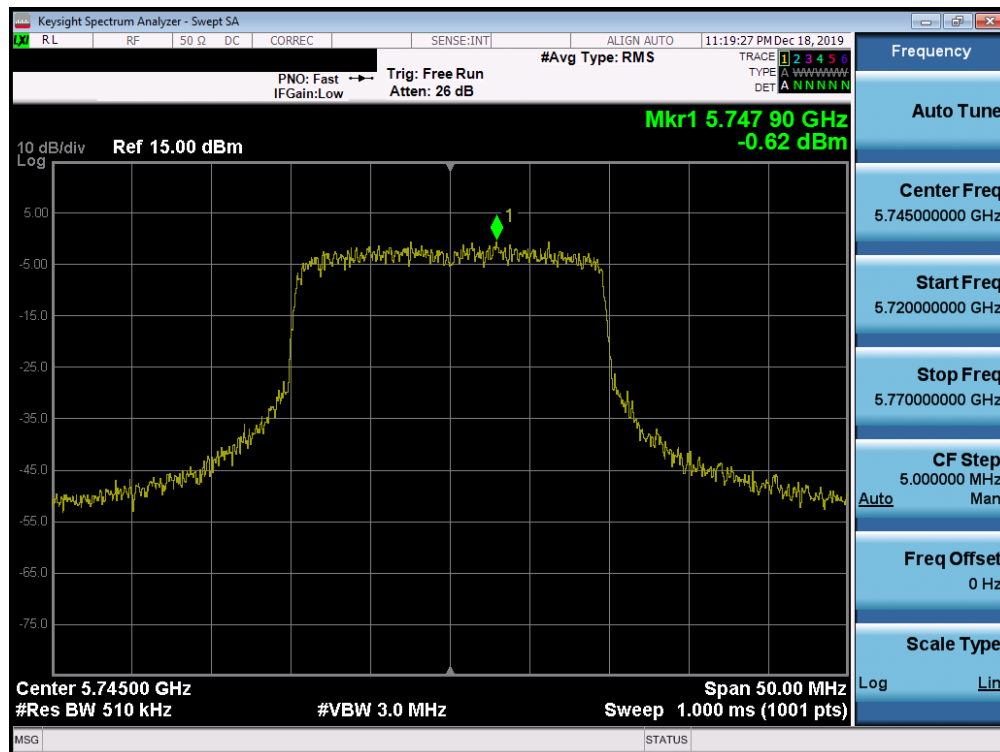


Plot 7-336. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ac (UNII Band 3) – Ch. 157)

FCC ID: ZNFV600TM	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 204 of 291

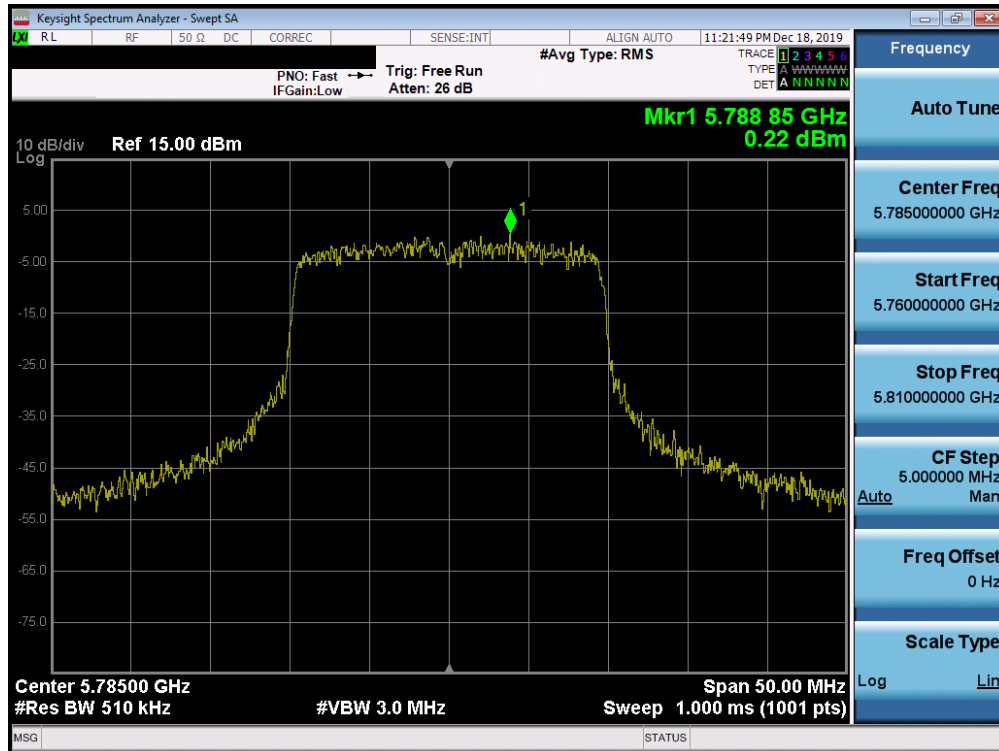


Plot 7-337. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ac (UNII Band 3) – Ch. 165)

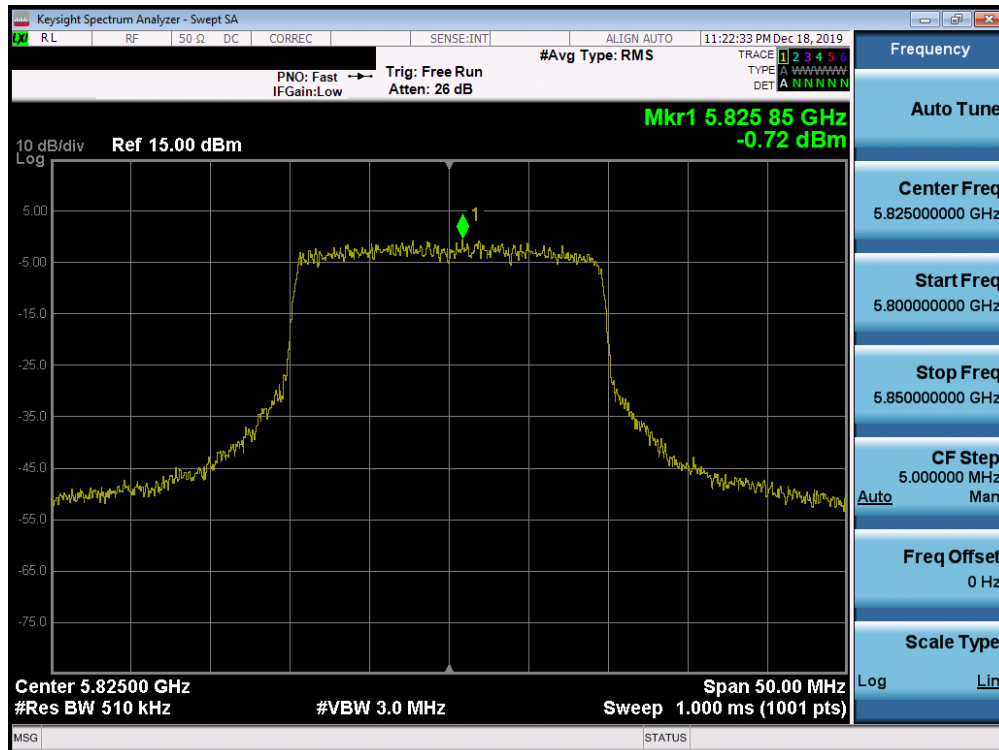


Plot 7-338. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 3) – Ch. 149)

FCC ID: ZNFV600TM	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 205 of 291

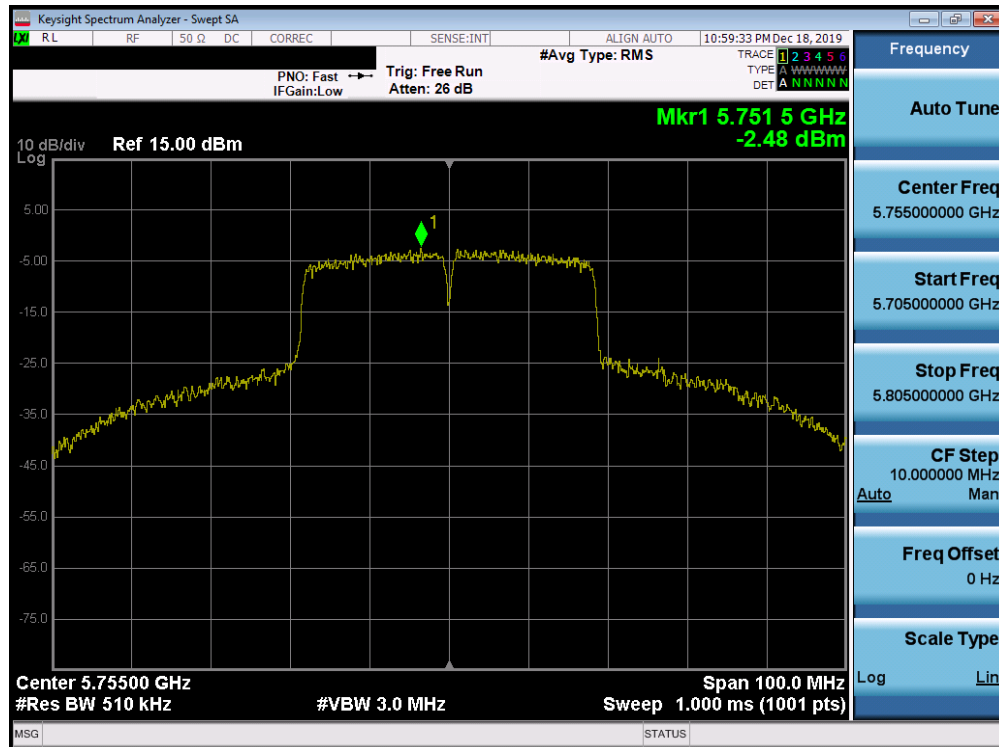


Plot 7-339. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 3) – Ch. 157)

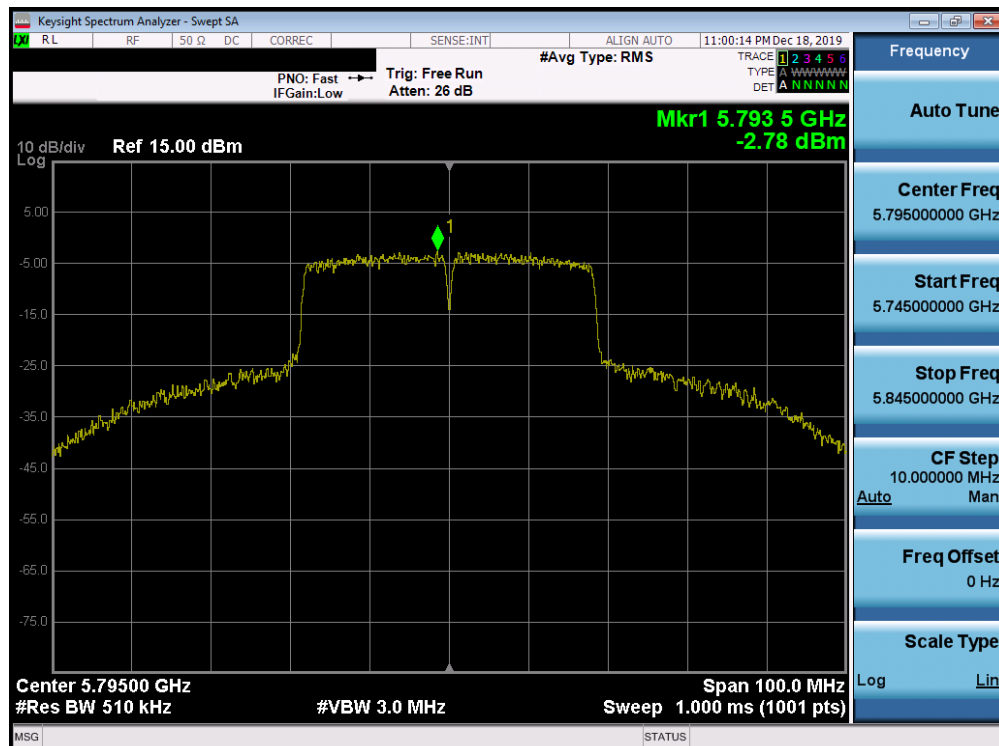


Plot 7-340. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 3) – Ch. 165)

FCC ID: ZNFV600TM	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 206 of 291

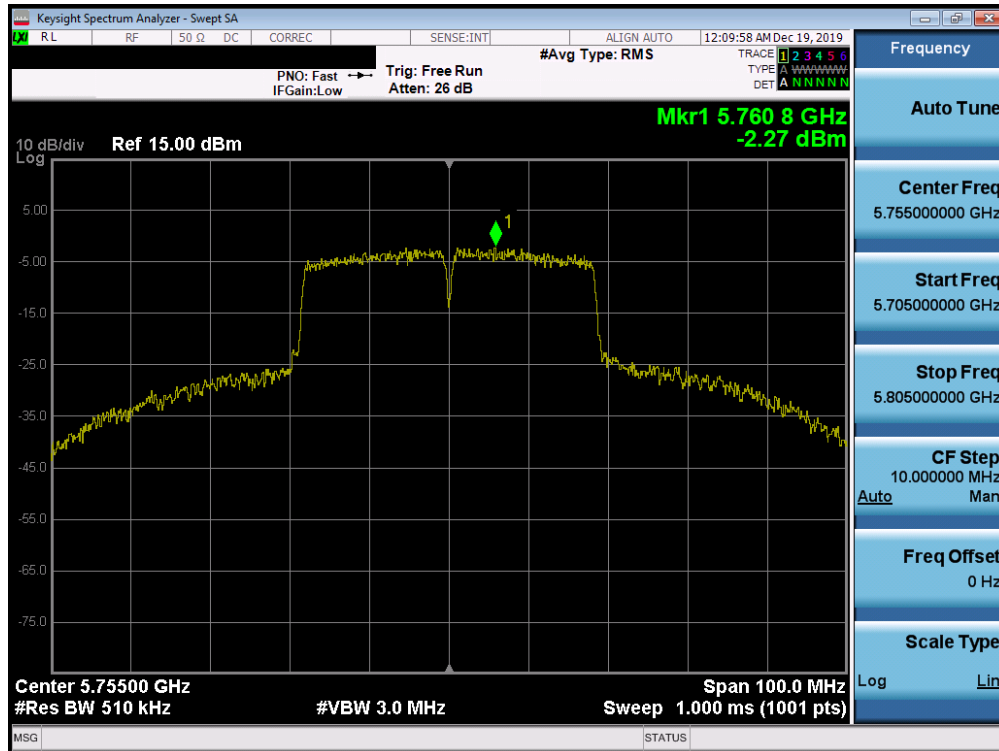


Plot 7-341. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 3) – Ch. 151)

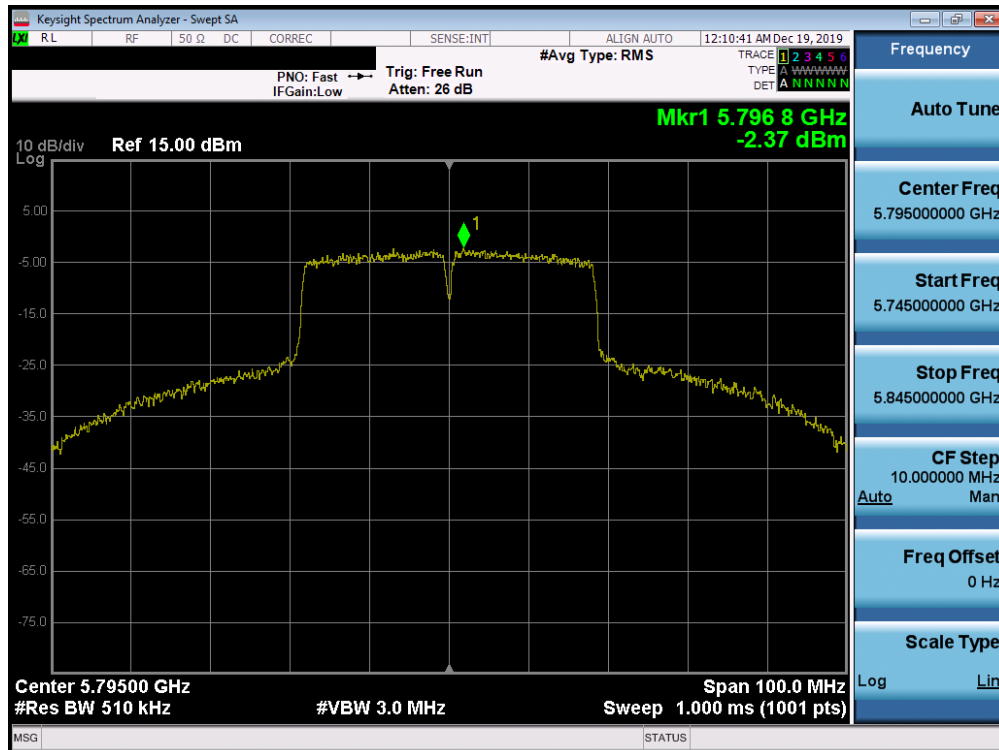


Plot 7-342. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 3) – Ch. 159)

FCC ID: ZNFV600TM	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 207 of 291

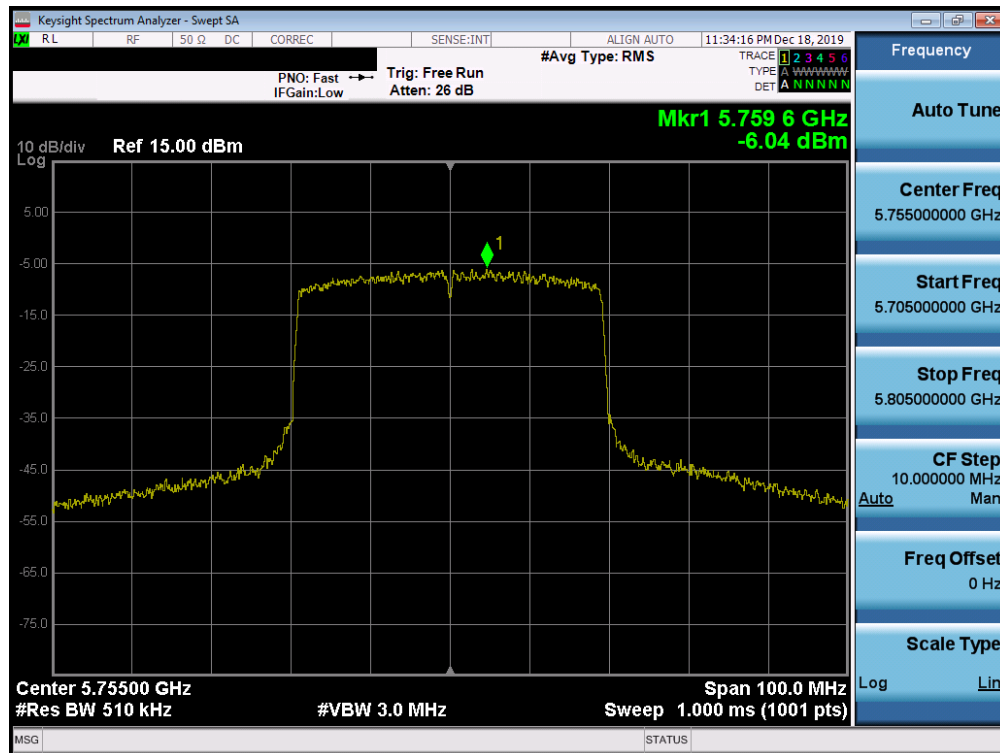


Plot 7-343. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 3) – Ch. 151)

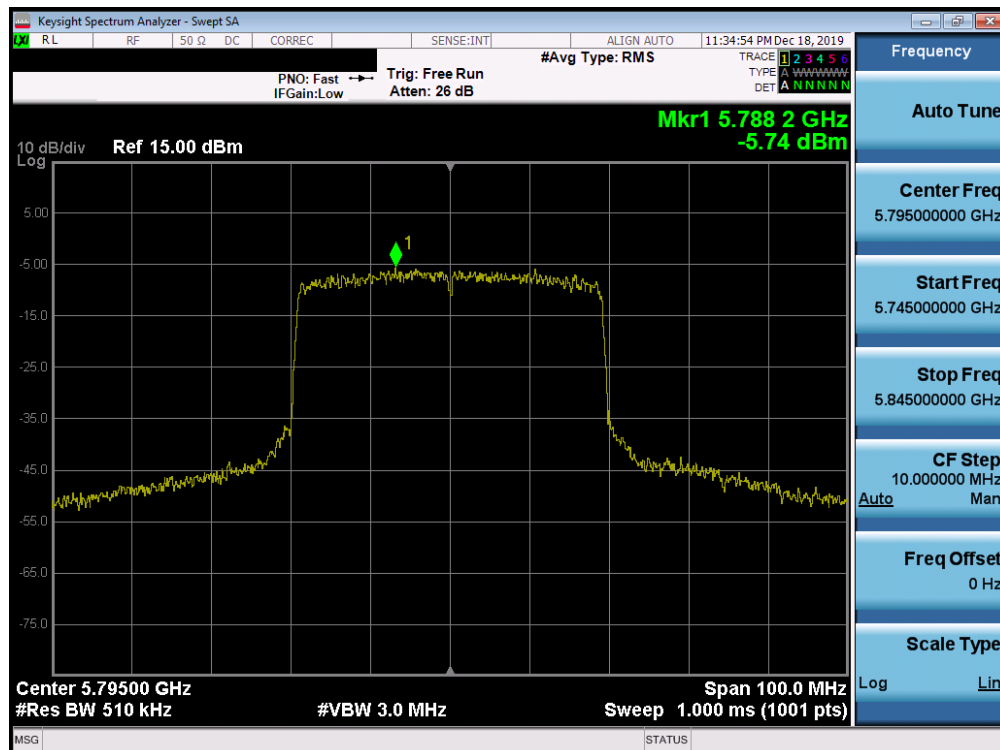


Plot 7-344. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 3) – Ch. 159)

FCC ID: ZNFV600TM	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 208 of 291

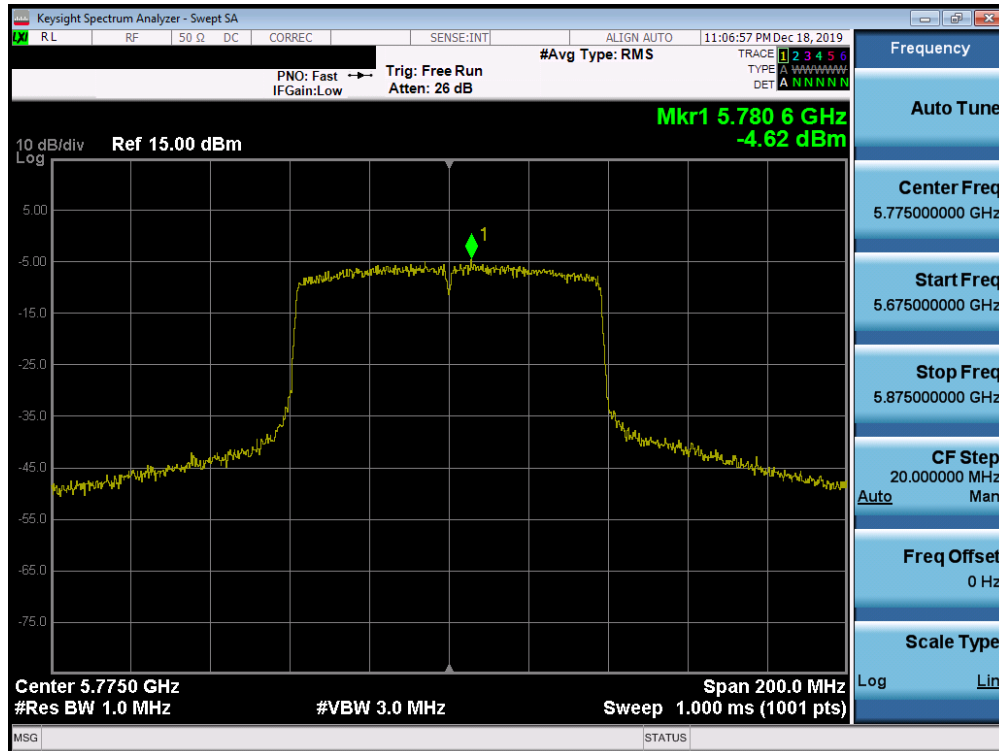


Plot 7-345. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 3) – Ch. 151)

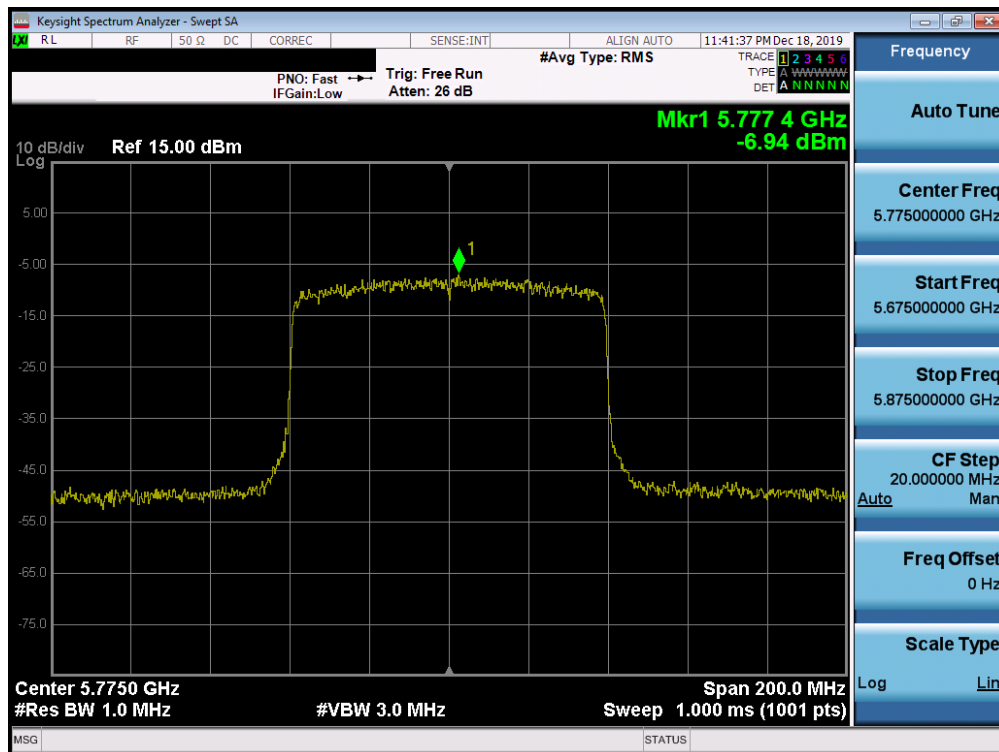


Plot 7-346. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 3) – Ch. 159)

FCC ID: ZNFV600TM	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 209 of 291



Plot 7-347. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 3) – Ch. 155)



Plot 7-348. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax (UNII Band 3) – Ch. 155)

FCC ID: ZNFV600TM	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 210 of 291

Summed MIMO Power Spectral Density Measurements

	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
Band 1	5180	36	a	6	5.11	4.66	7.90	11.0	-3.10
	5200	40	a	6	4.75	5.41	8.10	11.0	-2.90
	5240	48	a	6	4.54	4.00	7.29	11.0	-3.71
	5180	36	n (20MHz)	6.5/7.2 (MCS0)	4.29	4.88	7.61	11.0	-3.39
	5200	40	n (20MHz)	6.5/7.2 (MCS0)	5.85	6.03	8.95	11.0	-2.05
	5240	48	n (20MHz)	6.5/7.2 (MCS0)	4.57	4.68	7.64	11.0	-3.36
	5180	36	ac (20MHz)	6.5/7.2 (MCS0)	3.79	4.81	7.34	11.0	-3.66
	5200	40	ac (20MHz)	6.5/7.2 (MCS0)	5.72	6.29	9.02	11.0	-1.98
	5240	48	ac (20MHz)	6.5/7.2 (MCS0)	4.62	4.88	7.76	11.0	-3.24
	5180	36	ax (20MHz)	6.5/7.2 (MCS0)	1.54	2.25	4.92	11.0	-6.08
	5200	40	ax (20MHz)	6.5/7.2 (MCS0)	2.11	2.66	5.40	11.0	-5.60
	5240	48	ax (20MHz)	6.5/7.2 (MCS0)	2.39	2.47	5.44	11.0	-5.56
	5190	38	n (40MHz)	13.5/15 (MCS0)	-1.23	-2.07	1.38	11.0	-9.62
	5230	46	n (40MHz)	13.5/15 (MCS0)	0.17	0.76	3.49	11.0	-7.51
	5190	38	ac (40MHz)	13.5/15 (MCS0)	-2.08	-1.50	1.23	11.0	-9.77
	5230	46	ac (40MHz)	13.5/15 (MCS0)	1.04	1.51	4.29	11.0	-6.71
	5190	38	ax (40MHz)	13.5/15 (MCS0)	-4.33	-4.40	-1.35	11.0	-12.35
	5230	46	ax (40MHz)	13.5/15 (MCS0)	-2.80	-3.24	0.00	11.0	-11.00
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	-7.43	-7.66	-4.53	11.0	-15.53
	5210	42	ax (80MHz)	29.3/32.5 (MCS0)	-9.93	-9.37	-6.63	11.0	-17.63
Band 2A	5260	52	a	6	5.76	4.91	8.37	11.0	-2.63
	5280	56	a	6	6.15	5.59	8.89	11.0	-2.11
	5320	64	a	6	4.86	5.29	8.09	11.0	-2.91
	5260	52	n (20MHz)	6.5/7.2 (MCS0)	5.23	5.55	8.40	11.0	-2.60
	5280	56	n (20MHz)	6.5/7.2 (MCS0)	6.02	6.63	9.35	11.0	-1.65
	5320	64	n (20MHz)	6.5/7.2 (MCS0)	5.78	5.75	8.78	11.0	-2.22
	5260	52	ac (20MHz)	6.5/7.2 (MCS0)	4.87	5.41	8.16	11.0	-2.84
	5280	56	ac (20MHz)	6.5/7.2 (MCS0)	6.42	6.28	9.36	11.0	-1.64
	5320	64	ac (20MHz)	6.5/7.2 (MCS0)	6.24	5.75	9.01	11.0	-1.99
	5260	52	ax (20MHz)	6.5/7.2 (MCS0)	2.24	2.89	5.59	11.0	-5.41
	5280	56	ax (20MHz)	6.5/7.2 (MCS0)	2.10	3.21	5.70	11.0	-5.30
	5320	64	ax (20MHz)	6.5/7.2 (MCS0)	2.68	3.41	6.07	11.0	-4.93
	5270	54	n (40MHz)	13.5/15 (MCS0)	1.73	1.07	4.42	11.0	-6.58
	5310	62	n (40MHz)	13.5/15 (MCS0)	-0.54	-0.50	2.49	11.0	-8.51
	5270	54	ac (40MHz)	13.5/15 (MCS0)	1.59	1.14	4.38	11.0	-6.62
	5310	62	ac (40MHz)	13.5/15 (MCS0)	-0.41	-0.33	2.64	11.0	-8.36
	5270	54	ax (40MHz)	13.5/15 (MCS0)	-2.20	-1.18	1.35	11.0	-9.65
	5310	62	ax (40MHz)	13.5/15 (MCS0)	-3.04	-1.27	0.94	11.0	-10.06
	5290	58	ac (80MHz)	29.3/32.5 (MCS0)	-7.09	-6.47	-3.76	11.0	-14.76
	5290	58	ax (80MHz)	29.3/32.5 (MCS0)	-9.11	-8.96	-6.02	11.0	-17.02
Band 2C	5500	100	a	6	4.81	3.42	7.18	11.0	-3.82
	5600	120	a	6	4.45	4.89	7.69	11.0	-3.31
	5720	144	a	6	4.92	4.11	7.54	11.0	-3.46
	5500	100	n (20MHz)	6.5/7.2 (MCS0)	4.24	3.29	6.80	11.0	-4.20
	5600	120	n (20MHz)	6.5/7.2 (MCS0)	4.98	4.74	7.87	11.0	-3.13
	5720	144	n (20MHz)	6.5/7.2 (MCS0)	4.84	3.69	7.31	11.0	-3.69
	5500	100	ac (20MHz)	6.5/7.2 (MCS0)	4.32	4.00	7.17	11.0	-3.83
	5600	120	ac (20MHz)	6.5/7.2 (MCS0)	4.78	4.65	7.73	11.0	-3.27
	5720	144	ac (20MHz)	6.5/7.2 (MCS0)	3.85	4.01	6.94	11.0	-4.06
	5500	100	ax (20MHz)	6.5/7.2 (MCS0)	2.52	1.72	5.15	11.0	-5.85
	5600	120	ax (20MHz)	6.5/7.2 (MCS0)	2.67	2.57	5.63	11.0	-5.37
	5720	144	ax (20MHz)	6.5/7.2 (MCS0)	2.01	1.93	4.98	11.0	-6.02
	5510	102	n (40MHz)	13.5/15 (MCS0)	0.76	0.04	3.43	11.0	-7.57
	5590	118	n (40MHz)	13.5/15 (MCS0)	1.10	0.66	3.90	11.0	-7.10
	5710	142	n (40MHz)	13.5/15 (MCS0)	0.39	0.04	3.23	11.0	-7.77
	5510	102	ac (40MHz)	13.5/15 (MCS0)	0.09	0.40	3.26	11.0	-7.74
	5590	118	ac (40MHz)	13.5/15 (MCS0)	1.01	1.09	4.06	11.0	-6.94
	5710	142	ac (40MHz)	13.5/15 (MCS0)	0.62	-0.17	3.25	11.0	-7.75
	5510	102	ax (40MHz)	13.5/15 (MCS0)	-2.72	-3.60	-0.13	11.0	-11.13
	5590	118	ax (40MHz)	13.5/15 (MCS0)	-2.79	-1.91	0.68	11.0	-10.32
	5710	142	ax (40MHz)	13.5/15 (MCS0)	-2.40	-3.17	0.24	11.0	-10.76
	5530	106	ac (80MHz)	29.3/32.5 (MCS0)	-5.00	-5.41	-2.19	11.0	-13.19
	5610	122	ac (80MHz)	29.3/32.5 (MCS0)	-5.37	-5.30	-2.32	11.0	-13.32
	5690	138	ac (80MHz)	29.3/32.5 (MCS0)	-8.56	-8.74	-5.64	11.0	-16.64
	5530	106	ax (80MHz)	29.3/32.5 (MCS0)	-7.70	-7.60	-4.64	11.0	-15.64
	5610	122	ax (80MHz)	29.3/32.5 (MCS0)	-6.95	-6.84	-3.88	11.0	-14.88
	5690	138	ax (80MHz)	29.3/32.5 (MCS0)	-10.69	-10.31	-7.49	11.0	-18.49

Table 7-25. Bands 1, 2A, 2C MIMO Conducted Power Spectral Density Measurements

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 211 of 291

	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Antenn-1 Power Density [dBm]	Antenn-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
Band 3	5745	149	a	6	1.58	0.98	4.30	30.0	-25.70
	5785	157	a	6	3.70	2.71	6.24	30.0	-23.76
	5825	165	a	6	2.58	2.50	5.55	30.0	-24.45
	5745	149	n (20MHz)	6.5/7.2 (MCS0)	2.26	1.90	5.09	30.0	-24.91
	5785	157	n (20MHz)	6.5/7.2 (MCS0)	3.25	3.25	6.26	30.0	-23.74
	5825	165	n (20MHz)	6.5/7.2 (MCS0)	2.73	2.56	5.66	30.0	-24.34
	5745	149	ac (20MHz)	6.5/7.2 (MCS0)	1.53	1.42	4.49	30.0	-25.51
	5785	157	ac (20MHz)	6.5/7.2 (MCS0)	2.93	3.03	5.99	30.0	-24.01
	5825	165	ac (20MHz)	6.5/7.2 (MCS0)	2.87	2.43	5.67	30.0	-24.33
	5745	149	ax (20MHz)	6.5/7.2 (MCS0)	0.05	-0.62	2.74	30.0	-27.26
	5785	157	ax (20MHz)	6.5/7.2 (MCS0)	0.57	0.22	3.41	30.0	-26.59
	5825	165	ax (20MHz)	6.5/7.2 (MCS0)	-0.30	-0.72	2.51	30.0	-27.49
	5755	151	n (40MHz)	13.5/15 (MCS0)	-2.26	-2.48	0.64	30.0	-29.36
	5795	159	n (40MHz)	13.5/15 (MCS0)	-1.34	-2.78	1.01	30.0	-28.99
	5755	151	ac (40MHz)	13.5/15 (MCS0)	-2.00	-2.27	0.88	30.0	-29.12
	5795	159	ac (40MHz)	13.5/15 (MCS0)	-2.50	-2.37	0.58	30.0	-29.42
	5755	151	ax (40MHz)	13.5/15 (MCS0)	-5.27	-6.04	-2.63	30.0	-32.63
	5795	159	ax (40MHz)	13.5/15 (MCS0)	-5.25	-5.74	-2.48	30.0	-32.48
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-4.71	-4.62	-1.65	30.0	-31.65
	5775	155	ax (80MHz)	29.3/32.5 (MCS0)	-6.99	-6.94	-3.95	30.0	-33.95

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

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Note:

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

Sample MIMO Calculation:

At 5180MHz in 802.11n (20MHz BW) mode, the average conducted power spectral density was measured to be 4.29 dBm for Antenna-1 and 4.88 dBm for Antenna-2.

Antenna 1 + Antenna 2 = MIMO

$$(4.29 \text{ dBm} + 4.88 \text{ dBm}) = (2.69 \text{ mW} + 3.08 \text{ mW}) = 5.77 \text{ mW} = 7.61 \text{ dBm}$$

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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7.6 Radiated Spurious Emission Measurements – Above 1GHz

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

Test Overview and Limit

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, and at the appropriate frequencies. All channels, modes (e.g. 802.11a, 802.11n, 802.11ac, 802.11ax (20MHz BW), 802.11n, 802.11ac, 802.11ax (40MHz BW), and 802.11ac, 802.11ax (80MHz)), and modulations/data rates were investigated among all UNII bands. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

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

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

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, 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 7-27 per Section 15.209 and RSS-Gen (8.9).

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

Table 7-27. Radiated Limits

Test Procedures Used

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

Test Settings

Average Measurements above 1GHz (Method AD)

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = power average (RMS)
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.

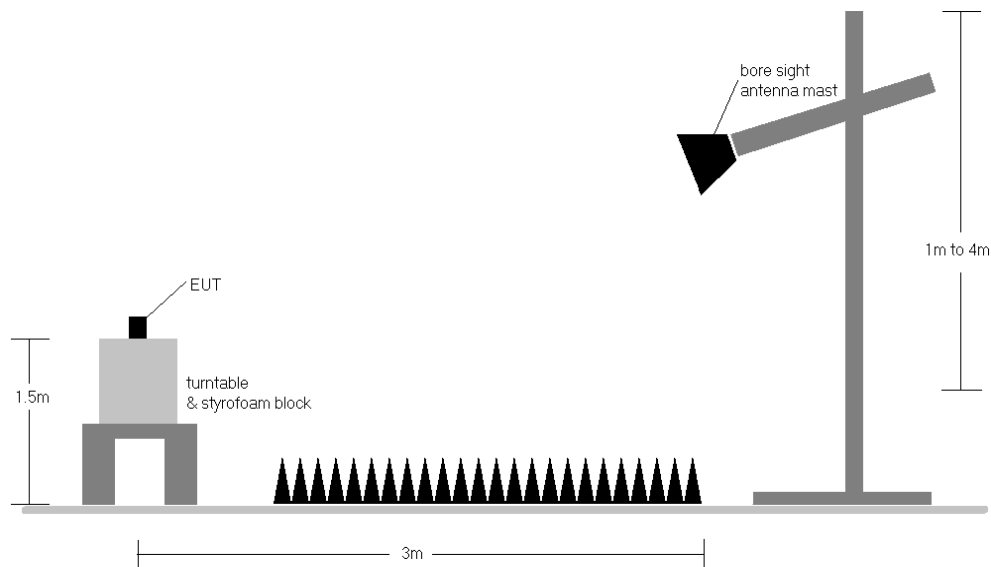


Figure 7-5. Test Instrument & Measurement Setup

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

Sample Calculations

Determining Spurious Emissions Levels

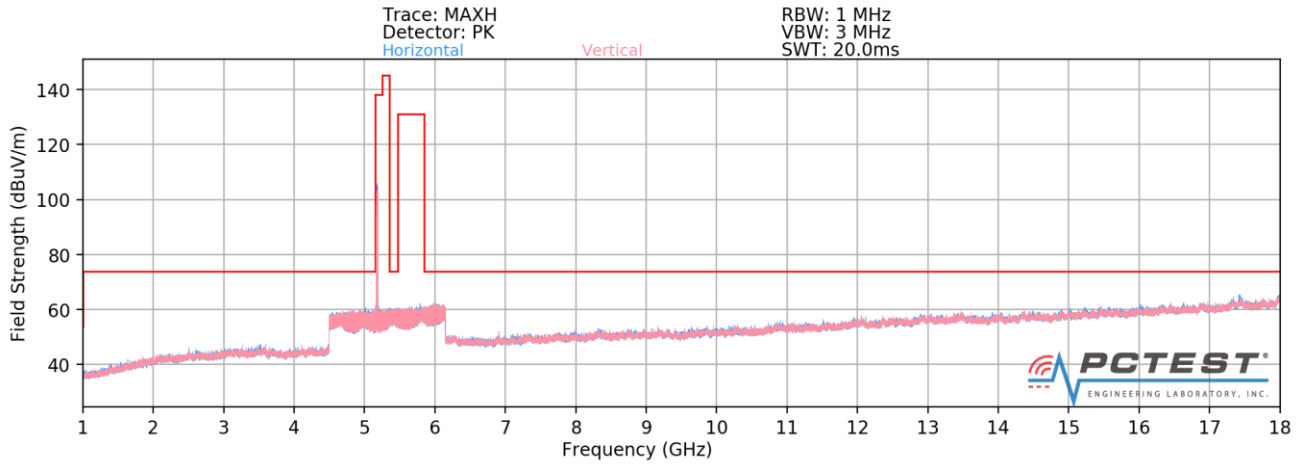
- Field Strength Level [dBμV/m] = Analyzer Level [dBm] + 107 + AFCL [dB/m]
- AFCL [dB/m] = Antenna Factor [dB/m] + Cable Loss [dB]
- Margin [dB] = Field Strength Level [dBμV/m] – Limit [dBμV/m]

Radiated Band Edge Measurement Offset

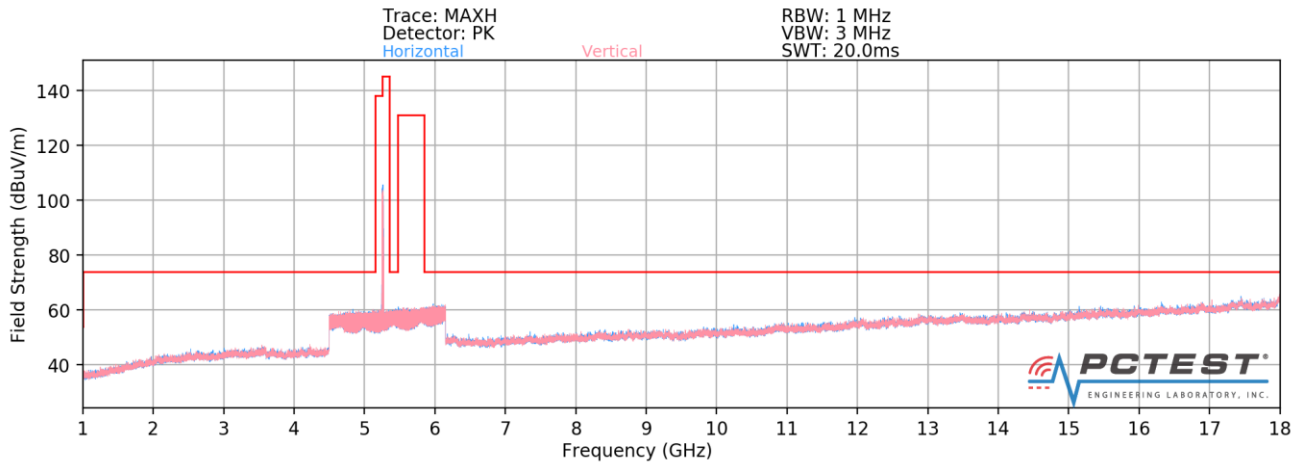
- The amplitude offset shown in the radiated restricted band edge plots was calculated using the formula:
Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

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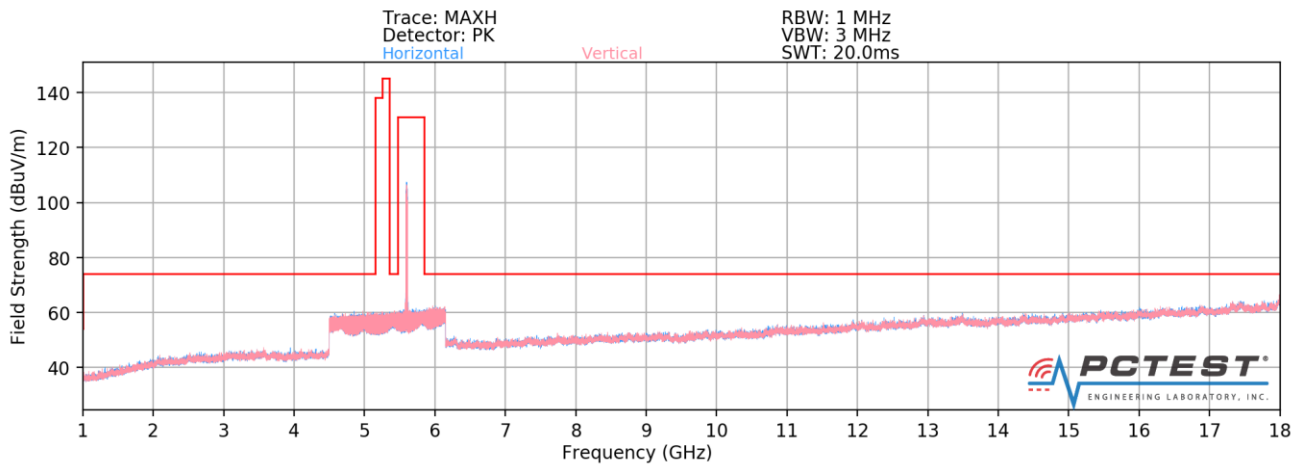
7.6.1 SISO Antenna-1 Radiated Spurious Emission Measurements



Plot 7-349. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a – U1 Ch. 40)

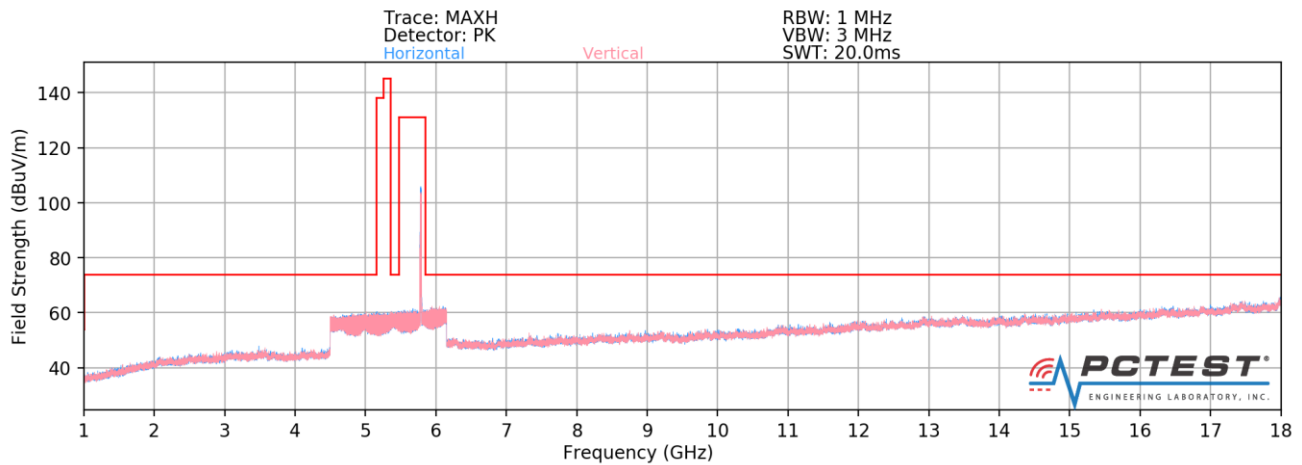


Plot 7-350. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a – U2A Ch. 56)



Plot 7-351. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a – U2C Ch. 120)

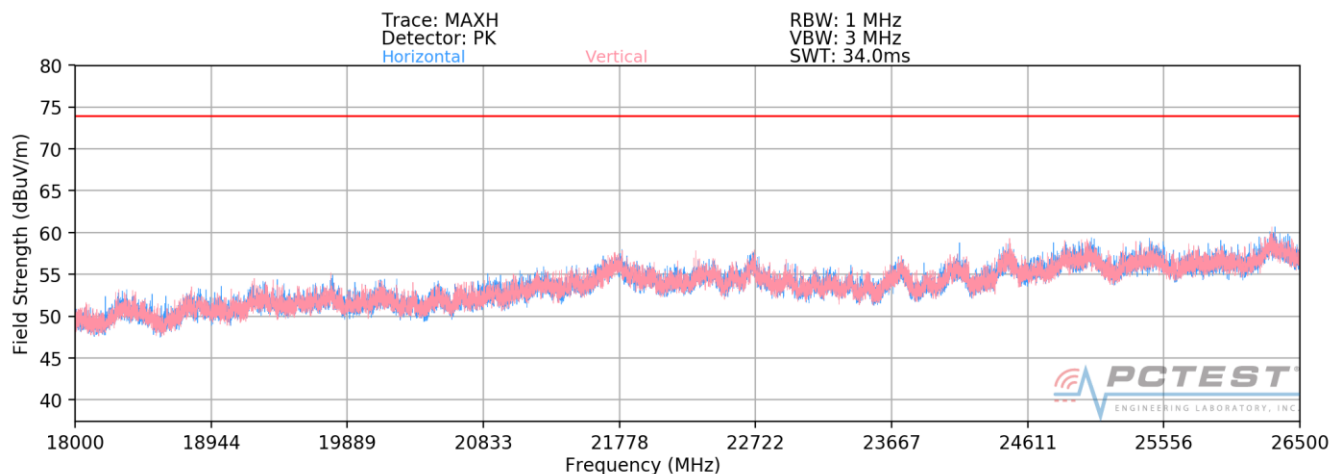
FCC ID: ZNFV600TM	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
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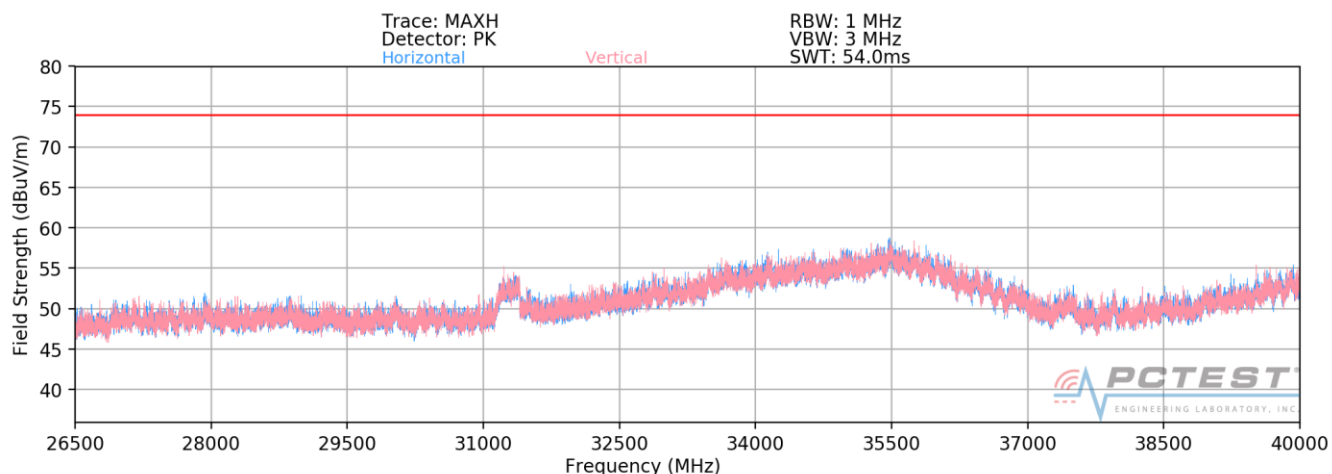
Plot 7-352. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a – U3 Ch. 157)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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SISO Antenna-1 Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-353. Radiated Spurious Plot 18GHz - 26.5GHz SISO ANT1 (802.11a)



Plot 7-354. Radiated Spurious Plot 26.5GHz - 40GHz SISO ANT1 (802.11a)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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SISO Antenna-1 Radiated Spurious Emission Measurements

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

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5180MHz
Channel: 36

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10360.00	Peak	H	213	297	-67.74	11.41	0.00	50.67	68.20	-17.53
* 15540.00	Average	H	-	-	-83.29	13.23	0.00	36.94	53.98	-17.04
* 15540.00	Peak	H	-	-	-70.96	13.23	0.00	49.27	73.98	-24.71
* 20720.00	Average	H	-	-	-76.38	17.51	-9.54	38.59	53.98	-15.39
* 20720.00	Peak	H	-	-	-66.50	17.51	-9.54	48.47	73.98	-25.51
25900.00	Peak	H	-	-	-65.64	19.88	-9.54	51.70	68.20	-16.50

Table 7-28. Radiated Measurements SISO ANT1

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5200MHz
Channel: 40

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10400.00	Peak	H	246	296	-67.32	11.17	0.00	50.85	68.20	-17.35
* 15600.00	Average	H	-	-	-83.38	12.81	0.00	36.43	53.98	-17.55
* 15600.00	Peak	H	-	-	-71.33	12.81	0.00	48.48	73.98	-25.50
* 20800.00	Average	H	-	-	-76.42	17.87	-9.54	38.90	53.98	-15.08
* 20800.00	Peak	H	-	-	-66.93	17.87	-9.54	48.39	73.98	-25.59
26000.00	Peak	H	-	-	-65.60	20.15	-9.54	52.00	68.20	-16.20

Table 7-29. Radiated Measurements SISO ANT1

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5240MHz
Channel: 48

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10480.00	Peak	H	246	250	-68.10	11.37	0.00	50.27	68.20	-17.93
* 15720.00	Average	H	-	-	-83.79	15.18	0.00	38.39	53.98	-15.59
* 15720.00	Peak	H	-	-	-71.66	15.18	0.00	50.52	73.98	-23.46
* 20960.00	Average	H	-	-	-76.51	18.06	-9.54	39.00	53.98	-14.97
* 20960.00	Peak	H	-	-	-66.73	18.06	-9.54	48.78	73.98	-25.19
26200.00	Peak	H	-	-	-66.00	20.23	-9.54	51.69	68.20	-16.51

Table 7-30. Radiated Measurements SISO ANT1

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5240MHz
Channel: 48

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10480.00	Peak	H	317	352	-68.15	11.37	0.00	50.22	68.20	-17.98
* 15720.00	Average	H	-	-	-84.55	15.18	0.00	37.63	53.98	-16.35
* 15720.00	Peak	H	-	-	-71.72	15.18	0.00	50.46	73.98	-23.52
* 20960.00	Average	H	-	-	-77.99	18.06	-9.54	37.52	53.98	-16.45
* 20960.00	Peak	H	-	-	-66.43	18.06	-9.54	49.08	73.98	-24.89
26200.00	Peak	H	-	-	-65.93	20.23	-9.54	51.76	68.20	-16.44

Table 7-31. Radiated Measurements SISO ANT1 with WCP

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 5260MHz
 Channel: 52

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10520.00	Peak	H	186	292	-68.60	11.86	0.00	50.26	68.20	-17.94
* 15780.00	Average	H	-	-	-84.05	13.75	0.00	36.70	53.98	-17.28
* 15780.00	Peak	H	-	-	-71.76	13.75	0.00	48.99	73.98	-24.99
* 21040.00	Average	H	-	-	-77.47	18.36	-9.54	38.34	53.98	-15.64
* 21040.00	Peak	H	-	-	-66.67	18.36	-9.54	49.14	73.98	-24.84
26300.00	Peak	H	-	-	-64.75	20.96	-9.54	53.66	68.20	-14.54

Table 7-32. Radiated Measurements SISO ANT1

Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 5280MHz
 Channel: 56

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10560.00	Peak	H	211	291	12.47	0.00	51.86	68.20	-16.34
* 15840.00	Average	H	-	-	15.16	0.00	38.67	53.98	-15.31
* 15840.00	Peak	H	-	-	15.16	0.00	51.38	73.98	-22.60
* 21120.00	Average	H	-	-	18.17	-9.54	38.15	53.98	-15.82
* 21120.00	Peak	H	-	-	18.17	-9.54	48.47	73.98	-25.50
26400.00	Peak	H	-	-	20.65	-9.54	51.85	68.20	-16.35

Table 7-33. Radiated Measurements SISO ANT1

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 222 of 291

Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 5320MHz
 Channel: 64

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 10640.00	Average	H	216	295	-82.18	13.08	0.00	37.90	53.98	-16.08
* 10640.00	Peak	H	216	295	-69.69	13.08	0.00	50.39	73.98	-23.59
* 15960.00	Average	H	-	-	-83.58	13.43	0.00	36.85	53.98	-17.13
* 15960.00	Peak	H	-	-	-71.58	13.43	0.00	48.85	73.98	-25.13
* 21280.00	Average	H	-	-	-77.18	18.57	-9.54	38.85	53.98	-15.13
* 21280.00	Peak	H	-	-	-66.30	18.57	-9.54	49.73	73.98	-24.25
26600.00	Peak	H	-	-	-52.08	5.16	-9.54	50.54	68.20	-17.66

Table 7-34. Radiated Measurements SISO ANT1

Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 5280MHz
 Channel: 56

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10560.00	Peak	H	276	11	12.47	0.00	49.70	68.20	-18.50
* 15840.00	Average	H	-	-	15.16	0.00	37.87	53.98	-16.11
* 15840.00	Peak	H	-	-	15.16	0.00	50.66	73.98	-23.32
* 21120.00	Average	H	-	-	18.17	-9.54	37.84	53.98	-16.13
* 21120.00	Peak	H	-	-	18.17	-9.54	49.08	73.98	-24.89
26400.00	Peak	H	-	-	20.65	-9.54	52.40	68.20	-15.80

Table 7-35. Radiated Measurements SISO ANT1 with WCP

FCC ID: ZNFV600TM	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset	
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Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5500MHz
Channel: 100

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11000.00	Average	H	159	345	-81.18	12.87	0.00	38.69	53.98	-15.29
* 11000.00	Peak	H	159	345	-68.71	12.87	0.00	51.16	73.98	-22.82
16500.00	Peak	H	-	-	-71.83	14.82	0.00	49.99	68.20	-18.21
22000.00	Peak	H	-	-	-66.16	19.12	-9.54	50.41	68.20	-17.79
27500.00	Peak	H	-	-	-51.47	3.98	-9.54	49.97	68.20	-18.23

Table 7-36. Radiated Measurements SISO ANT1

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5600MHz
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]
* 11160.00	Average	H	120	343	-80.83	12.20	0.00	38.37	53.98	-15.61
* 11160.00	Peak	H	120	343	-68.41	12.20	0.00	50.79	73.98	-23.19
16740.00	Peak	H	-	-	-70.75	16.07	0.00	52.32	68.20	-15.88
* 22320.00	Average	H	-	-	-77.90	20.03	-9.54	39.59	53.98	-14.39
* 22320.00	Peak	H	-	-	-67.20	20.03	-9.54	50.29	73.98	-23.69
27900.00	Peak	H	-	-	-51.83	4.70	-9.54	50.33	68.20	-17.87

Table 7-37. Radiated Measurements SISO ANT1

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 224 of 291

Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 5720MHz
 Channel: 144

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11440.00	Average	H	132	336	-79.73	12.91	0.00	40.18	53.98	-13.80
* 11440.00	Peak	H	132	336	-67.06	12.91	0.00	52.85	73.98	-21.13
17160.00	Peak	H	-	-	-70.72	17.74	0.00	54.02	68.20	-14.18
* 22880.00	Average	H	-	-	-77.98	19.50	-9.54	38.98	53.98	-15.00
* 22880.00	Peak	H	-	-	-67.11	19.50	-9.54	49.85	73.98	-24.13
28600.00	Peak	H	-	-	-51.50	5.14	-9.54	51.10	68.20	-17.10

Table 7-38. Radiated Measurements SISO ANT1

Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 5720MHz
 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	135	209	-83.66	12.91	0.00	36.25	53.98	-17.73
* 11440.00	Peak	H	135	209	-69.46	12.91	0.00	50.45	73.98	-23.53
17160.00	Peak	H	-	-	-70.77	17.74	0.00	53.97	68.20	-14.23
* 22880.00	Average	H	-	-	-77.85	19.50	-9.54	39.11	53.98	-14.87
* 22880.00	Peak	H	-	-	-66.73	19.50	-9.54	50.23	73.98	-23.75
28600.00	Peak	H	-	-	-51.68	5.14	-9.54	50.92	68.20	-17.28

Table 7-39. Radiated Measurements SISO ANT1 with WCP

FCC ID: ZNFV600TM	 MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 225 of 291

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5745MHz
Channel: 149

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11490.00	Average	H	271	289	-78.60	13.38	0.00	41.78	53.98	-12.20
* 11490.00	Peak	H	271	289	-66.47	13.38	0.00	53.91	73.98	-20.07
17235.00	Peak	H	-	-	-71.02	17.89	0.00	53.87	68.20	-14.33
* 22980.00	Average	H	-	-	-78.18	19.89	-9.54	39.16	53.98	-14.82
* 22980.00	Peak	H	-	-	-67.01	19.89	-9.54	50.33	73.98	-23.65
28725.00	Peak	H	-	-	-51.28	4.66	-9.54	50.84	68.20	-17.36

Table 7-40. Radiated Measurements SISO ANT1

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5785MHz
Channel: 157

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11570.00	Average	H	256	290	-78.70	13.15	0.00	41.45	53.98	-12.53
* 11570.00	Peak	H	256	290	-66.69	13.15	0.00	53.46	73.98	-20.52
17355.00	Peak	H	-	-	-71.57	18.92	0.00	54.35	68.20	-13.85
23140.00	Peak	H	-	-	-67.60	19.59	-9.54	49.45	68.20	-18.75
28925.00	Peak	H	-	-	-52.00	4.43	-9.54	49.89	68.20	-18.31

Table 7-41. Radiated Measurements SISO ANT1

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 226 of 291

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

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11650.00	Average	H	264	289	-80.15	13.27	0.00	40.12	53.98	-13.86
* 11650.00	Peak	H	264	289	-67.56	13.27	0.00	52.71	73.98	-21.27
17475.00	Peak	H	-	-	-71.52	19.66	0.00	55.14	68.20	-13.06
23300.00	Peak	H	-	-	-66.44	18.93	-9.54	49.95	68.20	-18.25
29125.00	Peak	H	-	-	-50.13	3.48	-9.54	50.81	68.20	-17.39

Table 7-42. Radiated Measurements SISO ANT1

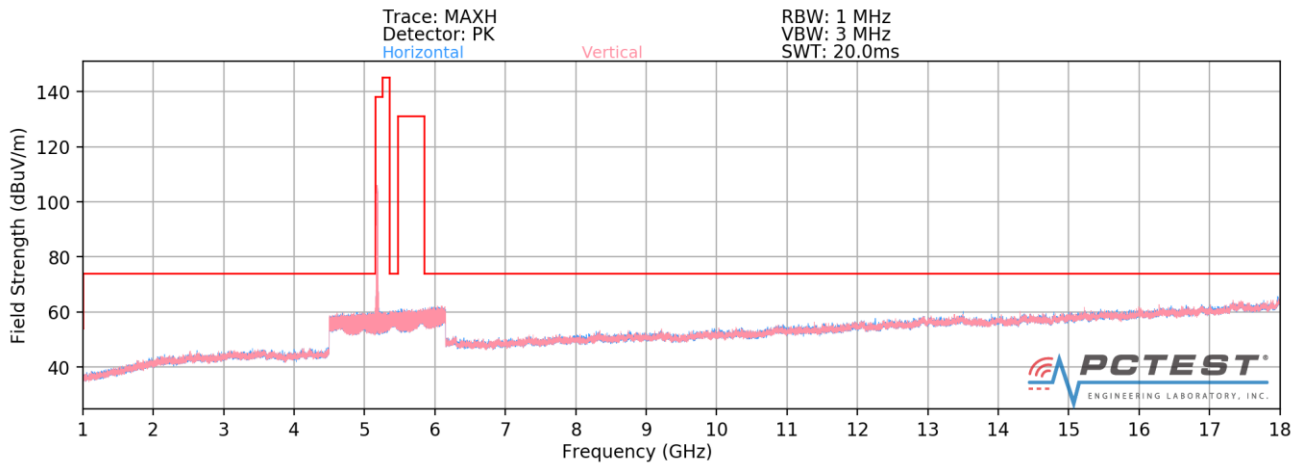
Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5745MHz
Channel: 149

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	131	221	-83.06	13.38	0.00	37.32	53.98	-16.66
* 11490.00	Peak	H	131	221	-70.00	13.38	0.00	50.38	73.98	-23.60
17235.00	Peak	H	-	-	-70.87	17.89	0.00	54.02	68.20	-14.18
* 22980.00	Average	H	-	-	-77.89	19.89	-9.54	39.45	53.98	-14.53
* 22980.00	Peak	H	-	-	-66.71	19.89	-9.54	50.63	73.98	-23.35
28725.00	Peak	H	-	-	-51.23	4.66	-9.54	50.89	68.20	-17.31

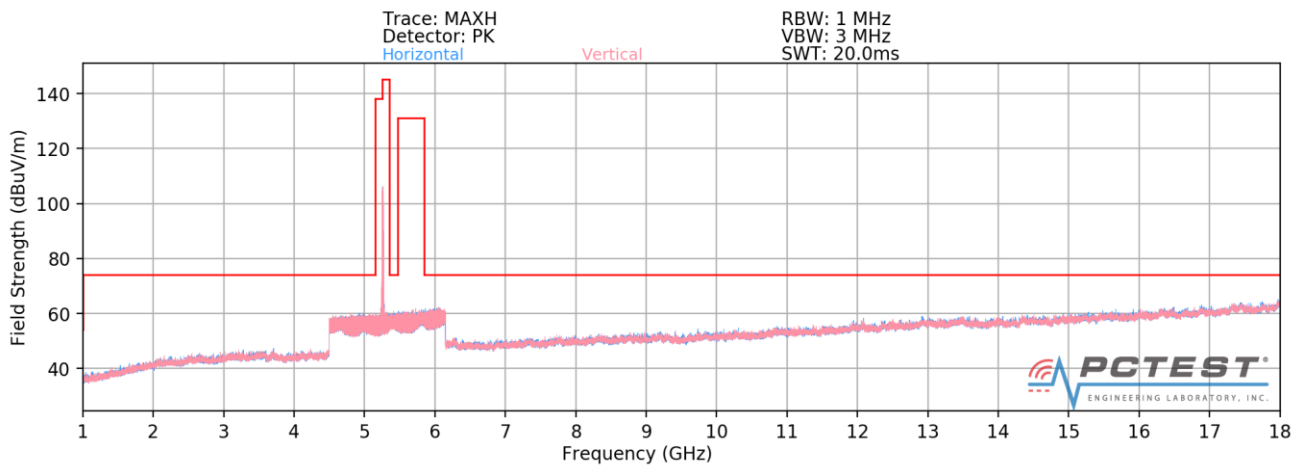
Table 7-43. Radiated Measurements SISO ANT1 with WCP

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 227 of 291

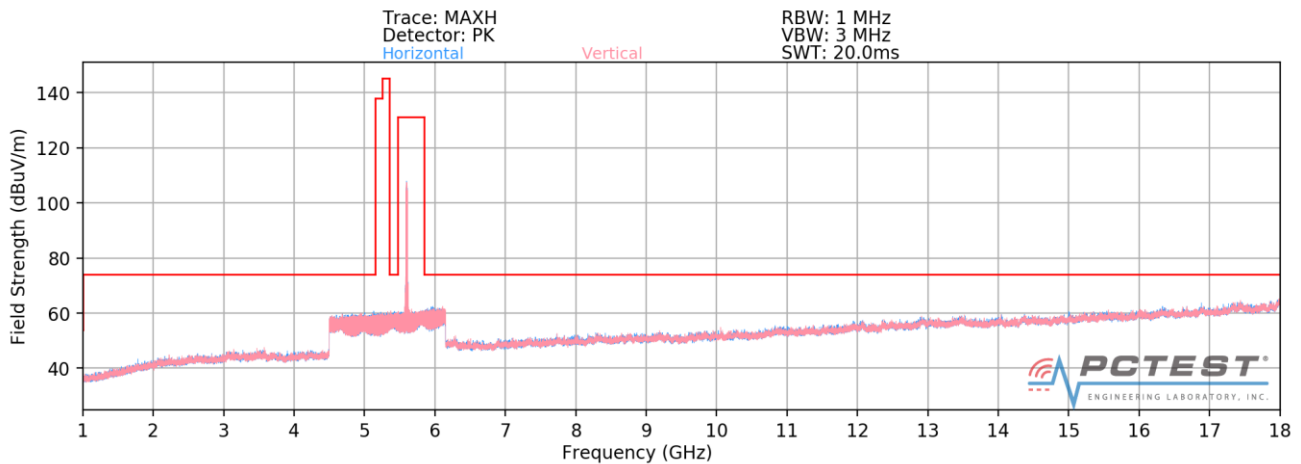
7.6.2 SISO Antenna-2 Radiated Spurious Emission Measurements



Plot 7-355. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11a – U1 Ch. 40)

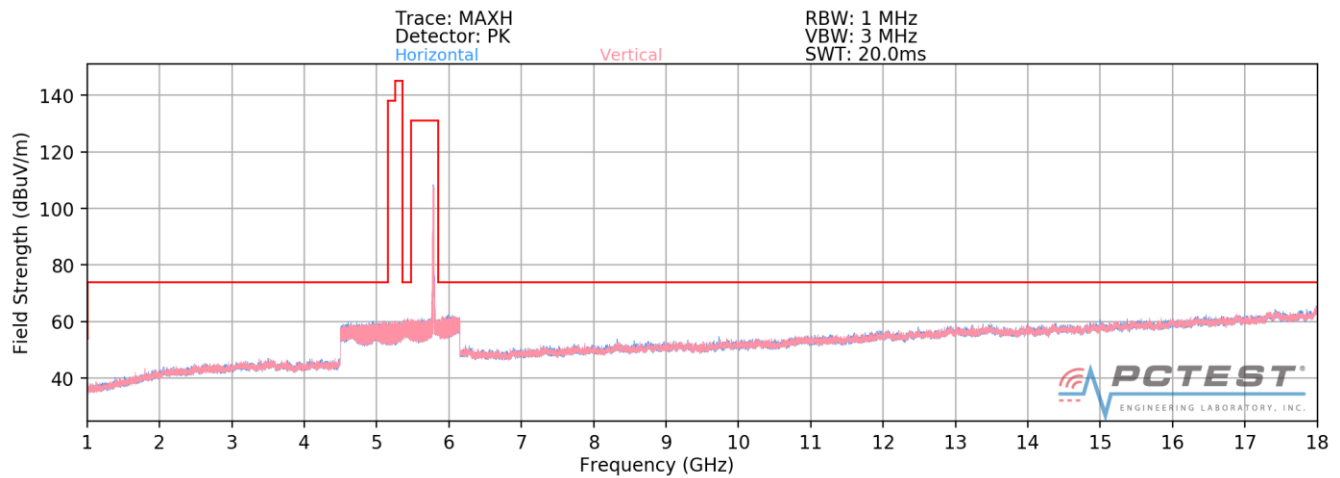


Plot 7-356. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11a – U2A Ch. 56)



Plot 7-357. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11a – U2C Ch. 120)

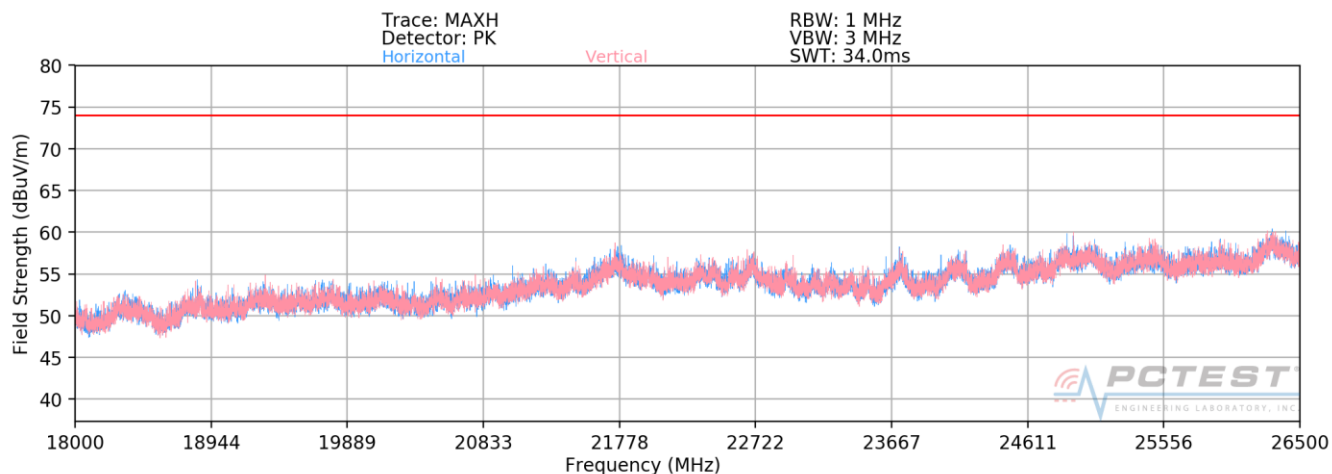
FCC ID: ZNFV600TM	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 228 of 291



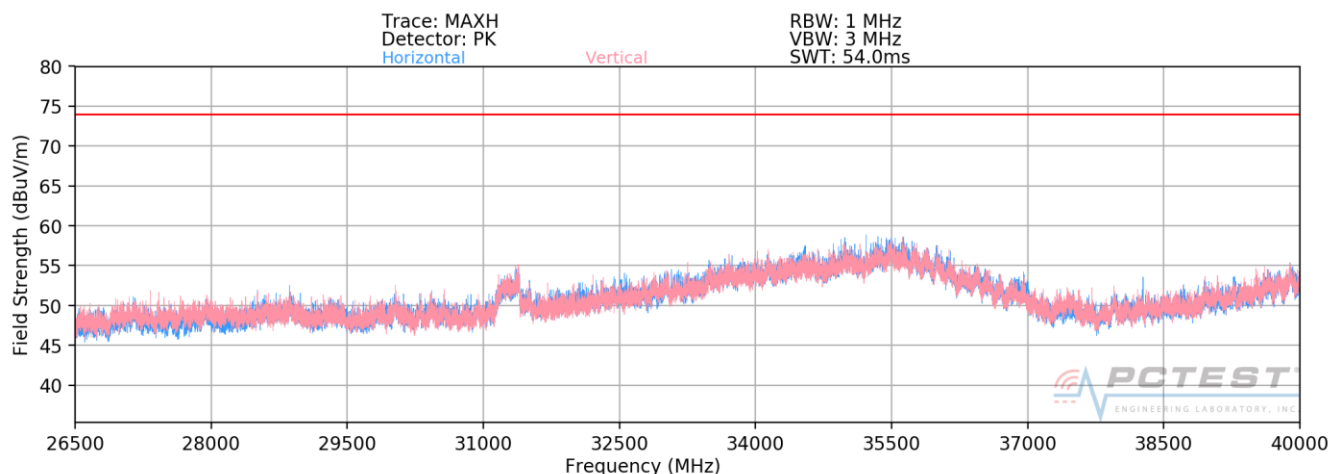
Plot 7-358. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11a – U3 Ch. 157)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 229 of 291

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



Plot 7-359. Radiated Spurious Plot above 18GHz - 26.5GHz SISO ANT2 (802.11a)



Plot 7-360. Radiated Spurious Plot 26.5GHz - 40GHz SISO ANT2 (802.11a)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 230 of 291

SISO Antenna-2 Radiated Spurious Emission Measurements

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

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5180MHz
Channel: 36

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10360.00	Peak	V	101	280	-72.20	15.23	0.00	50.03	68.20	-18.17
* 15540.00	Average	V	-	-	-83.10	22.71	0.00	46.61	53.98	-7.37
* 15540.00	Peak	V	-	-	-75.77	22.71	0.00	53.94	73.98	-20.04
* 20720.00	Average	V	-	-	-76.22	17.51	-9.54	38.75	53.98	-15.23
* 20720.00	Peak	V	-	-	-64.78	17.51	-9.54	50.19	73.98	-23.79
25900.00	Peak	V	-	-	-65.51	19.88	-9.54	51.83	68.20	-16.37

Table 7-44. Radiated Measurements SISO ANT2

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5200MHz
Channel: 40

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10400.00	Peak	V	102	285	-74.30	15.67	0.00	48.37	68.20	-19.83
* 15600.00	Average	V	-	-	-82.86	22.46	0.00	46.60	53.98	-7.38
* 15600.00	Peak	V	-	-	-79.09	22.46	0.00	50.37	73.98	-23.61
* 20800.00	Average	V	-	-	-75.16	17.87	-9.54	40.16	53.98	-13.82
* 20800.00	Peak	V	-	-	-62.71	17.87	-9.54	52.61	73.98	-21.37
26000.00	Peak	V	-	-	-65.18	20.15	-9.54	52.42	68.20	-15.78

Table 7-45. Radiated Measurements SISO ANT2

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 231 of 291

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5240MHz
Channel: 48

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10480.00	Peak	V	102	280	-75.38	15.49	0.00	47.11	68.20	-21.09
* 15720.00	Average	V	-	-	-83.01	22.45	0.00	46.44	53.98	-7.54
* 15720.00	Peak	V	-	-	-79.52	22.45	0.00	49.93	73.98	-24.05
* 20960.00	Average	V	-	-	-76.38	18.06	-9.54	39.13	53.98	-14.84
* 20960.00	Peak	V	-	-	-64.82	18.06	-9.54	50.69	73.98	-23.28
26200.00	Peak	V	-	-	-66.06	20.23	-9.54	51.63	68.20	-16.57

Table 7-46. Radiated Measurements SISO ANT2

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5180MHz
Channel: 36

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10360.00	Peak	V	100	286	-77.34	15.23	0.00	44.89	68.20	-23.31
* 15540.00	Average	V	-	-	-83.12	22.71	0.00	46.59	53.98	-7.39
* 15540.00	Peak	V	-	-	-80.90	22.71	0.00	48.81	73.98	-25.17
* 20720.00	Average	V	-	-	-77.16	17.51	-9.54	37.81	53.98	-16.17
* 20720.00	Peak	V	-	-	-65.76	17.51	-9.54	49.21	73.98	-24.77
25900.00	Peak	V	-	-	-65.06	19.88	-9.54	52.28	68.20	-15.92

Table 7-47. Radiated Measurements SISO ANT2 with WCP

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 232 of 291

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5260MHz
Channel: 52

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10520.00	Peak	V	100	279	-76.53	15.86	0.00	46.33	68.20	-21.87
* 15780.00	Average	V	-	-	-83.27	22.77	0.00	46.50	53.98	-7.48
* 15780.00	Peak	V	-	-	-79.61	22.77	0.00	50.16	73.98	-23.82
* 21040.00	Average	V	-	-	-77.44	18.36	-9.54	38.37	53.98	-15.61
* 21040.00	Peak	V	-	-	-66.13	18.36	-9.54	49.68	73.98	-24.30
26300.00	Peak	V	-	-	-65.40	20.96	-9.54	53.01	68.20	-15.19

Table 7-48. Radiated Measurements SISO ANT2

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5280MHz
Channel: 56

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10560.00	Peak	V	102	284	-77.10	15.70	0.00	45.60	68.20	-22.60
* 15840.00	Average	V	-	-	-83.53	22.66	0.00	46.13	53.98	-7.85
* 15840.00	Peak	V	-	-	-79.72	22.66	0.00	49.94	73.98	-24.04
* 21120.00	Average	V	150	163	-75.59	18.17	-9.54	40.03	53.98	-13.94
* 21120.00	Peak	V	150	163	-63.77	18.17	-9.54	51.85	73.98	-22.12
26400.00	Peak	V	-	-	-65.86	20.65	-9.54	52.25	68.20	-15.95

Table 7-49. Radiated Measurements SISO ANT2

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 233 of 291

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5320MHz
Channel: 64

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 10640.00	Average	V	390	76	-82.57	16.03	0.00	40.46	53.98	-13.52
* 10640.00	Peak	V	390	76	-79.11	16.03	0.00	43.92	73.98	-30.06
* 15960.00	Average	V	-	-	-83.61	23.09	0.00	46.48	53.98	-7.50
* 15960.00	Peak	V	-	-	-79.54	23.09	0.00	50.55	73.98	-23.43
* 21280.00	Average	V	-	-	-76.83	18.57	-9.54	39.20	53.98	-14.78
* 21280.00	Peak	V	-	-	-65.87	18.57	-9.54	50.16	73.98	-23.82
26600.00	Peak	V	-	-	-52.48	5.16	-9.54	50.14	68.20	-18.06

Table 7-50. Radiated Measurements SISO ANT2

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5260MHz
Channel: 52

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10520.00	Peak	V	339	26	-78.74	15.86	0.00	44.12	68.20	-24.08
* 15780.00	Average	V	-	-	-83.19	22.77	0.00	46.58	53.98	-7.40
* 15780.00	Peak	V	-	-	-79.48	22.77	0.00	50.29	73.98	-23.69
* 21040.00	Average	V	-	-	-77.69	18.36	-9.54	38.12	53.98	-15.86
* 21040.00	Peak	V	-	-	-66.12	18.36	-9.54	49.69	73.98	-24.29
26300.00	Peak	V	-	-	-64.45	20.96	-9.54	53.96	68.20	-14.24

Table 7-51. Radiated Measurements SISO ANT2 with WCP

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 234 of 291

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5500MHz
Channel: 100

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11000.00	Average	V	-	-	-81.53	16.51	0.00	41.98	53.98	-12.00
* 11000.00	Peak	V	-	-	-78.12	16.51	0.00	45.39	73.98	-28.59
16500.00	Peak	V	-	-	-79.39	24.17	0.00	51.78	68.20	-16.42
22000.00	Peak	V	-	-	-65.82	19.12	-9.54	50.75	68.20	-17.45
27500.00	Peak	V	-	-	-51.30	3.98	-9.54	50.14	68.20	-18.06

Table 7-52. Radiated Measurements SISO ANT2

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5600MHz
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]
* 11160.00	Average	V	-	-	-81.95	16.73	0.00	41.78	53.98	-12.20
* 11160.00	Peak	V	-	-	-78.38	16.73	0.00	45.35	73.98	-28.63
16740.00	Peak	V	-	-	-79.53	24.00	0.00	51.47	68.20	-16.73
* 22320.00	Average	V	-	-	-77.54	20.03	-9.54	39.95	53.98	-14.03
* 22320.00	Peak	V	-	-	-66.67	20.03	-9.54	50.82	73.98	-23.16
27900.00	Peak	V	-	-	-51.06	4.70	-9.54	51.10	68.20	-17.10

Table 7-53. Radiated Measurements SISO ANT2

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 235 of 291

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5720MHz
Channel: 144

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11440.00	Average	V	-	-	-82.92	17.29	0.00	41.37	53.98	-12.61
* 11440.00	Peak	V	-	-	-78.96	17.29	0.00	45.33	73.98	-28.65
17160.00	Peak	V	-	-	-79.20	24.37	0.00	52.17	68.20	-16.03
* 22880.00	Average	V	-	-	-78.01	19.50	-9.54	38.95	53.98	-15.03
* 22880.00	Peak	V	-	-	-66.65	19.50	-9.54	50.31	73.98	-23.67
28600.00	Peak	V	-	-	-51.62	5.14	-9.54	50.98	68.20	-17.22

Table 7-54. Radiated Measurements SISO ANT2

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5500MHz
Channel: 100

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11000.00	Average	V	-	-	-81.72	16.51	0.00	41.79	53.98	-12.19
* 11000.00	Peak	V	-	-	-78.25	16.51	0.00	45.26	73.98	-28.72
16500.00	Peak	V	-	-	-79.63	24.17	0.00	51.54	68.20	-16.66
22000.00	Peak	V	-	-	-65.49	19.12	-9.54	51.08	68.20	-17.12
27500.00	Peak	V	-	-	-50.56	3.98	-9.54	50.88	68.20	-17.32

Table 7-55. Radiated Measurements SISO ANT2 with WCP

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 236 of 291

Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 5745MHz
 Channel: 149

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11490.00	Average	V	-	-	-82.79	17.63	0.00	41.84	53.98	-12.13
* 11490.00	Peak	V	-	-	-79.18	17.63	0.00	45.45	73.98	-28.52
17235.00	Peak	V	-	-	-79.74	25.01	0.00	52.27	68.20	-15.93
* 22980.00	Average	V	-	-	-78.06	19.89	-9.54	39.28	53.98	-14.70
* 22980.00	Peak	V	-	-	-67.47	19.89	-9.54	49.87	73.98	-24.11
28725.00	Peak	V	-	-	-52.39	4.66	-9.54	49.73	68.20	-18.47

Table 7-56. Radiated Measurements SISO ANT2

Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 5785MHz
 Channel: 157

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11570.00	Average	V	-	-	-82.11	17.35	0.00	42.24	53.98	-11.74
* 11570.00	Peak	V	-	-	-78.81	17.35	0.00	45.54	73.98	-28.44
17355.00	Peak	V	-	-	-79.04	26.08	0.00	54.04	68.20	-14.16
23140.00	Peak	V	-	-	-66.93	19.59	-9.54	50.12	68.20	-18.08
28925.00	Peak	V	-	-	-51.60	4.43	-9.54	50.29	68.20	-17.91

Table 7-57. Radiated Measurements SISO ANT2

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 237 of 291

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

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11650.00	Average	V	-	-	-82.78	17.57	0.00	41.79	53.98	-12.18
* 11650.00	Peak	V	-	-	-79.12	17.57	0.00	45.45	73.98	-28.52
17475.00	Peak	V	-	-	-78.94	26.23	0.00	54.29	68.20	-13.91
23300.00	Peak	V	-	-	-67.11	18.93	-9.54	49.28	68.20	-18.92
29125.00	Peak	V	-	-	-51.19	3.48	-9.54	49.75	68.20	-18.45

Table 7-58. Radiated Measurements SISO ANT2

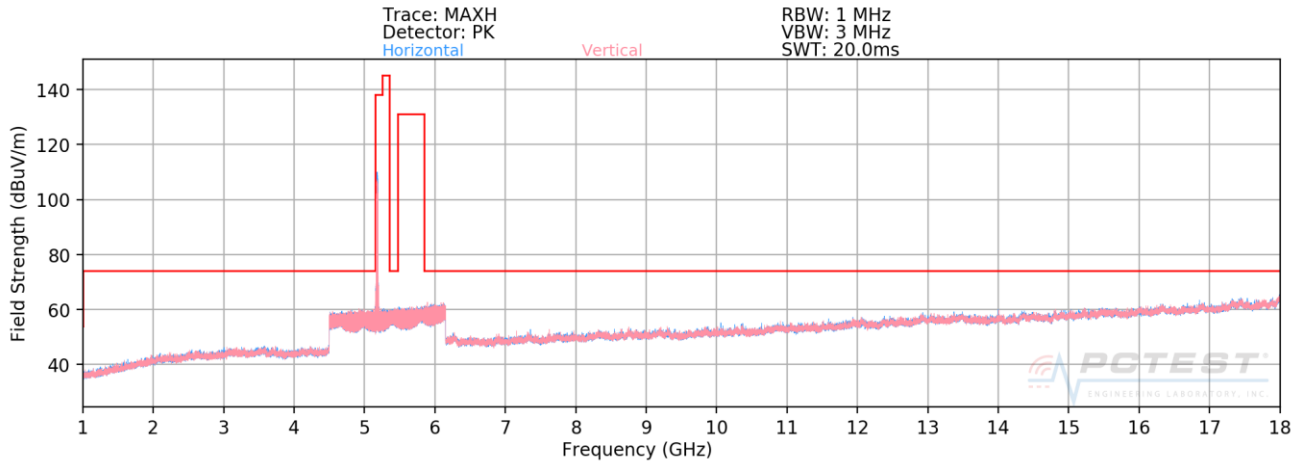
Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 5745MHz
 Channel: 149

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11490.00	Average	V	-	-	-82.19	17.63	0.00	42.44	53.98	-11.53
* 11490.00	Peak	V	-	-	-79.24	17.63	0.00	45.39	73.98	-28.58
17235.00	Peak	V	-	-	-79.92	25.01	0.00	52.09	68.20	-16.11
* 22980.00	Average	V	-	-	-77.41	19.89	-9.54	39.94	53.98	-14.04
* 22980.00	Peak	V	-	-	-66.93	19.89	-9.54	50.42	73.98	-23.56
28725.00	Peak	V	-	-	-51.34	4.66	-9.54	50.78	68.20	-17.42

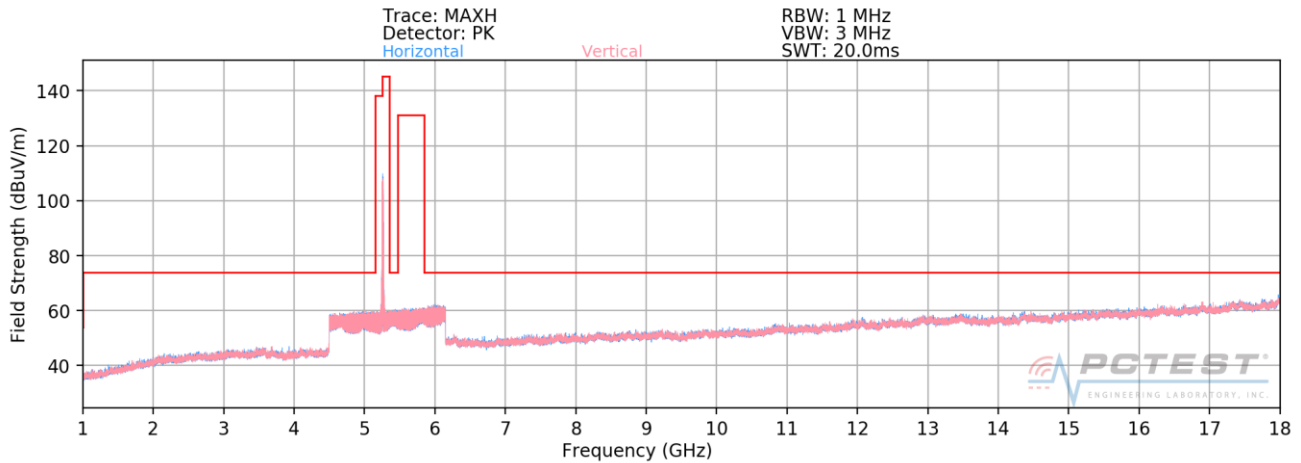
Table 7-59. Radiated Measurements SISO ANT2 with WCP

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 238 of 291

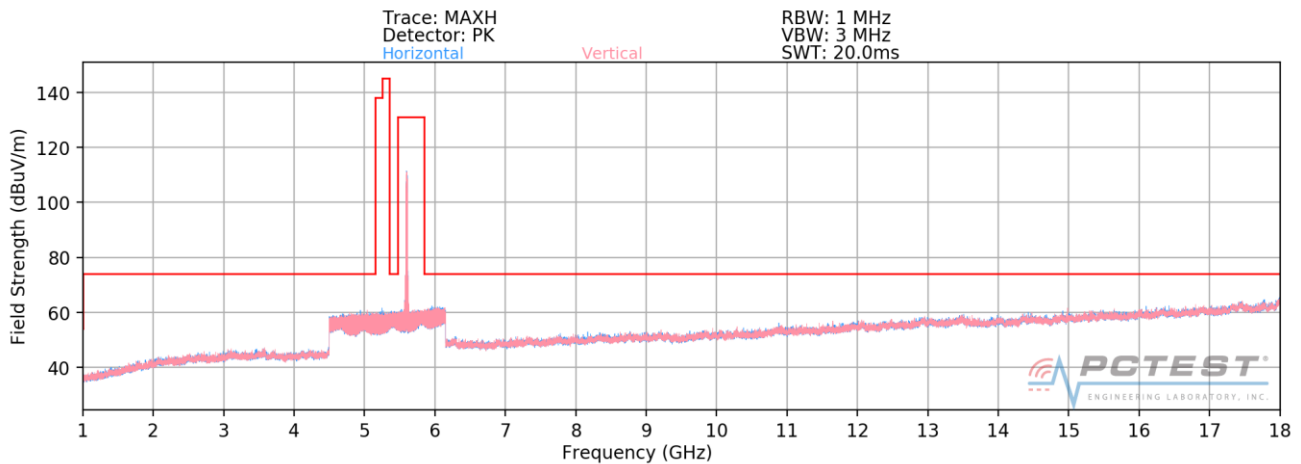
7.6.3 MIMO/CDD Radiated Spurious Emission Measurements



Plot 7-361. Radiated Spurious Plot above 1GHz MIMO/CDD (802.11a – U1 Ch. 40)

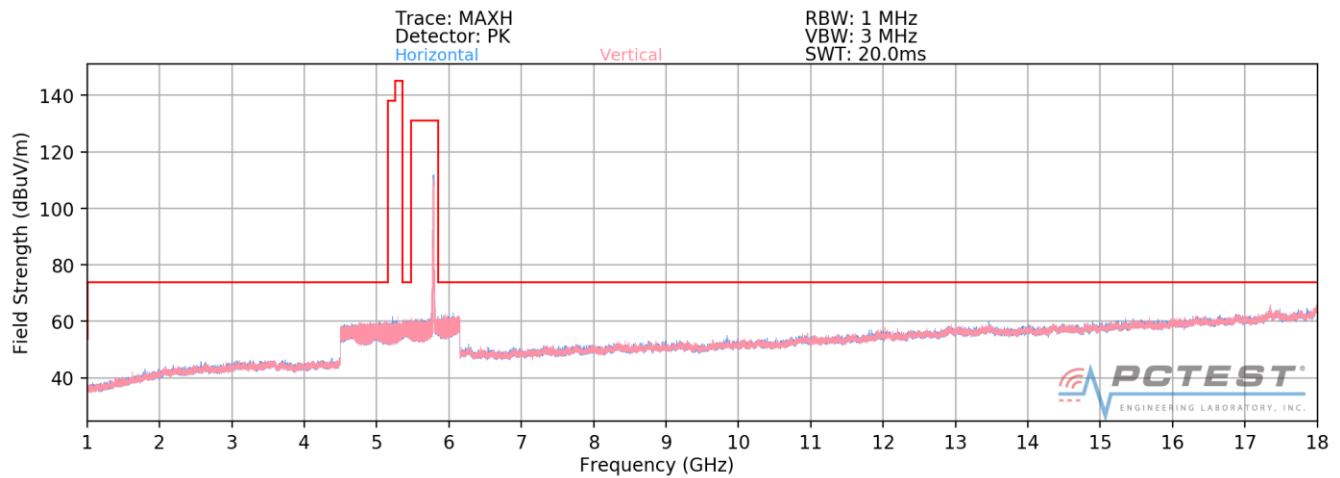


Plot 7-362. Radiated Spurious Plot above 1GHz MIMO/CDD (802.11a – U2A Ch. 56)



Plot 7-363. Radiated Spurious Plot above 1GHz MIMO/CDD (802.11a – U2C Ch. 120)

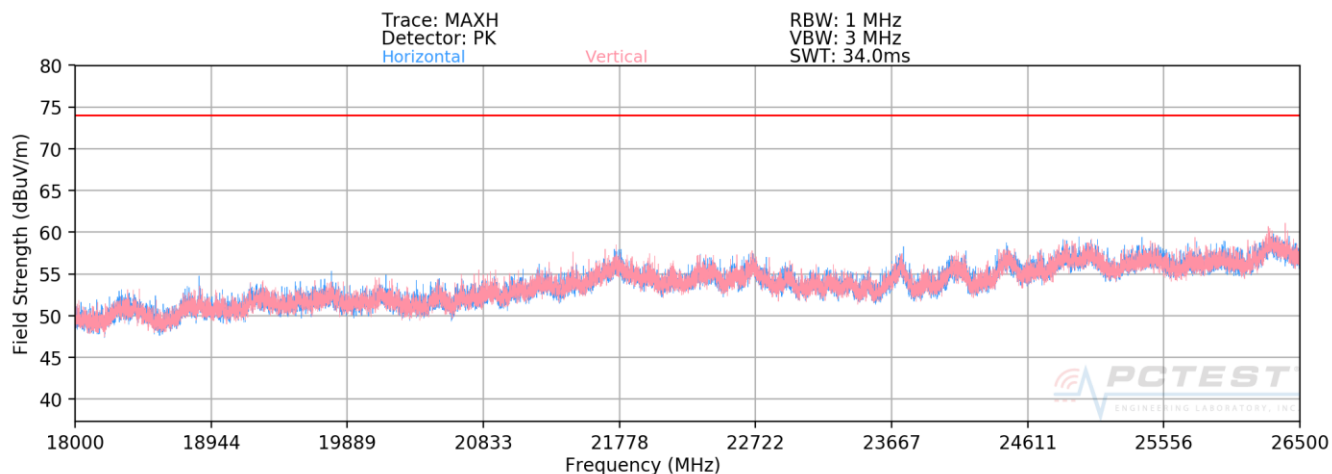
FCC ID: ZNFV600TM	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 239 of 291



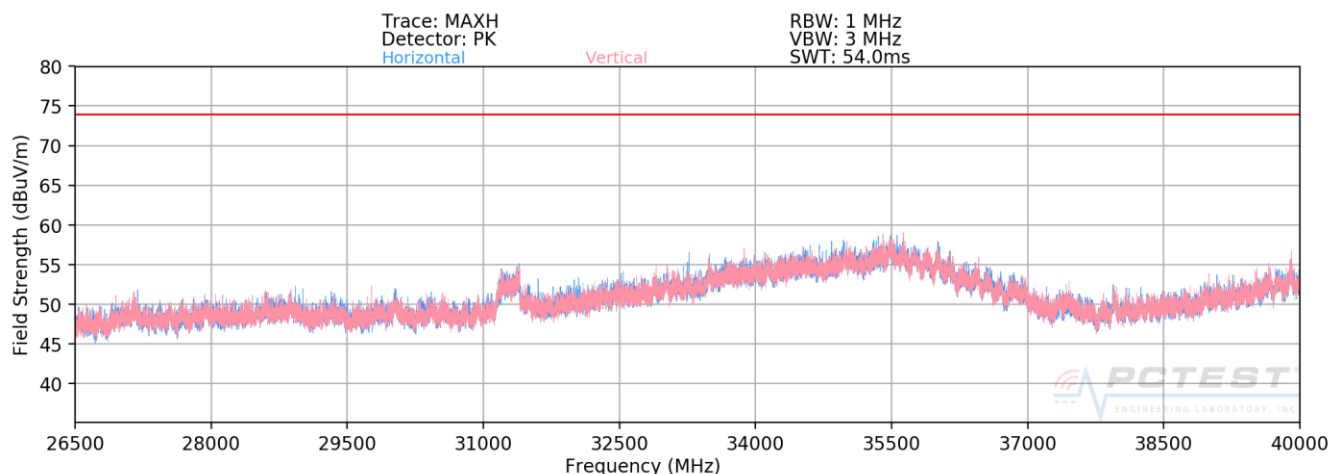
Plot 7-364. Radiated Spurious Plot above 1GHz MIMO/CDD (802.11a – U3 Ch. 157)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 240 of 291

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



Plot 7-365. Radiated Spurious Plot above 18GHz - 26.5GHz MIMO/CDD (802.11a)



Plot 7-366. Radiated Spurious Plot 26.5GHz - 40GHz MIMO/CDD (802.11a)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 241 of 291

MIMO/CDD Radiated Spurious Emission Measurements

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

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5180MHz
Channel: 36

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10360.00	Peak	V	104	283	-72.31	15.23	0.00	49.92	68.20	-18.28
* 15540.00	Average	V	-	-	-83.06	22.71	0.00	46.65	53.98	-7.33
* 15540.00	Peak	V	-	-	-79.24	22.71	0.00	50.47	73.98	-23.51
* 20720.00	Average	V	160	150	-75.33	17.51	-9.54	39.64	53.98	-14.34
* 20720.00	Peak	V	160	150	-63.04	17.51	-9.54	51.93	73.98	-22.05
25900.00	Peak	V	-	-	-65.80	19.88	-9.54	51.54	68.20	-16.66

Table 7-60. Radiated Measurements MIMO/CDD

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5200MHz
Channel: 40

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10400.00	Peak	V	100	279	-71.22	15.67	0.00	51.45	68.20	-16.75
* 15600.00	Average	V	-	-	-82.84	22.46	0.00	46.62	53.98	-7.36
* 15600.00	Peak	V	-	-	-79.28	22.46	0.00	50.18	73.98	-23.80
* 20800.00	Average	V	161	150	-74.09	17.87	-9.54	41.23	53.98	-12.75
* 20800.00	Peak	V	161	150	-61.43	17.87	-9.54	53.89	73.98	-20.09
26000.00	Peak	V	-	-	-65.12	20.15	-9.54	52.48	68.20	-15.72

Table 7-61. Radiated Measurements MIMO/CDD

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 242 of 291

Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 5240MHz
 Channel: 48

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10480.00	Peak	V	100	280	-74.39	15.49	0.00	48.10	68.20	-20.10
* 15720.00	Average	V	-	-	-83.02	22.45	0.00	46.43	53.98	-7.55
* 15720.00	Peak	V	-	-	-79.23	22.45	0.00	50.22	73.98	-23.76
* 20960.00	Average	V	162	150	-76.08	18.06	-9.54	39.43	53.98	-14.54
* 20960.00	Peak	V	162	150	-64.25	18.06	-9.54	51.26	73.98	-22.71
26200.00	Peak	V	-	-	-65.52	20.23	-9.54	52.17	68.20	-16.03

Table 7-62. Radiated Measurements MIMO/CDD

Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 5180MHz
 Channel: 36

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10360.00	Peak	V	104	280	-74.23	15.23	0.00	48.00	68.20	-20.20
* 15540.00	Average	V	-	-	-83.04	22.71	0.00	46.67	53.98	-7.31
* 15540.00	Peak	V	-	-	-79.35	22.71	0.00	50.36	73.98	-23.62
* 20720.00	Average	V	161	150	-72.30	17.51	-9.54	42.67	53.98	-11.31
* 20720.00	Peak	V	161	150	-59.59	17.51	-9.54	55.38	73.98	-18.60
25900.00	Peak	V	-	-	-65.70	19.88	-9.54	51.64	68.20	-16.56

Table 7-63. Radiated Measurements MIMO/CDD with WCP

FCC ID: ZNFV600TM	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset	
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Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5260MHz
Channel: 52

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10520.00	Peak	V	102	277	-74.62	15.86	0.00	48.24	68.20	-19.96
* 15780.00	Average	V	-	-	-83.43	22.77	0.00	46.34	53.98	-7.64
* 15780.00	Peak	V	-	-	-79.50	22.77	0.00	50.27	73.98	-23.71
* 21040.00	Average	V	167	150	-76.24	18.36	-9.54	39.57	53.98	-14.41
* 21040.00	Peak	V	167	150	-64.43	18.36	-9.54	51.38	73.98	-22.60
26300.00	Peak	V	-	-	-65.60	20.96	-9.54	52.81	68.20	-15.39

Table 7-64. Radiated Measurements MIMO/CDD

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5280MHz
Channel: 56

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10560.00	Peak	V	102	207	-74.71	15.70	0.00	47.99	68.20	-20.21
* 15840.00	Average	V	-	-	-83.39	22.66	0.00	46.27	53.98	-7.71
* 15840.00	Peak	V	-	-	-79.47	22.66	0.00	50.19	73.98	-23.79
* 21120.00	Average	V	161	150	-77.87	18.17	-9.54	37.75	53.98	-16.22
* 21120.00	Peak	V	161	150	-64.45	18.17	-9.54	51.17	73.98	-22.80
26400.00	Peak	V	-	-	-66.25	20.65	-9.54	51.86	68.20	-16.34

Table 7-65. Radiated Measurements MIMO/CDD

FCC ID: ZNFV600TM	 MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 244 of 291

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5320MHz
Channel: 64

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 10640.00	Average	V	100	12	-80.71	16.03	0.00	42.32	53.98	-11.66
* 10640.00	Peak	V	100	12	-77.41	16.03	0.00	45.62	73.98	-28.36
* 15960.00	Average	V	-	-	-83.76	23.09	0.00	46.33	53.98	-7.65
* 15960.00	Peak	V	-	-	-79.90	23.09	0.00	50.19	73.98	-23.79
* 21280.00	Average	V	178	150	-76.57	18.57	-9.54	39.46	53.98	-14.52
* 21280.00	Peak	V	178	150	-64.85	18.57	-9.54	51.18	73.98	-22.80
26600.00	Peak	V	-	-	-52.50	5.16	-9.54	50.12	68.20	-18.08

Table 7-66. Radiated Measurements MIMO/CDD

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5260MHz
Channel: 52

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10520.00	Peak	V	100	280	-76.36	15.86	0.00	46.50	68.20	-21.70
* 15780.00	Average	V	-	-	-83.27	22.77	0.00	46.50	53.98	-7.48
* 15780.00	Peak	V	-	-	-79.47	22.77	0.00	50.30	73.98	-23.68
* 21040.00	Average	V	160	150	-73.63	18.36	-9.54	42.18	53.98	-11.80
* 21040.00	Peak	V	160	150	-60.68	18.36	-9.54	55.13	73.98	-18.85
26300.00	Peak	V	-	-	-64.10	20.96	-9.54	54.31	68.20	-13.89

Table 7-67. Radiated Measurements MIMO/CDD with WCP

FCC ID: ZNFV600TM	 MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 245 of 291

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5500MHz
Channel: 100

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11000.00	Average	V	104	26	-77.67	16.51	0.00	45.84	53.98	-8.14
* 11000.00	Peak	V	104	26	-74.95	16.51	0.00	48.56	73.98	-25.42
16500.00	Peak	V	-	-	-79.27	24.17	0.00	51.90	68.20	-16.30
22000.00	Peak	V	167	150	-66.17	19.12	-9.54	50.40	68.20	-17.80
27500.00	Peak	V	-	-	-50.82	3.98	-9.54	50.62	68.20	-17.58

Table 7-68. Radiated Measurements MIMO/CDD

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5600MHz
Channel: 120

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11160.00	Average	V	119	22	-78.35	16.73	0.00	45.38	53.98	-8.60
* 11160.00	Peak	V	119	22	-75.57	16.73	0.00	48.16	73.98	-25.82
16740.00	Peak	V	-	-	-79.44	24.00	0.00	51.56	68.20	-16.64
* 22320.00	Average	V	-	-	-77.52	20.03	-9.54	39.97	53.98	-14.01
* 22320.00	Peak	V	-	-	-66.34	20.03	-9.54	51.15	73.98	-22.83
27900.00	Peak	V	-	-	-51.05	4.70	-9.54	51.11	68.20	-17.09

Table 7-69. Radiated Measurements MIMO/CDD

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 246 of 291

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5720MHz
Channel: 144

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11440.00	Average	V	104	8	-78.91	17.29	0.00	45.38	53.98	-8.60
* 11440.00	Peak	V	104	8	-75.47	17.29	0.00	48.82	73.98	-25.16
17160.00	Peak	V	-	-	-79.46	24.37	0.00	51.91	68.20	-16.29
* 22880.00	Average	V	-	-	-77.99	19.50	-9.54	38.97	53.98	-15.01
* 22880.00	Peak	V	-	-	-66.39	19.50	-9.54	50.57	73.98	-23.41
28600.00	Peak	V	-	-	-51.90	5.14	-9.54	50.70	68.20	-17.50

Table 7-70. Radiated Measurements MIMO/CDD

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5600MHz
Channel: 100

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11000.00	Average	V	101	19	-79.41	16.51	0.00	44.10	53.98	-9.88
* 11000.00	Peak	V	101	19	-76.41	16.51	0.00	47.10	73.98	-26.88
16500.00	Peak	V	-	-	-79.47	24.17	0.00	51.70	68.20	-16.50
22000.00	Peak	V	164	150	-64.08	19.12	-9.54	52.49	68.20	-15.71
27500.00	Peak	V	-	-	-50.87	3.98	-9.54	50.57	68.20	-17.63

Table 7-71. Radiated Measurements MIMO/CDD with WCP

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 247 of 291

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5745MHz
Channel: 149

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11490.00	Average	V	100	10	-78.29	17.63	0.00	46.34	53.98	-7.63
* 11490.00	Peak	V	100	10	-75.52	17.63	0.00	49.11	73.98	-24.86
17235.00	Peak	V	-	-	-79.86	25.01	0.00	52.15	68.20	-16.05
* 22980.00	Average	V	160	150	-77.98	19.89	-9.54	39.36	53.98	-14.62
* 22980.00	Peak	V	160	150	-66.54	19.89	-9.54	50.80	73.98	-23.18
28725.00	Peak	V	-	-	-52.29	4.66	-9.54	49.83	69.20	-19.37

Table 7-72. Radiated Measurements MIMO/CDD

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5785MHz
Channel: 157

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11570.00	Average	V	104	24	-78.48	17.35	0.00	45.87	53.98	-8.11
* 11570.00	Peak	V	104	24	-75.78	17.35	0.00	48.57	73.98	-25.41
17355.00	Peak	V	-	-	-79.61	26.08	0.00	53.47	68.20	-14.73
23140.00	Peak	V	-	-	-67.29	19.59	-9.54	49.76	68.20	-18.44
28925.00	Peak	V	-	-	-51.91	4.43	-9.54	49.98	68.20	-18.22

Table 7-73. Radiated Measurements MIMO/CDD

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 248 of 291

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

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11650.00	Average	V	109	10	-79.92	17.57	0.00	44.65	53.98	-9.32
* 11650.00	Peak	V	109	10	-77.11	17.57	0.00	47.46	73.98	-26.51
17475.00	Peak	V	-	-	-79.36	26.23	0.00	53.87	68.20	-14.33
23300.00	Peak	V	-	-	-66.74	18.93	-9.54	49.65	68.20	-18.55
29125.00	Peak	V	-	-	-49.96	3.48	-9.54	50.98	68.20	-17.22

Table 7-74. Radiated Measurements MIMO/CDD

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5745MHz
Channel: 149

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11490.00	Average	V	101	18	-79.32	17.63	0.00	45.31	53.98	-8.66
* 11490.00	Peak	V	101	18	-76.56	17.63	0.00	48.07	73.98	-25.90
17235.00	Peak	V	-	-	-79.79	25.01	0.00	52.22	68.20	-15.98
* 22980.00	Average	V	156	150	-77.05	19.89	-9.54	40.30	53.98	-13.68
* 22980.00	Peak	V	156	150	-67.08	19.89	-9.54	50.27	73.98	-23.71
28725.00	Peak	V	-	-	-52.43	4.66	-9.54	49.69	69.20	-19.51

Table 7-75. Radiated Measurements MIMO/CDD with WCP

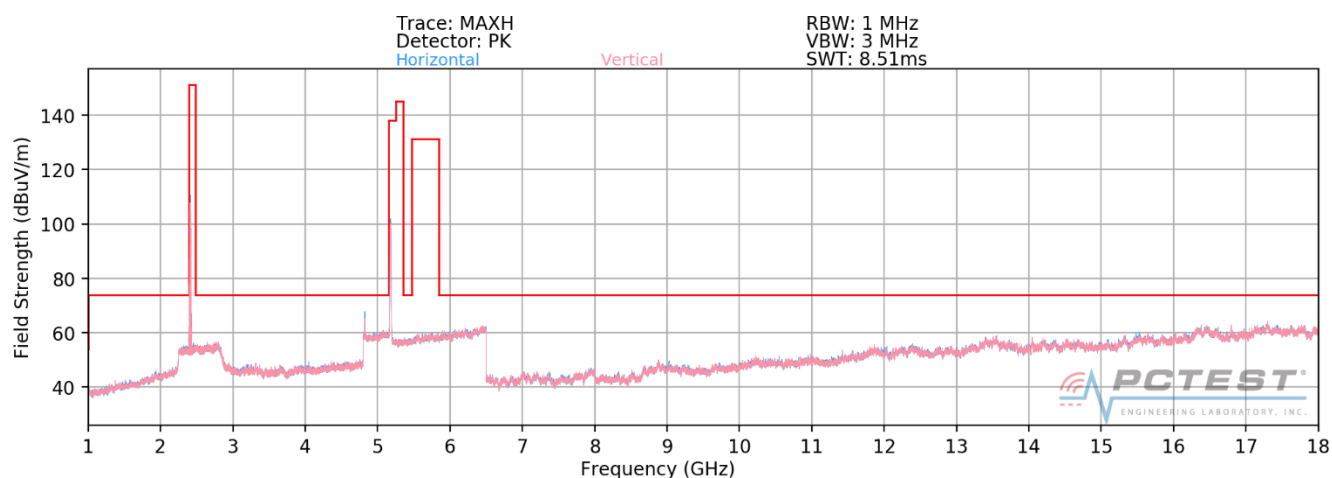
FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 249 of 291

7.6.4 Simultaneous Tx Radiated Spurious Emissions Measurements

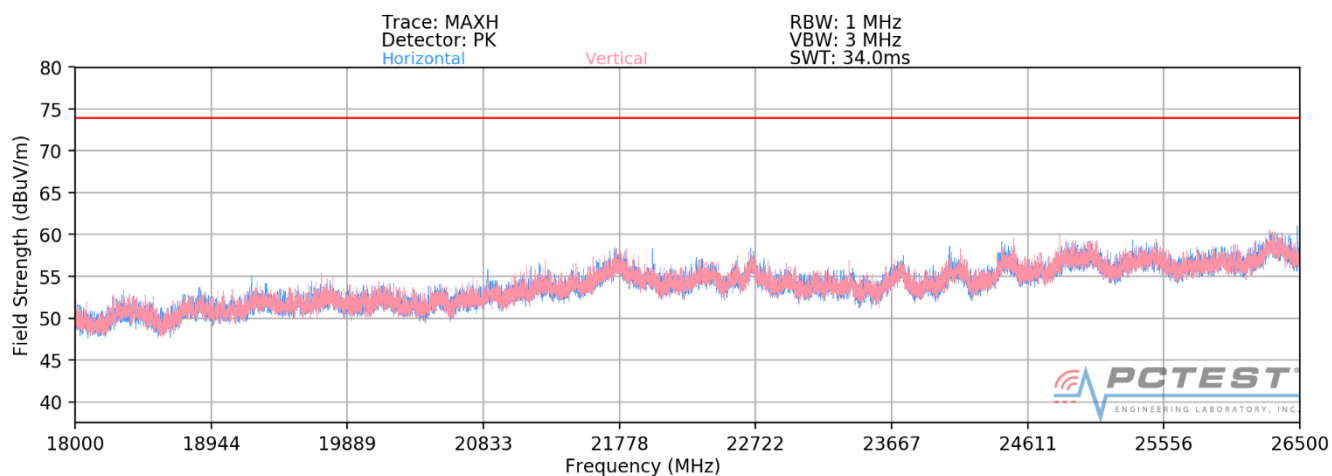
§15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

Description	2.4 GHz Emission	5 GHz Emission
Antenna	1	2
Channel	1	36
Operating Frequency (MHz)	2412	5180
Data Rate (Mbps)	1	MCS0
Mode	802.11b	802.11n

Table 7-76. Simultaneous Transmission Config-1

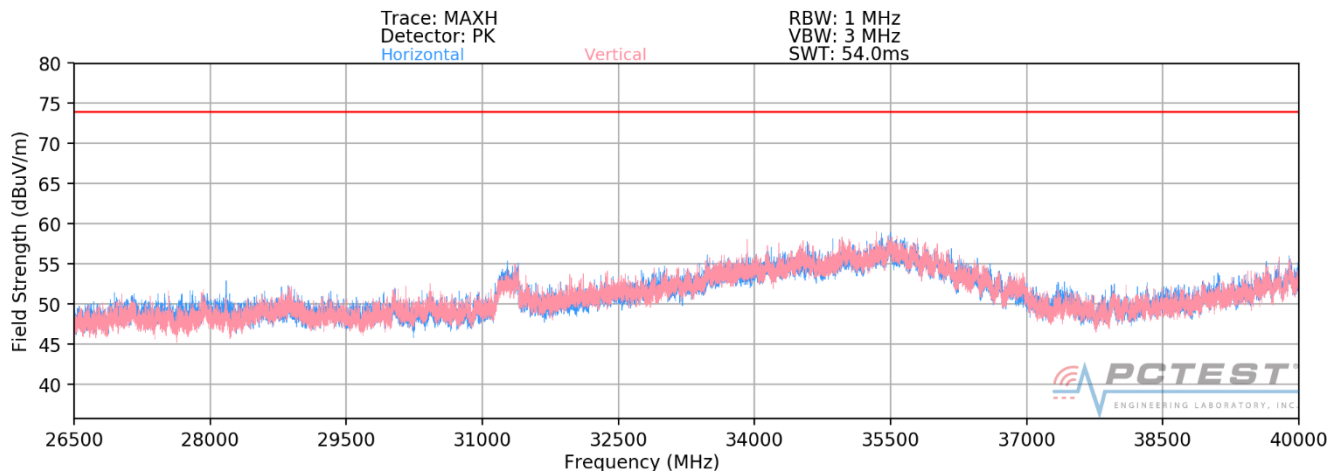


Plot 7-367. Radiated Spurious Plot above 1GHz (2.4GHz – 5GHz)



Plot 7-368. Radiated Spurious Plot 18GHz – 26.5GHz (2.4GHz – 5GHz)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 250 of 291



Plot 7-369. Radiated Spurious Plot above 26.5GHz (2.4GHz – 5GHz)

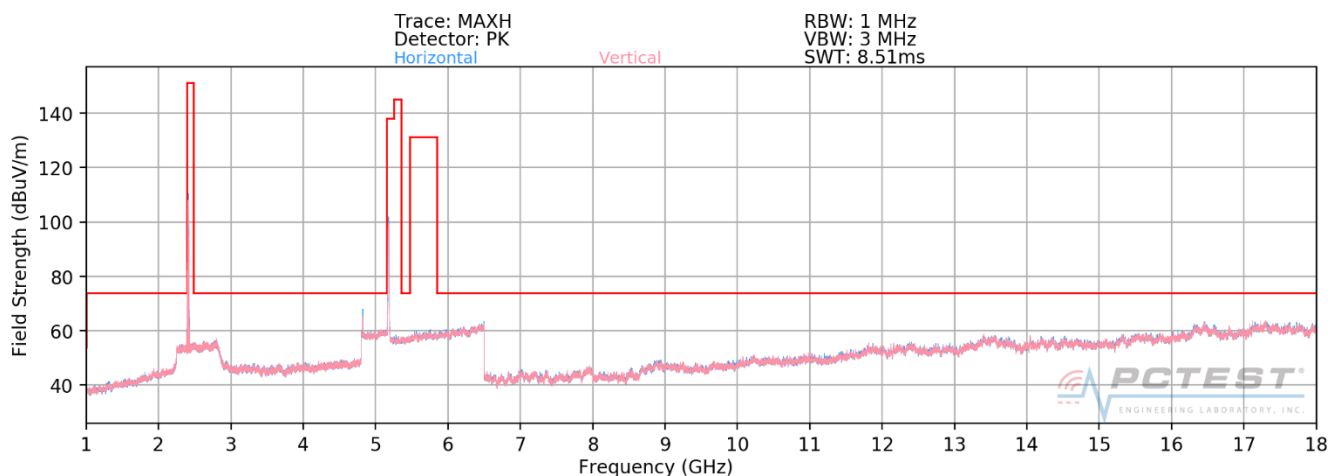
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
356.00	Peak	H	-	-	-88.30	22.49	41.19	68.20	-27.01
3124.00	Peak	H	-	-	-67.16	0.77	40.61	68.20	-27.59
5892.00	Peak	H	-	-	-67.75	5.05	44.30	68.20	-23.90
7948.00	Peak	H	-	-	-68.49	8.85	47.36	68.20	-20.84
8660.00	Peak	H	-	-	-69.59	11.15	48.56	68.20	-19.64
10716.00	Average	H	-	-	-80.21	11.75	38.54	53.98	-15.44
10716.00	Peak	H	-	-	-70.93	11.75	47.82	73.98	-26.16
13484.00	Peak	H	-	-	-70.81	14.85	51.04	68.20	-17.16
16252.00	Peak	H	-	-	-70.79	13.79	50.00	68.20	-18.20

Table 7-77. Radiated Measurements (ANT1 2.4GHz – ANT2 5GHz)

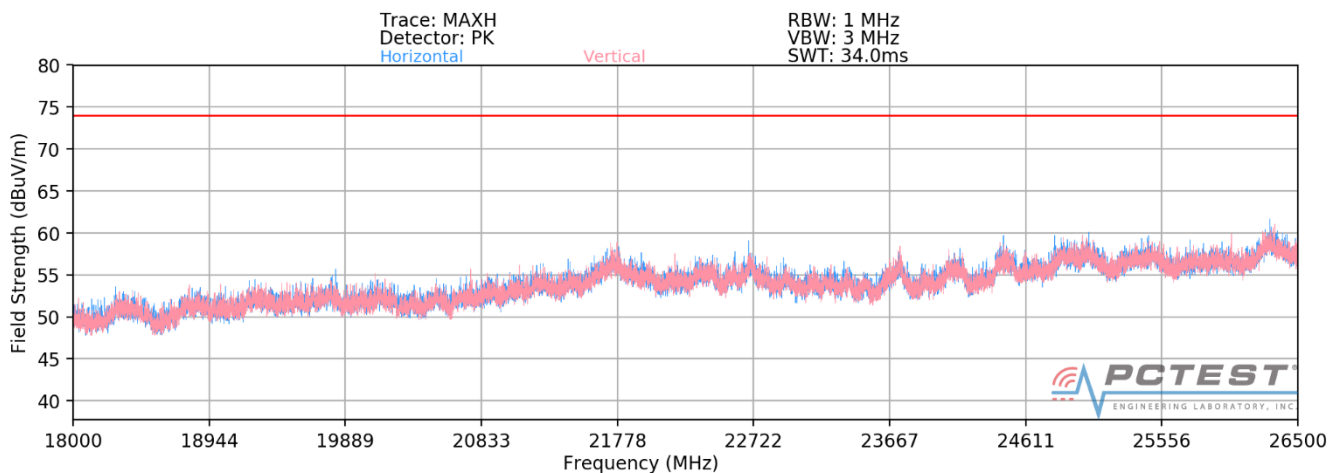
FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 251 of 291

Description	2.4 GHz Emission	5 GHz Emission
Antenna	2	1
Channel	1	36
Operating Frequency (MHz)	2412	5180
Data Rate (Mbps)	1	MCS0
Mode	802.11b	802.11n

Table 7-78. Simultaneous Transmission Config-2

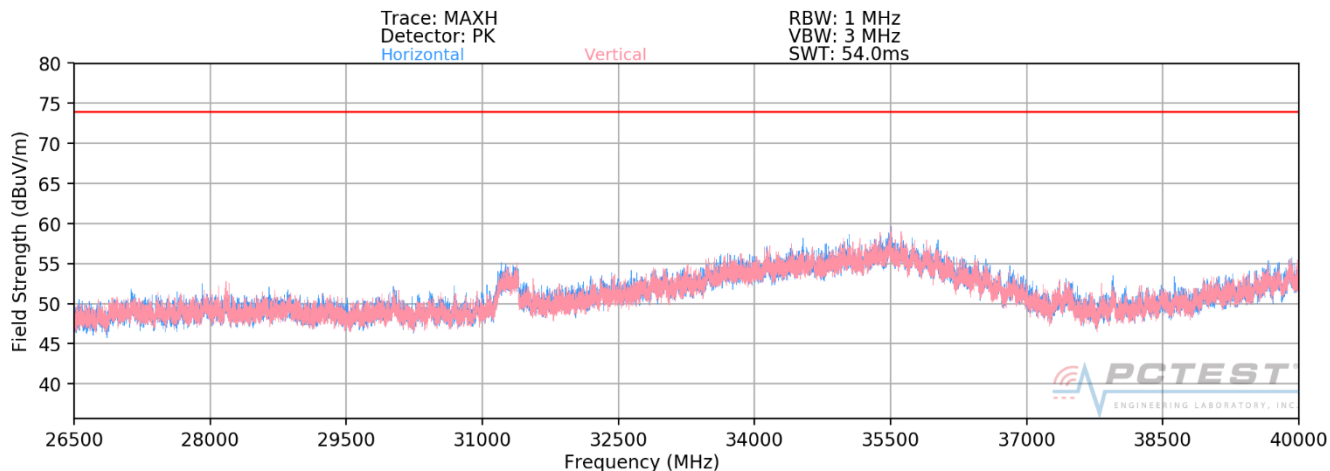


Plot 7-370. Radiated Spurious Plot above 1GHz (2.4GHz – 5GHz)



Plot 7-371. Radiated Spurious Plot 18GHz – 26.5GHz (2.4GHz – 5GHz)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 252 of 291



Plot 7-372. Radiated Spurious Plot above 26.5GHz (2.4GHz – 5GHz)

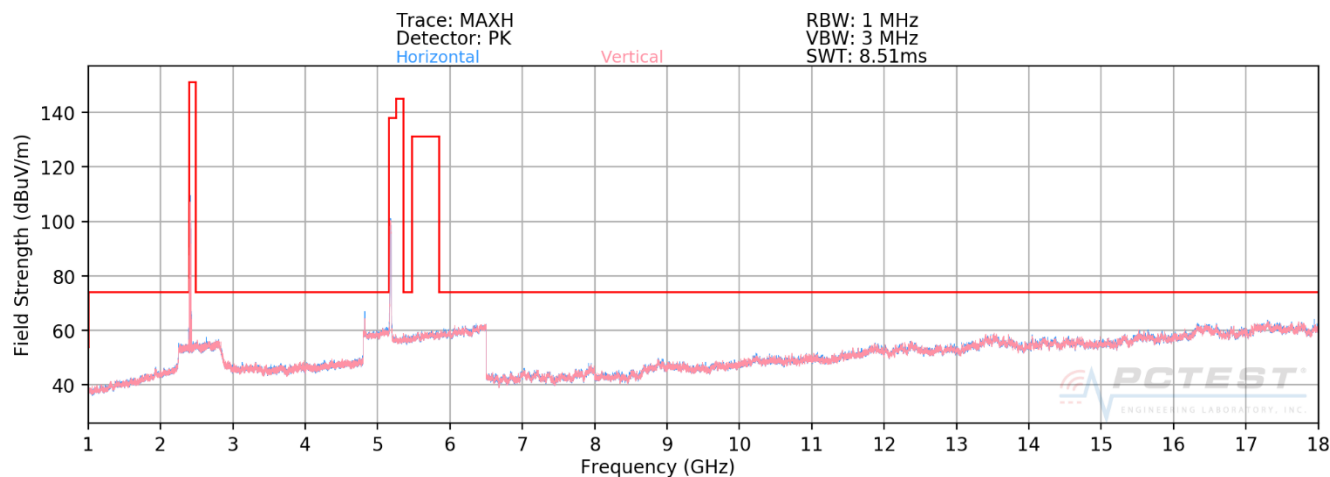
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
356.00	Peak	H	-	-	-88.22	22.49	41.27	68.20	-26.93
3124.00	Peak	H	-	-	-67.24	0.77	40.53	68.20	-27.67
5892.00	Peak	H	-	-	-67.50	5.05	44.55	68.20	-23.65
7948.00	Peak	H	-	-	-68.79	8.85	47.06	68.20	-21.14
8660.00	Peak	H	-	-	-69.93	11.15	48.22	68.20	-19.98
10716.00	Average	H	-	-	-80.66	11.75	38.09	53.98	-15.89
10716.00	Peak	H	-	-	-70.58	11.75	48.17	73.98	-25.81
13484.00	Peak	H	-	-	-71.14	14.85	50.71	68.20	-17.49
16252.00	Peak	H	-	-	-70.79	13.79	50.00	68.20	-18.20

Table 7-79. Radiated Measurements (ANT1 5GHz – ANT2 2.4GHz)

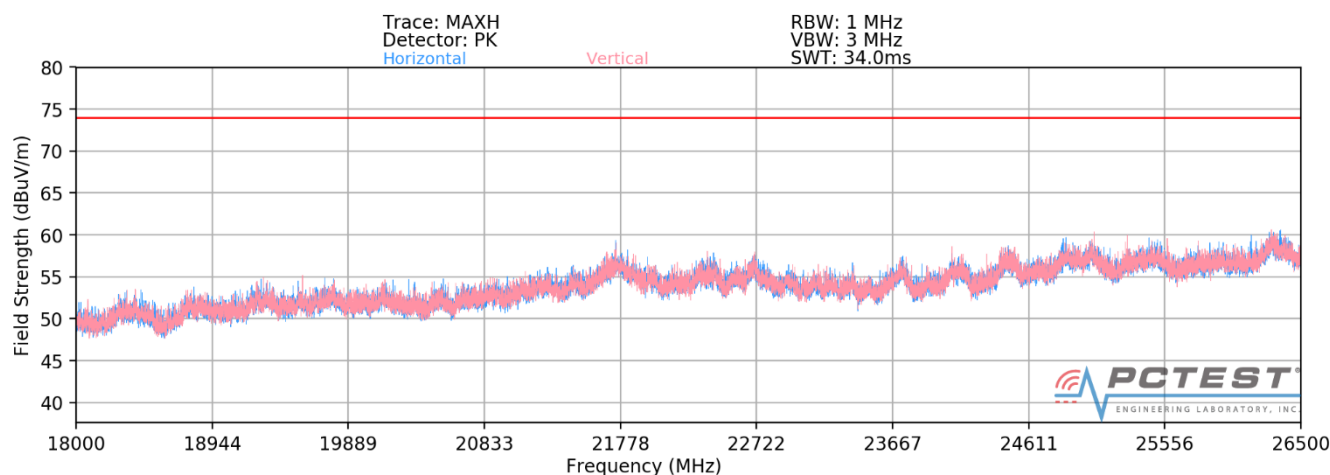
FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 253 of 291

Description	2.4 GHz Emission	5 GHz Emission
Antenna	1, 2	1, 2
Channel	1	36
Operating Frequency (MHz)	2412	5180
Data Rate (Mbps)	MCS8	MCS8
Mode	802.11n	802.11n

Table 7-80. Dual Band Simultaneous Transmission

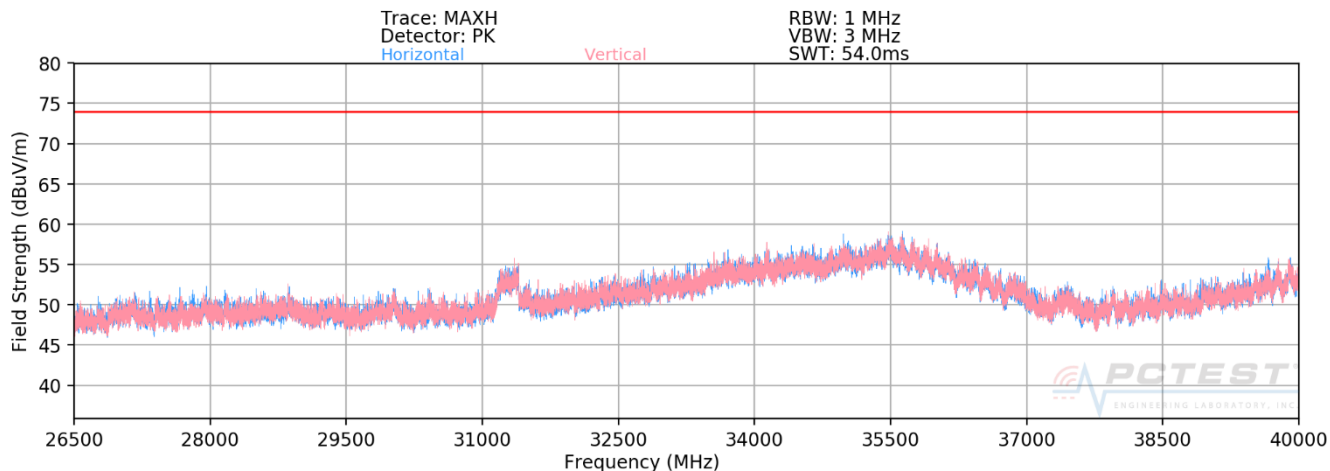


Plot 7-373. Radiated Spurious Plot above 1GHz (Dual Band Simult. Tx)



Plot 7-374. Radiated Spurious Plot 18GHz – 26.5GHz (Dual Band Simult. Tx)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 254 of 291



Plot 7-375. Radiated Spurious Plot above 26.5GHz (Dual Band Simult. Tx)

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
356.00	Peak	H	-	-	-88.11	22.49	41.38	68.20	-26.82
3124.00	Peak	H	-	-	-67.26	0.77	40.51	68.20	-27.69
5892.00	Peak	H	-	-	-67.40	5.05	44.65	68.20	-23.55
7948.00	Peak	H	-	-	-68.65	8.85	47.20	68.20	-21.00
8660.00	Peak	H	-	-	-69.95	11.15	48.20	68.20	-20.00
10716.00	Average	H	-	-	-80.39	11.75	38.36	53.98	-15.62
10716.00	Peak	H	-	-	-70.78	11.75	47.97	73.98	-26.01
13484.00	Peak	H	-	-	-70.83	14.85	51.02	68.20	-17.18
16252.00	Peak	H	-	-	-70.72	13.79	50.07	68.20	-18.13

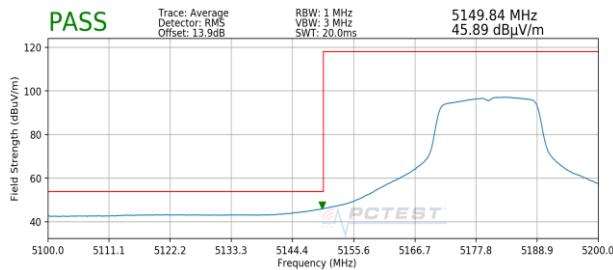
Table 7-81. Radiated Measurements (Dual Band Simult. Tx)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 255 of 291

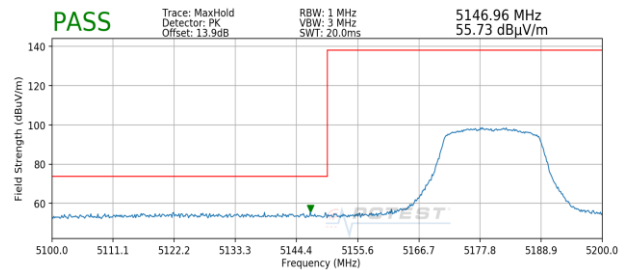
7.6.5 SISO Antenna-1 Radiated Band Edge Measurements (20MHz BW)

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

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	3 Meters
Operating Frequency:	5180MHz
Channel:	36

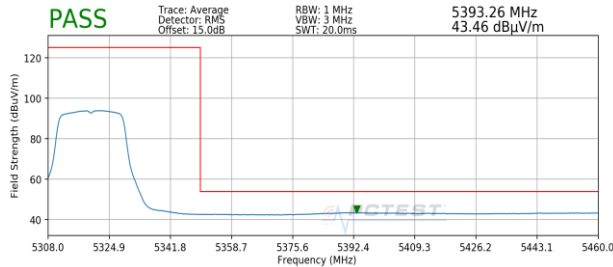


Plot 7-376. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1)

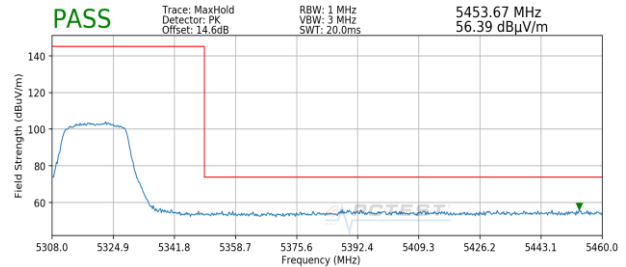


Plot 7-377. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 1)

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64



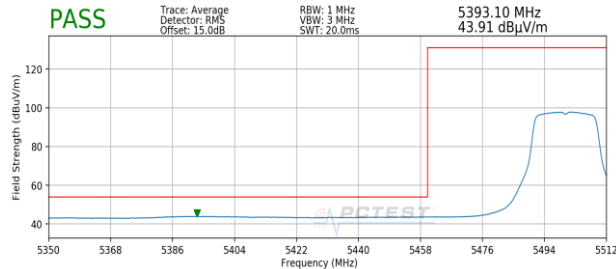
Plot 7-378. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A)



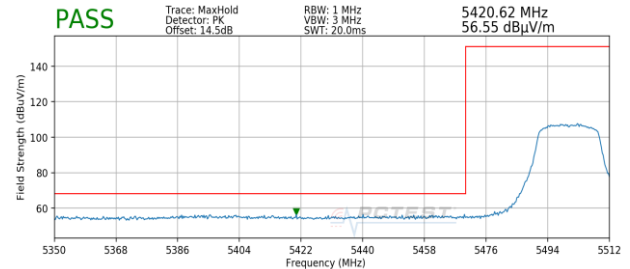
Plot 7-379. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 2A)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 256 of 291

Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 Distance of Measurements: 3 Meters
 Operating Frequency: 5500MHz
 Channel: 100

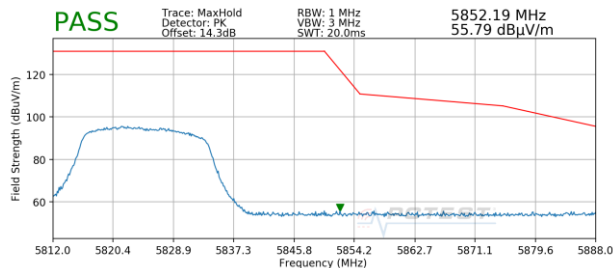


Plot 7-380. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C)



Plot 7-381. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 2C)

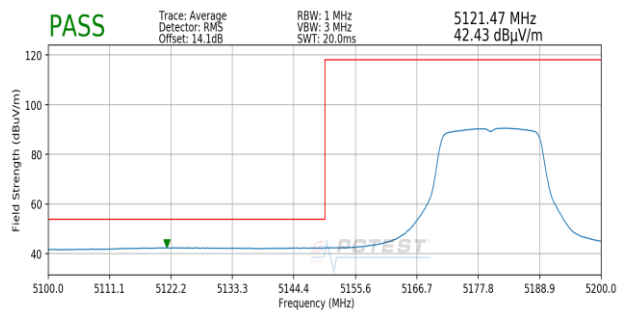
Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 Distance of Measurements: 3 Meters
 Operating Frequency: 5825MHz
 Channel: 165



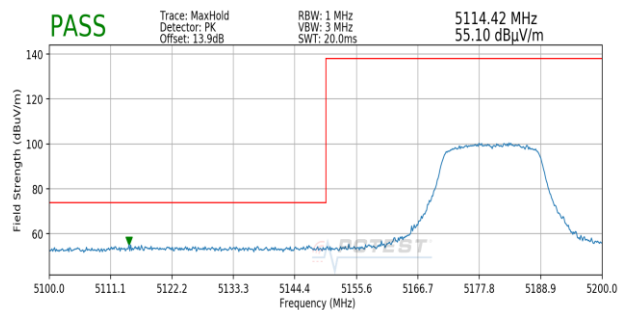
Plot 7-382. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 3)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 257 of 291

Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 Distance of Measurements: 3 Meters
 Operating Frequency: 5180MHz
 Channel: 36



**Plot 7-383. Radiated Band Edge Plot SISO ANT1
(Average – WCP)**



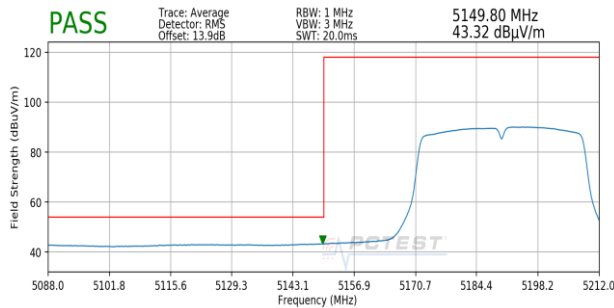
**Plot 7-384. Radiated Band Edge Plot SISO ANT1
(Peak – WCP)**

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 258 of 291

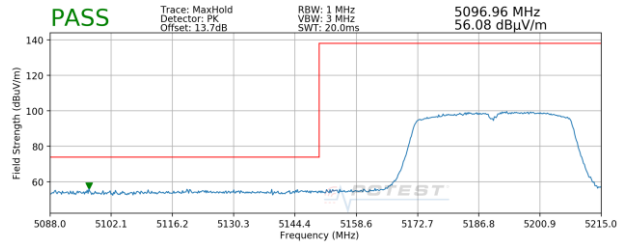
7.6.6 SISO Antenna-1 Radiated Band Edge Measurements (40MHz BW)

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

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

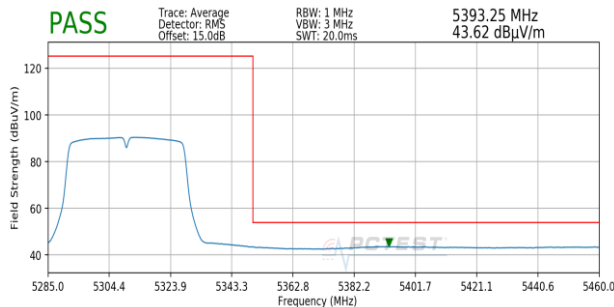


Plot 7-385. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1)

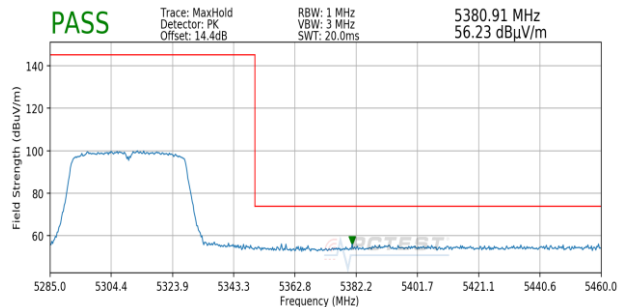


Plot 7-386. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 1)

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



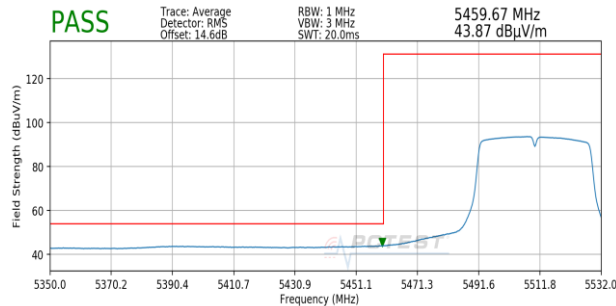
Plot 7-387. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A)



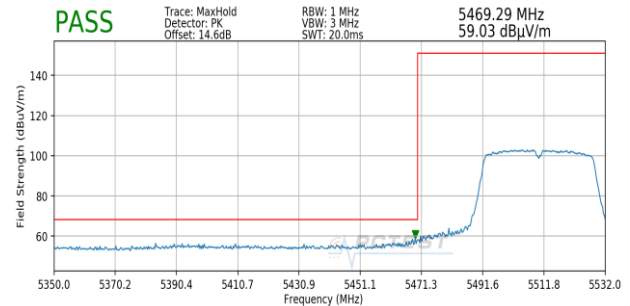
Plot 7-388. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 2A)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 259 of 291

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

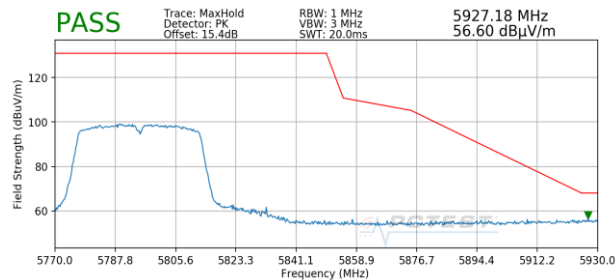


Plot 7-389. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C)



Plot 7-390. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 2C)

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



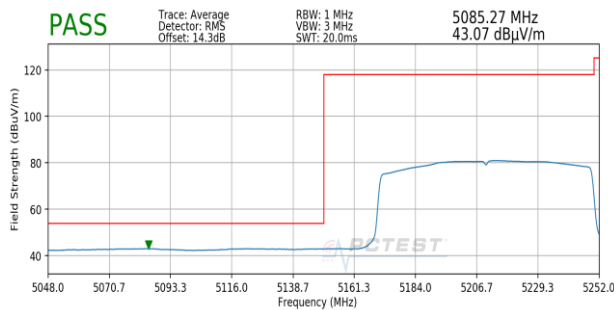
Plot 7-391. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 3)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 260 of 291

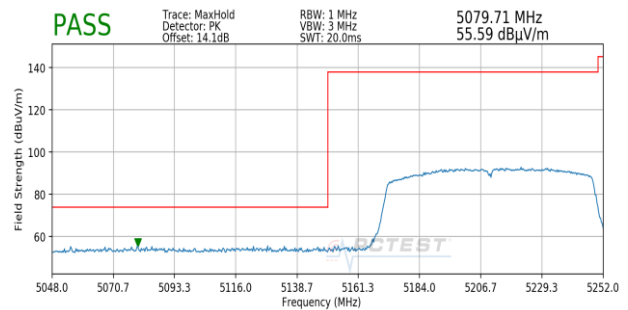
7.6.7 SISO Antenna-1 Radiated Band Edge Measurements (80MHz BW)

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

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

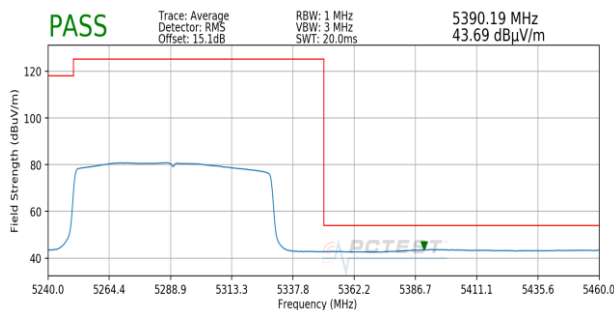


Plot 7-392. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1)

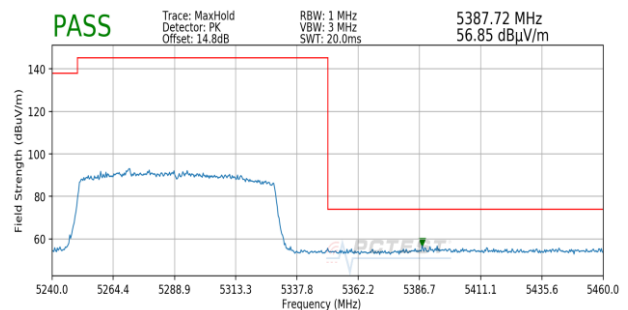


Plot 7-393. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 1)

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



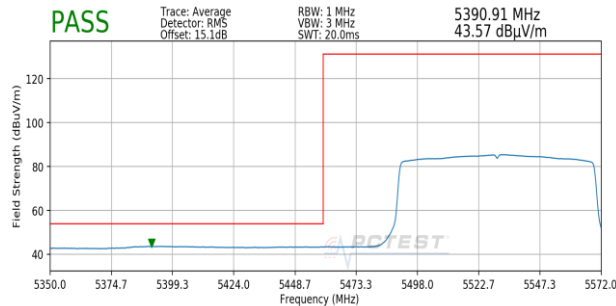
Plot 7-394. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A)



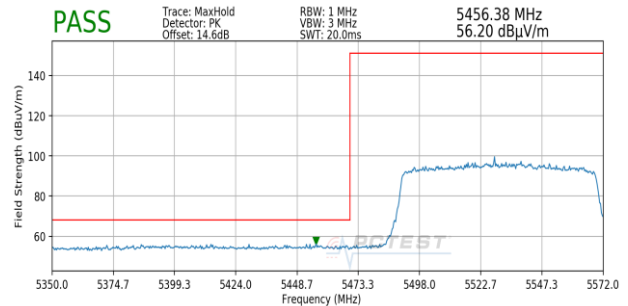
Plot 7-395. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 2A)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 261 of 291

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

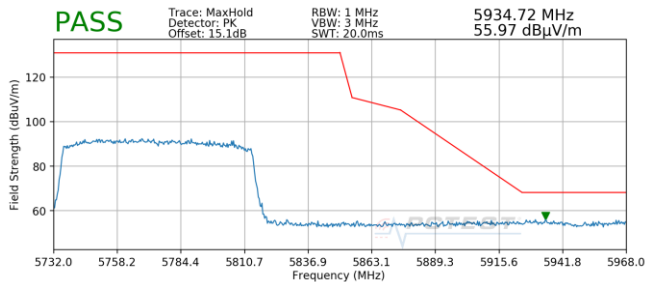


Plot 7-396. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C)



Plot 7-397. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 2C)

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



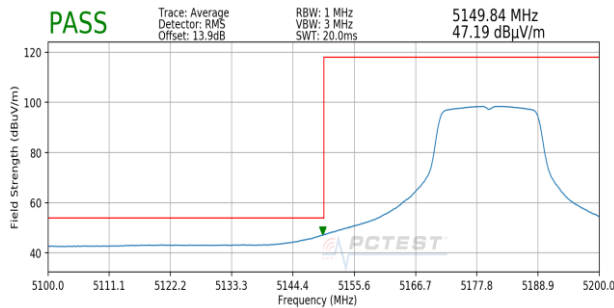
Plot 7-398. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 3)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 262 of 291

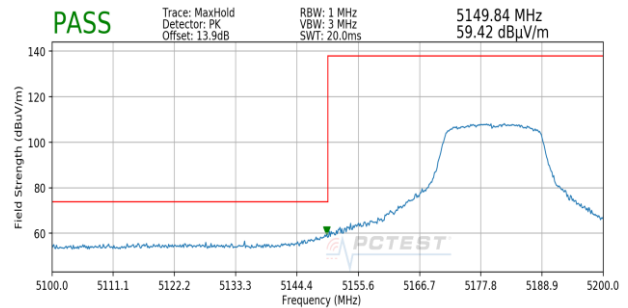
7.6.8 SISO Antenna-2 Radiated Band Edge Measurements (20MHz BW)

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

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	3 Meters
Operating Frequency:	5180MHz
Channel:	36

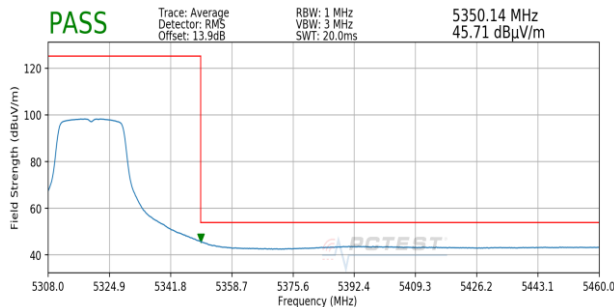


Plot 7-399. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 1)

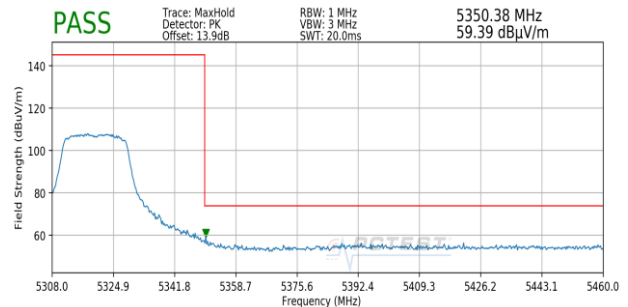


Plot 7-400. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 1)

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64



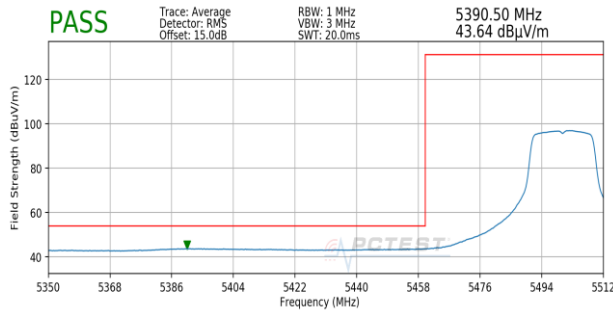
Plot 7-401. Radiated Upper Band Edge Plot SISO ANT2 (Average – UNII Band 2A)



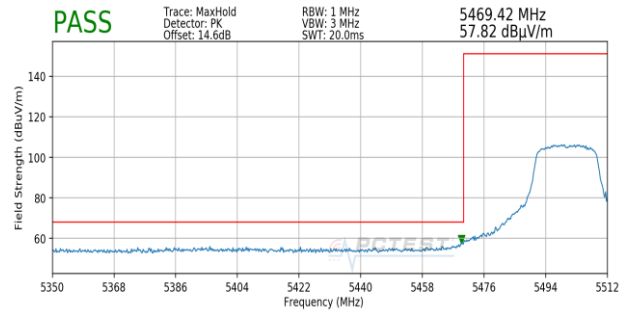
Plot 7-402. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 2A)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 263 of 291

Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 Distance of Measurements: 3 Meters
 Operating Frequency: 5500MHz
 Channel: 100

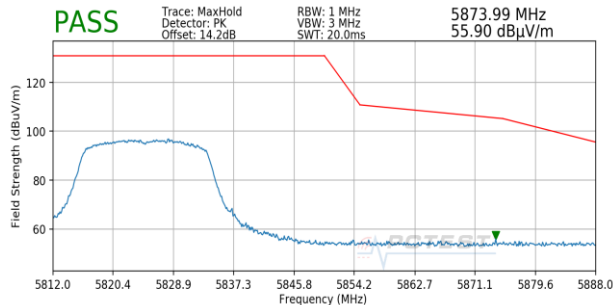


Plot 7-403. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 2C)



Plot 7-404. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 2C)

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



Plot 7-405. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 3)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 264 of 291