







Plot 7-101. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2C) - Ch. 102)

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 79 of 196
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Plot 7-102. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2C) - Ch. 110)



Plot 7-103. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2C) - Ch. 142)

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
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Keysight Spectrum Analy										
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Plot 7-104. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 2C) - Ch. 106)



Plot 7-105. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 2C) - Ch. 138)

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	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
	5745	149	а	6	4.17	30.0	-25.83
	5785	157	а	6	5.37	30.0	-24.63
	5825	165	а	6	4.71	30.0	-25.29
с С	5745	149	n (20MHz)	6.5/7.2 (MCS0)	3.48	30.0	-26.52
Band	5785	157	n (20MHz)	6.5/7.2 (MCS0)	4.69	30.0	-25.31
ä	5825	165	n (20MHz)	6.5/7.2 (MCS0)	3.81	30.0	-26.19
	5755	151	n (40MHz)	13.5/15 (MCS0)	-0.50	30.0	-30.50
	5795	159	n (40MHz)	13.5/15 (MCS0)	-0.39	30.0	-30.39
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-3.61	30.0	-33.61

Table 7-20. Band 3 Conducted Power Spectral Density Measurements



Plot 7-106. Power Spectral Density Plot (802.11a (UNII Band 3) - Ch. 149)

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager	
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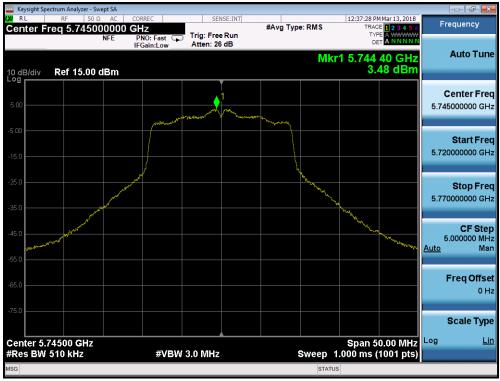




Plot 7-108. Power Spectral Density Plot (802.11a (UNII Band 3) - Ch. 165)

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Plot 7-109. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 3) - Ch. 149)



Plot 7-110. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 3) - Ch. 157)

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 92 of 196
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Plot 7-111. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 3) – Ch. 165)



Plot 7-112. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 3) - Ch. 151)

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Plot 7-113. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 3) - Ch. 159)



Plot 7-114. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 3) - Ch. 155)

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Antenna-2 Power Spectral Density Measurements

	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
	5180	36	а	6	6.20	11.0	-4.80
	5200	40	а	6	7.16	11.0	-3.84
	5240	48	а	6	6.12	11.0	-4.88
Ξ	5180	36	n (20MHz)	6.5/7.2 (MCS0)	5.52	11.0	-5.48
Band 1	5200	40	n (20MHz)	6.5/7.2 (MCS0)	6.47	11.0	-4.53
ä	5240	48	n (20MHz)	6.5/7.2 (MCS0)	5.80	11.0	-5.20
	5190	38	n (40MHz)	13.5/15 (MCS0)	-0.92	11.0	-11.92
	5230	46	n (40MHz)	13.5/15 (MCS0)	1.87	11.0	-9.13
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	-4.00	11.0	-15.00
	5260	52	а	6	6.26	11.0	-4.75
	5280	56	а	6	7.16	11.0	-3.84
	5320	64	а	6	6.42	11.0	-4.58
2A	5260	52	n (20MHz)	6.5/7.2 (MCS0)	5.86	11.0	-5.14
Band 2A	5280	56	n (20MHz)	6.5/7.2 (MCS0)	6.80	11.0	-4.20
Ba	5320	64	n (20MHz)	6.5/7.2 (MCS0)	5.69	11.0	-5.31
	5270	54	n (40MHz)	13.5/15 (MCS0)	2.28	11.0	-8.72
	5310	62	n (40MHz)	13.5/15 (MCS0)	-1.51	11.0	-12.51
	5290	58	ac (80MHz)	29.3/32.5 (MCS0)	-6.74	11.0	-17.74
	5500	100	а	6	6.42	11.0	-4.58
	5580	116	а	6	6.14	11.0	-4.86
	5720	144	а	6	6.40	11.0	-4.60
	5500	100	n (20MHz)	6.5/7.2 (MCS0)	6.08	11.0	-4.92
2C	5580	116	n (20MHz)	6.5/7.2 (MCS0)	5.79	11.0	-5.21
Band 2C	5720	144	n (20MHz)	6.5/7.2 (MCS0)	6.25	11.0	-4.75
Ba	5510	102	n (40MHz)	13.5/15 (MCS0)	-1.31	11.0	-12.31
	5550	110	n (40MHz)	13.5/15 (MCS0)	2.00	11.0	-9.00
	5710	142	n (40MHz)	13.5/15 (MCS0)	2.19	11.0	-8.81
	5530	106	ac (80MHz)	29.3/32.5 (MCS0)	-3.93	11.0	-14.93
	5690	138	ac (80MHz)	29.3/32.5 (MCS0)	-6.38	11.0	-17.38

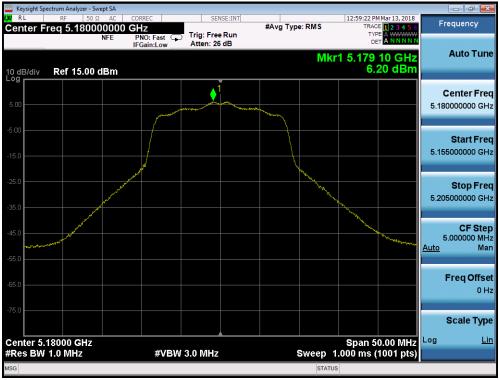
Table 7-21. Conducted Power Spectral Density Measurements

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	Frequency [MHz]	Channel No.	802.11 Mode	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]
	15151221	36	а	6	6.20	-0.50	5.70	10.0	-4.30
	13363262	40	а	6	7.16	-0.50	6.66	10.0	-3.34
	9110400.5	48	а	6	6.12	-0.50	5.62	10.0	-4.38
-	12527320	36	n (20MHz)	6.5/7.2 (MCS0)	5.52	-0.50	5.02	10.0	-4.98
Band	12592358	40	n (20MHz)	6.5/7.2 (MCS0)	6.47	-0.50	5.97	10.0	-4.03
ä	13776412	48	n (20MHz)	6.5/7.2 (MCS0)	5.80	-0.50	5.30	10.0	-4.70
	31390235	38	n (40MHz)	13.5/15 (MCS0)	-0.92	-0.50	-1.42	10.0	-11.42
	5230	46	n (40MHz)	13.5/15 (MCS0)	1.87	-0.50	1.37	10.0	-8.63
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	-4.00	-0.50	-4.50	10.0	-14.50

Table 7-22. Band 1 e.i.r.p. Conducted Power Spectral Density Measurements (ISED)



Plot 7-115. Power Spectral Density Plot (802.11a (UNII Band 1) – Ch. 36)

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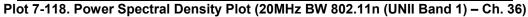




FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
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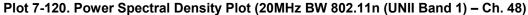


Plot 7-119. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 1) - Ch. 40)

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Plot 7-121. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 1) – Ch. 38)

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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	trum Analyzer - Swept SA					- 6 -
Center Fre	RF 50 Ω AC eq 5.23000000	00 GHz	SENSE:INT	#Avg Type: RMS	01:15:41 PM Mar 13, 2018 TRACE 1 2 3 4 5 6	Frequency
	NFE	PNO: Fast G	Trig: Free Run Atten: 26 dB		DET A WWWWW	
10 dB/div Log	Ref 15.00 dBm	1		M	kr1 5.232 2 GHz 1.87 dBm	Auto Tune
			1			Center Freq
5.00				and the second s		5.230000000 GHz
-5.00						Start Freq
-15.0						5.180000000 GHz
-25.0				\		Stop Freq
-35.0						5.280000000 GHz
				warmen	man marine	CF Step
-45.0	18 York and the second s				"The Show of the second	10.000000 MHz Auto Man
-00.0						Freq Offset
-65.0						0 Hz
-75.0						Scale Type
Center 5.23 #Res BW 1		#VBW	3.0 MHz	Sweep	Span 100.0 MHz 1.000 ms (1001 pts)	Log <u>Lin</u>
MSG				STAT		

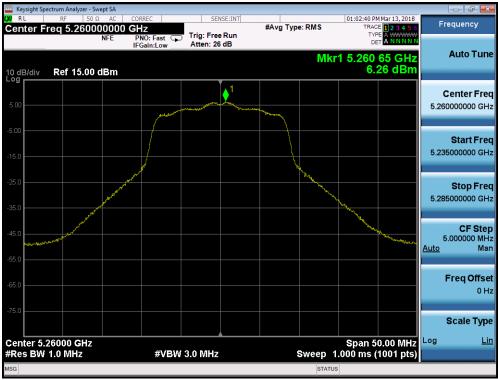




Plot 7-123. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 1) - Ch. 42)

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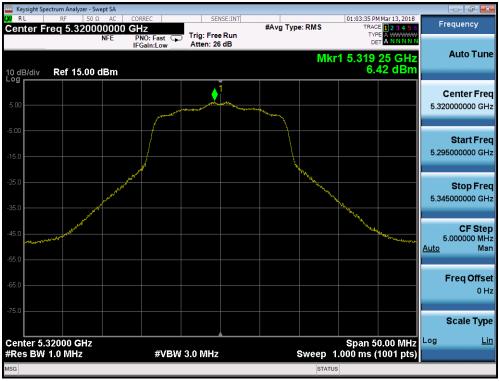




Plot 7-125. Power Spectral Density Plot (802.11a (UNII Band 2A) - Ch. 56)

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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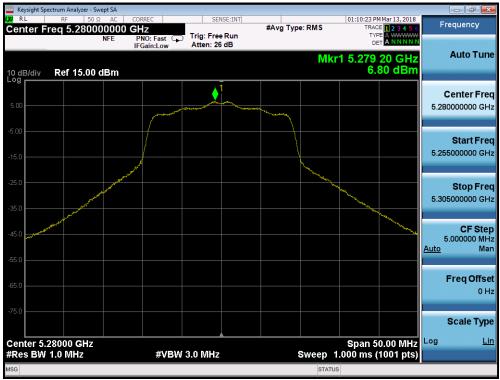




Plot 7-127. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2A) - Ch. 52)

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Plot 7-128. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2A) - Ch. 56)



Plot 7-129. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2A) - Ch. 64)

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Plot 7-130. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2A) – Ch. 54)



Plot 7-131. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2A) - Ch. 62)

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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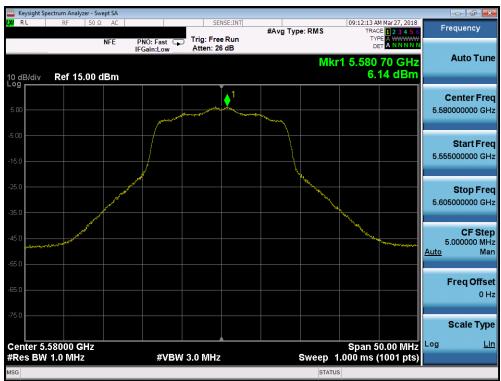
Plot 7-132. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 2A) - Ch. 58)



Plot 7-133. Power Spectral Density Plot (802.11a (UNII Band 2C) - Ch. 100)

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Plot 7-135. Power Spectral Density Plot (802.11a (UNII Band 2C) - Ch. 144)

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Plot 7-136. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2C) - Ch. 100)



Plot 7-137. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2C) - Ch. 116)

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Plot 7-139. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2C) - Ch. 102)

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Plot 7-140. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2C) - Ch. 110)



Plot 7-141. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2C) - Ch. 142)

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Swep					
₩ RL RF 50Ω Center Freq 5.530000 N	AC CORREC DOOO GHZ IFE PNO: Fast G IFGain:Low	Trig: Free Run Atten: 26 dB	#Avg Type: RMS	01:28:53 PM Mar 13, 2018 TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A NNNN	Frequency
10 dB/div Ref 15.00 dl			Μ	kr1 5.535 2 GHz -3.93 dBm	Auto Tune
5.00		▲ ¹			Center Fred 5.530000000 GH:
15.0	protocond room		man have		Start Fre 5.430000000 GH
35.0					Stop Fre 5.630000000 GH
45.0 when here and the second				art manual and a standard and a standard and	CF Ste 20.000000 MH <u>Auto</u> Ma
65.0					Freq Offso 0 ⊦
-75.0 Center 5.5300 GHz				opan 200.0 Min 12	Scale Typ
FRes BW 1.0 MHz	#VBV	V 3.0 MHz	Sweep	1.000 ms (1001 pts)	

Plot 7-142. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 2C) - Ch. 106)



Plot 7-143. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 2C) - Ch. 138)

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
	5745	149	а	6	3.62	30.0	-26.38
	5785	157	а	6	4.76	30.0	-25.24
	5825	165	а	6	4.03	30.0	-25.97
e	5745	149	n (20MHz)	6.5/7.2 (MCS0)	3.30	30.0	-26.70
Band	5785	157	n (20MHz)	6.5/7.2 (MCS0)	4.68	30.0	-25.32
ä	5825	165	n (20MHz)	6.5/7.2 (MCS0)	3.14	30.0	-26.86
	5755	151	n (40MHz)	13.5/15 (MCS0)	-0.80	30.0	-30.80
	5795	159	n (40MHz)	13.5/15 (MCS0)	-0.62	30.0	-30.62
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-3.73	30.0	-33.73

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



Plot 7-144. Power Spectral Density Plot (802.11a (UNII Band 3) - Ch. 149)

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Plot 7-146. Power Spectral Density Plot (802.11a (UNII Band 3) - Ch. 165)

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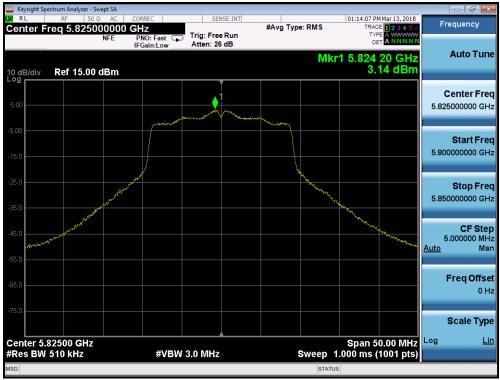
Plot 7-147. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 3) – Ch. 149)



Plot 7-148. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 3) - Ch. 157)

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Plot 7-149. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 3) – Ch. 165)



Plot 7-150. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 3) - Ch. 151)

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Plot 7-151. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 3) – Ch. 159)



Plot 7-152. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 3) - Ch. 155)

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Summed MIMO/CDD Power Spectral Density Measurements

-	5180 5200 5240	36			[dBm]	[dBm]	Power Density [dBm]	Density [dBm/MHz]	Margin [dB]
		10	а	6	6.75	6.20	9.50	11.0	-1.50
-	5240	40	а	6	7.57	7.16	10.38	11.0	-0.62
Γ		48	а	6	6.19	6.12	9.17	11.0	-1.83
~	5180	36	n (20MHz)	6.5/7.2 (MCS0)	6.18	5.52	8.87	11.0	-2.13
Band 1	5200	40	n (20MHz)	6.5/7.2 (MCS0)	6.93	6.47	9.72	11.0	-1.28
ä	5240	48	n (20MHz)	6.5/7.2 (MCS0)	5.71	5.80	8.76	11.0	-2.24
	5190	38	n (40MHz)	13.5/15 (MCS0)	-0.45	-0.92	2.33	11.0	-8.67
	5230	46	n (40MHz)	13.5/15 (MCS0)	2.00	1.87	4.95	11.0	-6.05
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	-3.62	-4.00	-0.79	11.0	-11.79
	5260	52	а	6	6.41	6.26	9.34	11.0	-1.66
	5280	56	а	6	7.54	7.16	10.37	11.0	-0.63
	5320	64	а	6	6.46	6.42	9.45	11.0	-1.55
2A	5260	52	n (20MHz)	6.5/7.2 (MCS0)	5.94	5.86	8.91	11.0	-2.09
Band 2A	5280	56	n (20MHz)	6.5/7.2 (MCS0)	6.64	6.80	9.73	11.0	-1.27
Ba	5320	64	n (20MHz)	6.5/7.2 (MCS0)	5.86	5.69	8.79	11.0	-2.21
	5270	54	n (40MHz)	13.5/15 (MCS0)	2.24	2.28	5.27	11.0	-5.73
	5310	62	n (40MHz)	13.5/15 (MCS0)	-1.42	-1.51	1.54	11.0	-9.46
	5290	58	ac (80MHz)	29.3/32.5 (MCS0)	-6.96	-6.74	-3.84	11.0	-14.84
	5500	100	а	6	6.59	6.42	9.51	11.0	-1.49
	5580	116	а	6	6.99	6.14	9.60	11.0	-1.40
	5720	144	а	6	6.89	6.40	9.67	11.0	-1.33
	5500	100	n (20MHz)	6.5/7.2 (MCS0)	6.05	6.08	9.08	11.0	-1.92
0	5580	116	n (20MHz)	6.5/7.2 (MCS0)	6.27	5.79	9.05	11.0	-1.95
q 2(5720	144	n (20MHz)	6.5/7.2 (MCS0)	6.38	6.25	9.32	11.0	-1.68
Band 2C	5510	102	n (40MHz)	13.5/15 (MCS0)	-0.98	-1.31	1.87	11.0	-9.13
	5550	110	n (40MHz)	13.5/15 (MCS0)	2.73	2.00	5.39	11.0	-5.61
	5710	142	n (40MHz)	13.5/15 (MCS0)	2.56	2.19	5.39	11.0	-5.61
	5530	106	ac (80MHz)	29.3/32.5 (MCS0)	-3.46	-3.93	-0.68	11.0	-11.68
	5610	122	ac (80MHz)	29.3/32.5 (MCS0)	-3.22	-3.74	-0.46	11.0	-11.46
	5690	138	ac (80MHz)	29.3/32.5 (MCS0)	-6.03	-6.38	-3.19	11.0	-14.19

Table 7-24. Bands 1, 2A, 2C MIMO/CDD Conducted 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]	Directional Antenna Gain [dBi]	e.i.r.p. Power Density [dBm/MHz]	ISED Max e.i.r.p. Power Density [dBm/MHz]	Margin [dB]
	5180	36	а	6.5/7.2 (MCS0)	6.75	6.20	9.49	-0.45	9.04	10.0	-0.96
	5200	40	а	6.5/7.2 (MCS0)	7.57	7.16	10.38	-0.45	9.93	10.0	-0.07
	5240	48	а	6.5/7.2 (MCS0)	6.19	6.12	9.17	-0.45	8.72	10.0	-1.28
-	5180	36	n (20MHz)	6.5/7.2 (MCS0)	6.18	5.52	8.87	-0.45	8.42	10.0	-1.58
Band	5200	40	n (20MHz)	6.5/7.2 (MCS0)	6.93	6.47	9.72	-0.45	9.27	10.0	-0.73
ä	5240	48	n (20MHz)	6.5/7.2 (MCS0)	5.71	5.80	8.76	-0.45	8.31	10.0	-1.69
	5190	38	n (40MHz)	13.5/15 (MCS0)	-0.45	-0.92	2.33	-0.45	1.88	10.0	-8.12
	5230	46	n (40MHz)	13.5/15 (MCS0)	2.00	1.87	4.95	-0.45	4.50	10.0	-5.50
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	-3.62	-4.00	-0.79	-0.45	-1.24	10.0	-11.24

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

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	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Antenn-1 Power Density [dBm]			Max Permissible Power Density [dBm/500kHz]	Margin [dB]
	5745	149	а	6.5/7.2 (MCS0)	4.17	3.62	6.91	30.0	-23.09
	5785	157	а	6.5/7.2 (MCS0)	5.37	4.76	8.09	30.0	-21.91
	5825	165	а	6.5/7.2 (MCS0)	4.71	4.03	7.39	30.0	-22.61
ო	5745	149	n (20MHz)	6.5/7.2 (MCS0)	3.48	3.30	6.40	30.0	-23.60
Band	5785	157	n (20MHz)	6.5/7.2 (MCS0)	4.69	4.68	7.70	30.0	-22.30
ä	5825	165	n (20MHz)	6.5/7.2 (MCS0)	3.81	3.14	6.50	30.0	-23.50
	5755	151	n (40MHz)	13.5/15 (MCS0)	-0.50	-0.80	2.36	30.0	-27.64
	5795	159	n (40MHz)	13.5/15 (MCS0)	-0.39	-0.62	2.51	30.0	-27.49
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-3.61	-3.73	-0.66	30.0	-30.66

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

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.

Per ANSI C63.10-2013 Section 14.4.3, the directional gain is calculated using the following formula, where G_N is the gain of the nth antenna and N_{ANT} , the total number of antennas used.

Directional gain = $10 \log[(10^{G_1/20} + 10^{G_2/20} + ... + 10^{G_N/20})^2 / N_{ANT}] dBi$

Sample MIMO Calculation:

At 5180MHz in 802.11n (20MHz BW) mode, the average conducted power spectral density was measured to be 6.18 dBm for Antenna-1 and 5.52 dBm for Antenna-2.

Antenna 1 + Antenna 2 = MIMO

(6.18 dBm + 5.52 dBm) = (4.15 mW + 3.57 mW) = 7.72 mW = 8.87 dBm

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

At 5180MHz in 802.11n (20MHz BW) mode, the average MIMO power density was calculated to be 8.87 dBm with directional gain of -0.45 dBi.

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

8.87 dBm + -0.45 dBi = 8.42 dBm

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7.6 Radiated Spurious Emission Measurements – Above 1GHz §15.407(b) §15.205 §15.209; RSS-Gen [8.9]

Test Overview and Limit

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

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

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

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, 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 5 MHz above or below 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 [μV/m]	Measured Distance [Meters]
Above 960.0 MHz	500	3

Table 7-27. Radiated Limits

Test Procedures Used

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

Test Settings

Average Measurements above 1GHz (Method AD)

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

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Peak Measurements above 1GHz

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

Peak Measurements below 1GHz

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

Test Setup

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

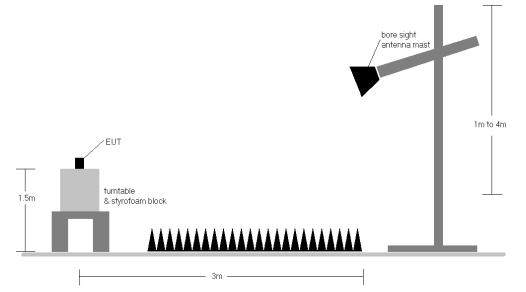


Figure 7-5. Test Instrument & Measurement Setup

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Test Notes

- 1. All emissions that lie in the restricted bands (denoted by a * next to the frequency) specified in §15.205 and Section 8.10 of RSS-Gen are below the limit shown in Table 7-27.
- 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

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

Radiated Band Edge Measurement Offset

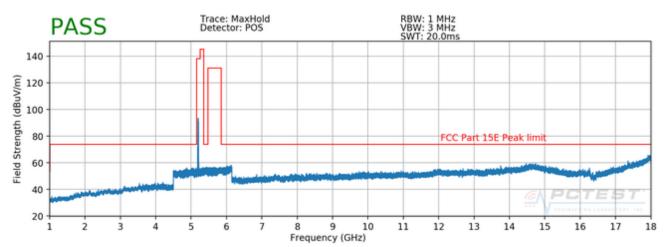
• The amplitude offset shown in the radiated restricted band edge plots in Section 7.6 was calculated using the formula:

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

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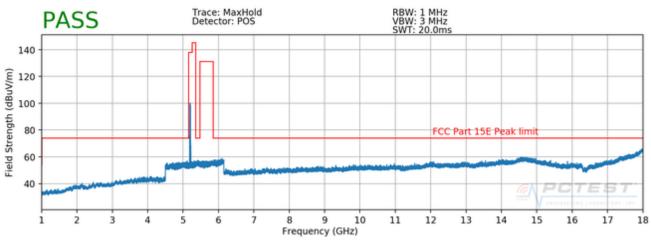
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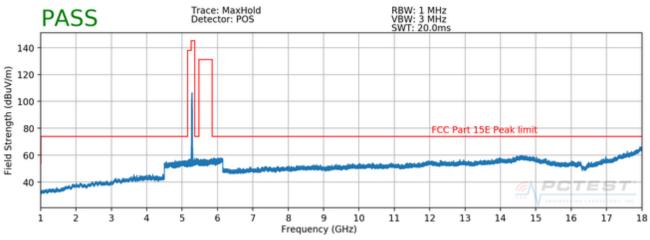


7.7.1 Antenna-1 Radiated Spurious Emission Measurements





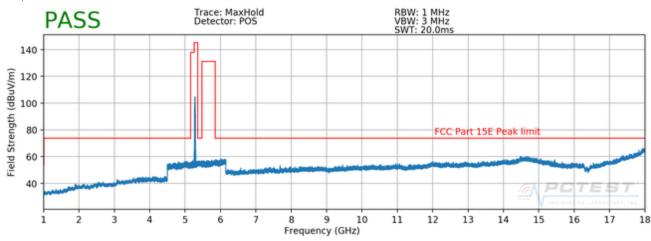




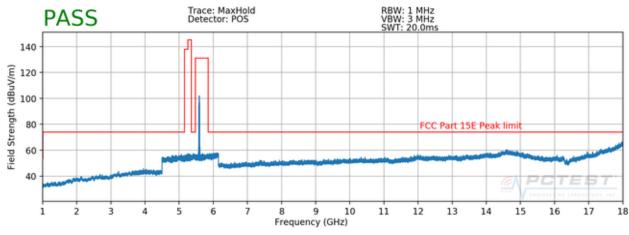
Plot 7-155. Radiated Spurious Plot above 1GHz (802.11a – U2A Ch. 56) – Pol. H

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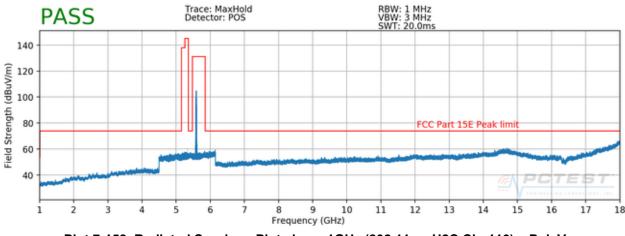


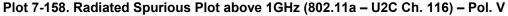






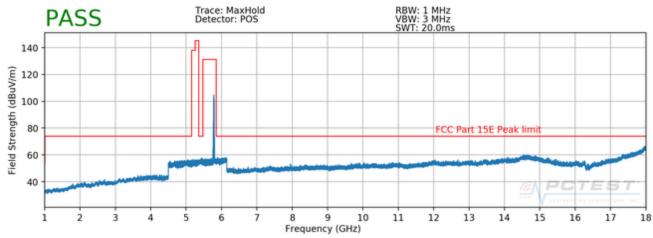




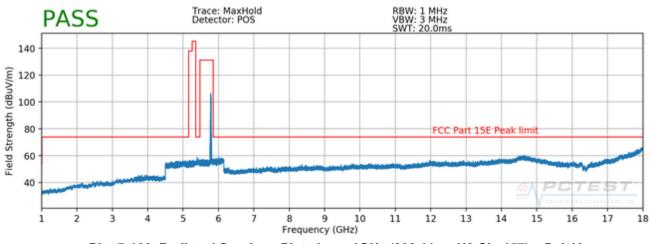


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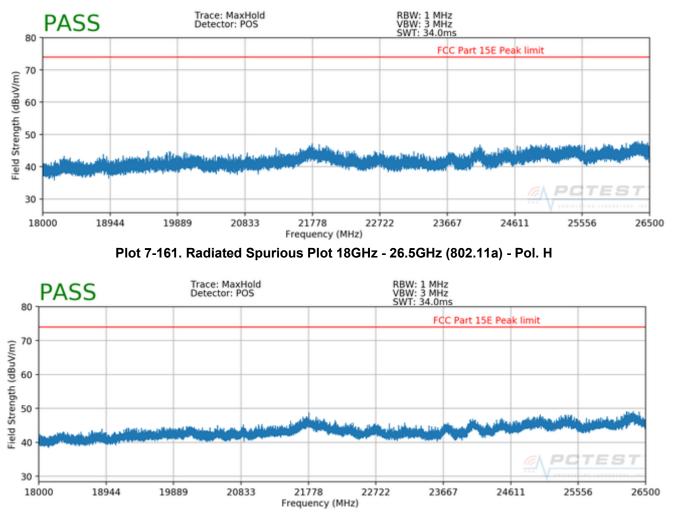


Plot 7-160. Radiated Spurious Plot above 1GHz (802.11a - U3 Ch. 157) - Pol. V

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



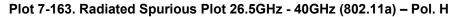
Plot 7-162. Radiated Spurious Plot 18GHz - 26.5GHz (802.11a) - Pol. V

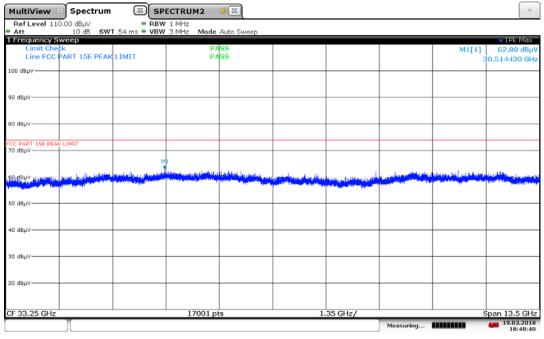
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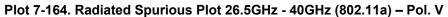
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Limit Check		PAS					M1[1]	63.04 dBj
Line FCC PART 1	ISE PEAK LIMIT	PAS	s				1	8.945080 G
00 dBµV								
0 dBµV								
o opp								
0 dBµV								
C PART 15E PEAK LIMIT								
0.09914								M1
a dpuy	والمتحفظ والمعادية والمتحفظ والفاطق والار	No. of Concession, Name	the literation of the	- Mary Make	aut	Sector designation	بيطعفين وتبلتن عن	the Course of the second
D dBµV								
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Antenna-1 Radiated Spurious Emission Measurements §15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

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

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10360.00	Peak	н	-	-	-69.28	11.48	0.00	49.20	68.20	-19.00
*	15540.00	Average	Н	-	-	-80.73	13.68	0.00	39.95	53.98	-14.03
*	15540.00	Peak	Н	-	-	-69.16	13.68	0.00	51.52	73.98	-22.46
*	20720.00	Average	Н	-	-	-77.98	7.94	-9.54	27.42	53.98	-26.56
*	20720.00	Peak	Н	-	-	-65.54	7.94	-9.54	39.86	73.98	-34.12
	25900.00	Peak	Н	-	-	-64.20	8.46	-9.54	41.72	68.20	-26.48

Table 7-28. Radiated Measurements

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

802.11a
6Mbps
1 & 3 Meters
5200MHz
40

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10400.00	Peak	н	-	-	-69.44	11.67	0.00	49.23	68.20	-18.97
*	15600.00	Average	Н	-	-	-80.69	13.27	0.00	39.58	53.98	-14.40
*	15600.00	Peak	Н	-	-	-69.53	13.27	0.00	50.74	73.98	-23.24
*	20800.00	Average	н	-	-	-78.54	7.95	-9.54	26.87	53.98	-27.10
*	20800.00	Peak	Н	-	-	-66.28	7.95	-9.54	39.13	73.98	-34.84
	26000.00	Peak	Н	-	-	-63.57	8.60	-9.54	42.49	68.20	-25.71

Table 7-29. Radiated Measurements

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 117 of 196	
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802.11a		
6Mbps		
1 & 3 Meters		
5240MHz		
48		

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10480.00	Peak	н	-	-	-69.76	11.70	0.00	48.94	68.20	-19.26
*	15720.00	Average	Н	-	-	-80.72	12.83	0.00	39.11	53.98	-14.87
*	15720.00	Peak	Н	-	-	-69.72	12.83	0.00	50.11	73.98	-23.87
*	20960.00	Average	Н	-	-	-77.20	7.91	-9.54	28.17	53.98	-25.81
*	20960.00	Peak	Н	-	-	-67.28	7.91	-9.54	38.09	73.98	-35.89
	26200.00	Peak	Н	-	-	-62.37	8.62	-9.54	43.71	68.20	-24.49

Table 7-30. Radiated Measurements

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

	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]
	10360.00	Peak	Н	-	-	-69.86	11.48	48.62	68.20	-19.58
*	15540.00	Average	Н	-	-	-80.93	13.68	39.75	53.98	-14.23
*	15540.00	Peak	Н	-	-	-69.53	13.68	51.15	73.98	-22.83
*	20720.00	Average	Н	-	-	-78.01	7.94	36.93	53.98	-17.05
*	20720.00	Peak	Н	-	-	-68.59	7.94	46.35	73.98	-27.63
	25900.00	Peak	Н	-	-	-63.17	8.46	52.29	68.20	-15.91

Table 7-31. Radiated Measurements with WCP

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Daga 119 of 196	
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Worst Case Mode:	802.11a			
Worst Case Transfer Rate:	6Mbps			
Distance of Measurements:	1 & 3 Meters			
Operating Frequency:	5260MHz			
Channel:	52			

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10520.00	Peak	Н	-	-	-69.53	11.68	0.00	49.15	68.20	-19.05
*	15780.00	Average	Н	-	-	-80.91	12.91	0.00	39.00	53.98	-14.98
*	15780.00	Peak	Н	-	-	-69.61	12.91	0.00	50.30	73.98	-23.68
*	21040.00	Average	Н	-	-	-77.27	7.92	-9.54	28.11	53.98	-25.87
*	21040.00	Peak	Н	-	-	-65.06	7.92	-9.54	40.32	73.98	-33.66
	26300.00	Peak	Н	-	-	-65.86	8.73	-9.54	40.33	68.20	-27.87

Table 7-32. Radiated Measurements

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

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10560.00	Peak	Н	-	-	-69.93	11.56	0.00	48.63	68.20	-19.57
*	15840.00	Average	Н	-	-	-81.93	12.86	0.00	37.93	53.98	-16.05
*	15840.00	Peak	Н	-	-	-69.90	12.86	0.00	49.96	73.98	-24.02
*	21120.00	Average	Н	-	-	-78.30	7.96	-9.54	27.12	53.98	-26.86
*	21120.00	Peak	Н	-	-	-64.58	7.97	-9.54	40.85	73.98	-33.13
	26400.00	Peak	Н	-	-	-64.74	8.94	-9.54	41.66	68.20	-26.54

Table 7-33. Radiated Measurements

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Worst Case Mode:	802.11a			
Worst Case Transfer Rate:	6Mbps			
Distance of Measurements:	1 & 3 Meters			
Operating Frequency:	5320MHz			
Channel:	64			

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	10640.00	Average	Н	-	-	-81.15	11.80	0.00	37.65	53.98	-16.33
*	10640.00	Peak	Н	-	-	-69.58	11.80	0.00	49.22	73.98	-24.76
*	15960.00	Average	Н	-	-	-81.96	13.23	0.00	38.27	53.98	-15.70
*	15960.00	Peak	Н	-	-	-68.51	13.23	0.00	51.72	73.98	-22.25
*	21280.00	Average	Н	-	-	-79.50	8.04	-9.54	26.00	53.98	-27.98
*	21280.00	Peak	Н	-	-	-65.73	8.04	-9.54	39.77	73.98	-34.21
	26600.00	Peak	Н	-	-	-63.09	-8.30	-9.54	26.07	68.20	-42.13

Table 7-34. Radiated Measurements

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

802.11a	
6Mbps	
1 & 3 Meters	
5260MHz	
52	

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10520.00	Peak	Н	-	-	-69.67	11.68	0.00	49.01	68.20	-19.19
*	15780.00	Average	Н	-	-	-81.59	12.91	0.00	38.32	53.98	-15.66
*	15780.00	Peak	Н	-	-	-70.05	12.91	0.00	49.86	73.98	-24.12
*	21040.00	Average	Н	-	-	-78.39	7.92	-9.54	26.99	53.98	-26.99
*	21040.00	Peak	Н	-	-	-66.28	7.92	-9.54	39.10	73.98	-34.88
	26300.00	Peak	Н	-	-	-62.89	8.73	-9.54	43.30	68.20	-24.90

Table 7-35. Radiated Measurements with WCP

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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802.11a			
6Mbps			
1 & 3 Meters			
5500MHz			
100			

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11000.00	Average	Н	-	-	-79.82	12.04	0.00	39.22	53.98	-14.76
*	11000.00	Peak	Н	-	-	-68.10	12.04	0.00	50.94	73.98	-23.04
	16500.00	Peak	Н	-	-	-68.45	12.28	0.00	50.83	68.20	-17.37
	22000.00	Peak	Н	-	-	-65.05	8.43	-9.54	40.84	68.20	-27.36
	27500.00	Peak	н	-	-	-47.68	-8.80	-9.54	40.98	68.20	-27.22

Table 7-36. Radiated Measurements

802.11a
6Mbps
1 & 3 Meters
600MHz
116

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11200.00	Average	Н	-	-	-80.27	11.39	0.00	38.12	53.98	-15.86
*	11200.00	Peak	Н	-	-	-67.84	11.39	0.00	50.55	73.98	-23.43
	16800.00	Peak	Н	-	-	-69.89	14.00	0.00	51.11	68.20	-17.09
*	22400.00	Average	Н	-	-	-79.28	8.11	-9.54	26.29	53.98	-27.69
*	22400.00	Peak	Н	-	-	-64.97	8.11	-9.54	40.60	73.98	-33.38
	28000.00	Peak	Н	-	-	-46.28	-9.26	-9.54	41.92	68.20	-26.28

Table 7-37. Radiated Measurements

Worst Case Mode:		802.11a				
FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager		
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Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5720MHz
Channel:	144

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11440.00	Average	Н	-	-	-81.02	11.68	0.00	37.66	53.98	-16.32
*	11440.00	Peak	Н	-	-	-68.79	11.68	0.00	49.89	73.98	-24.09
	17160.00	Peak	Н	-	-	-69.05	15.62	0.00	53.57	68.20	-14.63
*	22880.00	Average	Н	-	-	-78.69	8.28	-9.54	27.05	53.98	-26.93
*	22880.00	Peak	Н	-	-	-65.39	8.28	-9.54	40.35	73.98	-33.63
	28600.00	Peak	Н	-	-	-46.07	-9.08	-9.54	42.31	68.20	-25.89

Table 7-38. Radiated Measurements

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

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11440.00	Average	н	-	-	-80.36	11.68	0.00	38.32	53.98	-15.66
*	11440.00	Peak	Н	-	-	-69.39	11.68	0.00	49.30	73.98	-24.68
	17160.00	Peak	Н	-	-	-70.68	15.62	0.00	51.94	68.20	-16.26
*	22880.00	Average	Н	-	-	-77.98	8.28	-9.54	27.76	53.98	-26.22
*	22880.00	Peak	Н	-	-	-64.89	8.28	-9.54	40.85	73.98	-33.13
	28600.00	Peak	Н	-	-	-45.98	-9.08	-9.54	42.40	68.20	-25.80

Table 7-39. Radiated Measurements with WCP

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5745MHz
Channel:	149

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11490.00	Average	Н	-	-	-81.38	11.70	0.00	37.32	53.98	-16.66
*	11490.00	Peak	Н	-	-	-68.91	11.70	0.00	49.79	73.98	-24.19
	17235.00	Peak	Н	-	-	-69.31	17.09	0.00	54.78	68.20	-13.42
*	22980.00	Average	Н	-	-	-77.48	8.16	-9.54	28.14	53.98	-25.84
*	22980.00	Peak	Н	-	-	-66.20	8.16	-9.54	39.42	73.98	-34.56
	28725.00	Peak	Н	-	-	-46.38	-9.24	-9.54	41.84	68.20	-26.36

Table 7-40. Radiated Measurements

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

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11570.00	Average	н	-	-	-81.24	11.91	0.00	37.67	53.98	-16.31
*	11570.00	Peak	Н	-	-	-68.58	11.91	0.00	50.33	73.98	-23.65
	17355.00	Peak	Н	-	-	-68.69	18.72	0.00	57.03	68.20	-11.17
	23140.00	Peak	Н	-	-	-65.23	8.37	-9.54	40.60	68.20	-27.60
	28925.00	Peak	Н	-	-	-46.28	-9.65	-9.54	41.53	68.20	-26.67

Table 7-41. Radiated Measurements

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5825MHz
Channel:	165

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11650.00	Average	н	-	-	-81.59	12.16	0.00	37.57	53.98	-16.41
*	11650.00	Peak	Н	-	-	-68.25	12.16	0.00	50.91	73.98	-23.07
	17475.00	Peak	н	-	-	-69.28	18.73	0.00	56.45	68.20	-11.75
	23300.00	Peak	н	-	-	-64.75	8.50	-9.54	41.21	68.20	-26.99
	29125.00	Peak	н	-	-	-45.67	-9.87	-9.54	41.92	68.20	-26.28

Table 7-42. Radiated Measurements

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

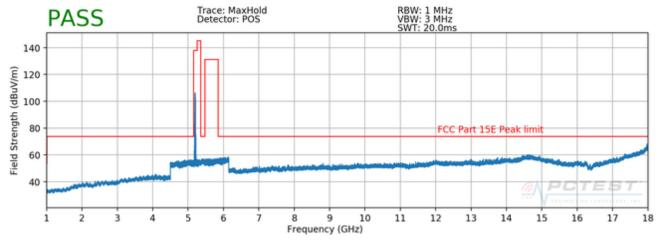
	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11570.00	Average	Н	-	-	-81.39	11.91	0.00	37.52	53.98	-16.46
*	11570.00	Peak	Н	-	-	-69.27	11.91	0.00	49.64	73.98	-24.34
	17355.00	Peak	Н	-	-	-69.29	18.72	0.00	56.43	68.20	-11.77
	23140.00	Peak	Н	-	-	-65.23	8.37	-9.54	40.60	68.20	-27.60
	28925.00	Peak	Н	-	-	-46.90	-9.65	-9.54	40.91	68.20	-27.29

Table 7-43. Radiated Measurements with WCP

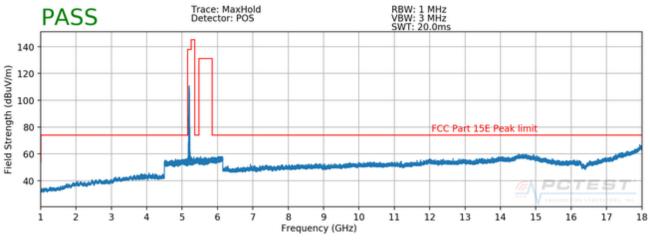
FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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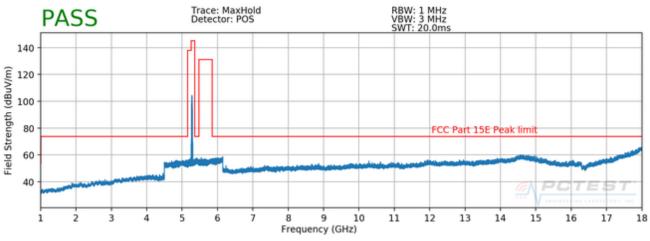
7.7.2 Antenna-2 Radiated Spurious Emission Measurements







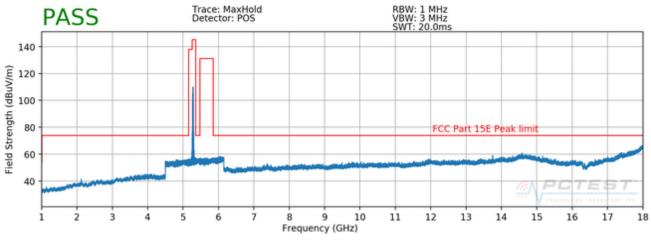




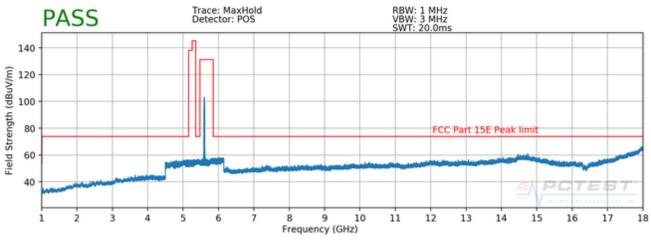
Plot 7-167. Radiated Spurious Plot above 1GHz (802.11a – U2A Ch. 56) – Pol. H

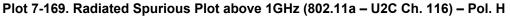
FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 125 of 196
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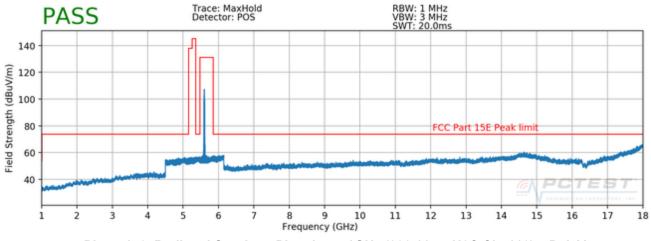








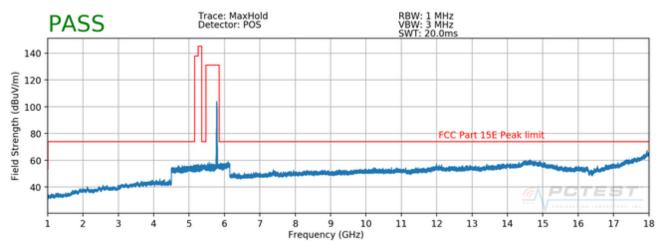




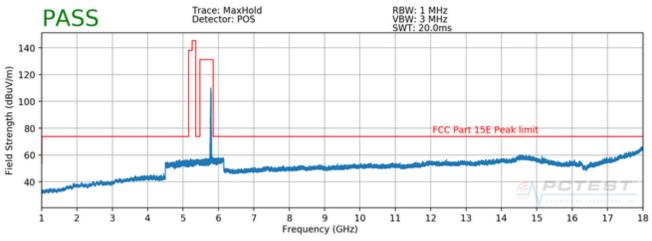


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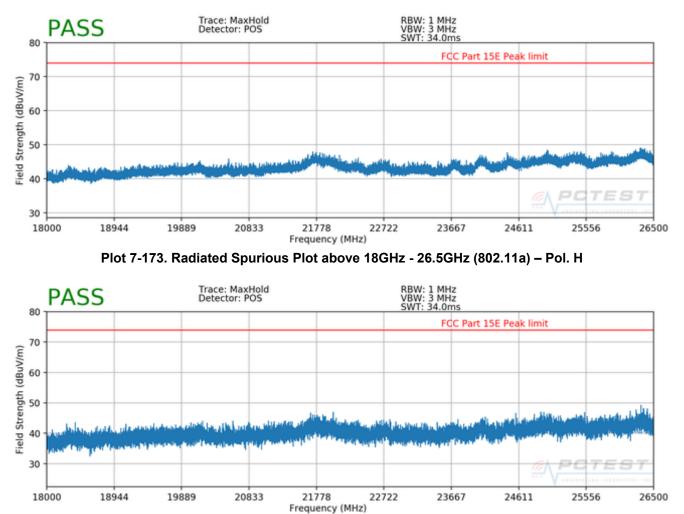


Plot 7-172. Radiated Spurious Plot above 1GHz (802.11a - U3 Ch. 157) - Pol. V

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Antenna-2 Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-174. Radiated Spurious Plot 18GHz - 26.5GHz (802.11a) - Pol. V

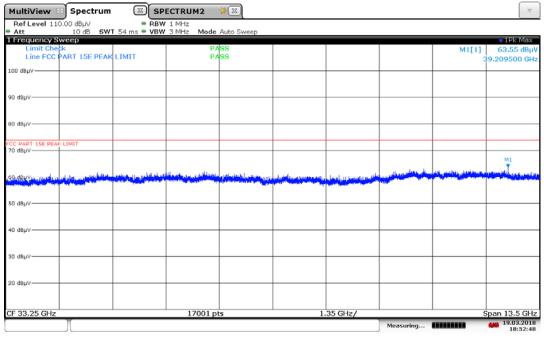
FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager				
Test Report S/N: Test Dates:		EUT Type:	Dama 400 of 400				
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Antenna-2 Radiated Spurious Emission Measurements §15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

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	Н	-	-	-69.53	11.48	0.00	48.95	68.20	-19.25
*	15540.00	Average	Н	-	-	-80.82	13.68	0.00	39.86	53.98	-14.12
*	15540.00	Peak	Н	-	-	-69.86	13.68	0.00	50.82	73.98	-23.16
*	20720.00	Average	Н	-	-	-77.86	7.94	-9.54	27.54	53.98	-26.44
*	20720.00	Peak	Н	-	-	-68.58	7.94	-9.54	36.82	73.98	-37.16
	25900.00	Peak	Н	-	-	-62.38	8.00	-9.54	43.08	68.20	-25.12

Table 7-44. Radiated Measurements

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

802.11a	
6Mbps	
1 & 3 Meters	
5200MHz	
40	

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10400.00	Peak	Н	-	-	-69.35	11.67	0.00	49.32	68.20	-18.88
*	15600.00	Average	Н	-	-	-80.98	13.27	0.00	39.29	53.98	-14.69
*	15600.00	Peak	Н	-	-	-69.70	13.27	0.00	50.57	73.98	-23.41
*	20800.00	Average	Н	-	-	-79.05	7.95	-9.54	26.36	53.98	-27.61
*	20800.00	Peak	Н	-	-	-69.27	7.95	-9.54	36.14	73.98	-37.83
	26000.00	Peak	Н	-	-	-63.27	8.60	-9.54	42.79	68.20	-25.41

Table 7-45. Radiated Measurements

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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	Н	-	-	-69.01	11.70	0.00	49.69	68.20	-18.51
*	15720.00	Average	Н	-	-	-81.08	12.83	0.00	38.75	53.98	-15.23
*	15720.00	Peak	Н	-	-	-70.23	12.83	0.00	49.60	73.98	-24.38
*	20960.00	Average	Н	-	-	-78.28	7.91	-9.54	27.09	53.98	-26.89
*	20960.00	Peak	Н	-	-	-70.37	7.91	-9.54	35.00	73.98	-38.98
	26200.00	Peak	Н	-	-	-64.98	8.62	-9.54	41.10	68.20	-27.10

Table 7-46. Radiated Measurements

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

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10360.00	Peak	Н	-	-	-69.69	11.48	0.00	48.79	68.20	-19.41
*	15540.00	Average	Н	-	-	-81.02	13.68	0.00	39.66	53.98	-14.32
*	15540.00	Peak	Н	-	-	-70.28	13.68	0.00	50.40	73.98	-23.58
*	20720.00	Average	Н	-	-	-77.68	7.94	-9.54	27.72	53.98	-26.26
*	20720.00	Peak	Н	-	-	-69.08	7.94	-9.54	36.32	73.98	-37.66
	25900.00	Peak	Н	-	-	-63.81	8.46	-9.54	42.11	68.20	-26.09

Table 7-47. Radiated Measurements with WCP

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Worst Case Mode:	802.11a			
Worst Case Transfer Rate:	6Mbps			
Distance of Measurements:	1 & 3 Meters			
Operating Frequency:	5260MHz			
Channel:	52			

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10520.00	Peak	Н	-	-	-69.95	11.68	0.00	48.73	68.20	-19.47
*	15780.00	Average	Н	-	-	-81.34	12.91	0.00	38.57	53.98	-15.41
*	15780.00	Peak	Н	-	-	-70.51	12.91	0.00	49.40	73.98	-24.58
*	21040.00	Average	Н	-	-	-77.23	7.92	-9.54	28.15	53.98	-25.83
*	21040.00	Peak	Н	-	-	-65.72	7.92	-9.54	39.66	73.98	-34.32
	26300.00	Peak	Н	-	-	-65.87	8.73	-9.54	40.32	68.20	-27.88

 Table 7-48. Radiated Measurements

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

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10560.00	Peak	Н	-	-	-70.05	11.56	0.00	48.51	68.20	-19.69
*	15840.00	Average	Н	-	-	-81.39	12.86	0.00	38.47	53.98	-15.51
*	15840.00	Peak	Н	-	-	-70.24	12.86	0.00	49.62	73.98	-24.36
*	21120.00	Average	Н	-	-	-78.30	7.96	-9.54	27.12	53.98	-26.86
*	21120.00	Peak	Н	-	-	-65.23	7.96	-9.54	40.19	73.98	-33.79
	26400.00	Peak	Н	-	-	-65.07	8.94	-9.54	41.33	68.20	-26.87

Table 7-49. Radiated Measurements

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Worst Case Mode:	802.11a			
Worst Case Transfer Rate:	6Mbps			
Distance of Measurements:	1 & 3 Meters			
Operating Frequency:	5320MHz			
Channel:	64			

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	10640.00	Average	Н	-	-	-81.32	11.80	0.00	37.48	53.98	-16.50
*	10640.00	Peak	Н	-	-	-70.19	11.80	0.00	48.61	73.98	-25.37
*	15960.00	Average	Н	-	-	-81.97	13.23	0.00	38.26	53.98	-15.71
*	15960.00	Peak	Н	-	-	-69.89	13.23	0.00	50.34	73.98	-23.63
*	21280.00	Average	Н	-	-	-78.15	8.04	-9.54	27.35	53.98	-26.63
*	21280.00	Peak	Н	-	-	-64.89	8.04	-9.54	40.61	73.98	-33.37
	26600.00	Peak	Н	-	-	-65.13	-8.30	-9.54	24.03	68.20	-44.17

Table 7-50. Radiated Measurements

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

802.11a
6Mbps
1 & 3 Meters
5320MHz
64

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	10640.00	Average	Н	-	-	-80.29	11.80	0.00	38.51	53.98	-15.47
*	10640.00	Peak	Н	-	-	-70.39	11.80	0.00	48.41	73.98	-25.57
*	15960.00	Average	Н	-	-	-81.71	13.23	0.00	38.52	53.98	-15.45
*	15960.00	Peak	Н	-	-	-70.13	13.23	0.00	50.10	73.98	-23.87
*	21280.00	Average	Н	-	-	-79.28	8.04	-9.54	26.22	53.98	-27.76
*	21280.00	Peak	Н	-	-	-65.01	8.04	-9.54	40.49	73.98	-33.49
	26600.00	Peak	Н	-	-	-66.05	-8.30	-9.54	23.11	68.20	-45.09
				Table 7-	51. Radiat	ed Measu	rements	with WCP			

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

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11000.00	Average	Н	-	-	-80.03	12.04	0.00	39.01	53.98	-14.97
*	11000.00	Peak	Н	-	-	-68.15	12.04	0.00	50.89	73.98	-23.09
	16500.00	Peak	Н	-	-	-69.20	12.28	0.00	50.08	68.20	-18.12
	22000.00	Peak	Н	-	-	-57.86	8.43	-9.54	48.03	68.20	-20.17
	27500.00	Peak	Н	-	-	-46.28	-8.80	-9.54	42.38	68.20	-25.82

Table 7-52. Radiated	Measurements
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Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel: 802.11a 6Mbps 1 & 3 Meters 5600MHz 116

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11200.00	Average	Н	-	-	-80.20	11.39	0.00	38.19	53.98	-15.79
*	11200.00	Peak	Н	-	-	-68.69	11.39	0.00	49.70	73.98	-24.28
	16740.00	Peak	Н	-	-	-69.47	14.00	0.00	51.53	68.20	-16.67
*	22320.00	Average	Н	-	-	-70.39	8.11	-9.54	35.18	53.98	-18.80
*	22320.00	Peak	Н	-	-	-58.61	8.11	-9.54	46.96	73.98	-27.02
	27900.00	Peak	Н	-	-	-45.23	-9.26	-9.54	42.97	68.20	-25.23

Table 7-53. Radiated Measurements

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5720MHz
Channel:	144

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11440.00	Average	Н	-	-	-79.89	11.68	0.00	38.79	53.98	-15.19
*	11440.00	Peak	Н	-	-	-68.27	11.68	0.00	50.41	73.98	-23.57
	17160.00	Peak	Н	-	-	-69.18	15.62	0.00	53.44	68.20	-14.76
*	22880.00	Average	Н	-	-	-69.29	8.28	-9.54	36.45	53.98	-17.53
*	22880.00	Peak	Н	-	-	-57.69	8.28	-9.54	48.05	73.98	-25.93
	28600.00	Peak	Н	-	-	-44.39	-9.08	-9.54	43.99	68.20	-24.21

Table 7-54. Radiated Measurements

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

802.11a
6Mbps
1 & 3 Meters
5500MHz
100

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11000.00	Average	Н	-	-	-80.03	12.04	0.00	39.01	53.98	-14.97
*	11000.00	Peak	Н	-	-	-68.15	12.04	0.00	50.89	73.98	-23.09
	16500.00	Peak	Н	-	-	-69.20	12.28	0.00	50.08	68.20	-18.12
	22000.00	Peak	Н	-	-	-57.86	8.43	-9.54	48.03	68.20	-20.17
	27500.00	Peak	Н	-	-	-46.28	-8.80	-9.54	42.38	68.20	-25.82

Table 7-55. Radiated Measurements with WCP

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5745MHz
Channel:	149

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11000.00	Average	Н	-	-	-80.03	12.04	0.00	39.01	53.98	-14.97
*	11000.00	Peak	Н	-	-	-68.15	12.04	0.00	50.89	73.98	-23.09
	16500.00	Peak	Н	-	-	-69.20	12.28	0.00	50.08	68.20	-18.12
	22000.00	Peak	Н	-	-	-57.86	8.43	-9.54	48.03	68.20	-20.17
	27500.00	Peak	Н	-	-	-46.28	-8.80	-9.54	42.38	68.20	-25.82

Table 7-56. Radiated Measurements

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

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11570.00	Average	Н	-	-	-81.07	11.91	0.00	37.84	53.98	-16.14
*	11570.00	Peak	Н	-	-	-68.98	11.91	0.00	49.93	73.98	-24.05
	17355.00	Peak	н	-	-	-68.67	18.72	0.00	57.05	68.20	-11.15
	23140.00	Peak	Н	-	-	-59.37	8.37	-9.54	46.46	68.20	-21.74
	28925.00	Peak	Н	-	-	-47.29	-9.65	-9.54	40.52	68.20	-27.68

Table 7-57. Radiated Measurements

Worst Ca	se Mode:	<u>802.11a</u>		
FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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6Mbps
1 & 3 Meters
5825MHz
165

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11650.00	Average	Н	-	-	-81.40	12.16	0.00	37.76	53.98	-16.22
*	11650.00	Peak	Н	-	-	-68.34	12.16	0.00	50.82	73.98	-23.16
	17475.00	Peak	Н	-	-	-70.18	18.73	0.00	55.55	68.20	-12.65
	23300.00	Peak	Н	-	-	-60.28	8.50	-9.54	45.68	68.20	-22.52
	29125.00	Peak	Н	-	-	-46.95	-9.87	-9.54	40.64	68.20	-27.56

 Table 7-58. Radiated Measurements

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

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	I Factor	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11570.00	Average	Н	-	-	-81.28	11.91	0.00	37.63	53.98	-16.35
*	11570.00	Peak	Н	-	-	-70.58	11.91	0.00	48.33	73.98	-25.65
	17355.00	Peak	Н	-	-	-69.26	18.72	0.00	56.46	68.20	-11.74
	23140.00	Peak	Н	-	-	-61.37	8.37	-9.54	44.46	68.20	-23.74
	28925.00	Peak	Н	-	-	-46.28	-9.65	-9.54	41.53	68.20	-26.67

Table 7-59. Radiated Measurements with WCP

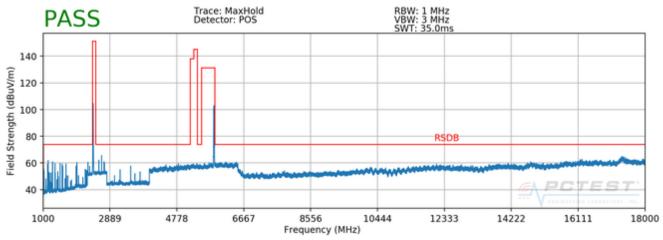
FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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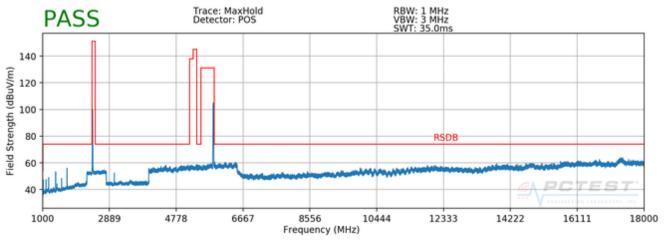
7.7.3 Simultaneous Tx Radiated Spurious Emissions Measurements §15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

Description	2.4 GHz Emission	5 GHz Emission
Antenna	1	2
Channel	1	165
Operating Frequency (MHz)	2412	5825
Data Rate (Mbps)	1	6
Mode	b	а

Table 7-60. Simultaneous Transmission Config-1

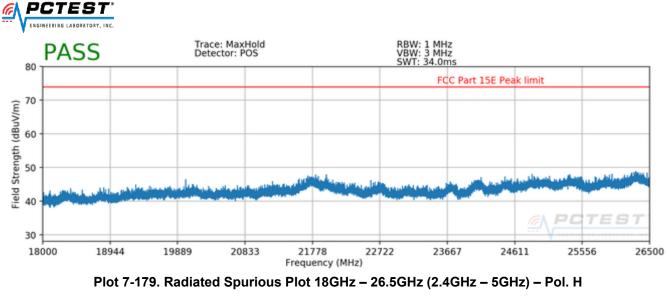


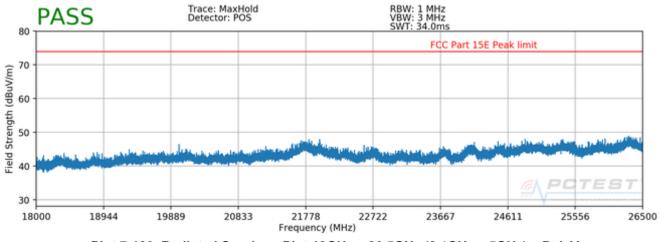
Plot 7-177. Radiated Spurious Plot above 1GHz (2.4GHz - 5GHz) - Pol. H



Plot 7-178. Radiated Spurious Plot above 1GHz (2.4GHz – 5GHz) – Pol. H

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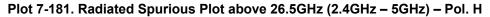
Plot 7-180. Radiated Spurious Plot 18GHz - 26.5GHz (2.4GHz - 5GHz) - Pol. V

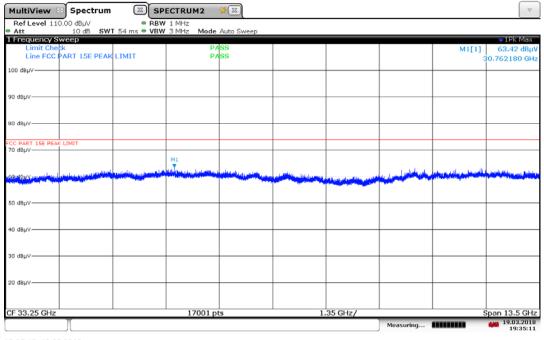
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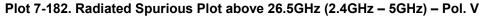
1 Frequency Sweep					1Pk May
Limit Check		PASS			M1[1] 63.31 dBj
Line FCC PART 15E PE	AKLIMIT	PASS			36.813000 GI
00 dBµV					
0 dBµV					
0 d8µV					
C PART 15E PEAK LIMIT					
0 dBµV				M1	
0 dBuY	Margan and a state of the	and the second		- All and a second second	and a local of a selected strander of the second strands
O. dBHY			And the second se		
0 dBµV					
0 dBµV					
0 dBµV					
			1	1 1	
0 dвµv					

19:29:29 19.03.2018





19:35:12 19.03.2018



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	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]
*	4414.00	Peak	Н	-	-	-64.79	4.17	46.38	53.98	-7.60
*	7827.00	Peak	Н	-	-	-66.15	9.24	50.09	53.98	-3.89
*	9238.00	Peak	Н	-	-	-67.22	9.62	49.40	53.98	-4.58

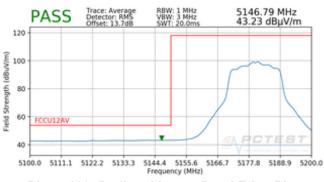
Table 7-61. Radiated Measurements (ANT1 2.4GHz – ANT2 5GHz)

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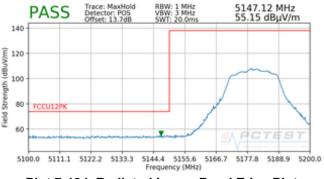


7.7.4 Antenna-1 Radiated Band Edge Measurements (20MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]; RSS-Gen [8.9]

802.11a
6Mbps
3 Meters
5180MHz
36



Plot 7-183. Radiated Lower Band Edge Plot (Average – UNII Band 1)

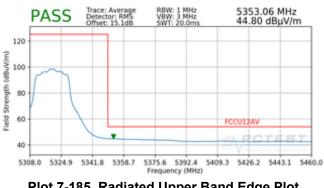


Plot 7-184. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

RBW: 1 MHz VBW: 3 MHz SWT: 20.0m

5353.06 MHz 56.58 dBµV/m

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





Trace: MaxHold Detector: POS Offset: 15.1dB

PASS

140

120

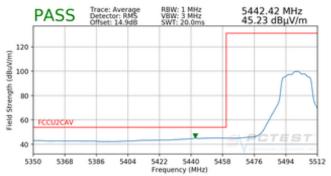
Plot 7-185. Radiated Upper Band Edge Plot (Average – UNII Band 2A)

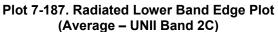


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Worst Case Mode:802.11aWorst Case Transfer Rate:6MbpsDistance of Measurements:3 MetersOperating Frequency:5500MHzChannel:100

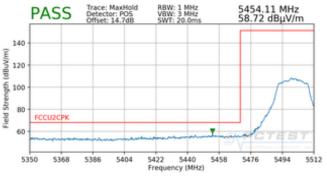




Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	3 Meters
Operating Frequency:	5825MHz
Channel:	165



Plot 7-189. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

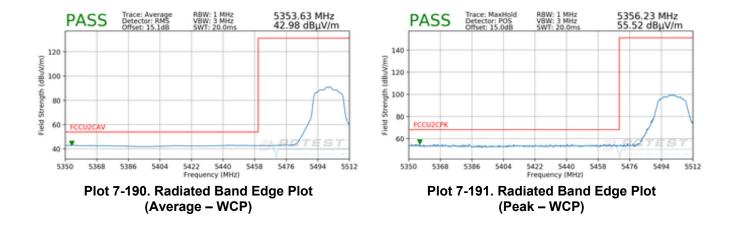


Plot 7-188. Radiated Lower Band Edge Plot (Peak – UNII Band 2C)

FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Worst Case Mode:802.11aWorst Case Transfer Rate:6MbpsDistance of Measurements:3 MetersOperating Frequency:5320MHzChannel:64

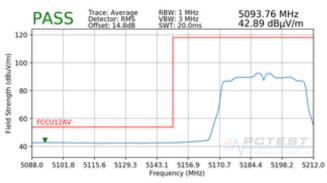


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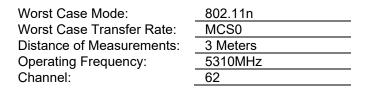


7.7.5 Antenna-1 Radiated Band Edge Measurements (40MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

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



Plot 7-192. Radiated Lower Band Edge Plot (Average – UNII Band 1)



RBW: 1 MHz VBW: 3 MHz SWT: 20.0m

5350.62 MHz 45.11 dBµV/m

Trace: Average Detector: RMS

Detector: RMS Offset: 15.4dB

.

PASS

120

100

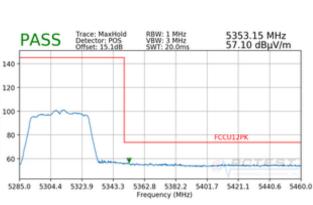
80

60

40

(dBuV/m)

Field Strength



Trace: MaxHold Detector: POS Offset: 14.5dB

PASS

5088.0 5102.1 5116.2 5130.3

140

(mi) 120

(dBu) 100

Strength 80 FCCU12

Field 60

(m//wgb)

Strength

Field

RBW: 1 MHz VBW: 3 MHz SWT: 20.0m

Plot 7-193. Radiated Lower Band Edge Plot

(Peak – UNII Band 1)

5098.79 MHz 55.00 dBµV/m

5144.4 5158.6 5172.7 5186.8 5200.9 5215.0 Frequency (MHz)

Plot 7-194. Radiated Upper Band Edge Plot (Average – UNII Band 2A)

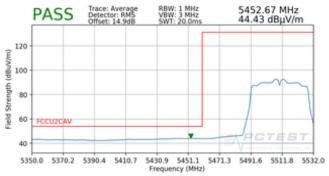
5285.0 5304.4 5323.9 5343.3 5362.8 5382.2 5401.7 5421.1 5440.6 5460.0 Frequency (MHz)

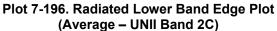
Plot 7-195. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

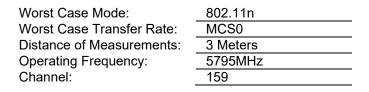
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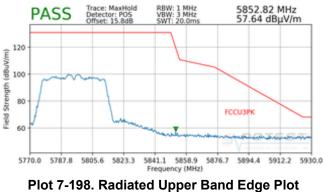


Worst Case Mode:802.11nWorst Case Transfer Rate:MCS0Distance of Measurements:3 MetersOperating Frequency:5510MHzChannel:102

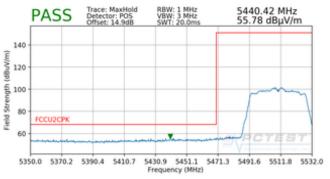








(Peak – UNII Band 3)

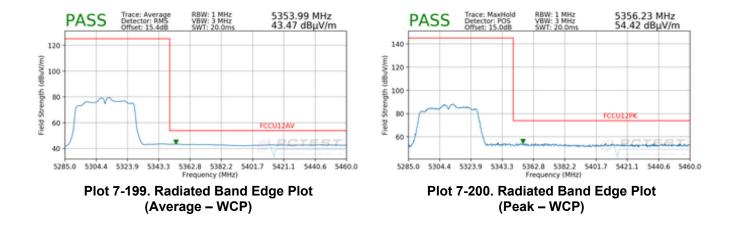


Plot 7-197. Radiated Lower Band Edge Plot (Peak – UNII Band 2C)

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Worst Case Mode:802.11nWorst Case Transfer Rate:MCS0Distance of Measurements:3 MetersOperating Frequency:5310MHzChannel:62



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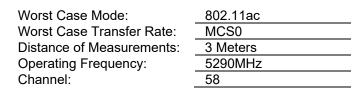


7.7.6 Antenna-1 Radiated Band Edge Measurements (80MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

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

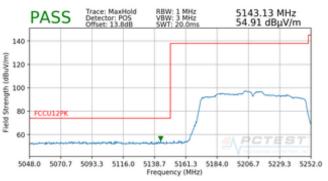


Plot 7-201. Radiated Lower Band Edge Plot (Average – UNII Band 1)

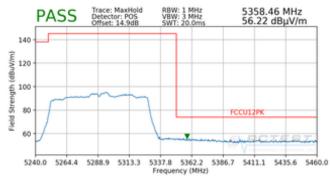




Plot 7-203. Radiated Upper Band Edge Plot (Average – UNII Band 2A)



Plot 7-202. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

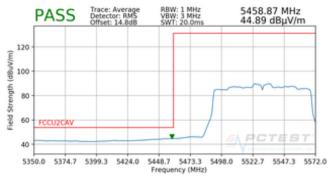


Plot 7-204. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

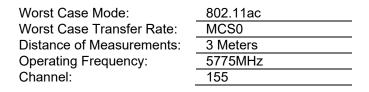
FCC ID: ZNFG710TM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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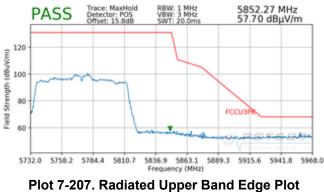


Worst Case Mode:802.11acWorst Case Transfer Rate:MCS0Distance of Measurements:3 MetersOperating Frequency:5530MHzChannel:106

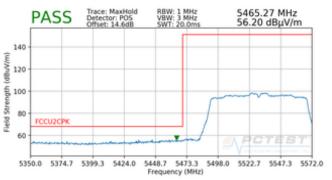








(Peak – UNII Band 3)

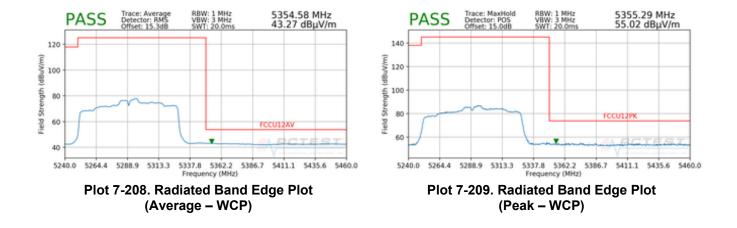


Plot 7-206. Radiated Lower Band Edge Plot (Peak – UNII Band 2C)

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Worst Case Mode:802.11acWorst Case Transfer Rate:MCS0Distance of Measurements:3 MetersOperating Frequency:5290MHzChannel:58

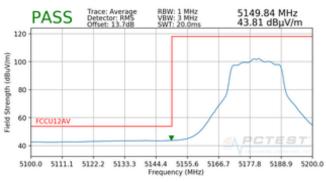


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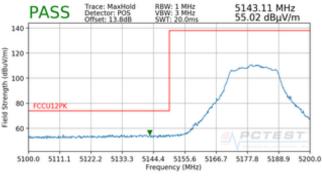


7.7.7 Antenna-2 Radiated Band Edge Measurements (20MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

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

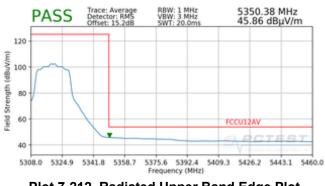


Plot 7-210. Radiated Lower Band Edge Plot (Average – UNII Band 1)

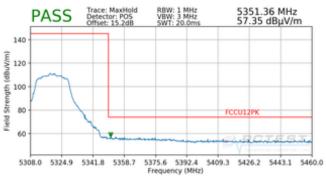


Plot 7-211. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

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



Plot 7-212. Radiated Upper Band Edge Plot (Average – UNII Band 2A)

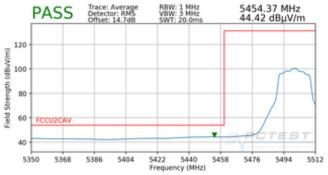


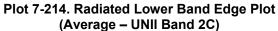
Plot 7-213. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

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

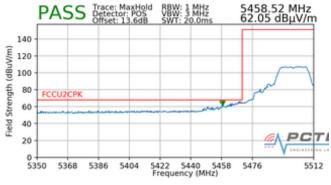




Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	3 Meters
Operating Frequency:	5825MHz
Channel:	165



Plot 7-216. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

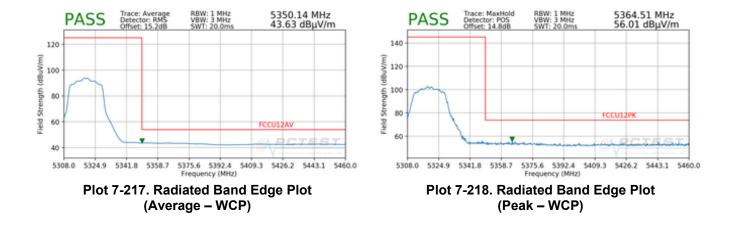


Plot 7-215. Radiated Lower Band Edge Plot (Peak – UNII Band 2C)

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Worst Case Mode:802.11aWorst Case Transfer Rate:6MbpsDistance of Measurements:3 MetersOperating Frequency:5320MHzChannel:64



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