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8.5 FREQUENCY STABILITY.

20 MHz BW

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,180,000,000 Hz

CHANNEL: 36

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5180030.55	30.55
100%		-30	5180015.26	15.26
100%		-20	5180018.45	18.45
100%		-10	5180021.26	21.26
100%	3.85	0	5180024.89	24.89
100%		+10	5180027.65	27.65
100%		+30	5180033.37	33.37
100%		+40	5180037.45	37.45
100%		+50	5180041.29	41.29
115%	4.4	+20	5180033.64	33.64
Batt. Endpoint	3.6	+20	5180030.55	30.55

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

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OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,260,000,000 Hz

CHANNEL: 52

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5260031.39	31.39
100%		-30	5260011.29	11.29
100%		-20	5260015.64	15.64
100%		-10	5260019.87	19.87
100%	3.85	0	5260024.59	24.59
100%		+10	5260026.70	26.7
100%		+30	5260034.59	34.59
100%		+40	5260037.71	37.71
100%		+50	5260042.31	42.31
115%	4.4	+20	5260029.51	29.51
Batt. Endpoint	3.6	+20	5260031.39	31.39

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.



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OPERATING BAND: UNII Band 2C
OPERATING FREQUENCY: 5,500,000,000 Hz
CHANNEL: 100
REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5500032.89	32.89
100%		-30	5500013.26	13.26
100%		-20	5500018.54	18.54
100%		-10	5500022.29	22.29
100%	3.85	0	5500025.48	25.48
100%		+10	5500029.61	29.61
100%		+30	5500035.16	35.16
100%		+40	5500038.59	38.59
100%		+50	5500043.37	43.37
115%	4.4	+20	5500026.64	26.64
Batt. Endpoint	3.6	+20	5500032.89	32.89

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

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OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,745,000,000 Hz

CHANNEL: <u>149</u>

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5745035.08	35.08
100%		-30	5745015.62	15.62
100%		-20	5745018.66	18.66
100%		-10	5745026.47	26.47
100%	3.85	0	5745029.64	29.64
100%		+10	5745031.37	31.37
100%		+30	5745040.05	40.05
100%		+40	5745043.88	43.88
100%		+50	5745045.61	45.61
115%	4.4	+20	5745039.19	39.19
Batt. Endpoint	3.6	+20	5745035.08	35.08

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

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40 MHz BW

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,190,000,000 Hz

CHANNEL: <u>38</u>

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5190030.86	30.86
100%		-30	5190010.09	10.09
100%		-20	5190015.21	15.21
100%		-10	5190021.33	21.33
100%	3.85	0	5190024.65	24.65
100%		+10	5190027.52	27.52
100%		+30	5190034.09	34.09
100%		+40	5190038.62	38.62
100%		+50	5190043.81	43.81
115%	4.4	+20	5190029.59	29.59
Batt. Endpoint	3.6	+20	5190030.86	30.86

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

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OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,270,000,000 Hz

CHANNEL: <u>54</u>

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5270031.29	31.29
100%		-30	5270011.19	11.19
100%		-20	5270016.61	16.61
100%		-10	5270021.84	21.84
100%	3.85	0	5270026.51	26.51
100%		+10	5270029.33	29.33
100%		+30	5270035.16	35.16
100%		+40	5270041.81	41.81
100%		+50	5270044.07	44.07
115%	4.4	+20	5270031.16	31.16
Batt. Endpoint	3.6	+20	5270031.29	31.29

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

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OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,510,000,000 Hz

CHANNEL: 102

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5510033.03	33.03
100%		-30	5510012.27	12.27
100%		-20	5510016.46	16.46
100%		-10	5510019.51	19.51
100%	3.85	0	5510023.24	23.24
100%		+10	5510028.51	28.51
100%		+30	5510036.61	36.61
100%		+40	5510040.08	40.08
100%		+50	5510042.37	42.37
115%	4.4	+20	5510031.95	31.95
Batt. Endpoint	3.6	+20	5510033.03	33.03

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

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OPERATING BAND: UNII Band 3
OPERATING FREQUENCY: 5,755,000,000 Hz

CHANNEL: <u>151</u>

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5755034.43	34.43
100%		-30	5755016.64	16.64
100%		-20	5755020.94	20.94
100%		-10	5755026.15	26.15
100%	3.85	0	5755030.47	30.47
100%		+10	5755032.29	32.29
100%		+30	5755036.61	36.61
100%		+40	5755041.85	41.85
100%		+50	5755046.95	46.95
115%	4.4	+20	5755038.49	38.49
Batt. Endpoint	3.6	+20	5755034.43	34.43

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

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80 MHz BW

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,210,000,000 Hz

CHANNEL: <u>42</u>

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5210032.57	32.57
100%		-30	5210012.78	12.78
100%		-20	5210016.34	16.34
100%		-10	5210021.82	21.82
100%	3.85	0	5210026.33	26.33
100%		+10	5210029.48	29.48
100%		+30	5210038.18	38.18
100%		+40	5210042.61	42.61
100%		+50	5210048.95	48.95
115%	4.4	+20	5210033.56	33.56
Batt. Endpoint	3.6	+20	5210032.57	32.57

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.



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OPERATING BAND: UNII Band 2A
OPERATING FREQUENCY: 5,290,000,000 Hz

CHANNEL: <u>58</u>

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5290036.53	36.53
100%		-30	5290012.21	12.21
100%		-20	5290016.48	16.48
100%		-10	5290021.74	21.74
100%	3.85	0	5290026.95	26.95
100%		+10	5290031.16	31.16
100%		+30	5290040.30	40.3
100%		+40	5290042.02	42.02
100%		+50	5290044.90	44.90
115%	4.4	+20	5290031.64	31.64
Batt. Endpoint	3.6	+20	5290036.53	36.53

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

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OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,530,000,000 Hz

CHANNEL: <u>106</u>

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5530035.46	35.46
100%		-30	5530009.51	9.51
100%		-20	5530016.45	16.45
100%		-10	5530021.26	21.26
100%	3.85	0	5530028.51	28.51
100%		+10	5530033.56	33.56
100%		+30	5530038.15	38.15
100%		+40	5530040.12	40.12
100%		+50	5530046.35	46.35
115%	4.4	+20	5530033.81	33.81
Batt. Endpoint	3.6	+20	5530035.46	35.46

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

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OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,775,000,000 Hz

CHANNEL: <u>155</u>

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5775037.30	37.30
100%		-30	5775012.64	12.64
100%		-20	5775015.95	15.95
100%		-10	5775024.84	24.84
100%	3.85	0	5775030.32	30.32
100%		+10	5775032.59	32.59
100%		+30	5775042.83	42.83
100%		+40	5775046.97	46.97
100%		+50	5775051.60	51.60
115%	4.4	+20	5775041.20	41.2
Batt. Endpoint	3.6	+20	5775037.30	37.30

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

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8.6 RADIATED MEASUREMENT 8.6.1 RADIATED SPURIOUS EMISSIONS.

Test Requirements and limit, §15.205,§15.209, §15.407

Frequency (MHz)	Field Strength (uV/m)	Measurement Distance (m)		
0.009 - 0.490	2400/F(kHz)	300		
0.490 – 1.705	24000/F(kHz)	30		
1.705 – 30	30	30		
30-88	100	3		
88-216	150	3		
216-960	200	3		
Above 960	500	3		

■§15.407, KDB 789033 D02

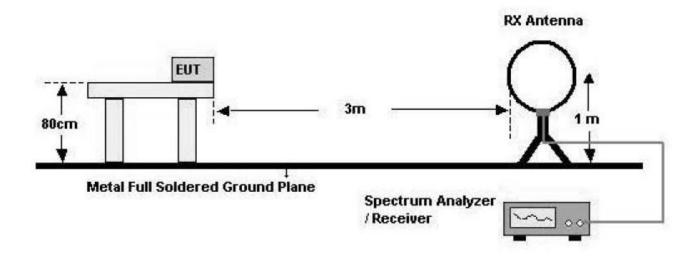
All harmonics that do not lie in a restricted band are subject to a peak limit of -27 dBm/MHz. At a distance of 3 meters the field strength limit in dB μ V/m can be determined by adding a "conversion" factor of 95.2 dB to the EIRP limit of -27 dBm/MHz to obtain the limit for out of band spurious emissions of 68.2 dB μ V/m. Espectally, for transmitter operating in the 5725 Mhz – 5850 MHz : all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequency 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.

HCT CO.,LTD.

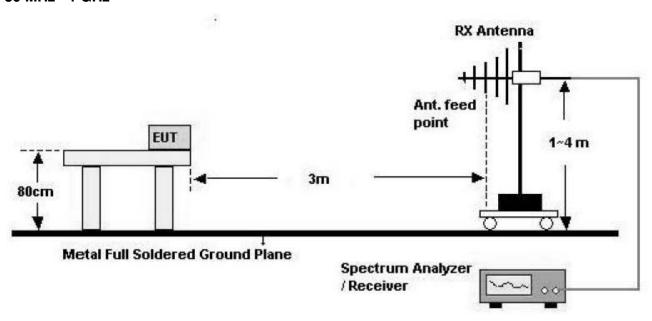


Test Configuration

Below 30 MHz

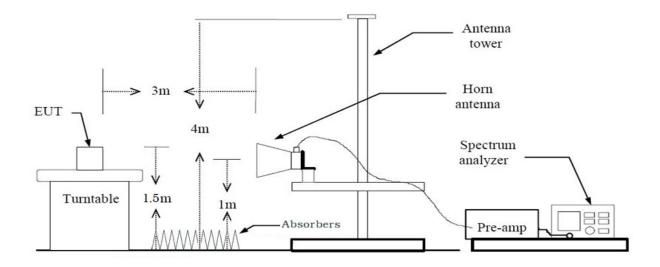


30 MHz - 1 GHz



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Above 1 GHz



TEST PROCEDURE USED

ANSI C63.10:2013

Method G)5) in KDB 789033, issued 01/08/2016 (Peak)

Method G)6)d) in KDB 789033, issued 01/08/2016 (Average)

- . Spectrum setting:
 - Peak.
 - 1. RBW = 1 MHz
 - 2. VBW ≥ 3 MHz
 - 3. Detector = Peak
 - 4. Sweep Time = auto
 - 5. Trace mode = max hold
 - 6. Allow sweeps to continue until the trace stabilizes.
 - 7. Note that if the transmission is not continuous, the time required for the trace to stabilize will increase by a factor of approximately 1/x, where x is the duty cycle.
 - Average (Average Detection)
 - 1. RBW = 1 MHz
 - 2. VBW ≥ 3 MHz
- 3. Detector = power averaging(rms), if span(# of points in sweep) \leq RBW/2. Satisfying this condition may require increasing the number of points in the sweep or reducing the span. If the condition is not satisfied, the detector mode shall be set to peak.
- 4. Aveageing type = power averaging(rms)

As an alternative, the detector and averaging type may be set for linear voltage averaging. Some

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instruments require linear display mode in order to use linear voltage averaging. Log or dB averaging shall not be used.

- 5. Sweep time = auto.
- 6. Perform a trace average of at least 100 traces if the transmission is continuous. If the transmission is not continuous, the number of traces shall be increased by a factor of 1/x, where x is the duty cycle.

Note:

1. We used the Method AD for802.11a/n/ac_20, n/ac_40, ac_80 mode to perform the average filed strength measurements.

Mode	Worst Data rate	T_{on}	T _{total}	Duty Cycle
Mode	(Mbps)	(ms)	(ms)	(%)
а	6	2.790	2.810	99.29
n_20	MCS 0	2.595	2.615	99.24
n_40	MCS 0	2.486	2.509	99.08
ac_20	MCS 0	2.599	2.622	99.13
ac_40	MCS 0	2.490	2.510	99.20
ac_80	MCS 0	1.168	1.190	98.15

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TEST RESULTS

9 kHz - 30MHz

Operation Mode: Normal Mode

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin		
MHz	dBμV	dB/m	dB	(H/V)	dBμV/m	dBμV/m	dB		
	No Critical peaks found								

Notes:

- 1. Measuring frequencies from 9 kHz to the 30MHz.
- 2. The reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
- 3. Distance extrapolation factor = 40 log (specific distance / test distance) (dB)
- 4. Limit line = specific Limits (dBuV) + Distance extrapolation factor
- 5. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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TEST RESULTS

Below 1 GHz

Operation Mode: Normal Mode

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin		
MHz	$dB\mu V$	dB/m	dB	(H/V)	dBμV/m	dBμV/m	dB		
	No Critical peaks found								

Notes:

1. Measuring frequencies from 30 MHz to the 1 GHz.

- 2. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Quasi peak detector mode.
- 3. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Above 1 GHz

Band: UNII 1
Operation Mode: 802.11 a
Transfer Rate: 6 Mbps
Operating Frequency 5180 MHz
Channel No. 36 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10360	63.39	-6.00	V	57.39	68.20	10.81	PK
15540	63.75	-6.13	V	57.62	73.98	16.36	PK
15540	50.49	-6.13	V	44.36	53.98	9.62	AV
10360	63.51	-6.00	Н	57.51	68.20	10.69	PK
15540	63.85	-6.13	Н	57.72	73.98	16.26	PK
15540	50.62	-6.13	Н	44.49	53.98	9.49	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band:

Operation Mode:

Transfer Rate:

Operating Frequency

Channel No.

UNII 1

802.11 a

6 Mbps

5200 MHz

40 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10400	63.57	-6.03	V	57.54	68.20	10.66	PK
15600	65.41	-6.71	٧	58.70	73.98	15.28	PK
15600	50.53	-6.71	V	43.82	53.98	10.16	AV
10400	63.67	-6.03	Н	57.64	68.20	10.56	PK
15600	65.44	-6.71	Н	58.73	73.98	15.25	PK
15600	50.58	-6.71	Н	43.87	53.98	10.11	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band:

Operation Mode:

Transfer Rate:

Operating Frequency

Channel No.

UNII 1

802.11a

6 Mbps

5240 MHz

48 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10480	63.65	-6.20	V	57.45	68.20	10.75	PK
15720	64.04	-6.46	V	57.58	73.98	16.40	PK
15720	50.63	-6.46	V	44.17	53.98	9.81	AV
10480	63.70	-6.20	Н	57.50	68.20	10.70	PK
15720	64.24	-6.46	Н	57.78	73.98	16.20	PK
15720	50.70	-6.46	Н	44.24	53.98	9.74	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

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Band: UNII 1

Operation Mode: 802.11 n_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5180 MHz

Channel No. 36 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10360	63.33	-6.00	V	57.33	68.20	10.87	PK
15540	63.69	-6.13	V	57.56	73.98	16.42	PK
15540	50.46	-6.13	V	44.33	53.98	9.65	AV
10360	63.41	-6.00	Н	57.41	68.20	10.79	PK
15540	63.82	-6.13	Н	57.69	73.98	16.29	PK
15540	50.57	-6.13	Н	44.44	53.98	9.54	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_20 MHz BW. Worst case is MCS 0 in 802.11n_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 1

Operation Mode: 802.11 n_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5200 MHz

Channel No. 40 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10400	63.51	-6.03	V	57.48	68.20	10.72	PK
15600	65.35	-6.71	V	58.64	73.98	15.34	PK
15600	50.50	-6.71	V	43.79	53.98	10.19	AV
10400	63.64	-6.03	Н	57.61	68.20	10.59	PK
15600	65.41	-6.71	Н	58.70	73.98	15.28	PK
15600	50.53	-6.71	Н	43.82	53.98	10.16	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_20 MHz BW. Worst case is MCS 0 in 802.11n_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 1

Operation Mode: 802.11 n_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5240 MHz

Channel No. 48 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10480	63.59	-6.20	V	57.39	68.20	10.81	PK
15720	64.19	-6.46	V	57.73	73.98	16.25	PK
15720	50.69	-6.46	V	44.23	53.98	9.75	AV
10480	63.67	-6.20	Н	57.47	68.20	10.73	PK
15720	64.31	-6.46	Н	57.85	73.98	16.13	PK
15720	50.73	-6.46	Н	44.27	53.98	9.71	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_20 MHz BW. Worst case is MCS 0 in 802.11n_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 1

Operation Mode: 802.11 ac_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5180 MHz

Channel No. 36 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10360	63.18	-6.00	V	57.18	68.20	11.02	PK
15540	63.54	-6.13	V	57.41	73.98	16.57	PK
15540	50.40	-6.13	V	44.27	53.98	9.71	AV
10360	63.34	-6.00	Н	57.34	68.20	10.86	PK
15540	63.75	-6.13	Н	57.62	73.98	16.36	PK
15540	50.54	-6.13	Н	44.41	53.98	9.57	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_20 MHz BW. Worst case is MCS 0 in 802.11ac_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 1

Operation Mode: 802.11 ac_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5200 MHz

Channel No. 40 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10400	63.36	-6.03	V	57.33	68.20	10.87	PK
15600	65.20	-6.71	V	58.49	73.98	15.49	PK
15600	50.44	-6.71	V	43.73	53.98	10.25	AV
10400	63.57	-6.03	Н	57.54	68.20	10.66	PK
15600	65.34	-6.71	Н	58.63	73.98	15.35	PK
15600	50.50	-6.71	Н	43.79	53.98	10.19	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_20 MHz BW. Worst case is MCS 0 in 802.11ac_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 1

Operation Mode: 802.11 ac 20 MHz BW

Transfer MCS Index: 0

5240 MHz Operating Frequency

Channel No. 48 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10480	63.44	-6.20	V	57.24	68.20	10.96	PK
15720	64.04	-6.46	V	57.58	73.98	16.40	PK
15720	50.63	-6.46	V	44.17	53.98	9.81	AV
10480	63.60	-6.20	Н	57.40	68.20	10.80	PK
15720	64.24	-6.46	Н	57.78	73.98	16.20	PK
15720	50.70	-6.46	Н	44.24	53.98	9.74	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_20 MHz BW. Worst case is MCS 0 in 802.11ac_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band : UNII 1
Operation Mode: 802.11n_40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5190 MHz

Channel No. 38 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10380	62.29	-5.67	V	56.62	68.20	11.58	PK
15570	63.99	-5.86	V	58.13	73.98	15.85	PK
15570	50.25	-5.86	V	44.39	53.98	9.59	AV
10380	62.52	-5.67	Н	56.85	68.20	11.35	PK
15570	64.12	-5.86	Н	58.26	73.98	15.72	PK
15570	50.30	-5.86	Н	44.44	53.98	9.54	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_40 MHz BW. Worst case is MCS 0 in 802.11n_40 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band : UNII 1
Operation Mode: 802.11n_40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5230 MHz

Channel No. 46 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10460	63.96	-6.20	V	57.76	68.20	10.44	PK
15690	64.25	-6.34	V	57.91	73.98	16.07	PK
15690	50.88	-6.34	V	44.54	53.98	9.44	AV
10460	63.99	-6.20	Н	57.79	68.20	10.41	PK
15690	64.36	-6.34	Н	58.02	73.98	15.96	PK
15690	50.93	-6.34	Н	44.59	53.98	9.39	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_40 MHz BW. Worst case is MCS 0 in 802.11n_40 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 1

Operation Mode: 802.11ac_40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5190 MHz

Channel No. 38 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10380	62.26	-5.67	V	56.59	68.20	11.61	PK
15570	63.96	-5.86	V	58.10	73.98	15.88	PK
15570	50.17	-5.86	V	44.31	53.98	9.67	AV
10380	62.44	-5.67	Н	56.77	68.20	11.43	PK
15570	64.04	-5.86	Н	58.18	73.98	15.80	PK
15570	50.27	-5.86	Н	44.41	53.98	9.57	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_40 MHz BW. Worst case is MCS 0 in 802.11ac_40 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 1

802.11ac_40 MHz BW Operation Mode:

Transfer MCS Index: 0

5230 MHz Operating Frequency

Channel No. 46 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10460	63.93	-6.20	V	57.73	68.20	10.47	PK
15690	64.22	-6.34	V	57.88	73.98	16.10	PK
15690	50.80	-6.34	V	44.46	53.98	9.52	AV
10460	63.91	-6.20	Н	57.71	68.20	10.49	PK
15690	64.28	-6.34	Н	57.94	73.98	16.04	PK
15690	50.90	-6.34	Н	44.56	53.98	9.42	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_40 MHz BW. Worst case is MCS 0 in 802.11ac_40 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 1

Operation Mode: 802.11ac_80 MHz BW

Transfer MCS Index: 0

Operating Frequency 5210 MHz

Channel No. 42 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10420	62.77	-5.93	V	56.84	68.20	11.36	PK
15630	63.30	-6.78	V	56.52	73.98	17.46	PK
15630	49.42	-6.78	V	42.64	53.98	11.34	AV
10420	62.92	-5.93	Н	56.99	68.20	11.21	PK
15630	63.46	-6.78	Н	56.68	73.98	17.30	PK
15630	49.52	-6.78	Н	42.74	53.98	11.24	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_80 MHz BW. Worst case is MCS 0 in 802.11ac_80 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 2A
Operation Mode: 802.11a
Transfer Rate: 6 Mbps
Operating Frequency 5260 MHz
Channel No. 52 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10520	63.44	-6.00	V	57.44	68.20	10.76	PK
15780	63.82	-6.34	V	57.48	73.98	16.50	PK
15780	50.53	-6.34	V	44.19	53.98	9.79	AV
10520	63.47	-6.52	Н	56.95	68.20	11.25	PK
15780	64.00	-6.34	Н	57.66	73.98	16.32	PK
15780	50.57	-6.34	Н	44.23	53.98	9.75	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 2A
Operation Mode: 802.11a
Transfer Rate: 6 Mbps
Operating Frequency 5300 MHz
Channel No. 60 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10600	63.64	-6.00	V	57.64	73.98	16.34	PK
10600	49.67	-6.00	V	43.67	53.98	10.31	AV
15900	65.05	-6.70	V	58.35	73.98	15.63	PK
15900	50.64	-6.70	V	43.94	53.98	10.04	AV
10600	63.72	-6.00	Н	57.72	73.98	16.26	PK
10600	49.72	-6.00	Н	43.72	53.98	10.26	AV
15900	65.12	-6.70	Н	58.42	73.98	15.56	PK
15900	50.67	-6.70	Н	43.97	53.98	10.01	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 2A
Operation Mode: 802.11a
Transfer Rate: 6 Mbps
Operating Frequency 5320 MHz
Channel No. 64 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10640	63.51	-5.60	V	57.91	73.98	16.07	PK
10640	49.73	-5.60	V	44.13	53.98	9.85	AV
15960	63.38	-6.81	V	56.57	73.98	17.41	PK
15960	49.47	-6.81	V	42.66	53.98	11.32	AV
10640	63.54	-5.60	Н	57.94	73.98	16.04	PK
10640	49.76	-5.60	Н	44.16	53.98	9.82	AV
15960	63.42	-6.81	Н	56.61	73.98	17.37	PK
15960	49.51	-6.81	Н	42.70	53.98	11.28	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

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Band: UNII 2A

Operation Mode: 802.11 n_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5260 MHz

Channel No. 52 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10520	63.38	-6.00	V	57.38	68.20	10.82	PK
15780	63.97	-6.34	V	57.63	73.98	16.35	PK
15780	50.59	-6.34	V	44.25	53.98	9.73	AV
10520	63.44	-6.52	Н	56.92	68.20	11.28	PK
15780	64.07	-6.34	Н	57.73	73.98	16.25	PK
15780	50.60	-6.34	Н	44.26	53.98	9.72	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_20 MHz BW. Worst case is MCS 0 in 802.11n_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 2A

Operation Mode: 802.11 n 20 MHz BW

Transfer MCS Index: 0

5300 MHz Operating Frequency

Channel No. 60 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10600	63.58	-6.00	V	57.58	73.98	16.40	PK
10600	49.64	-6.00	V	43.64	53.98	10.34	AV
15900	64.99	-6.70	V	58.29	73.98	15.69	PK
15900	50.61	-6.70	V	43.91	53.98	10.07	AV
10600	63.69	-6.00	Н	57.69	73.98	16.29	PK
10600	49.67	-6.00	Н	43.67	53.98	10.31	AV
15900	65.09	-6.70	Н	58.39	73.98	15.59	PK
15900	50.62	-6.70	Н	43.92	53.98	10.06	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_20 MHz BW. Worst case is MCS 0 in 802.11n_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 2A

Operation Mode: 802.11 n_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5320 MHz

Channel No. 64 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10640	63.45	-5.60	V	57.85	73.98	16.13	PK
10640	49.70	-5.60	V	44.10	53.98	9.88	AV
15960	63.32	-6.81	V	56.51	73.98	17.47	PK
15960	49.44	-6.81	V	42.63	53.98	11.35	AV
10640	63.51	-5.60	Н	57.91	73.98	16.07	PK
10640	49.71	-5.60	Н	44.11	53.98	9.87	AV
15960	63.39	-6.81	Н	56.58	73.98	17.40	PK
15960	49.46	-6.81	Н	42.65	53.98	11.33	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_20 MHz BW. Worst case is MCS 0 in 802.11n_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 2A

Operation Mode: 802.11 ac 20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5260 MHz

Channel No. 52 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10520	63.23	-6.00	V	57.23	68.20	10.97	PK
15780	63.82	-6.34	V	57.48	73.98	16.50	PK
15780	50.53	-6.34	V	44.19	53.98	9.79	AV
10520	63.37	-6.52	Н	56.85	68.20	11.35	PK
15780	64.00	-6.34	Н	57.66	73.98	16.32	PK
15780	50.57	-6.34	Н	44.23	53.98	9.75	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_20 MHz BW. Worst case is MCS 0 in 802.11ac_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 2A

Operation Mode: 802.11 ac 20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5300 MHz

Channel No. 60 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10600	63.43	-6.00	V	57.43	73.98	16.55	PK
10600	49.58	-6.00	V	43.58	53.98	10.40	AV
15900	64.84	-6.70	V	58.14	73.98	15.84	PK
15900	50.55	-6.70	V	43.85	53.98	10.13	AV
10600	63.62	-6.00	Н	57.62	73.98	16.36	PK
10600	49.64	-6.00	Н	43.64	53.98	10.34	AV
15900	65.02	-6.70	Н	58.32	73.98	15.66	PK
15900	50.59	-6.70	Н	43.89	53.98	10.09	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_20 MHz BW. Worst case is MCS 0 in 802.11ac_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 2A

Operation Mode: 802.11 ac 20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5320 MHz

Channel No. 64 Ch

				T	T		
Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10640	63.30	-5.60	V	57.70	73.98	16.28	PK
10640	49.64	-5.60	V	44.04	53.98	9.94	AV
15960	63.17	-6.81	V	56.36	73.98	17.62	PK
15960	49.38	-6.81	V	42.57	53.98	11.41	AV
10640	63.44	-5.60	Н	57.84	73.98	16.14	PK
10640	49.68	-5.60	Н	44.08	53.98	9.90	AV
15960	63.32	-6.81	Н	56.51	73.98	17.47	PK
15960	49.43	-6.81	Н	42.62	53.98	11.36	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_20 MHz BW. Worst case is MCS 0 in 802.11ac_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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 Band :
 UNII 2A

 Operation Mode:
 802.11n_40 MHz BW

 Transfer MCS Index:
 0

Operating Frequency 5270 MHz

Channel No. 54 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10540	62.69	-5.68	V	57.01	68.20	11.19	PK
15810	64.28	-7.39	V	56.89	73.98	17.09	PK
15810	50.31	-7.39	V	42.92	53.98	11.06	AV
10540	62.88	-5.68	Н	57.20	68.20	11.00	PK
15810	64.31	-7.39	Н	56.92	73.98	17.06	PK
15810	50.37	-7.39	Н	42.98	53.98	11.00	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_40 MHz BW. Worst case is MCS 0 in 802.11n_40 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 2A

Operation Mode: 802.11n_40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5310 MHz

Channel No. 62 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10620	62.89	-6.00	V	56.89	73.98	17.09	PK
10620	49.48	-6.00	V	43.48	53.98	10.50	AV
15930	62.89	-6.68	V	56.21	73.98	17.77	PK
15930	49.97	-6.68	V	43.29	53.98	10.69	AV
10620	63.02	-6.00	Н	57.02	73.98	16.96	PK
10620	49.52	-6.00	Н	43.52	53.98	10.46	AV
15930	63.26	-6.68	Н	56.58	73.98	17.40	PK
15930	50.03	-6.68	Н	43.35	53.98	10.63	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_40 MHz BW. Worst case is MCS 0 in 802.11n_40 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 2A

Operation Mode: 802.11ac_40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5270 MHz

Channel No. 54 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10540	62.66	-5.68	V	56.98	68.20	11.22	PK
15810	64.25	-7.39	V	56.86	73.98	17.12	PK
15810	50.23	-7.39	V	42.84	53.98	11.14	AV
10540	62.80	-5.68	Н	57.12	68.20	11.08	PK
15810	64.23	-7.39	Н	56.84	73.98	17.14	PK
15810	50.34	-7.39	Н	42.95	53.98	11.03	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_40 MHz BW. Worst case is MCS 0 in 802.11ac_40 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 2A

Operation Mode: 802.11ac_40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5310 MHz

Channel No. 62 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10620	62.86	-6.00	V	56.86	73.98	17.12	PK
10620	49.40	-6.00	V	43.40	53.98	10.58	AV
15930	62.89	-6.68	V	56.21	73.98	17.77	PK
15930	49.89	-6.68	V	43.21	53.98	10.77	AV
10620	62.94	-6.00	Н	56.94	73.98	17.04	PK
10620	49.49	-6.00	Н	43.49	53.98	10.49	AV
15930	63.18	-6.68	Н	56.50	73.98	17.48	PK
15930	50.00	-6.68	Н	43.32	53.98	10.66	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_40 MHz BW. Worst case is MCS 0 in 802.11ac_40 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 2A

Operation Mode: 802.11ac 80 MHz BW

Transfer MCS Index: 0

Operating Frequency 5290 MHz

Channel No. 58 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
10580	63.24	-5.73	V	57.51	68.20	10.69	PK
15870	63.79	-6.81	V	56.98	73.98	17.00	PK
15870	50.03	-6.81	V	43.22	53.98	10.76	AV
10580	63.39	-5.73	Н	57.66	68.20	10.54	PK
15870	63.91	-6.81	Н	57.10	73.98	16.88	PK
15870	50.10	-6.81	Н	43.29	53.98	10.69	AV

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_80 MHz BW. Worst case is MCS 0 in 802.11ac_80 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 2C
Operation Mode: 802.11a
Transfer Rate: 6 Mbps
Operating Frequency 5500 MHz
Channel No. 100 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11000	63.75	-4.61	V	59.14	73.98	14.84	PK
11000	49.58	-4.61	V	44.97	53.98	9.01	AV
16500	63.14	-4.10	V	59.04	68.20	9.16	PK
11000	63.82	-4.61	Н	59.21	73.98	14.77	PK
11000	49.61	-4.61	Н	45.00	53.98	8.98	AV
16500	63.18	-4.10	Н	59.08	68.20	9.12	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Report No.: HCT-R-1603-F020-1 Model:LG-H850 Page 1 3 6 of 196

Band: UNII 2C
Operation Mode: 802.11a
Transfer Rate: 6 Mbps
Operating Frequency 5580 MHz
Channel No. 116 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11160	63.72	-5.27	V	58.45	73.98	15.53	PK
11160	49.68	-5.27	٧	44.41	53.98	9.57	AV
16740	64.11	-3.23	V	60.88	68.20	7.32	PK
11160	63.80	-5.27	Н	58.53	73.98	15.45	PK
11160	49.72	-5.27	Н	44.45	53.98	9.53	AV
16740	64.23	-3.23	Н	61.00	68.20	7.20	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

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Band: UNII 2C
Operation Mode: 802.11a
Transfer Rate: 6 Mbps
Operating Frequency 5700 MHz
Channel No. 144 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11440	63.51	-5.41	V	58.10	73.98	15.88	PK
11440	49.22	-5.41	V	43.81	53.98	10.17	AV
17160	63.05	-0.96	V	62.09	68.20	6.11	PK
11440	63.62	-5.41	Н	58.21	73.98	15.77	PK
11440	49.25	-5.41	Н	43.84	53.98	10.14	AV
17160	63.14	-0.96	Н	62.18	68.20	6.02	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

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Band: UNII 2C

Operation Mode: 802.11 n_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5500 MHz

Channel No. 100 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11000	63.69	-4.61	V	59.08	73.98	14.90	PK
11000	49.55	-4.61	V	44.94	53.98	9.04	AV
16500	63.08	-4.10	V	58.98	68.20	9.22	PK
11000	63.79	-4.61	Н	59.18	73.98	14.80	PK
11000	49.56	-4.61	Н	44.95	53.98	9.03	AV
16500	63.15	-4.10	Н	59.05	68.20	9.15	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_20 MHz BW. Worst case is MCS 0 in 802.11n_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 2C

Operation Mode: 802.11 n_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5580 MHz

Channel No. 116 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11160	63.66	-5.27	V	58.39	73.98	15.59	PK
11160	49.65	-5.27	V	44.38	53.98	9.60	AV
16740	64.05	-3.23	V	60.82	68.20	7.38	PK
11160	63.77	-5.27	Н	58.50	73.98	15.48	PK
11160	49.67	-5.27	Н	44.40	53.98	9.58	AV
16740	64.20	-3.23	Н	60.97	68.20	7.23	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_20 MHz BW. Worst case is MCS 0 in 802.11n_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 2C

Operation Mode: 802.11 n_20 MHz BW

Transfor MCS Index: 0

Transfer MCS Index: 0

Operating Frequency 5700 MHz

Channel No. 140 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11400	63.45	-5.41	V	58.04	73.98	15.94	PK
11400	49.19	-5.41	V	43.78	53.98	10.20	AV
17100	63.09	-0.96	V	62.13	68.20	6.07	PK
11400	63.59	-5.41	Н	58.18	73.98	15.80	PK
11400	49.20	-5.41	Н	43.79	53.98	10.19	AV
17100	63.16	-0.96	Н	62.20	68.20	6.00	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_20 MHz BW. Worst case is MCS 0 in 802.11n_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 2C

Operation Mode: 802.11 ac_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5500 MHz

Channel No. 100 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11000	63.54	-4.61	V	58.93	73.98	15.05	PK
11000	49.49	-4.61	V	44.88	53.98	9.10	AV
16500	62.93	-4.10	V	58.83	68.20	9.37	PK
11000	63.72	-4.61	Н	59.11	73.98	14.87	PK
11000	49.53	-4.61	Н	44.92	53.98	9.06	AV
16500	63.08	-4.10	Н	58.98	68.20	9.22	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_20 MHz BW. Worst case is MCS 0 in 802.11ac_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 2C

Operation Mode: 802.11 ac_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5580 MHz

Channel No. 116 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11160	63.51	-5.27	V	58.24	73.98	15.74	PK
11160	49.59	-5.27	٧	44.32	53.98	9.66	AV
16740	63.90	-3.23	٧	60.67	68.20	7.53	PK
11160	63.70	-5.27	Н	58.43	73.98	15.55	PK
11160	49.64	-5.27	Н	44.37	53.98	9.61	AV
16740	64.13	-3.23	Н	60.90	68.20	7.30	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_20 MHz BW. Worst case is MCS 0 in 802.11ac_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 2C

Operation Mode: 802.11 ac_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5700 MHz

Channel No. 140 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11400	63.30	-5.41	V	57.89	73.98	16.09	PK
11400	49.13	-5.41	V	43.72	53.98	10.26	AV
17100	63.04	-0.96	V	62.08	68.20	6.12	PK
11400	63.52	-5.41	Н	58.11	73.98	15.87	PK
11400	49.17	-5.41	Н	43.76	53.98	10.22	AV
17100	63.11	-0.96	Н	62.15	68.20	6.05	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_20 MHz BW. Worst case is MCS 0 in 802.11ac_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 2C
Operation Mode: 802.11n_40 MHz BW
Transfer MCS Index: 0

Operating Frequency 5510 MHz

Channel No. 102 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11020	62.96	-4.79	V	58.17	73.98	15.81	PK
11020	48.85	-4.79	V	44.06	53.98	9.92	AV
16530	63.53	-3.89	V	59.64	68.20	8.56	PK
11020	63.15	-4.79	Н	58.36	73.98	15.62	PK
11020	48.91	-4.79	Н	44.12	53.98	9.86	AV
16530	63.69	-3.89	Н	59.80	68.20	8.40	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_40 MHz BW. Worst case is MCS 0 in 802.11n_40 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 2C

Operation Mode: 802.11n_40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5590 MHz

Channel No. 118 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11180	62.95	-5.46	V	57.49	73.98	16.49	PK
11180	48.84	-5.46	V	43.38	53.98	10.60	AV
16770	63.08	-3.16	V	59.92	68.20	8.28	PK
11180	63.10	-5.46	Н	57.64	73.98	16.34	PK
11180	48.91	-5.46	Н	43.45	53.98	10.53	AV
16770	63.21	-3.16	Н	60.05	68.20	8.15	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_40 MHz BW. Worst case is MCS 0 in 802.11n_40 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 2C
Operation Mode: 802.11n_40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5710 MHz

Channel No. 142 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11420	62.66	-4.74	V	57.92	73.98	16.06	PK
11420	48.95	-4.74	V	44.21	53.98	9.77	AV
17130	62.07	-1.46	V	60.61	68.20	7.59	PK
11420	62.87	-4.74	Н	58.13	73.98	15.85	PK
11420	49.01	-4.74	Н	44.27	53.98	9.71	AV
17130	62.09	-1.46	Н	60.63	68.20	7.57	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_40 MHz BW. Worst case is MCS 0 in 802.11n_40 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band : UNII 2C
Operation Mode: 802.11ac_40 MHz BW
Transfer MCS Index: 0

Operating Frequency 5510 MHz

Channel No. 102 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11020	62.93	-4.79	V	58.14	73.98	15.84	PK
11020	48.77	-4.79	V	43.98	53.98	10.00	AV
16530	63.49	-3.89	V	59.60	68.20	8.60	PK
11020	63.07	-4.79	Н	58.28	73.98	15.70	PK
11020	48.88	-4.79	Н	44.09	53.98	9.89	AV
16530	63.61	-3.89	Н	59.72	68.20	8.48	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_40 MHz BW. Worst case is MCS 0 in 802.11ac_40 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 2C

Operation Mode: 802.11ac 40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5590 MHz

Channel No. 118 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11180	62.92	-5.46	V	57.46	73.98	16.52	PK
11180	48.76	-5.46	V	43.30	53.98	10.68	AV
16770	63.05	-3.16	V	59.89	68.20	8.31	PK
11180	63.02	-5.46	Н	57.56	73.98	16.42	PK
11180	48.88	-5.46	Н	43.42	53.98	10.56	AV
16770	63.16	-3.16	Н	60.00	68.20	8.20	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_40 MHz BW. Worst case is MCS 0 in 802.11ac_40 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 2C

Operation Mode: 802.11ac_40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5710 MHz

Channel No. 142 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11420	62.63	-4.74	V	57.89	73.98	16.09	PK
11420	48.87	-4.74	V	44.13	53.98	9.85	AV
17130	62.03	-1.46	V	60.57	68.20	7.63	PK
11420	62.79	-4.74	Н	58.05	73.98	15.93	PK
11420	48.98	-4.74	Н	44.24	53.98	9.74	AV
17130	62.06	-1.46	Н	60.60	68.20	7.60	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_40 MHz BW. Worst case is MCS 0 in 802.11ac_40 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 2C

Operation Mode: 802.11ac_80 MHz BW

Transfer MCS Index: 0

Operating Frequency 5530 MHz

Channel No. 106 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11060	61.49	-5.10	V	56.39	73.98	17.59	PK
11060	48.44	-5.10	V	43.34	53.98	10.64	AV
16590	62.18	-3.19	V	58.99	68.20	9.21	PK
11060	61.63	-5.10	Н	56.53	73.98	17.45	PK
11060	48.52	-5.10	Н	43.42	53.98	10.56	AV
16590	62.29	-3.19	Н	59.10	68.20	9.10	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_80 MHz BW. Worst case is MCS 0 in 802.11ac_80 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 2C

Operation Mode: 802.11ac_80 MHz BW

Transfer MCS Index: 0

Operating Frequency 5690 MHz

Channel No. 138 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11380	62.14	-5.00	V	57.14	73.98	16.84	PK
11380	48.62	-5.00	V	43.62	53.98	10.36	AV
17070	62.05	-1.40	V	60.65	68.20	7.55	PK
11380	62.29	-5.00	Н	57.29	73.98	16.69	PK
11380	48.71	-5.00	Н	43.71	53.98	10.27	AV
17070	62.17	-1.40	Н	60.77	68.20	7.43	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_80 MHz BW. Worst case is MCS 0 in 802.11ac_80 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 3
Operation Mode: 802.11a
Transfer Rate: 6 Mbps
Operating Frequency 5745MHz
Channel No. 149 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11490	64.14	-5.43	V	58.71	73.98	15.27	PK
11490	49.98	-5.43	V	44.55	53.98	9.43	AV
17235	63.32	-1.30	V	62.02	68.20	6.18	PK
11490	64.18	-5.43	Н	58.75	73.98	15.23	PK
11490	50.02	-5.43	Н	44.59	53.98	9.39	AV
17235	63.36	-1.30	Н	62.06	68.20	6.14	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 3
Operation Mode: 802.11a
Transfer Rate: 6 Mbps
Operating Frequency 5785 MHz
Channel No. 157 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11570	64.08	-5.41	V	58.67	73.98	15.31	PK
11570	49.44	-5.41	V	44.03	53.98	9.95	AV
17355	62.23	-0.40	V	61.83	68.20	6.37	PK
11570	64.15	-5.41	Н	58.74	73.98	15.24	PK
11570	49.48	-5.41	Н	44.07	53.98	9.91	AV
17355	62.38	-0.40	Н	61.98	68.20	6.22	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 3
Operation Mode: 802.11a
Transfer Rate: 6 Mbps
Operating Frequency 5825 MHz
Channel No. 165 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11650	63.39	-5.43	V	57.96	73.98	16.02	PK
11650	49.87	-5.43	V	44.44	53.98	9.54	AV
17475	62.75	-0.28	V	62.47	68.20	5.73	PK
11650	63.49	-5.43	Н	58.06	73.98	15.92	PK
11650	49.90	-5.43	Н	44.47	53.98	9.51	AV
17475	63.46	-0.28	Н	63.18	68.20	5.02	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

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Band : UNII 3
Operation Mode: 802.11 n_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5745 MHz

Channel No. 149 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11490	64.08	-5.43	V	58.65	73.98	15.33	PK
11490	49.95	-5.43	V	44.52	53.98	9.46	AV
17235	63.26	-1.30	V	61.96	68.20	6.24	PK
11490	64.15	-5.43	Н	58.72	73.98	15.26	PK
11490	49.97	-5.43	Н	44.54	53.98	9.44	AV
17235	63.33	-1.30	Н	62.03	68.20	6.17	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_20 MHz BW. Worst case is MCS 0 in 802.11n_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 3

Operation Mode: 802.11 n_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5785 MHz

Channel No. 157 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11570	64.02	-5.41	V	58.61	73.98	15.37	PK
11570	49.41	-5.41	٧	44.00	53.98	9.98	AV
17355	62.27	-0.40	V	61.87	68.20	6.33	PK
11570	64.12	-5.41	Н	58.71	73.98	15.27	PK
11570	49.43	-5.41	Н	44.02	53.98	9.96	AV
17355	62.40	-0.40	Н	62.00	68.20	6.20	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_20 MHz BW. Worst case is MCS 0 in 802.11n_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 3

Operation Mode: 802.11 n_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5825 MHz

Channel No. 165 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11650	63.33	-5.43	V	57.90	73.98	16.08	PK
11650	49.84	-5.43	٧	44.41	53.98	9.57	AV
17475	62.86	-0.28	V	62.58	68.20	5.62	PK
11650	63.46	-5.43	Н	58.03	73.98	15.95	PK
11650	49.85	-5.43	Н	44.42	53.98	9.56	AV
17475	63.18	-0.28	Н	62.90	68.20	5.30	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_20 MHz BW. Worst case is MCS 0 in 802.11n_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 3

Operation Mode: 802.11 ac_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5745 MHz

Channel No. 149 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11490	63.93	-5.43	V	58.50	73.98	15.48	PK
11490	49.89	-5.43	V	44.46	53.98	9.52	AV
17235	63.17	-1.30	V	61.87	68.20	6.33	PK
11490	64.08	-5.43	Н	58.65	73.98	15.33	PK
11490	49.94	-5.43	Н	44.51	53.98	9.47	AV
17235	63.24	-1.30	Н	61.94	68.20	6.26	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_20 MHz BW. Worst case is MCS 0 in 802.11ac_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 3

Operation Mode: 802.11 ac_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5785 MHz

Channel No. 157 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11570	63.87	-5.41	V	58.46	73.98	15.52	PK
11570	49.35	-5.41	V	43.94	53.98	10.04	AV
17355	62.17	-0.40	V	61.77	68.20	6.43	PK
11570	64.05	-5.41	Н	58.64	73.98	15.34	PK
11570	49.40	-5.41	Н	43.99	53.98	9.99	AV
17355	62.23	-0.40	Н	61.83	68.20	6.37	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_20 MHz BW. Worst case is MCS 0 in 802.11ac_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 3

Operation Mode: 802.11 ac_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5825 MHz

Channel No. 165 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11650	63.18	-5.43	V	57.75	73.98	16.23	PK
11650	49.78	-5.43	V	44.35	53.98	9.63	AV
17475	62.65	-0.28	V	62.37	68.20	5.83	PK
11650	63.39	-5.43	Н	57.96	73.98	16.02	PK
11650	49.82	-5.43	Н	44.39	53.98	9.59	AV
17475	62.73	-0.28	Н	62.45	68.20	5.75	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_20 MHz BW. Worst case is MCS 0 in 802.11ac_20 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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 Band :
 UNII3

 Operation Mode:
 802.11n_40 MHz BW

 Transfer MCS Index:
 0

Transfer Woo fridex.

Operating Frequency 5755 MHz

Channel No. 151 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11510	63.48	-5.23	V	58.25	73.98	15.73	PK
11510	49.75	-5.23	V	44.52	53.98	9.46	AV
17265	63.35	-1.12	V	62.23	68.20	5.97	PK
11510	63.63	-5.23	Н	58.40	73.98	15.58	PK
11510	49.81	-5.23	Н	44.58	53.98	9.40	AV
17265	63.46	-1.12	Н	62.34	68.20	5.86	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_40 MHz BW. Worst case is MCS 0 in 802.11n_40 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



Report No.: HCT-R-1603-F020-1 Model:LG-H850 Page 1 6 2 of 196

Band: UNII 3
Operation Mode: 802.11n_40 MHz BW
Transfer MCS Index: 0

Operating Frequency 5795 MHz

Channel No. 159 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11590	62.95	-5.35	V	57.60	73.98	16.38	PK
11590	49.49	-5.35	V	44.14	53.98	9.84	AV
17385	62.76	-0.10	V	62.66	68.20	5.54	PK
11590	63.10	-5.35	Н	57.75	73.98	16.23	PK
11590	49.55	-5.35	Н	44.20	53.98	9.78	AV
17385	62.97	-0.10	Н	62.87	68.20	5.33	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11n_40 MHz BW. Worst case is MCS 0 in 802.11n_40 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII3

Operation Mode: 802.11ac_40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5755 MHz

Channel No. 151 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11510	63.45	-5.23	V	58.22	73.98	15.76	PK
11510	49.67	-5.23	V	44.44	53.98	9.54	AV
17265	63.32	-1.12	V	62.20	68.20	6.00	PK
11510	63.55	-5.23	Н	58.32	73.98	15.66	PK
11510	49.78	-5.23	Н	44.55	53.98	9.43	AV
17265	63.38	-1.12	Н	62.26	68.20	5.94	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_40 MHz BW. Worst case is MCS 0 in 802.11ac_40 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



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Band: UNII 3

Operation Mode: 802.11ac_40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5795 MHz

Channel No. 159 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11590	62.92	-5.35	V	57.57	73.98	16.41	PK
11590	49.41	-5.35	V	44.06	53.98	9.92	AV
17385	62.27	-0.10	V	62.17	68.20	6.03	PK
11590	63.02	-5.35	Н	57.67	73.98	16.31	PK
11590	49.52	-5.35	Н	44.17	53.98	9.81	AV
17385	62.33	-0.10	Н	62.23	68.20	5.97	PK

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_40 MHz BW. Worst case is MCS 0 in 802.11ac_40 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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Band: UNII 3

Operation Mode: 802.11ac_80 MHz BW

Transfer MCS Index: 0

Operating Frequency 5775 MHz

Channel No. 155 Ch

Frequency	Reading	AN.+CL-Amp G.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
11550	62.58	-5.40	V	57.18	73.98	16.80	PK
11550	49.07	-5.40	V	43.67	53.98	10.31	AV
17325	62.61	-0.94	V	61.67	68.20	6.53	PK
11550	62.73	-5.40	Н	57.33	73.98	16.65	PK
11550	49.17	-5.40	Н	43.77	53.98	10.21	AV
17325	62.66	-0.94	Н	61.72	68.20	6.48	PK

Notes:

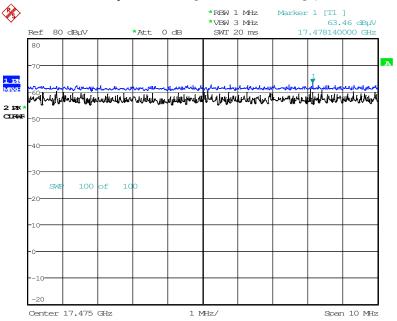
- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain
- 5. We have done all data rate in 802.11ac_80 MHz BW. Worst case is MCS 0 in 802.11ac_80 MHz BW.
- 6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.



■RESULT PLOTS (Worst case: x-H)

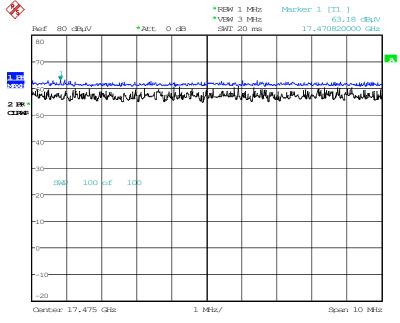
Report No.: HCT-R-1603-F020-1

Radiated Spurious Emissions plot –Average &Peak Reading (802.11a_20M, Ch.157 3rd Harmonic)



Date: 18.FEB.2016 15:15:24

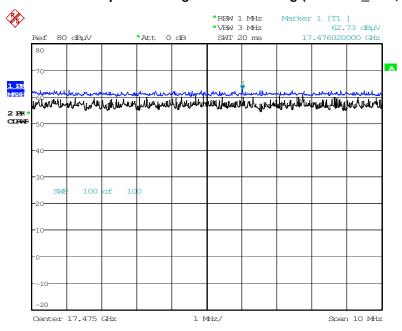
Radiated Spurious Emissions plot –Average&Peak Reading (802.11n_20M, Ch.157 3rd Harmonic)



Date: 18.FEB.2016 15:14:21

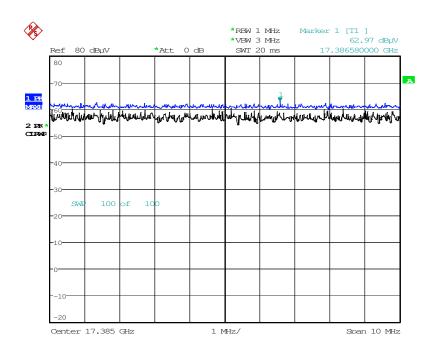


Radiated Spurious Emissions plot –Average& Peak Reading (802.11ac_20M, Ch.157 3rd Harmonic)



Date: 18.FEB.2016 15:13:08

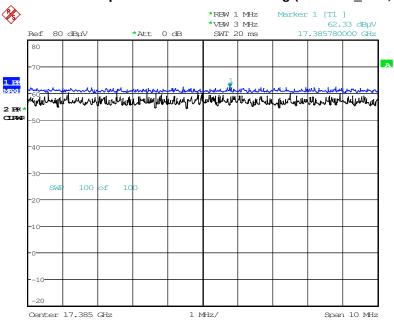
Radiated Spurious Emissions plot –Average&Peak Reading (802.11n_40M, Ch.159 3rd Harmonic)



Date: 18.FEB.2016 15:11:08

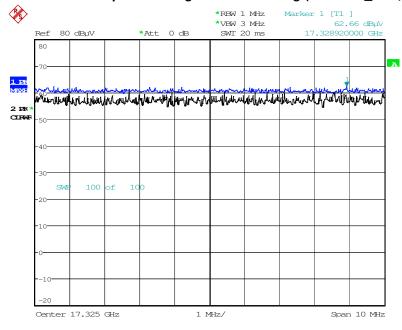


Radiated Spurious Emissions plot –Averate&Peak Reading (802.11ac_40M, Ch.159 3rd Harmonic)



Date: 18.FEB.2016 15:09:43

Radiated Spurious Emissions plot –Average& Peak Reading (802.11ac_80M, Ch.159 3rd Harmonic)



Date: 18.FEB.2016 15:08:14

Note: Only the worst case plots for Radiated Spurious Emissions.

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8.6.2 RADIATED RESTRICTED BAND EDGE MEASUREMENTS

Test Requirements and limit, §15.247(d) §15.205, §15.209

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in section 15.209(a) (See section 15.205(c)).

Band:
Operation Mode:
802.11 a

Transfer Rate:
6 Mbps
Operating Frequency
5180 MHz
Channel No.
36 Ch

Frequency	Reading	AN.+CL-AMP+ATT.	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
5150	56.76	8.18	Н	64.94	73.98	9.04	PK
5150	40.05	8.18	Н	48.23	53.98	5.75	AV
5150	54.46	8.18	V	62.64	73.98	11.34	PK
5150	39.52	8.18	V	47.7	53.98	6.28	AV

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Band: UNII 1

Operation Mode: 802.11 n_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5180 MHz

Channel No. 36 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
5150	55.89	8.18	Н	64.07	73.98	9.91	PK
5150	39.51	8.18	Н	47.69	53.98	6.29	AV
5150	55.12	8.18	V	63.3	73.98	10.68	PK
5150	39.04	8.18	V	47.22	53.98	6.76	AV

Band: UNII 1

Operation Mode: 802.11 ac_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5180 MHz

Channel No. 36 Ch

Frequenc	y Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
5150	58.45	8.18	Н	66.63	73.98	7.35	PK
5150	39.44	8.18	Н	47.62	53.98	6.36	AV
5150	57.68	8.18	V	65.86	73.98	8.12	PK
5150	39.05	8.18	V	47.23	53.98	6.75	AV

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Band: UNII 1

Operation Mode: 802.11 n_40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5190 MHz

Channel No. 38 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-AMP+ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	58.47	8.18	Н	66.65	73.98	7.33	PK
5150	42.44	8.18	Н	50.62	53.98	3.36	AV
5150	57.66	8.18	V	65.84	73.98	8.14	PK
5150	42.16	8.18	V	50.34	53.98	3.64	AV

Band: UNII 1

Operation Mode: 802.11 ac_40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5190 MHz

Channel No. 38 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
5150	57.92	8.18	Н	66.10	73.98	7.88	PK
5150	42.07	8.18	Н	50.25	53.98	3.73	AV
5150	56.85	8.18	V	65.03	73.98	8.95	PK
5150	41.63	8.18	V	49.81	53.98	4.17	AV

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Band: UNII 1

Operation Mode: 802.11 ac_80 MHz BW

Transfer MCS Index: 0

Operating Frequency 5210 MHz

Channel No. 42 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
5150	55.20	8.18	Н	63.38	73.98	10.60	PK
5150	42.40	8.18	Н	50.58	53.98	3.40	AV
5150	54.86	8.18	V	63.04	73.98	10.94	PK
5150	42.13	8.18	V	50.31	53.98	3.67	AV

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Band: UNII 2A

Operation Mode: 802.11a

Transfer Rate: 6 Mbps

Operating Frequency 5320 MHz

Channel No. 64 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
5350	52.89	8.95	Н	61.84	73.98	12.14	PK
5350	38.35	8.95	Н	47.3	53.98	6.68	AV
5350	53.53	8.95	V	62.48	73.98	11.50	PK
5350	39.01	8.95	V	47.96	53.98	6.02	AV

Band: UNII 2A

Operation Mode: 802.11 n_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5320 MHz

Channel No. 64 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
5350	54.56	8.95	Н	63.51	73.98	10.47	PK
5350	38.14	8.95	Н	47.09	53.98	6.89	AV
5350	55.00	8.95	V	63.95	73.98	10.03	PK
5350	38.65	8.95	V	47.6	53.98	6.38	AV

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Band: UNII 2A

Operation Mode: 802.11 ac_20 MHz BW

Transfer MCS Index: 0

Operating Frequency 5320 MHz

Channel No. 64 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
5350	55.47	8.95	Н	64.42	73.98	9.56	PK
5350	38.23	8.95	Н	47.18	53.98	6.80	AV
5350	56.61	8.95	V	65.56	73.98	8.42	PK
5350	38.68	8.95	V	47.63	53.98	6.35	AV

Band: UNII 2A

Operation Mode: 802.11 n_40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5310 MHz

Channel No. 62 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
5350	53.28	8.95	Н	62.23	73.98	11.75	PK
5350	38.99	8.95	Н	47.94	53.98	6.04	AV
5350	53.61	8.95	V	62.56	73.98	11.42	PK
5350	39.42	8.95	V	48.37	53.98	5.61	AV



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Band: UNII 2A

Operation Mode: 802.11 ac_40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5310 MHz

Channel No. 62 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
5350	53.14	8.95	Н	62.09	73.98	11.89	PK
5350	39.10	8.95	Н	48.05	53.98	5.93	AV
5350	53.29	8.95	V	62.24	73.98	11.74	PK
5350	39.45	8.95	V	48.4	53.98	5.58	AV

Band: UNII 2A

Operation Mode: 802.11 ac_80 MHz BW

Transfer MCS Index: 0

Operating Frequency 5290 MHz

Channel No. 58 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
5350	55.11	8.95	Н	64.06	73.98	9.92	PK
5350	40.62	8.95	Н	49.57	53.98	4.41	AV
5350	55.20	8.95	V	64.15	73.98	9.83	PK
5350	40.91	8.95	V	49.86	53.98	4.12	AV

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Band: UNII 2C

Operation Mode: 802.11a

Transfer Rate: 6 Mbps

Operating Frequency 5500 MHz

Channel No. 100 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
5460	49.95	9.62	Н	59.57	73.98	14.41	PK
5460	37.69	9.62	Н	47.31	53.98	6.67	AV
*5470	54.43	9.52	Н	63.95	68.20	4.25	PK
5460	49.88	9.62	V	59.5	73.98	14.48	PK
5460	37.54	9.62	V	47.16	53.98	6.82	AV
*5470	54.28	9.52	V	63.8	68.20	4.40	PK

Band: UNII 2C

Operation Mode: 802.11 n_20MHz BW

Transfer MCS Index: 0

Operating Frequency 5500 MHz

Channel No. 100 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
5460	49.82	9.62	Н	59.44	73.98	14.54	PK
5460	37.58	9.62	Н	47.2	53.98	6.78	AV
*#5470	57.89	9.52	Н	67.41	73.98	6.57	PK
*#5470	38.08	9.52	Н	47.6	53.98	6.38	AV
5460	49.69	9.62	V	59.31	73.98	14.67	PK
5460	37.51	9.62	V	47.13	53.98	6.85	AV
*#5470	57.54	9.52	٧	67.06	73.98	6.92	PK
*#5470	37.96	9.52	V	47.48	53.98	6.50	AV

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Band: UNII 2C

Operation Mode: 802.11 ac_20MHz BW

Transfer MCS Index: 0

Operating Frequency 5500 MHz

Channel No. 100 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
5460	49.52	9.62	Н	59.14	73.98	14.84	PK
5460	37.61	9.62	Н	47.23	53.98	6.75	AV
*#5470	57.14	9.52	Н	66.66	73.98	7.32	PK
*#5470	38.23	9.52	Н	47.75	53.98	6.23	AV
5460	49.50	9.62	٧	59.12	73.98	14.86	PK
5460	37.56	9.62	٧	47.18	53.98	6.80	AV
*#5470	56.98	9.52	V	66.5	73.98	7.48	PK
*#5470	38.14	9.52	V	47.66	53.98	6.32	AV

Band: UNII 2C

Operation Mode: 802.11 n_40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5510 MHz

Channel No. 102 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
5460	52.20	9.62	Н	61.82	73.98	12.16	PK
5460	37.59	9.62	Н	47.21	53.98	6.77	AV
*#5470	57.29	9.52	Н	66.81	73.98	7.17	PK
*#5470	40.51	9.52	Н	50.03	53.98	3.95	AV
5460	52.13	9.62	V	61.75	73.98	12.23	PK
5460	37.53	9.62	٧	47.15	53.98	6.83	AV
*#5470	57.16	9.52	V	66.68	73.98	7.30	PK
*#5470	40.44	9.52	V	49.96	53.98	4.02	AV

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Band: UNII 2C

Operation Mode: 802.11 ac_40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5510 MHz

Channel No. 102 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
5460	51.89	9.62	Н	61.51	73.98	12.47	PK
5460	37.67	9.62	Н	47.29	53.98	6.69	AV
*#5470	56.56	9.52	Н	66.08	73.98	7.90	PK
*#5470	40.47	9.52	Н	49.99	53.98	3.99	AV
5460	51.76	9.62	٧	61.38	73.98	12.60	PK
5460	37.64	9.62	V	47.26	53.98	6.72	AV
*#5470	56.45	9.52	V	65.97	73.98	8.01	PK
*#5470	40.38	9.52	V	49.9	53.98	4.08	AV

Band: UNII 2C

Operation Mode: 802.11 ac_80 MHz BW

Transfer MCS Index: 0

Operating Frequency 5530 MHz

Channel No. 106 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
5460	53.96	9.62	Н	63.58	73.98	10.40	PK
5460	40.77	9.62	Н	50.39	53.98	3.59	AV
*#5470	54.77	9.52	Н	64.29	73.98	9.69	PK
*#5470	40.90	9.52	Н	50.42	53.98	3.56	AV
5460	53.70	9.62	V	63.32	73.98	10.66	PK
5460	40.56	9.62	V	50.18	53.98	3.80	AV
*#5470	54.59	9.52	V	64.11	73.98	9.87	PK
*#5470	40.82	9.52	V	50.34	53.98	3.64	AV

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Notes:The mark '#' is testedaccording to II.G.2.c in KDB 789033 D02, issued 01/08/2016

II. MEASUREMENT PROCEDURES

- G. Unwanted Emission Measurement
 - 2. Unwanted Emissions that fall Outside of the Restricted Bands
 - c) At frequencies above 1000 MHz, use the procedure for maximum emissions described in sectionII.G.5., "Procedure for Unwanted Maximum Unwanted Emissions Measurements Above 1000 MHz".

As specified in § 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a maximum emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in § 15.407(b)(4)). However, an out-of-band emission that complies with both the peak and average limits of § 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz maximum emission limit.

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Band: UNII 3
Operation Mode: 802.11a
Transfer Rate: 6 Mbps
Operating Frequency 5825MHz

Channel No. 165 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
*5850	51.89	11.47	Н	63.36	78.20	14.84	PK
*5850	52.44	11.47	V	63.91	78.20	14.29	PK
*5860	48.62	11.47	Н	60.09	68.20	8.11	PK
*5860	48.68	11.47	V	60.15	68.20	8.05	PK

Band: UNII 3

Operation Mode: 802.11 n_20MHz BW

Transfer MCS Index: 0

Operating Frequency 5825 MHz

Channel No. 165 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
*5850	50.56	11.47	Н	62.03	78.20	16.17	PK
*5850	51.41	11.47	V	62.88	78.20	15.32	PK
*5860	48.25	11.47	Н	59.72	68.20	8.48	PK
*5860	48.58	11.47	V	60.05	68.20	8.15	PK

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Band: UNII 3

Operation Mode: 802.11 ac_20MHz BW

Transfer MCS Index: 0

Operating Frequency 5825MHz

Channel No. 165 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
*5850	51.89	11.47	Н	63.36	78.20	14.84	PK
*5850	52.92	11.47	V	64.39	78.20	13.81	AV
*5860	48.56	11.47	Н	60.03	68.20	8.17	PK
*5860	48.95	11.47	V	60.42	68.20	7.78	AV

Band: UNII 3

Operation Mode: 802.11 n_40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5795 MHz

Channel No. 159 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
*5850	48.66	11.47	Н	60.13	78.20	18.07	PK
*5850	48.78	11.47	V	60.25	78.20	17.95	PK
*5860	48.47	11.47	Н	59.94	68.20	8.26	PK
*5860	48.51	11.47	V	59.98	68.20	8.22	PK

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Band: UNII 3

Operation Mode: 802.11 ac_40 MHz BW

Transfer MCS Index: 0

Operating Frequency 5795 MHz

Channel No. 159 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
*5850	48.64	11.47	Н	60.11	78.20	18.09	PK
*5850	48.76	11.47	V	60.23	78.20	17.97	AV
*5860	48.21	11.47	Н	59.68	68.20	8.52	PK
*5860	48.44	11.47	V	59.91	68.20	8.29	AV

Band: UNII 3

Operation Mode: 802.11 ac_80 MHz BW

Transfer MCS Index: 0

Operating Frequency 5755 MHz

Channel No. 155 Ch

Frequency	Reading	AN.+CL-AMP+ATT	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Туре
*5850	50.24	11.47	Н	61.71	78.20	16.49	PK
*5850	50.39	11.47	V	61.86	78.20	16.34	PK
*5860	48.57	11.47	Н	60.04	68.20	8.16	PK
*5860	48.69	11.47	V	60.16	68.20	8.04	PK

Notes:

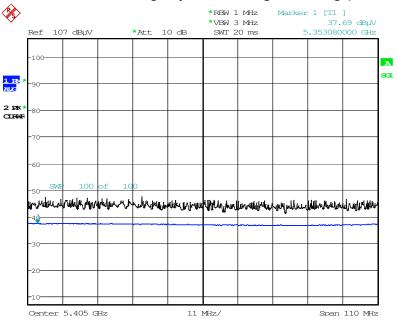
- 1. Total = Reading Value + Antenna Factor + Cable Loss Amp Gain + ATT
- 2. We have done all data rate in 802.11a/n/ac mode test. . Worst case of EUT is lowest data rate in 802.11a/n.
- 3. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
- 4. '*' is radiated band edge test frequency.(not restricted band emissions)
- 5. Reading value is not applied duty cycle factor because the factor is less than 0.1 dB.

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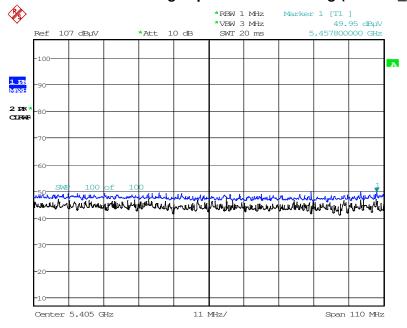
■RESULT PLOTS (Worst case: z-H)

Radiated Restricted Band Edges plot – Average Reading (802.11a_20M, Ch.100)



Date: 18.FEB.2016 10:19:58

Radiated Restricted Band Edges plot – Peak Reading (802.11a_20M, Ch.100)

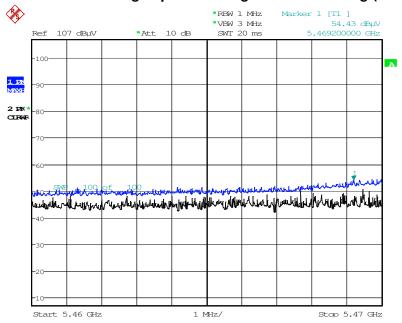


Date: 18.FEB.2016 10:19:32



FCC ID: ZNFH850

Radiated Restricted Band Edges plot –Average& Peak Reading (802.11a_20M, Ch.100)

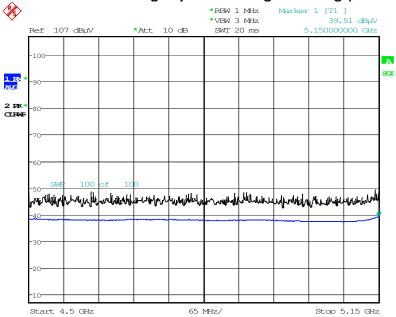


Date: 18.FEB.2016 10:17:48



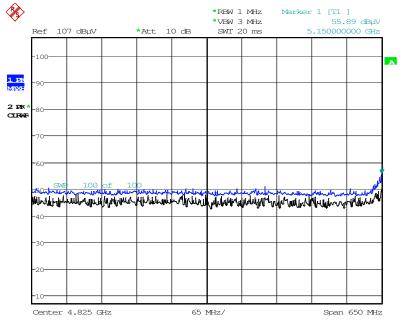
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Radiated Restricted Band Edges plot – Average Reading (802.11n_20M, Ch.100)



Date: 18.FEB.2016 10:37:45

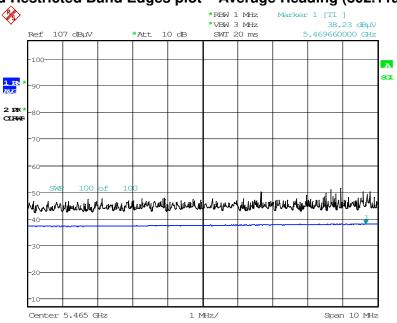
Radiated Restricted Band Edges plot – Peak Reading (802.11n_20M, Ch.100)



Date: 18.FEB.2016 10:38:32

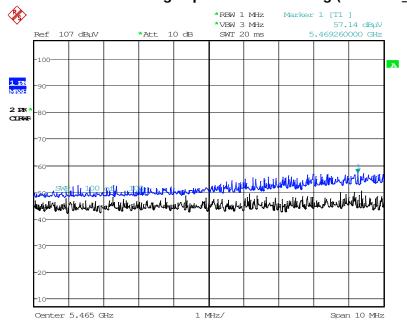


Radiated Restricted Band Edges plot – Average Reading (802.11ac_20M, Ch.100)



Date: 18.FEB.2016 10:25:24

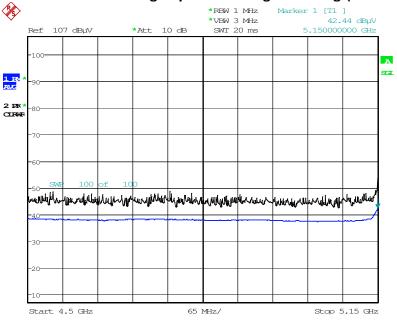
Radiated Restricted Band Edges plot – Peak Reading (802.11ac_20M, Ch.100)



Date: 18.FEB.2016 10:26:24

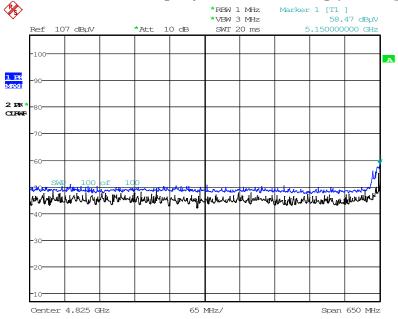


Radiated Restricted Band Edges plot – Average Reading (802.11n_40M, Ch.102)



Date: 18.FEB.2016 10:41:25

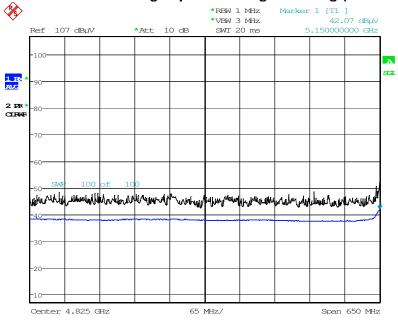
Radiated Restricted Band Edges plot – Peak Reading (802.11n_40M, Ch.102)



Date: 18.FEB.2016 10:42:20

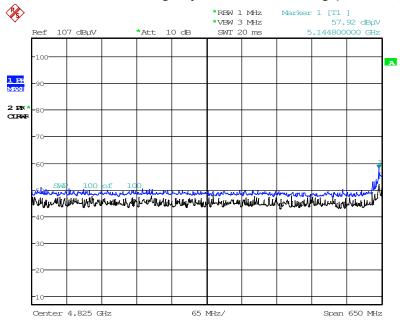


Radiated Restricted Band Edges plot –Average Reading (802.11ac_40M, Ch.102)



Date: 18.FEB.2016 10:44:06

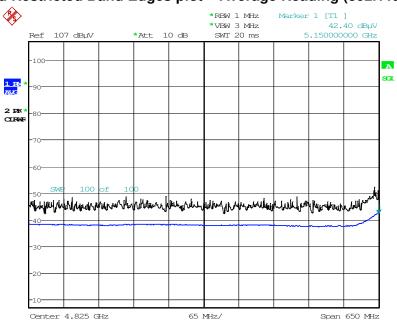
Radiated Restricted Band Edges plot – Peak Reading (802.11ac_40M, Ch.102)



Date: 18.FEB.2016 10:43:33

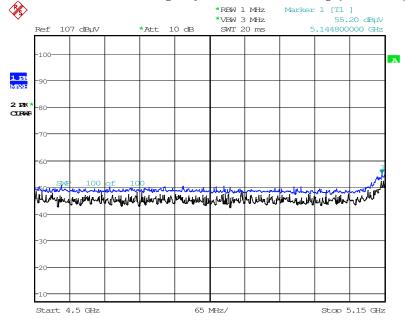


Radiated Restricted Band Edges plot – Average Reading (802.11ac_80M, Ch.106)



Date: 18.FEB.2016 10:47:34

Radiated Restricted Band Edges plot – Peak Reading (802.11ac_80M, Ch.106)



Date: 18.FEB.2016 10:47:10

Note: Only the worst case plots for Radiated Restricted Band Edges.

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8.7POWERLINE CONDUCTED EMISSIONS

Test Requirements and limit, §15.207

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

Francisco Denna (MILIA)	Limits (dBμV)				
Frequency Range (MHz)	Quasi-peak	Average			
0.15 to 0.50	66 to 56	56 to 46			
0.50 to 5	56	46			
5 to 30	60	50			

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

Test Configuration

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

TEST PROCEDURE

- 1. The EUT is placed on a wooden table 80 cm above the reference groundplane.
- 2. The EUT is connected via LISN to a test power supply.
- 3. The measurement results are obtained as described below:
- 4. Detectors Quasi Peak and Average Detector.

Sample Calculation

Quasi-peak(Final Result) = Reading Value + Correction Factor

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■RESULT PLOTS

Conducted Emissions (Line 1)

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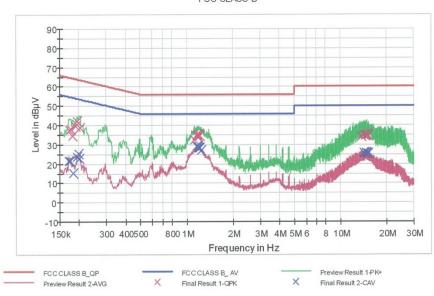
EMI Auto Test(16) 1/2

HCT TEST Report

Common Information

EUT: LG-H850
Manufacturer: LG
Test Site: SHIELD ROOM
Operating Conditions: WLAN 5G

FCC CLASS B



Final Result 1

Frequency	QuasiPeak	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	(kHz)			(dB)	(dB)	(dBµV)
0.174000	37.5	9.000	Off	N	9.6	27.3	64.8
0.178000	38.1	9.000	Off	N	9.6	26.5	64.6
0.182000	34.7	9.000	Off	N	9.6	29.7	64.4
0.190000	39.4	9.000	Off	N	9.6	24.6	64.0
0.194000	42.1	9.000	Off	N	9.6	21.8	63.9
0.204000	38.9	9.000	Off	N	9.6	24.5	63.4
1.120000	32.4	9.000	Off	N	9.7	23.6	56.0
1.160000	34.4	9.000	Off	N	9.7	21.6	56.0
1.180000	35.4	9.000	Off	N	9.7	20.6	56.0
1.188000	34.0	9.000	Off	N	9.7	22.0	56.0
1.202000	35.1	9.000	Off	N	9.7	20.9	56.0
1.222000	34.6	9.000	Off	N	9.7	21.4	56.0
13.810000	33.9	9.000	Off	N	10.1	26.1	60.0
14.138000	34.9	9.000	Off	N	10.1	25.1	60.0
14.568000	34.4	9.000	Off	N	10.1	25.6	60.0
14.644000	35.0	9.000	Off	N	10.1	25.0	60.0
14.890000	34.8	9.000	Off	N	10.1	25.2	60.0
15.236000	34.6	9.000	Off	N	10.1	25.4	60.0

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Final Result 2

Frequency (MHz)	CAverage (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.172000	21.4	9.000	Off	N	9.6	33.5	54.9
0.176000	21.6	9.000	Off	N	9.6	33.1	54.7
0.184000	15.2	9.000	Off	N	9.6	39.1	54.3
0.194000	23.7	9.000	Off	N	9.6	30.2	53.9
0.198000	25.2	9.000	Off	N	9.6	28.5	53.7
0.202000	22.9	9.000	Off	N	9.6	30.6	53.5
1.164000	29.2	9.000	Off	N	9.7	16.8	46.0
1.192000	29.0	9.000	Off	N	9.7	17.0	46.0
1.196000	28.2	9.000	Off	N	9.7	17.8	46.0
1.202000	28.3	9.000	Off	N	9.7	17.7	46.0
1.212000	28.4	9.000	Off	N	9.7	17.6	46.0
1.248000	26.9	9.000	Off	N	9.7	19.1	46.0
14.138000	25.9	9.000	Off	N	10.1	24.1	50.0
14.306000	25.3	9.000	Off	N	10.1	24.7	50.0
14.644000	25.8	9.000	Off	N	10.1	24.2	50.0
14.802000	25.4	9.000	Off	N	10.1	24.6	50.0
14.890000	25.2	9.000	Off	N	10.1	24.8	50.0
15.236000	25.4	9.000	Off	N	10.1	24.6	50.0

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Conducted Emissions (Line 2)

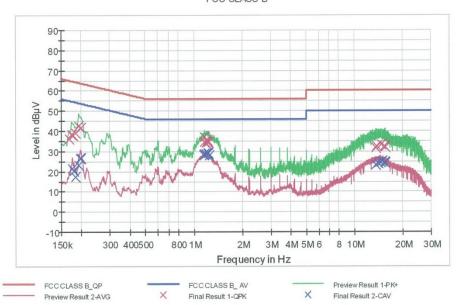
1/2 EMI Auto Test(16)

HCT TEST Report

Common Information

LG-H850 EUT: Manufacturer: SHIELD ROOM Test Site: Operating Conditions: WLAN 5G

FCC CLASS B



Final Result 1

Frequency	QuasiPeak	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	(kHz)			(dB)	(dB)	(dBµV)
0.168000	36.3	9.000	Off	L1	9.6	28.8	65.1
0.174000	38.2	9.000	Off	L1	9.6	26.6	64.8
0.178000	37.8	9.000	Off	L1	9.6	26.8	64.6
0.184000	39.3	9.000	Off	L1	9.6	25.0	64.3
0.192000	42.7	9.000	Off	L1	9.6	21.2	63.9
0.200000	41.8	9.000	Off	L1	9.6	21.8	63.6
1.164000	37.0	9.000	Off	L1	9.7	19.0	56.0
1.168000	34.4	9.000	Off	L1	9.7	21.6	56.0
1.188000	34.2	9.000	Off	L1	9.7	21.8	56.0
1.218000	35.2	9.000	Off	L1	9.7	20.8	56.0
1.224000	34.6	9.000	Off	L1	9.7	21.4	56.0
1.228000	34.6	9.000	Off	L1	9.7	21.4	56.0
13.608000	31.8	9.000	Off	L1	10.1	28.2	60.0
13.724000	32.3	9.000	Off	L1	10.1	27.7	60.0
14.756000	33.3	9.000	Off	L1	10.1	26.7	60.0
15.370000	32.4	9.000	Off	L1	10.2	27.6	60.0
15.384000	32.4	9.000	Off	L1	10.2	27.6	60.0
15.516000	32.1	9.000	Off	L1	10.2	27.9	60.0

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Final Result 2

Frequency (MHz)	CAverage (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.176000	21.5	9.000	Off	L1	9.6	33.2	54.7
0.180000	20.4	9,000	Off	L1	9.6	34.1	54.5
0.184000	17.3	9,000	Off	L1	9.6	37.0	54.3
0.192000	23.1	9,000	Off	L1	9.6	30.8	53.9
0.196000	26.5	9,000	Off	L1	9.6	27.3	53.8
0.200000	26.4	9,000	Off	L1	9.6	27.2	53.6
1.152000	28.4	9.000	Off	L1	9.7	17.6	46.0
1.170000	28.6	9.000	Off	L1	9.7	17.4	46.0
1.188000	28.6	9.000	Off	L1	9.7	17.4	46.0
1.220000	28.9	9.000	Off	L1	9.7	17.1	46.0
1.228000	29.0	9.000	Off	L1	9.7	17.0	46.0
1.252000	28.0	9.000	Off	L1	9.7	18.0	46.0
13.608000	23.3	9.000	Off	L1	10.1	26.7	50.0
14.016000	24.0	9.000	Off	L1	10.1	26.0	50.0
14.564000	24.4	9.000	Off	L1	10.1	25.6	50.0
14.944000	25.1	9.000	Off	L1	10.1	24.9	50.0
15.370000	24.4	9.000	Off	L1	10.2	25.6	50.0
15.516000	24.2	9.000	Off	L1	10.2	25.8	50.0

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9. LIST OF TEST EQUIPMENT

9.1 LIST OF TEST EQUIPMENT(Conducted Test)

Manufacturer	Model / Equipment	Calibration Date	Calibration Interval	Serial No.
Rohde & Schwarz	ENV216/ LISN	12/28/2015	Annual	100073
Agilent	E4440A/ Spectrum Analyzer	03/18/2015	Annual	US45303008
Agilent	N9020A/ SIGNAL ANALYZER	06/30/2015	Annual	MY51110085
Agilent	N9020A/ SIGNAL ANALYZER	07/02/2015	Annual	MY50510304
Agilent	N1911A/Power Meter	07/09/2015	Annual	MY45100523
Agilent	N1921A /POWER SENSOR	07/09/2015	Annual	MY45241059
Agilent	87300B/Directional Coupler	11/30/2015	Annual	3116A03621
Hewlett Packard	11667B / Power Splitter	06/15/2015	Annual	5001
Hewlett Packard	E3632A / DC POWER SUPPLY	03/11/2015	Annual	KR75303962
Agilent	8493C / Attenuator(10 dB)	07/21/2015	Annual	07560
ESPAC.	SH-642 / Temp & Humidity Chamber	07/23/2015	Annual	93000717



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9.2 LIST OF TEST EQUIPMENT(Radiated Test)

Manufacturer	Model / Equipment	Calibration Date	Calibration Interval	Serial No.
Schwarzbeck	VULB 9160/ TRILOG Antenna	10/10/2014	Biennial	3368
HD	MA240/ Antenna Position Tower	N/A	N/A	556
EMCO	1050/ Turn Table	N/A	N/A	114
HD GmbH	HD 100/ Controller	N/A	N/A	13
HD GmbH	KMS 560/ SlideBar	N/A	N/A	12
Schwarzbeck	BBHA 9120D/ Horn Antenna	05/07/2015	Biennial	937
Schwarzbeck	BBHA9170 / Horn Antenna(15 GHz ~ 40 GHz)	04/30/2015	Biennial	BBHA9170124
Rohde & Schwarz	FSP / Spectrum Analyzer	01/15/2016	Annual	839117/011
Wainwright Instrument	WHF3.0/18G-10EF / High Pass Filter	06/29/2015	Annual	8
Wainwright Instrument	WHKX8-6090-7000-18000-40SS/ High Pass Filter	08/03/2015	Annual	5
Wainwright Instrument	WRCJV5100/5850-40/50-8EEK / Band Reject Filter	01/16/2016	Annual	2
Wainwright Instrument	WRCJ2400/2483.5-2370/2520-60/14SS / Band Reject Filter	06/15/2015	Annual	1
Rohde & Schwarz	LOOP ANTENNA	02/04/2016	Biennial	100179
CERNEX	CBL26405040 / POWER AMP	07/21/2015	Annual	19660
CERNEX	CBL18265035 / POWER AMP	07/27/2015	Annual	22966
CERNEX	CBL06185030 / POWER AMP	07/21/2015	Annual	22965

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