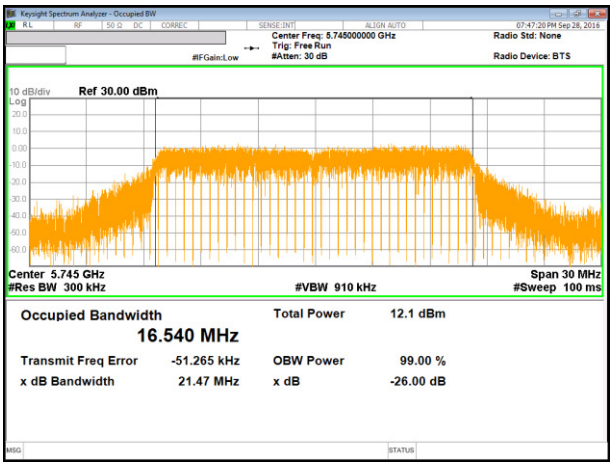
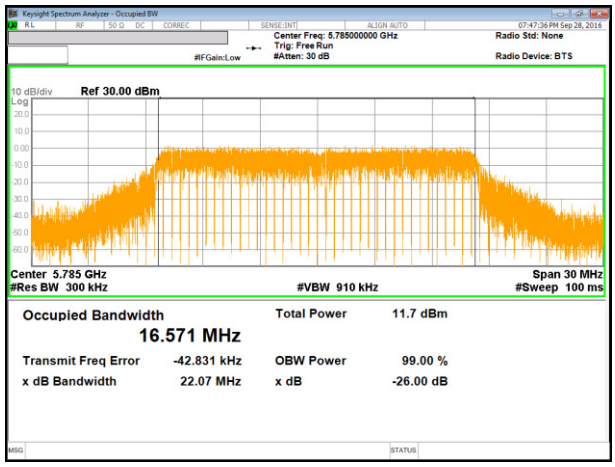
UNII 5.8 GHz IEEE 802.11a mode

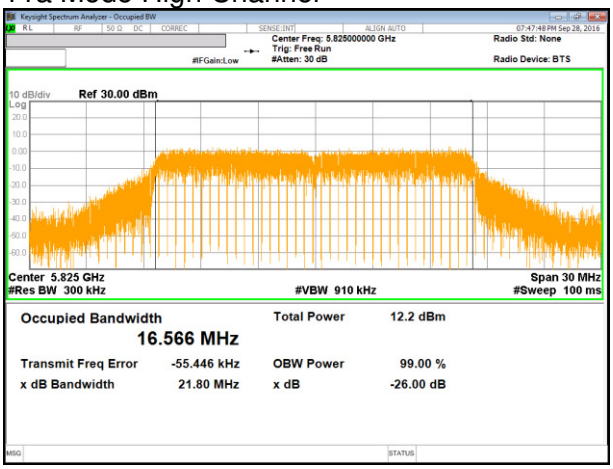
11a Mode Low Channel



11a Mode Middle Channel



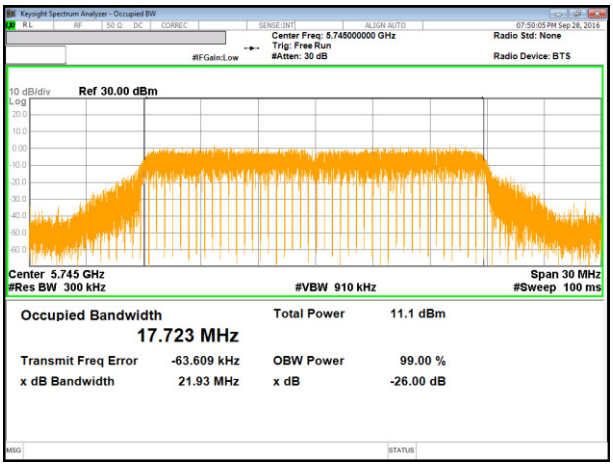
11a Mode High Channel



UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

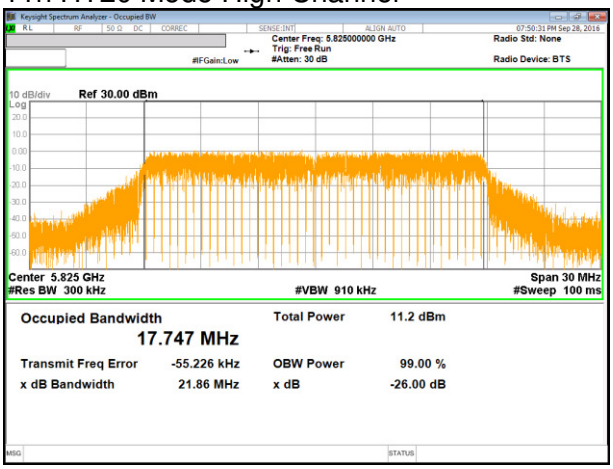
UNII 5.8 GHz IEEE 802.11n HT20 mode

11n HT20 Mode Low Channel



11n HT20 Mode Middle Channel

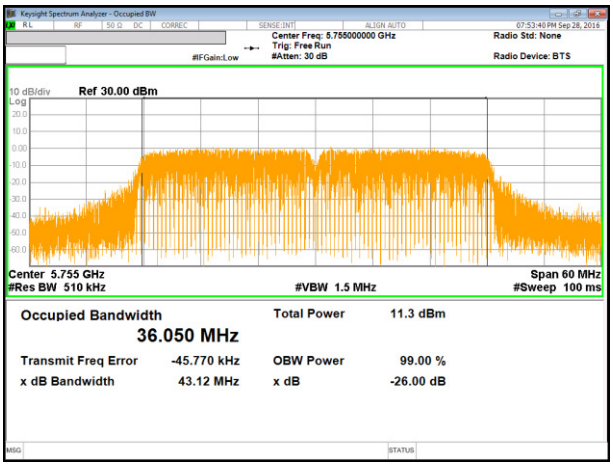
11n HT20 Mode High Channel



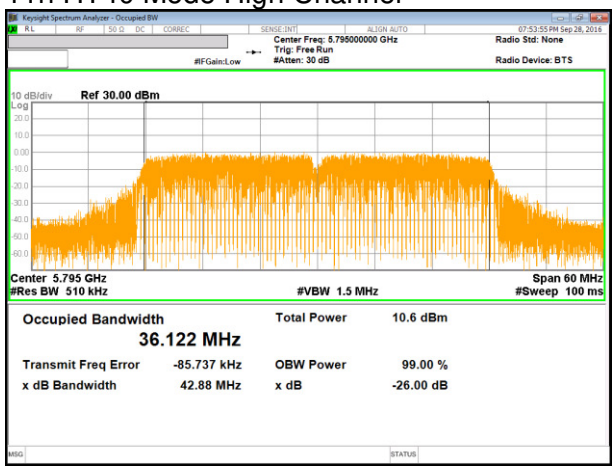
UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

UNII 5.8 GHz IEEE 802.11n HT40 mode

11n HT40 Mode Low Channel

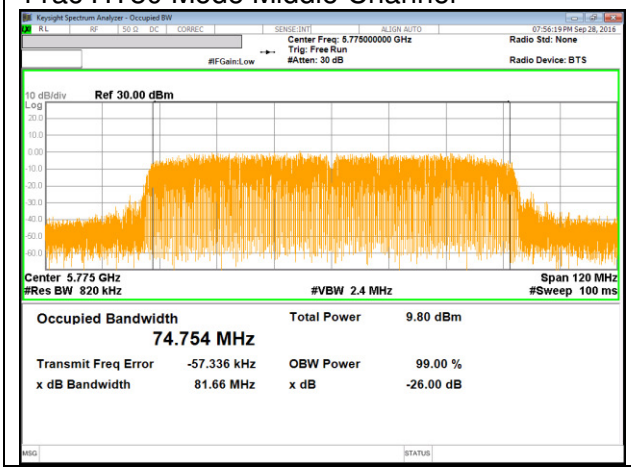


11n HT40 Mode High Channel



UNII 5.8 GHz IEEE 802.11ac VHT80 mode

11ac HT80 Mode Middle Channel



UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

10.4. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1) (2) (3)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

5 GHz

Frequency Band [MHz]	Antenna Gain [dBi]
5150 - 5250	2.87
5250 - 5350	2.83
5470 - 5725	2.72
5725 - 5850	1.69

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

RESULTS

10.4.1. 802.11a MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5180	21.92	16.45	2.87	2.87
Mid	5200	21.51	16.47	2.87	2.87
High	5240	21.38	16.57	2.87	2.87

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	FCC PPSD Limit [dBm]
Low	5180	24.00	11.00
Mid	5200	24.00	11.00
High	5240	24.00	11.00

Duty Cycle CF [dB]	0.30	**Included in Calculations of Corr'd Power & PPSD**

Output Power Results

Channel	Frequency [MHz]	Meas Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Low	5180	12.78	24.00	-11.22
Mid	5200	12.84	24.00	-11.16
High	5240	13.00	24.00	-11.00

PPSD Results

Channel	Frequency [MHz]	Meas PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5180	2.27	11.00	-8.73
Mid	5200	2.45	11.00	-8.55
High	5240	2.54	11.00	-8.46

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

10.4.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5180	21.82	17.75	2.87	2.87
Mid	5200	22.11	17.73	2.87	2.87
High	5240	21.73	17.74	2.87	2.87

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	FCC PPSD Limit [dBm]
Low	5180	24.00	11.00
Mid	5200	24.00	11.00
High	5240	24.00	11.00

Duty Cycle CF [dB]	0.32	**Included in Calculations of Corr'd Power & PPSD**

Output Power Results

Channel	Frequency [MHz]	Meas Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Low	5180	11.45	24.00	-12.55
Mid	5200	11.66	24.00	-12.34
High	5240	11.74	24.00	-12.26

PPSD Results

Channel	Frequency [MHz]	Meas PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5180	0.61	11.00	-10.39
Mid	5200	0.99	11.00	-10.01
High	5240	0.88	11.00	-10.12

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

10.4.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5190	42.07	36.04	2.87	2.87
High	5230	42.90	36.07	2.87	2.87

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	FCC PPSD Limit [dBm]
Low	5190	24.00	11.00
High	5230	24.00	11.00

Duty Cycle CF [dB]	0.63	**Included in Calculations of Corr'd Power & PPSD**

Output Power Results

Channel	Frequency [MHz]	Meas Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Low	5190	11.74	24.00	-12.26
High	5230	11.81	24.00	-12.19

PPSD Results

Channel	Frequency [MHz]	Meas PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5190	-2.01	11.00	-13.01
High	5230	-1.61	11.00	-12.61

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

10.4.4. 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Middle	5210	83.48	74.84	2.87	2.87

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	FCC PPSD Limit [dBm]
Middle	5210	24.00	11.00

Duty Cycle CF [dB]	1.48	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency [MHz]	Meas Power [dBm]	Total Corr'd Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Middle	5210	10.403	11.88	24.00	-12.12

PPSD Results

Channel	Frequency [MHz]	Meas PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Middle	5210	-6.03	-4.55	11.00	-15.55

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

10.4.5. 802.11a MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5260	21.66	16.57	2.83	2.83
Mid	5300	21.30	16.55	2.83	2.83
High	5320	21.19	16.57	2.83	2.83

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	FCC PPSD Limit [dBm]
Low	5260	24.00	11.00
Mid	5300	24.00	11.00
High	5320	24.00	11.00

Duty Cycle CF [dB]	0.30	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency [MHz]	Meas Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Low	5260	12.51	24.00	-11.49
Mid	5300	12.86	24.00	-11.14
High	5320	12.91	24.00	-11.09

PPSD Results

Channel	Frequency [MHz]	Meas PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5260	2.17	11.00	-8.83
Mid	5300	2.64	11.00	-8.36
High	5320	2.45	11.00	-8.55

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

10.4.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5260	21.91	17.74	2.83	2.83
Mid	5300	22.09	17.73	2.83	2.83
High	5320	21.90	17.74	2.83	2.83

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	FCC PPSD Limit [dBm]
Low	5260	24.00	11.00
Mid	5300	24.00	11.00
High	5320	24.00	11.00

Duty Cycle CF [dB]	0.32	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency [MHz]	Meas Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Low	5260	11.31	24.00	-12.69
Mid	5300	12.05	24.00	-11.95
High	5320	11.99	24.00	-12.01

PPSD Results

Channel	Frequency [MHz]	Meas PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5260	0.81	11.00	-10.19
Mid	5300	1.66	11.00	-9.34
High	5320	1.25	11.00	-9.75

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

10.4.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5270	43.21	36.00	2.83	2.83
High	5310	43.13	36.08	2.83	2.83

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	FCC PPSD Limit [dBm]
Low	5270	24.00	11.00
High	5310	24.00	11.00

Duty Cycle CF [dB]	0.63	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency [MHz]	Meas Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Low	5270	11.80	24.00	-12.20
High	5310	11.77	24.00	-12.23

PPSD Results

Channel	Frequency [MHz]	Meas PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5270	-1.51	11.00	-12.51
High	5310	-1.31	11.00	-12.31

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

10.4.8. 802.11ac VHT80 MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Middle	5290	83.69	74.93	2.83	2.83

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	FCC PPSD Limit [dBm]
Middle	5290	24.00	11.00

Duty Cycle CF [dB]	1.48	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency [MHz]	Total Corr'd Power [dBm]	Total Corr'd Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Middle	5290	10.52	12.00	24.00	-12.00

PPSD Results

Channel	Frequency [MHz]	Meas PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Middle	5290	-5.28	-3.80	11.00	-14.80

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

10.4.9. 802.11a MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5500	21.50	16.58	2.72	2.72
Mid	5580	21.87	16.56	2.72	2.72
High	5700	21.80	16.57	2.72	2.72

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	FCC PPSD Limit [dBm]
Low	5500	24.00	11.00
Mid	5580	24.00	11.00
High	5700	24.00	11.00

Duty Cycle CF [dB]	0.30	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency [MHz]	Meas Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Low	5500	12.98	24.00	-11.02
Mid	5580	12.29	24.00	-11.71
High	5700	12.97	24.00	-11.04

PPSD Results

Channel	Frequency [MHz]	Meas PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5500	3.01	11.00	-7.99
Mid	5580	1.95	11.00	-9.05
High	5700	2.74	11.00	-8.26

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

10.4.10. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5500	21.50	17.74	2.72	2.72
Mid	5580	21.58	17.73	2.72	2.72
High	5700	21.39	17.75	2.72	2.72

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	FCC PPSD Limit [dBm]
Low	5500	24.00	11.00
Mid	5580	24.00	11.00
High	5700	24.00	11.00

Duty Cycle CF [dB]	0.32	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency [MHz]	Meas Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Low	5500	12.08	24.00	-11.92
Mid	5580	11.50	24.00	-12.50
High	5700	11.70	24.00	-12.30

PPSD Results

Channel	Frequency [MHz]	Meas PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5500	1.26	11.00	-9.74
Mid	5580	0.54	11.00	-10.46
High	5700	1.12	11.00	-9.88

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

10.4.11. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5510	43.99	36.06	2.72	2.72
Mid	5550	42.24	35.96	2.72	2.72
High	5670	42.52	36.01	2.72	2.72

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	FCC PPSD Limit [dBm]
Low	5510	24.00	11.00
Mid	5550	24.00	11.00
High	5670	24.00	11.00
Duty Cycle CF [dB]		0.63	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency [MHz]	Meas Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Low	5510	11.49	24.00	-12.51
Mid	5550	10.94	24.00	-13.06
High	5670	11.20	24.00	-12.80

PPSD Results

Channel	Frequency [MHz]	Meas PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5510	-1.96	11.00	-12.96
Mid	5550	-2.70	11.00	-13.70
High	5670	-2.78	11.00	-13.78

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

10.4.12. 802.11ac VHT80 MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5530	83.18	74.70	2.72	2.72
High	5610	82.81	74.89	2.72	2.72

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	FCC PPSD Limit [dBm]
Low	5530	24.00	11.00
High	5610	24.00	11.00

Duty Cycle CF [dB]	1.48	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency [MHz]	Total Corr'd Power [dBm]	Total Corr'd Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Low	5530	10.12	11.60	24.00	-12.40
High	5610	10.24	11.72	24.00	-12.28

PPSD Results

Channel	Frequency [MHz]	Meas PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5530	-5.99	-4.51	11.00	-15.51
High	5610	-6.05	-4.57	11.00	-15.57

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

10.4.13. 802.11a MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5745	21.59	16.54	1.69	1.69
Mid	5785	21.34	16.57	1.69	1.69
High	5825	21.83	16.57	1.69	1.69

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	FCC PPSD Limit [dBm]
Low	5745	24.00	30.00
Mid	5785	24.00	30.00
High	5825	24.00	30.00

Duty Cycle CF [dB]	0.30	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency [MHz]	Meas Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Low	5745	12.91	24.00	-11.09
Mid	5785	12.26	24.00	-11.74
High	5825	12.64	24.00	-11.36

PPSD Results

Channel	Frequency [MHz]	Meas PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5745	-0.80	30.00	-30.80
Mid	5785	-1.03	30.00	-31.03
High	5825	-1.06	30.00	-31.06

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

10.4.14. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5745	21.73	17.72	1.69	1.69
Mid	5785	21.70	17.75	1.69	1.69
High	5825	21.68	17.75	1.69	1.69

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	FCC PPSD Limit [dBm]
Low	5745	24.00	30.00
Mid	5785	24.00	30.00
High	5825	24.00	30.00

Duty Cycle CF [dB]	0.32	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency [MHz]	Meas Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Low	5745	11.83	24.00	-12.17
Mid	5785	11.55	24.00	-12.45
High	5825	11.99	24.00	-12.01

PPSD Results

Channel	Frequency [MHz]	Meas PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5745	-2.21	30.00	-32.21
Mid	5785	-2.44	30.00	-32.44
High	5825	-1.71	30.00	-31.71

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

10.4.15. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5755	42.14	36.05	1.69	1.69
High	5795	42.61	36.12	1.69	1.69

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	FCC PPSD Limit [dBm]
Low	5755	24.00	30.00
High	5795	24.00	30.00

Duty Cycle CF [dB]	0.63	**Included in Calculations of Corr'd Power & PPSD**

Output Power Results

Channel	Frequency [MHz]	Meas Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Low	5755	11.80	24.00	-12.20
High	5795	11.60	24.00	-12.40

PPSD Results

Channel	Frequency [MHz]	Meas PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5755	-4.66	30.00	-34.66
High	5795	-5.00	30.00	-35.00

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

10.4.16. 802.11ac VHT80 MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Middle	5775	83.56	74.75	1.69	1.69

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	FCC PPSD Limit [dBm]
Middle	5775	24.00	30.00

Duty Cycle CF [dB]	1.48	**Included in Calculations of Corr'd Power & PPSD**

Output Power Results

Channel	Frequency [MHz]	Total Corr'd Power [dBm]	Total Corr'd Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Middle	5775	10.50	11.98	24.00	-12.02

PPSD Results

Channel	Frequency [MHz]	Meas PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Middle	5775	-8.62	-7.14	30.00	-37.14

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

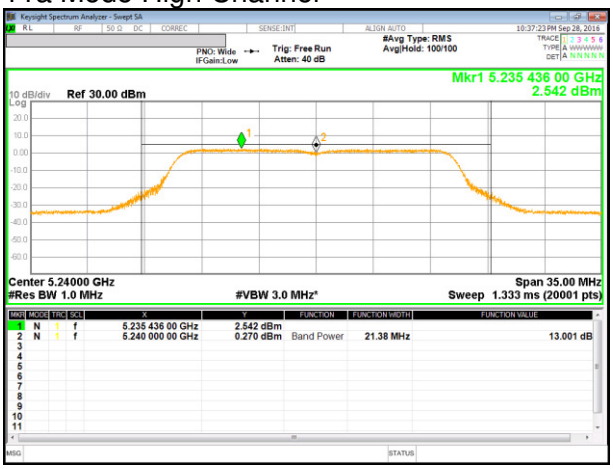
10.4.17. OUTPUT POWER AND PPSD PLOTS

UNII 5.2 GHz IEEE 802.11a mode

11a Mode Low Channel

11a Mode Middle Channel

11a Mode High Channel



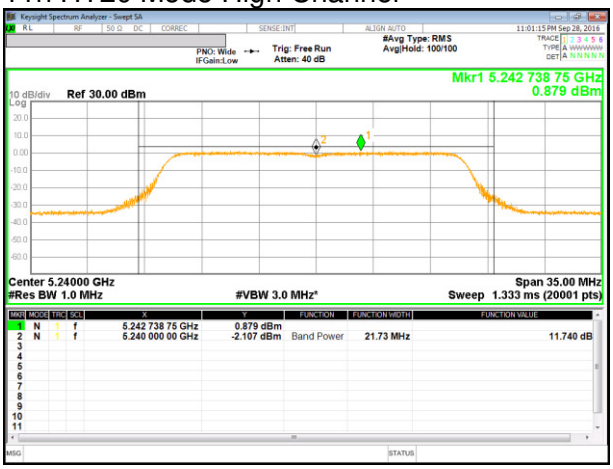
UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

UNII 5.2 GHz IEEE 802.11n HT20 mode

11n HT20 Mode Low Channel

11n HT20 Mode Middle Channel

11n HT20 Mode High Channel

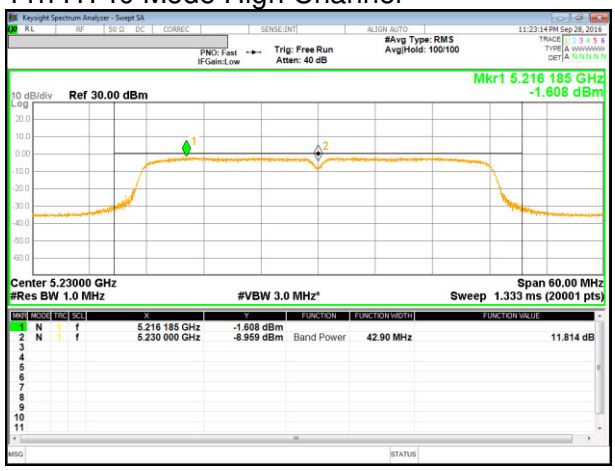


UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

UNII 5.2 GHz IEEE 802.11n HT40 mode

11n HT40 Mode Low Channel

11n HT40 Mode High Channel



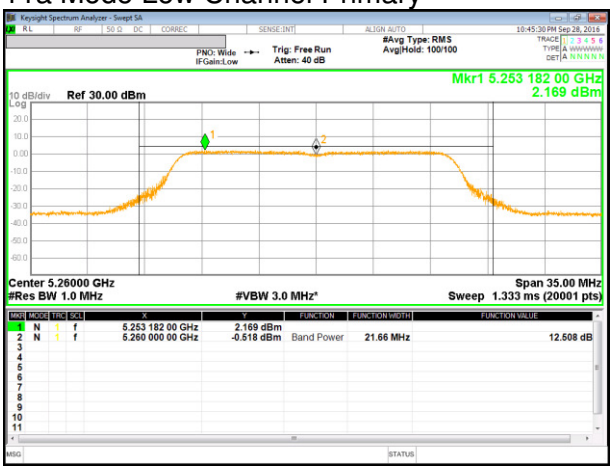
UNII 5.2 GHz IEEE 802.11ac VHT80 mode

11ac HT80 Mode Middle Channel

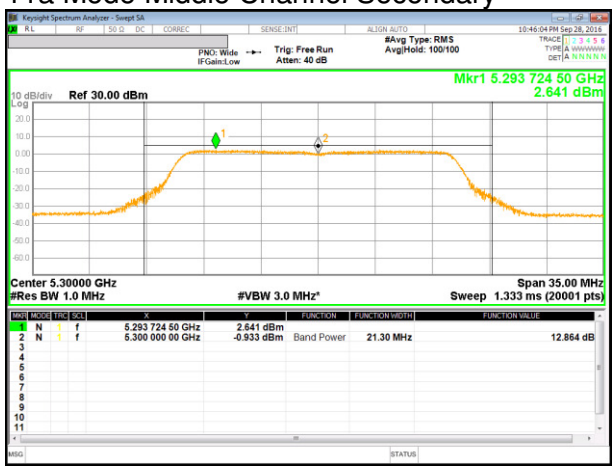
UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

UNII 5.3 GHz IEEE 802.11a mode

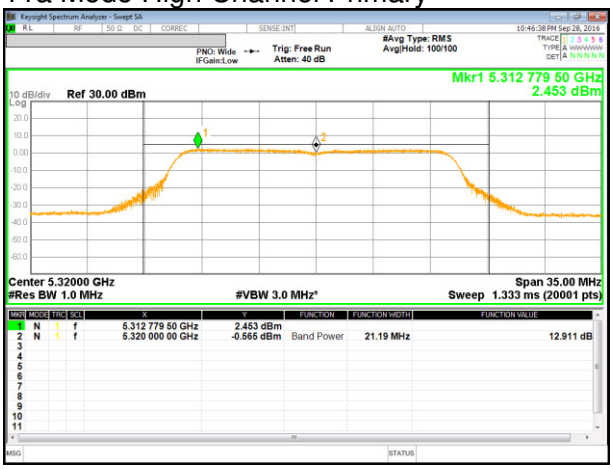
11a Mode Low Channel Primary



11a Mode Middle Channel Secondary



11a Mode High Channel Primary



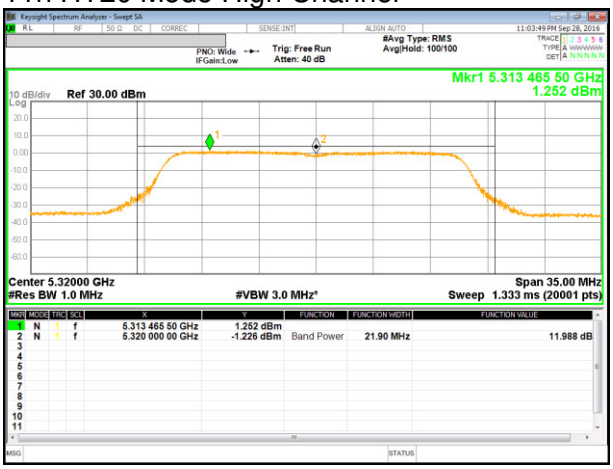
UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

UNII 5.3 GHz IEEE 802.11n HT20 mode

11n HT20 Mode Low Channel

11n HT20 Mode Middle Channel

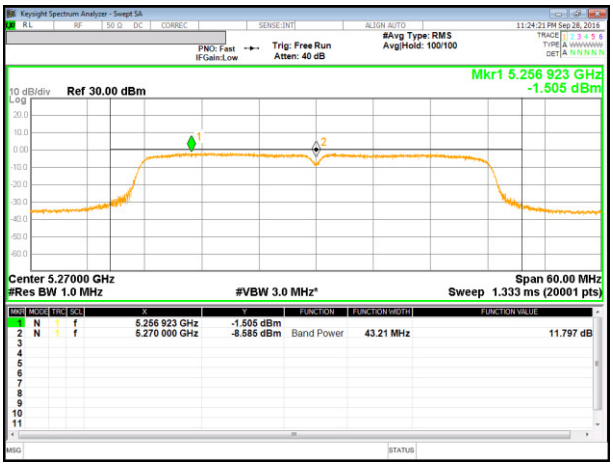
11n HT20 Mode High Channel



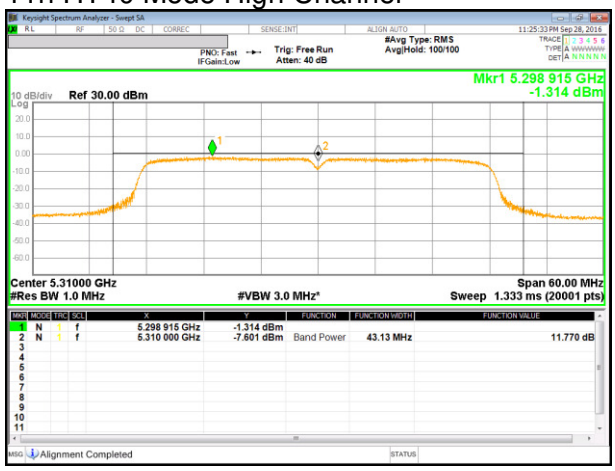
UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

UNII 5.3 GHz IEEE 802.11n HT40 mode

11n HT40 Mode Low Channel



11n HT40 Mode High Channel



UNII 5.3 GHz IEEE 802.11ac VHT80 mode

11ac HT80 Mode Middle Channel

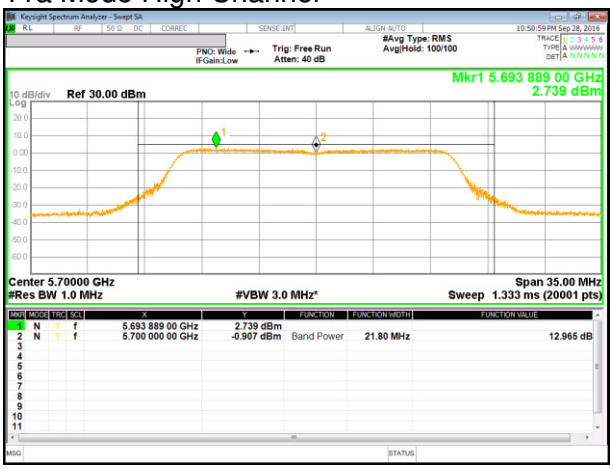
UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

UNII 5.5 GHz IEEE 802.11a mode

11a Mode Low Channel

11a Mode Middle Channel

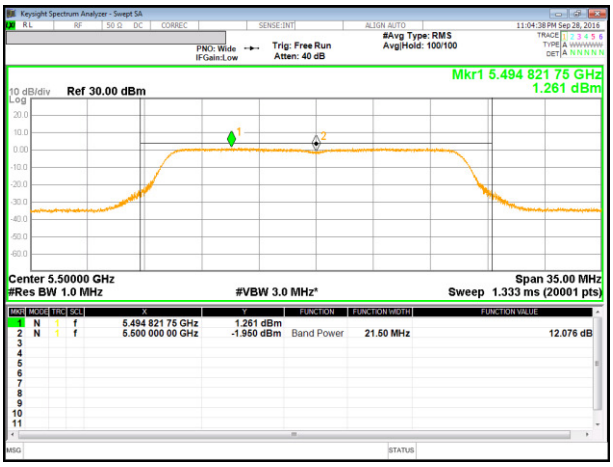
11a Mode High Channel



UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

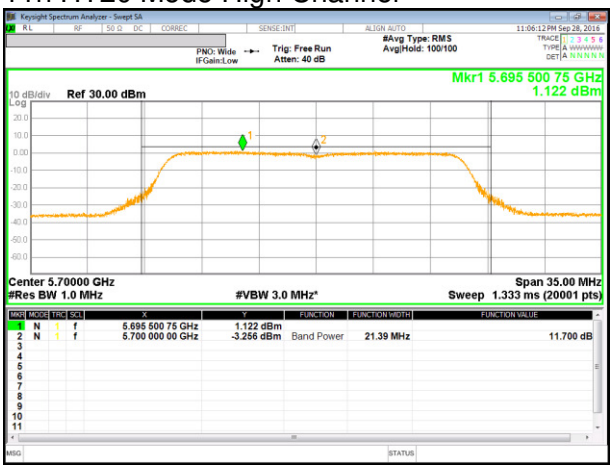
UNII 5.5 GHz IEEE 802.11n HT20 mode

11n HT20 Mode Low Channel



11n HT20 Mode Middle Channel

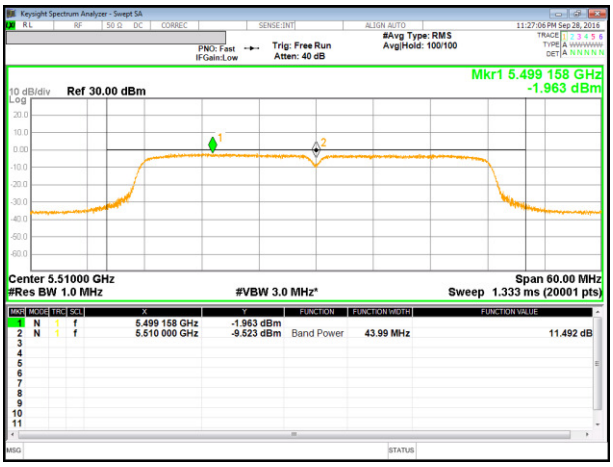
11n HT20 Mode High Channel



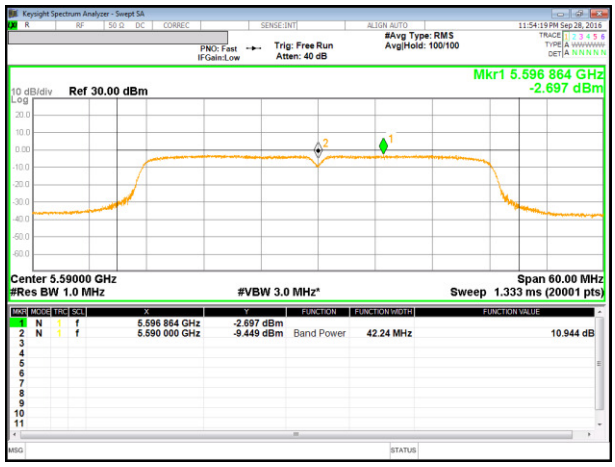
UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

UNII 5.5 GHz IEEE 802.11n HT40 mode

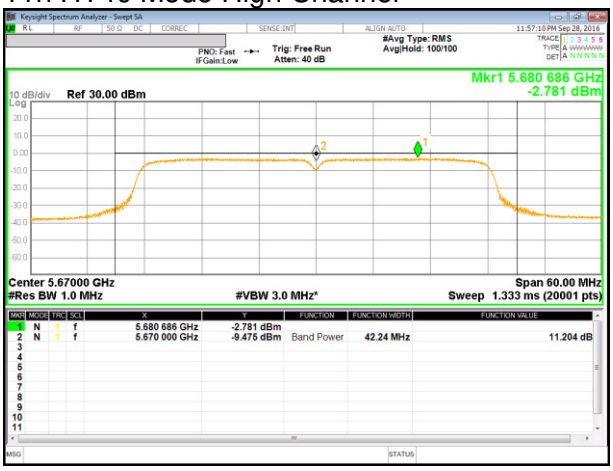
11n HT40 Mode Low Channel



11n HT40 Mode Middle Channel



11n HT40 Mode High Channel

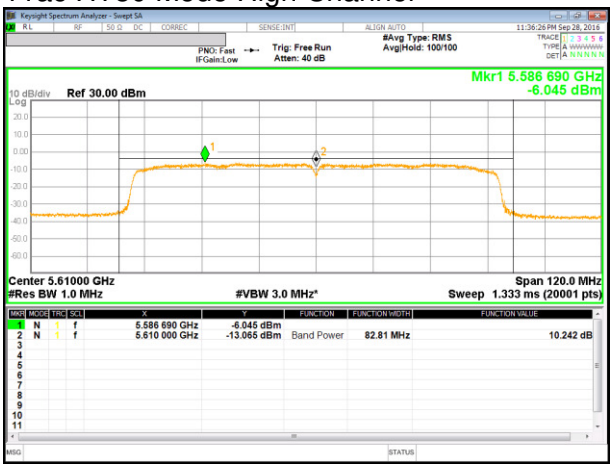


UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

UNII 5.5 GHz IEEE 802.11ac VHT80 mode

11ac HT80 Mode Low Channel

11ac HT80 Mode High Channel



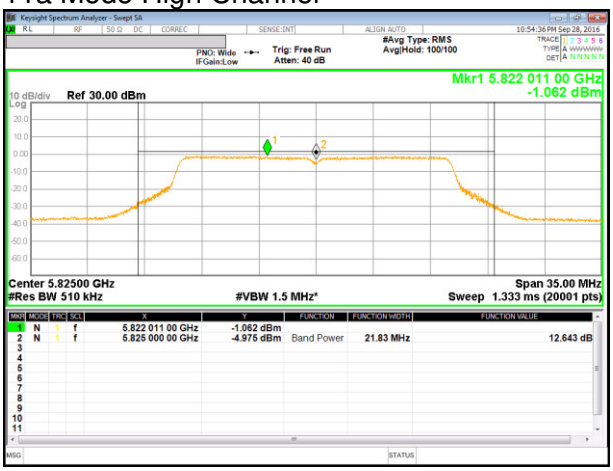
UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

UNII 5.8 GHz IEEE 802.11a mode

11a Mode Low Channel

11a Mode Middle Channel

11a Mode High Channel



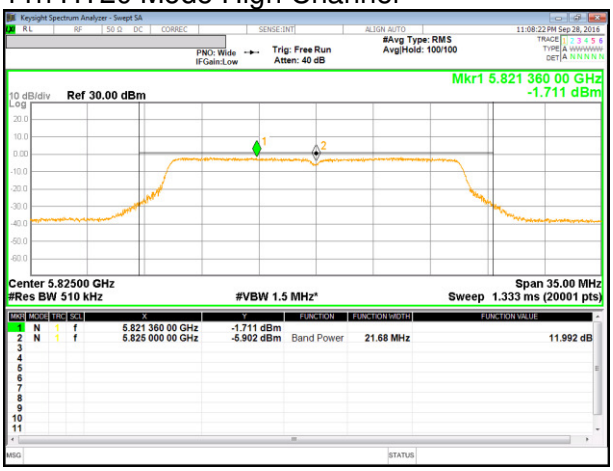
UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

UNII 5.8 GHz IEEE 802.11n HT20 mode

11n HT20 Mode Low Channel

11n HT20 Mode Middle Channel

11n HT20 Mode High Channel

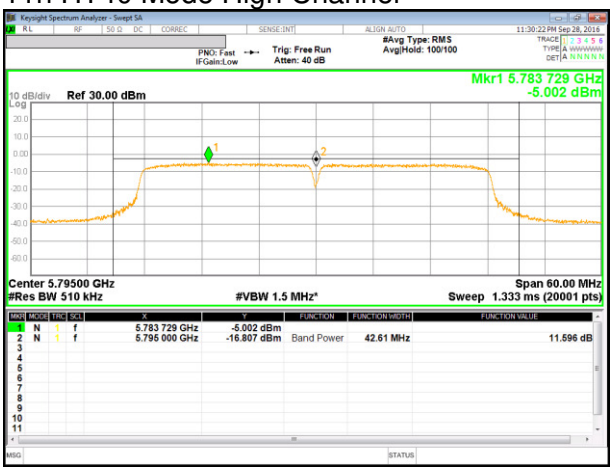


UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

UNII 5.8 GHz IEEE 802.11n HT40 mode

11n HT40 Mode Low Channel

11n HT40 Mode High Channel



UNII 5.8 GHz IEEE 802.11ac VHT80 mode

11ac HT80 Mode Middle Channel

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

11. TRANSMITTER ABOVE 1 GHz

LIMITS

FCC §15.205 and §15.209

Limits for radiated disturbance of an intentional radiator		
Frequency range (MHz)	Limits (µV/m)	Measurement Distance (m)
0.009 – 0.490	2400 / F (kHz)	300
0.490 – 1.705	24000 / F (kHz)	30
1.705 – 30.0	30	30
30 – 88	100**	3
88 - 216	150**	3
216 – 960	200**	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g. §§ 15.231 and 15.241.

FCC §15.407 (b)

(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

(5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

(6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.
(7) The provisions of §15.205 apply to intentional radiators operating under this section.
(8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

Note

- Limit translation to field strength level (FCC §15.407)

E[dBuV/m] = EIRP[dBm] + 95.2 = -27dBm + 95.2 = 68.2dBuV/m
E[dBuV/m] = EIRP[dBm] + 95.2 = -17dBm + 95.2 = 78.2dBuV/m

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz and 150 cm for above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

Reference to KDB 789033 D02 v01r02 UNII part G) 6) c) Method AD:
For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor to the reading offset for average measurements.

Pre-scans to detect harmonic and spurious emissions, the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 KHz for peak measurements.

The spectrum from 1 GHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.
(From 30MHz to 1GHz, test was performed with the EUT set to transmit at the channel with highest output power)

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

Note : Emission was pre-scanned from 9KHz to 30MHz; No emissions were detected which was at least 20dB below the specification limit (consider distance correction factor).
Per FCC part 15.31(o), test results were not reported.

Formula for converting the filed strength from uV/m to dBuV/m is:
Limit (dBuV/m) = 20 log limit (uV/m)

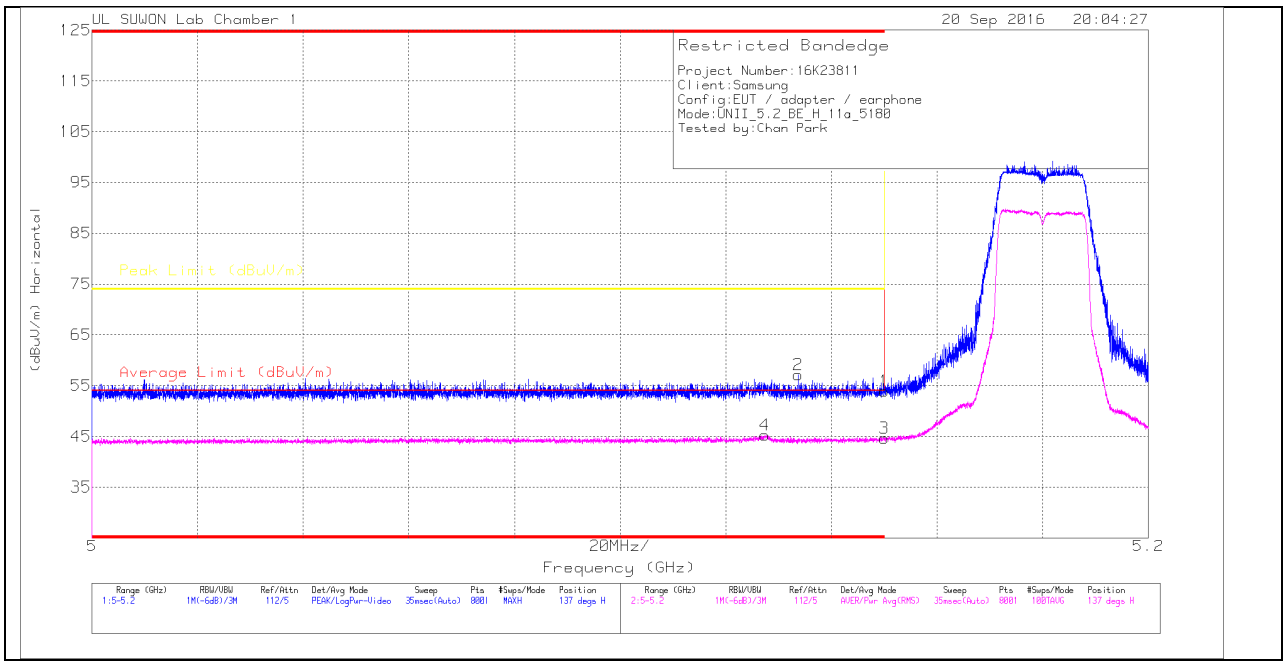
UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

11.1. 5.2 GHz

11.1.1. TX Above 1GHz 802.11a MODE IN THE 5.2GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	43.8	Pk	34.2	-24.1	0	53.9	-	-	74	-20.1	137	108	H
2	* 5.134	47.07	Pk	34.2	-24.1	0	57.17	-	-	74	-16.83	137	108	H
3	* 5.15	34.29	RMS	34.2	-24.1	.3	44.69	54	-9.31	-	-	137	108	H
4	* 5.127	34.74	RMS	34.2	-24	.3	45.24	54	-8.76	-	-	137	108	H

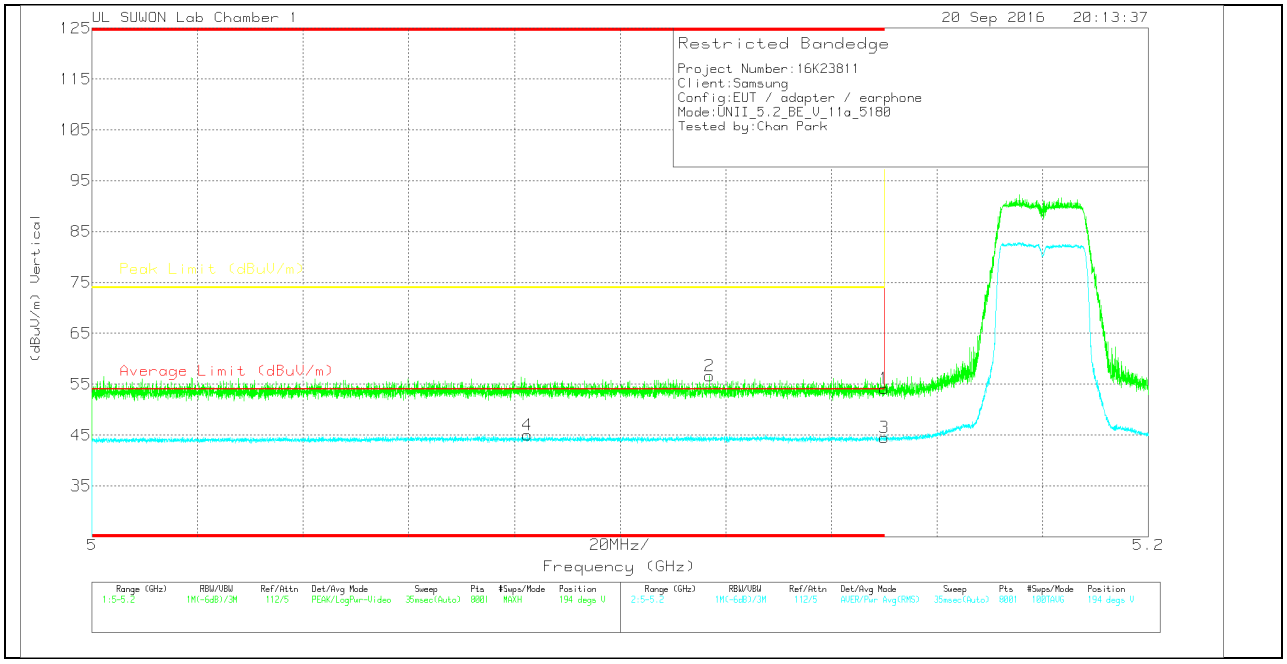
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	44.09	Pk	34.2	-24.1	0	54.19	-	-	74	-19.81	194	161	V
2	* 5.117	46.53	Pk	34.2	-24.1	0	56.63	-	-	74	-17.37	194	161	V
3	* 5.15	34.14	RMS	34.2	-24.1	.3	44.54	54	-9.46	-	-	194	161	V
4	* 5.082	34.7	RMS	34.2	-24.2	.3	45	54	-9	-	-	194	161	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

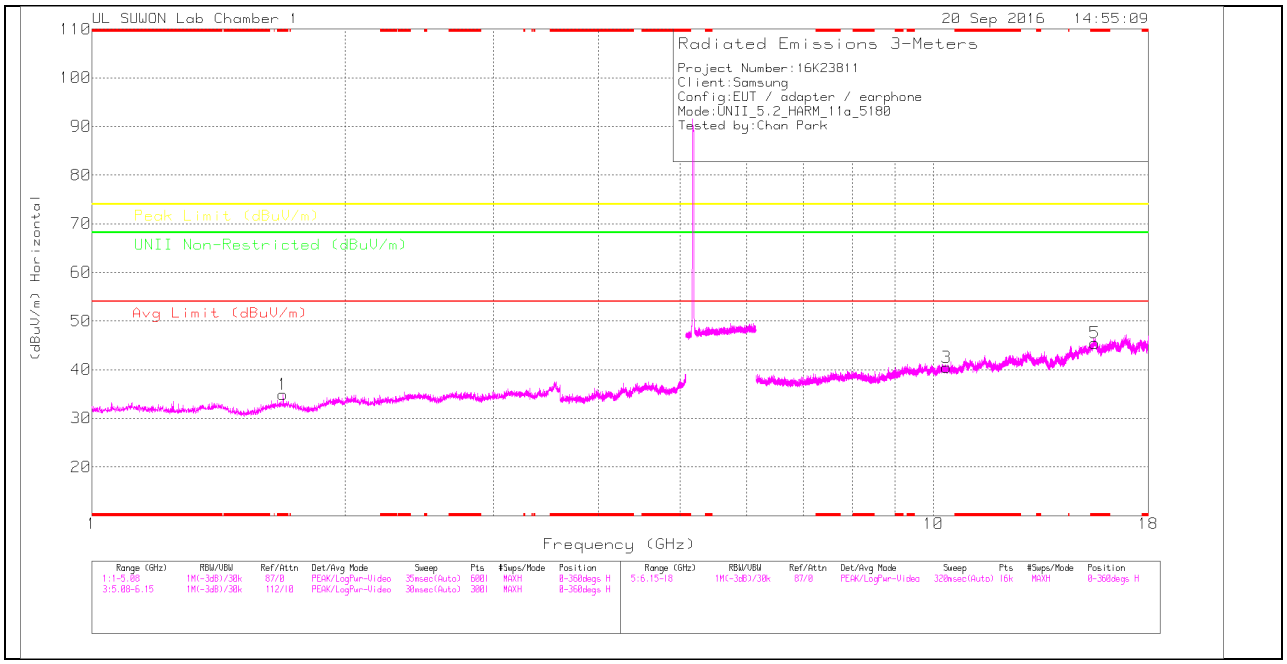
Pk - Peak detector

RMS - RMS detection

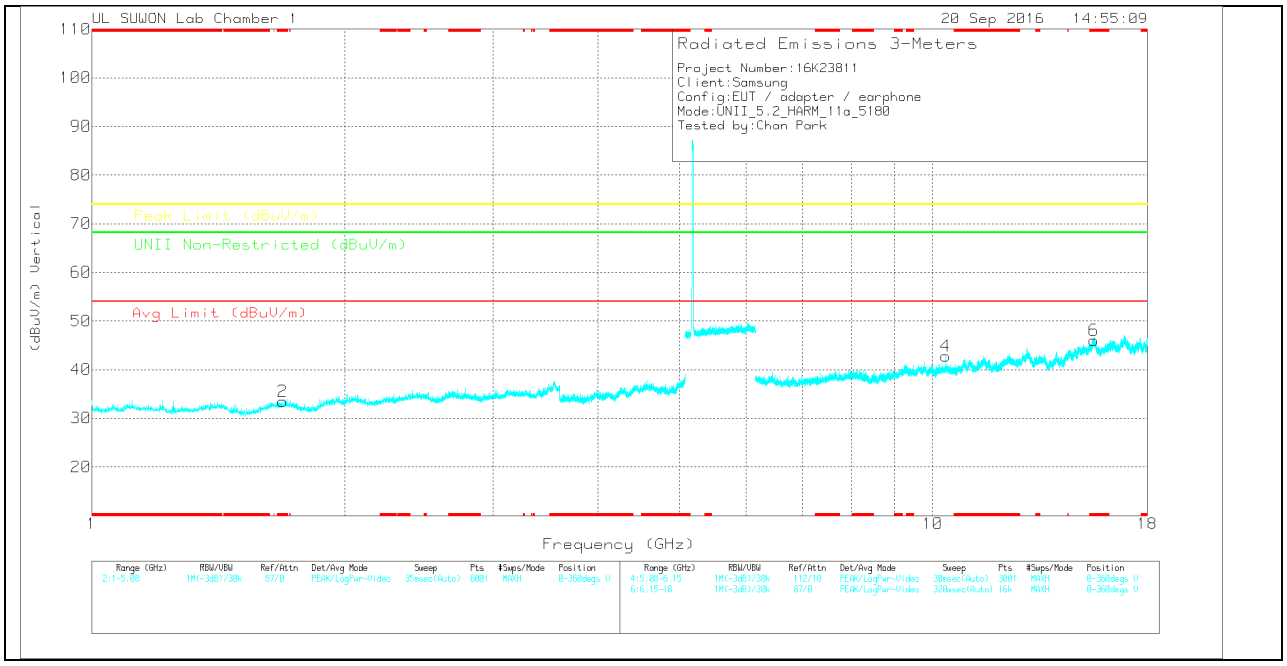
UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.687	44.95	PK	29.5	-39.5	0	34.95	-	-	74	-39.05	-	-	0-360	150	H
2	* 1.687	43.42	PK	29.5	-39.5	0	33.42	-	-	74	-40.58	-	-	0-360	250	V
3	10.358	30	PK	37.8	-27.4	0	40.4	-	-	-	-	68.2	-27.8	0-360	150	H
5	* 15.541	21.44	PK	40.3	-16.3	0	45.44	-	-	74	-28.56	-	-	0-360	250	H
4	10.36	32.27	PK	37.8	-27.3	0	42.77	-	-	-	-	68.2	-25.43	0-360	250	V
6	* 15.543	21.97	PK	40.3	-16.2	0	46.07	-	-	74	-27.93	-	-	0-360	250	V

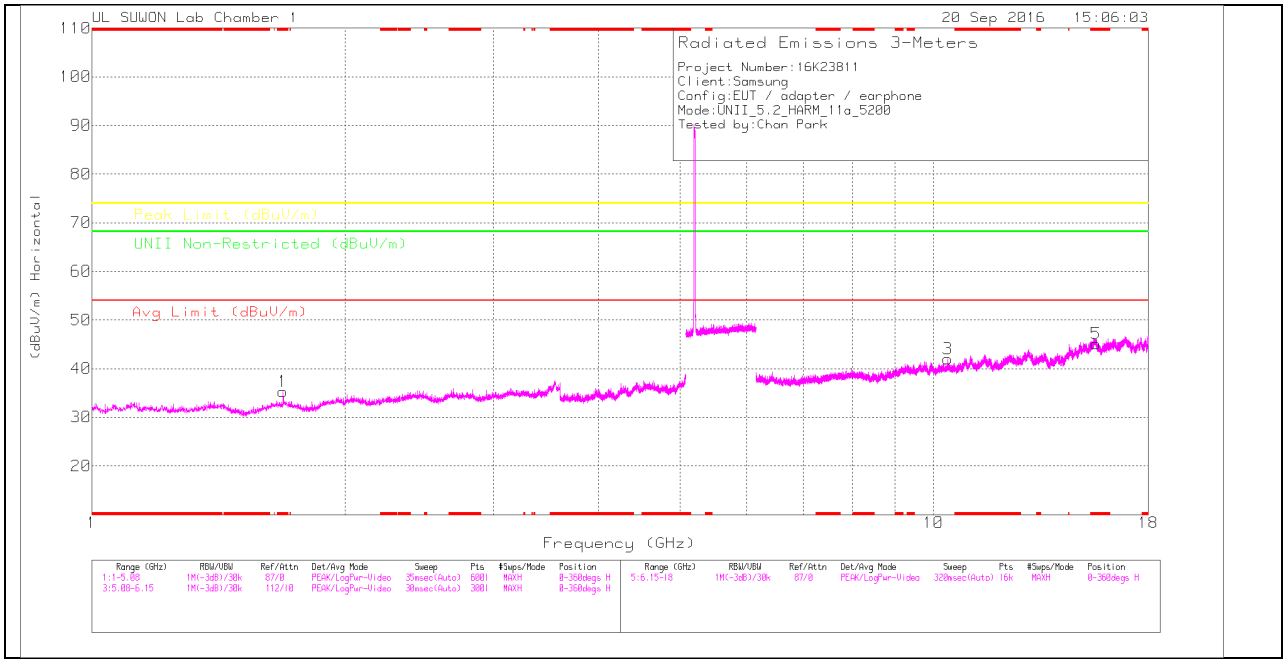
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

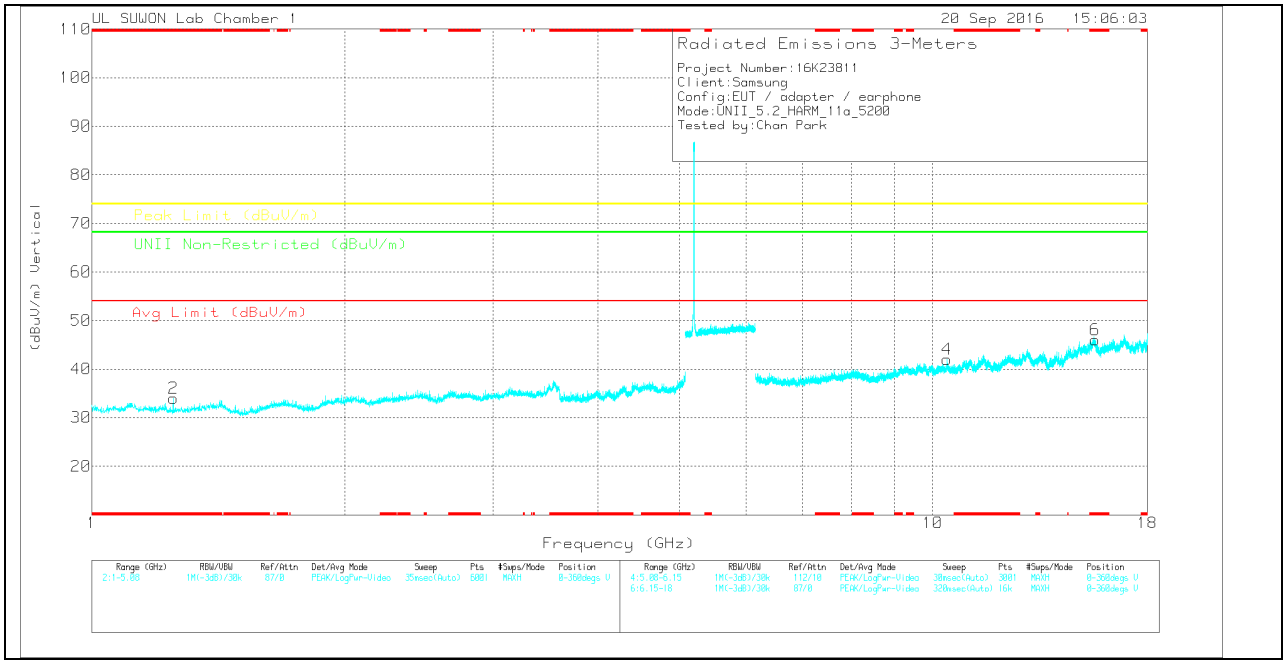
Note: Only peak measurement was performed. Because peak measurement result of unwanted emission is less than average limit (54dBuV/m).

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.687	45.29	PK	29.5	-39.5	0	35.29	-	-	74	-38.71	-	-	0-360	150	H
2	* 1.25	45.88	PK	28.3	-40.2	0	33.98	-	-	74	-40.02	-	-	0-360	250	V
3	10.396	31.04	PK	37.8	-26.8	0	42.04	-	-	-	-	68.2	-26.16	0-360	250	H
5	* 15.606	19.41	PK	40.3	-14.6	0	45.11	-	-	74	-28.89	-	-	0-360	150	H
4	10.4	30.9	PK	37.8	-26.7	0	42	-	-	-	-	68.2	-26.2	0-360	250	V
6	* 15.598	20.36	PK	40.3	-14.6	0	46.06	-	-	74	-27.94	-	-	0-360	150	V

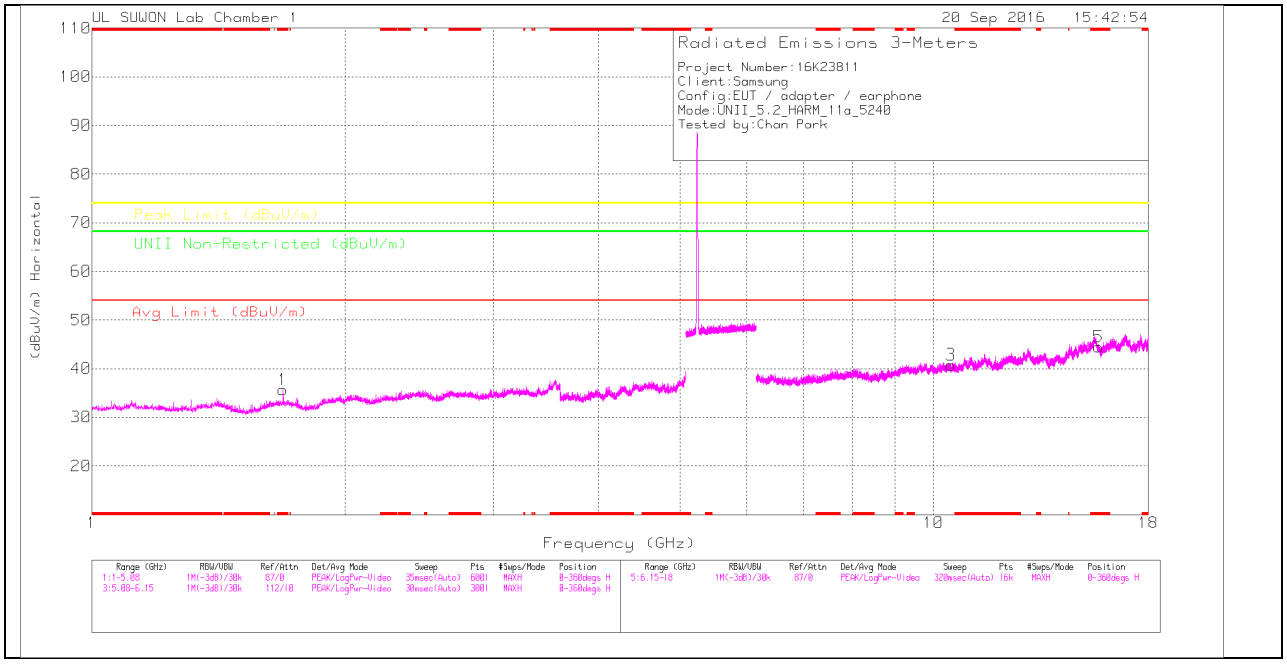
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

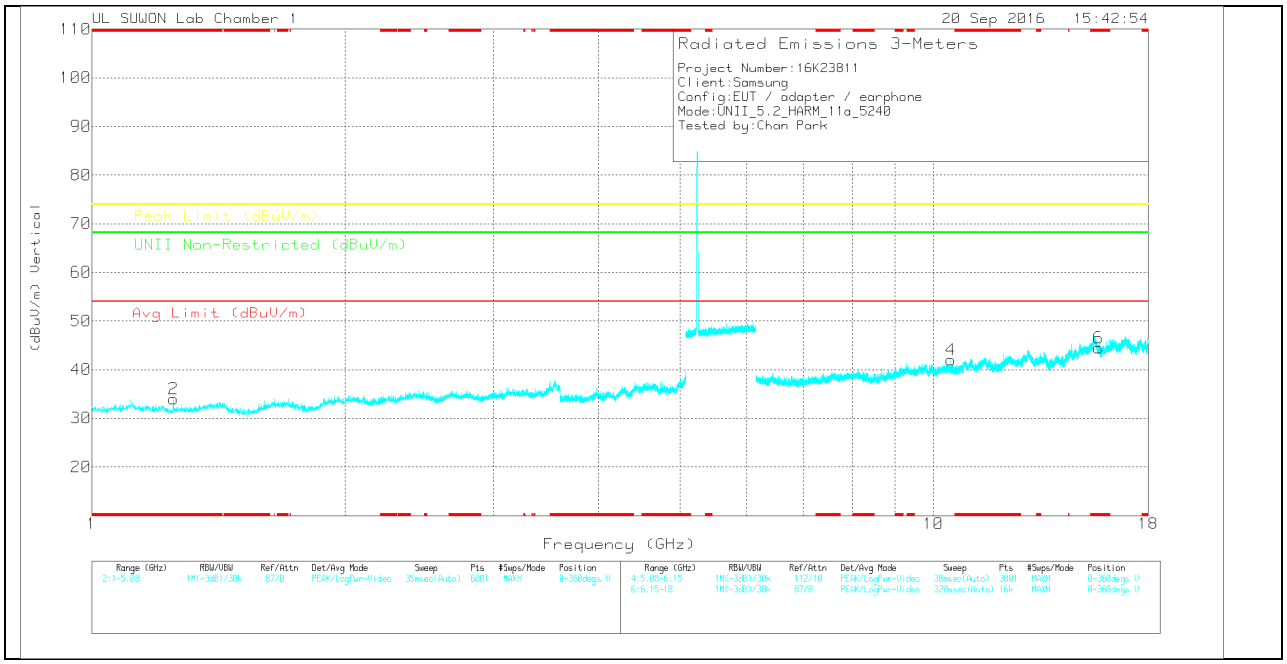
Note: Only peak measurement was performed. Because peak measurement result of unwanted emission is less than average limit (54dBuV/m).

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.687	45.68	PK	29.5	-39.5	0	35.68	-	-	74	-38.32	-	-	0-360	150	H
2	* 1.25	45.95	PK	28.3	-40.2	0	34.05	-	-	74	-39.95	-	-	0-360	250	V
3	10.481	30.68	PK	37.8	-27.7	0	40.78	-	-	-	-	68.2	-27.42	0-360	250	H
5	* 15.72	21.43	PK	40.4	-17.4	0	44.43	-	-	74	-29.57	-	-	0-360	150	H
4	10.48	31.94	PK	37.8	-27.7	0	42.04	-	-	-	-	68.2	-26.16	0-360	250	V
6	* 15.721	21.46	PK	40.4	-17.4	0	44.46	-	-	74	-29.54	-	-	0-360	250	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

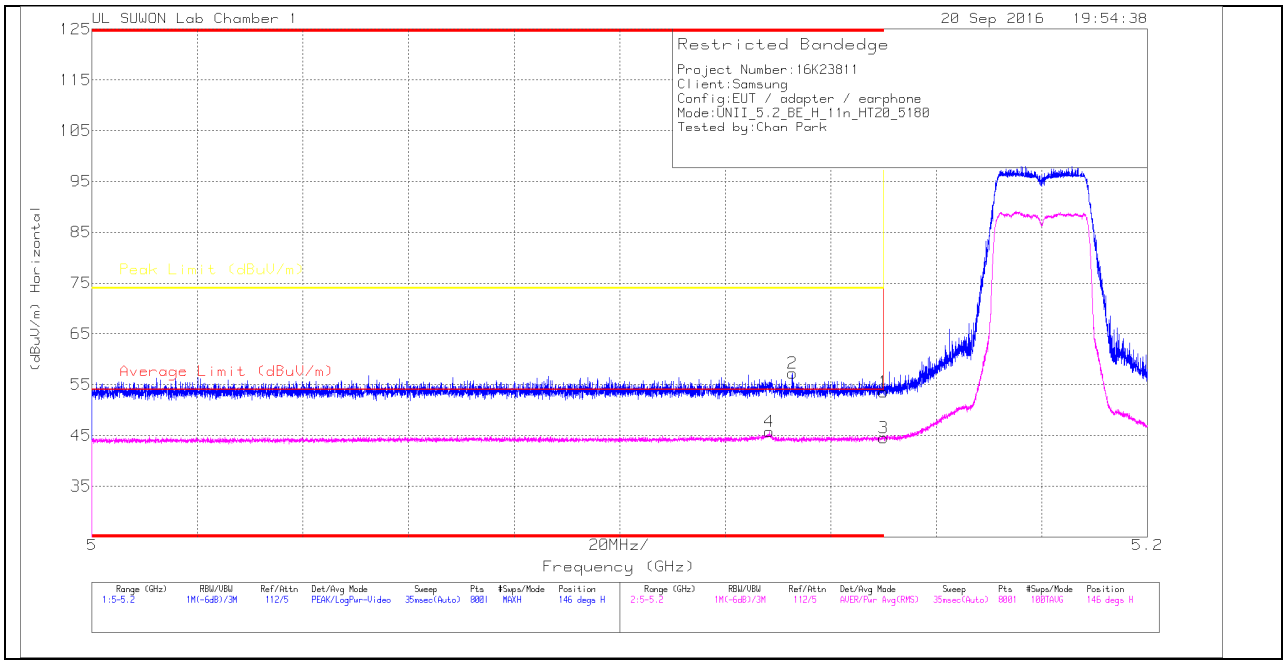
PK – Peak Detector

Note: Only peak measurement was performed. Because peak measurement result of unwanted emission is less than average limit (54dBuV/m).

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

11.1.2. TX Above 1GHz 802.11n HT20 MODE IN THE 5.2GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	43.47	Pk	34.2	-24.1	0	53.57	-	-	74	-20.43	146	102	H
2	* 5.133	47.13	Pk	34.2	-24.1	0	57.23	-	-	74	-16.77	146	102	H
3	* 5.15	34.04	RMS	34.2	-24.1	.32	44.46	54	-9.54	-	-	146	102	H
4	* 5.128	35.25	RMS	34.2	-24	.32	45.77	54	-8.23	-	-	146	102	H

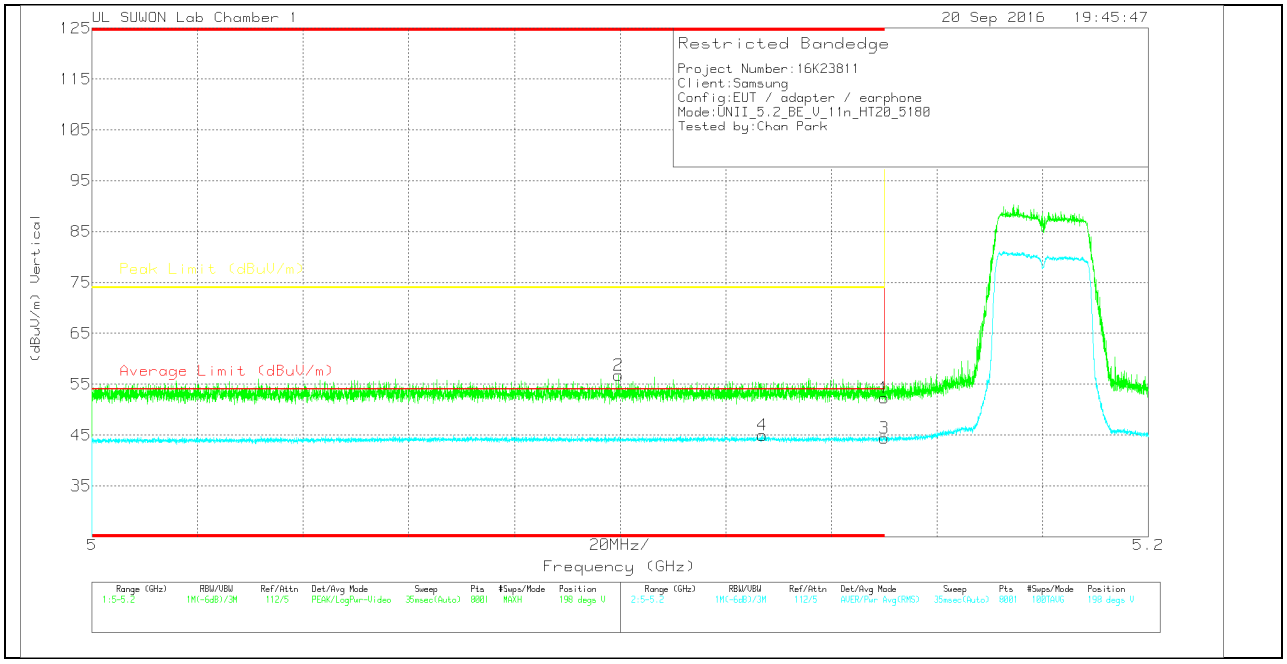
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	42.2	Pk	34.2	-24.1	0	52.3	-	-	74	-21.7	198	111	V
2	* 5.1	46.78	Pk	34.2	-24.2	0	56.78	-	-	74	-17.22	198	111	V
3	* 5.15	33.92	RMS	34.2	-24.1	.32	44.34	54	-9.66	-	-	198	111	V
4	* 5.127	34.43	RMS	34.2	-24	.32	44.95	54	-9.05	-	-	198	111	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

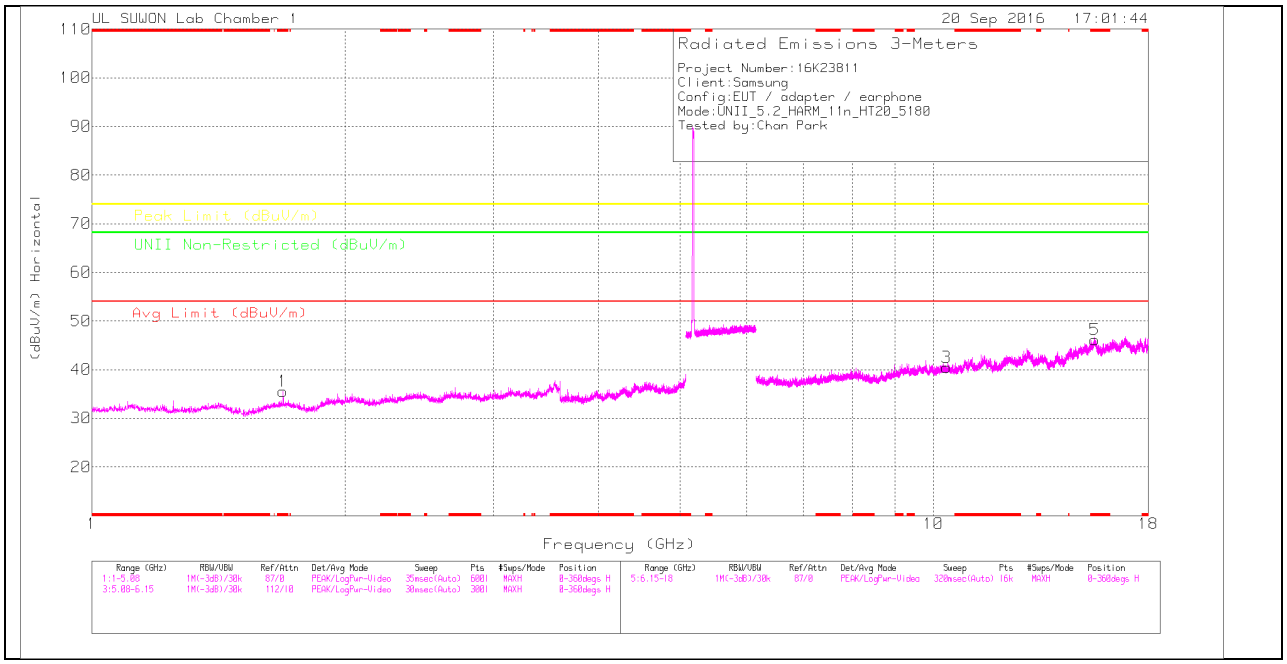
Pk - Peak detector

RMS - RMS detection

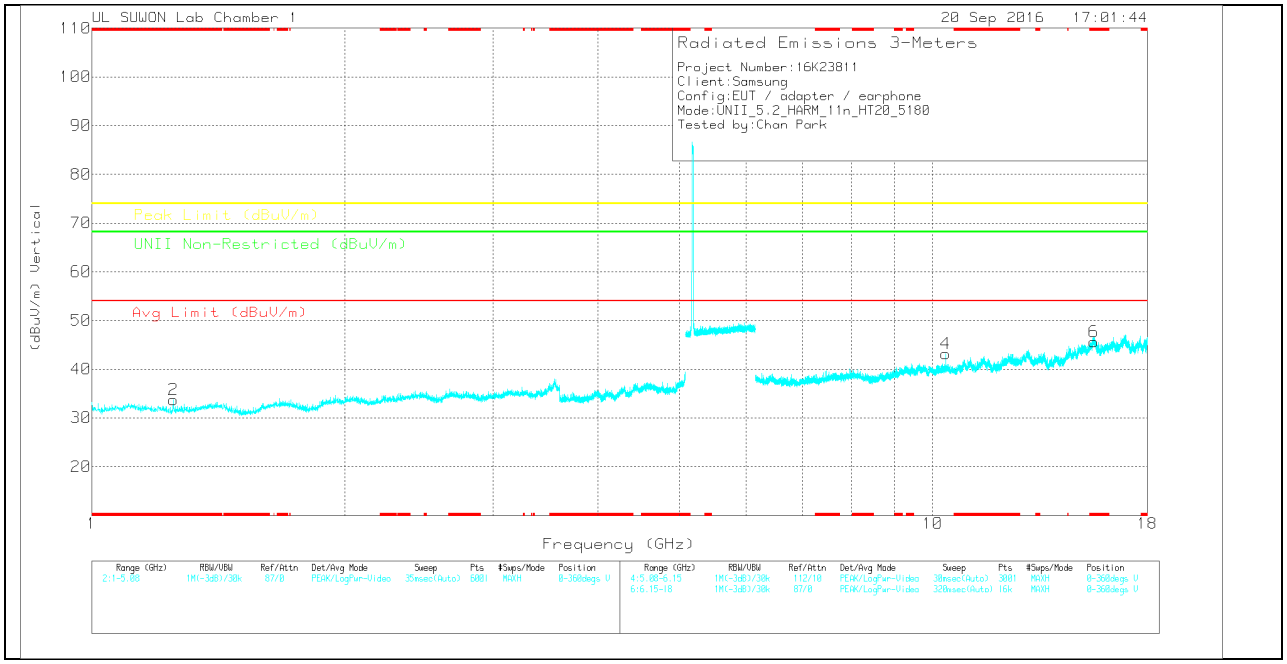
UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.687	45.59	PK	29.5	-39.5	0	35.59	-	-	74	-38.41	-	-	0-360	150	H
2	* 1.25	45.61	PK	28.3	-40.2	0	33.71	-	-	74	-40.29	-	-	0-360	250	V
3	10.361	29.92	PK	37.8	-27.3	0	40.42	-	-	-	-	68.2	-27.78	0-360	250	H
5	* 15.542	22.08	PK	40.3	-16.2	0	46.18	-	-	74	-27.82	-	-	0-360	250	H
4	10.359	32.76	PK	37.8	-27.4	0	43.16	-	-	-	-	68.2	-25.04	0-360	250	V
6	* 15.542	21.57	PK	40.3	-16.2	0	45.67	-	-	74	-28.33	-	-	0-360	250	V

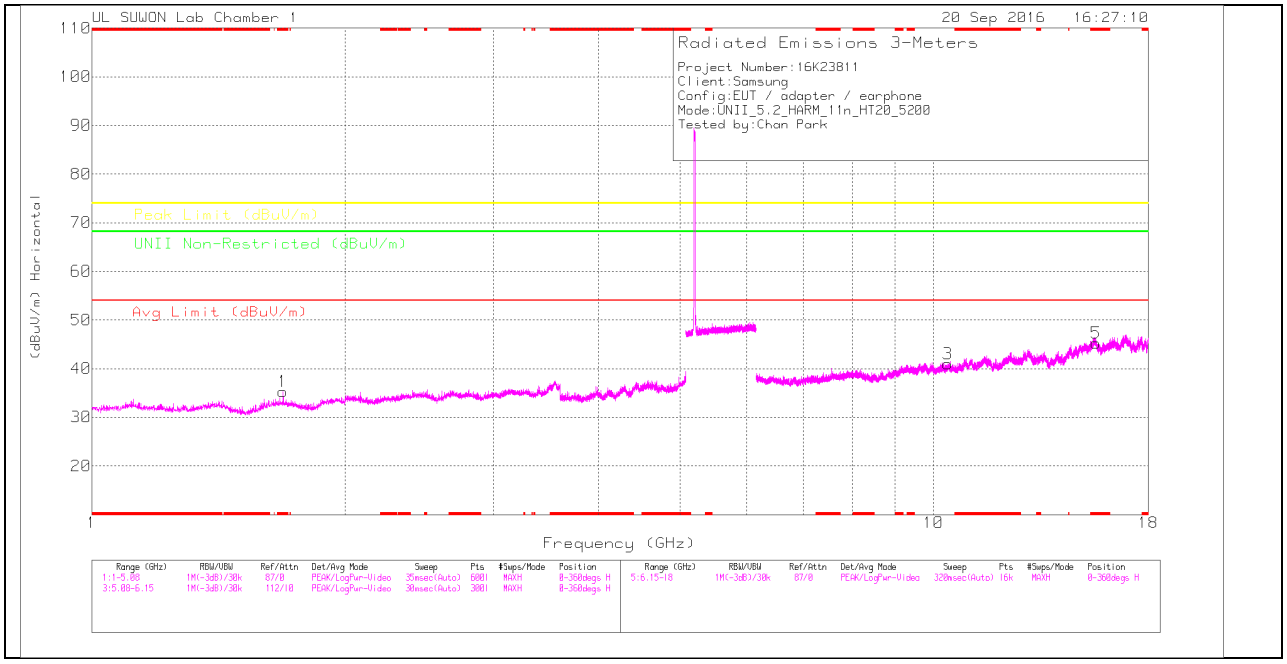
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk – Peak detector

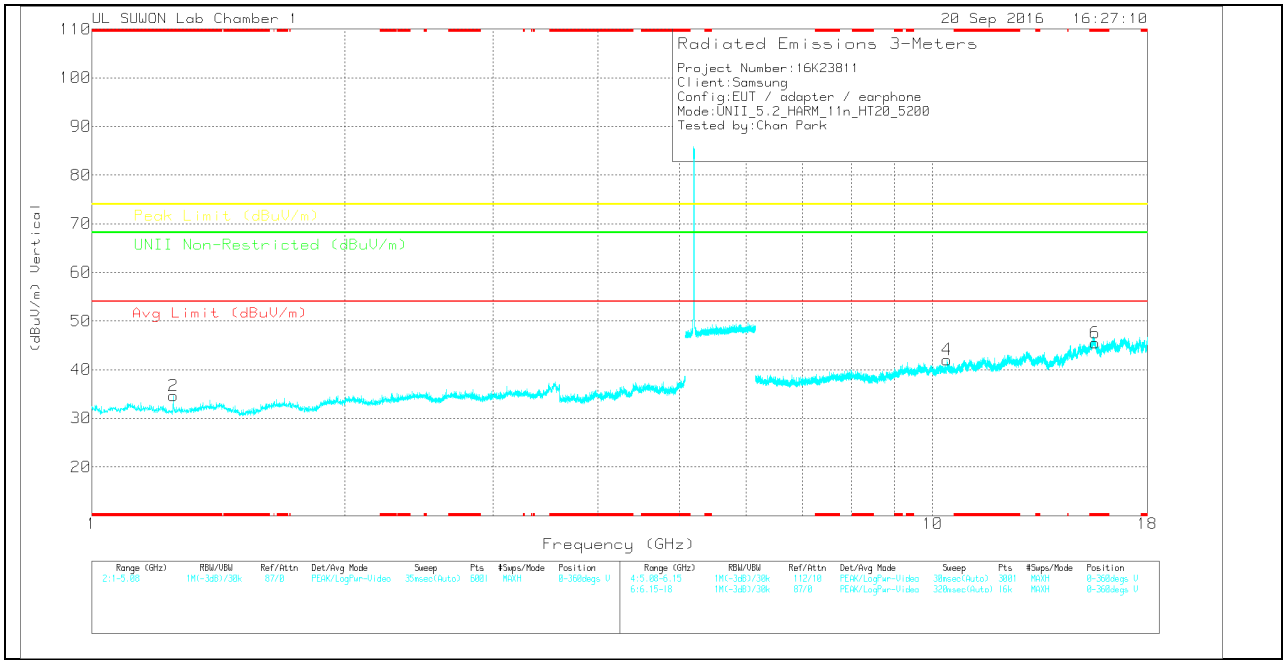
Note: Only peak measurement was performed. Because peak measurement result of unwanted emission is less than average limit (54dBuV/m).

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.687	45.25	PK	29.5	-39.5	0	35.25	-	-	74	-38.75	-	-	0-360	150	H
2	* 1.25	46.55	PK	28.3	-40.2	0	34.65	-	-	74	-39.35	-	-	0-360	250	V
3	10.396	29.98	PK	37.8	-26.8	0	40.98	-	-	-	-	68.2	-27.22	0-360	150	H
5	* 15.601	19.51	PK	40.3	-14.6	0	45.21	-	-	74	-28.79	-	-	0-360	150	H
4	10.399	30.97	PK	37.8	-26.7	0	42.07	-	-	-	-	68.2	-26.13	0-360	250	V
6	* 15.603	19.85	PK	40.3	-14.6	0	45.55	-	-	74	-28.45	-	-	0-360	250	V

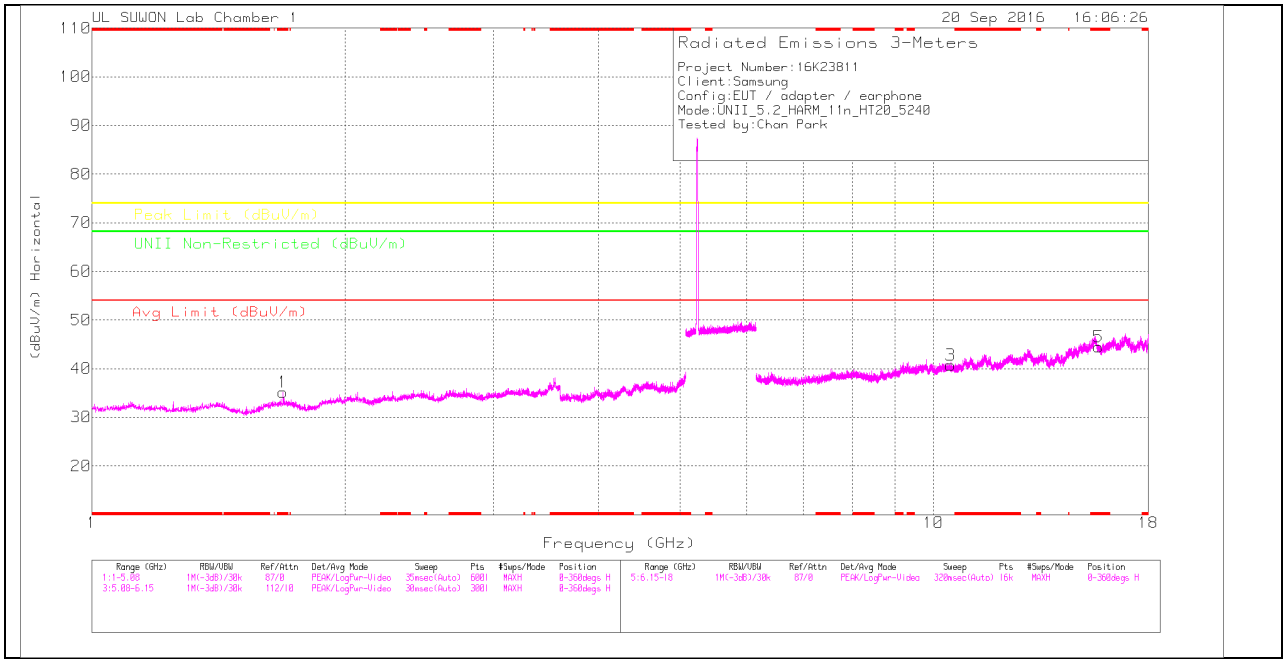
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

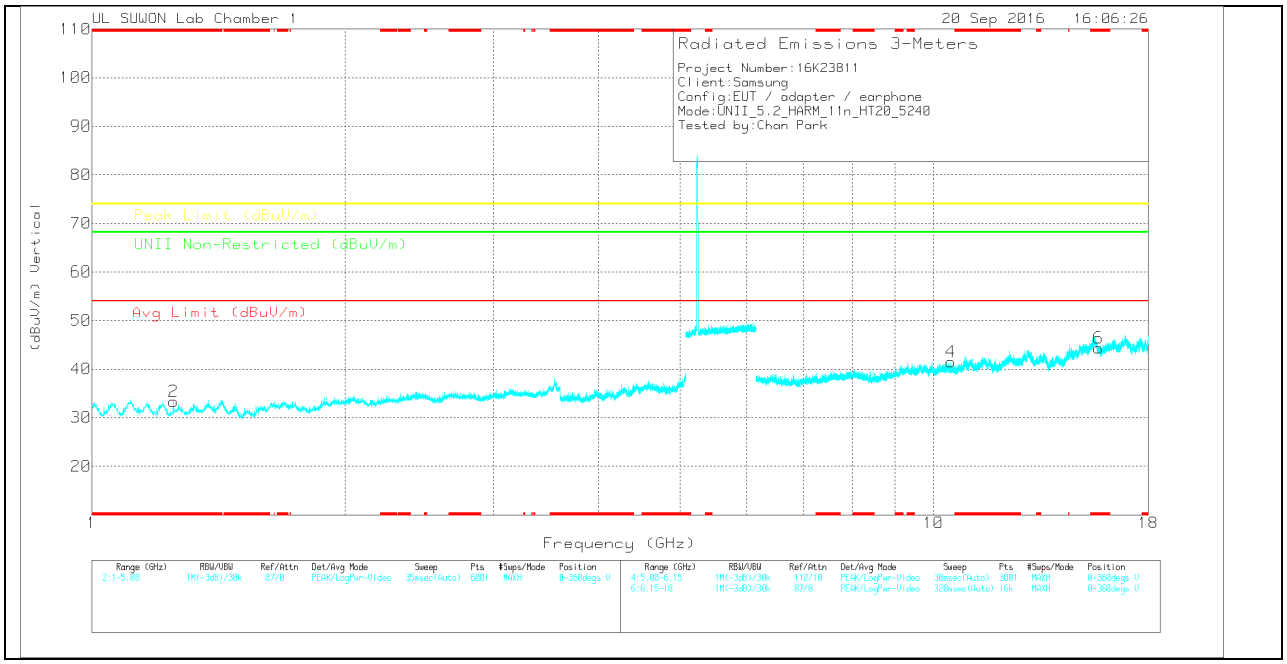
Note: Only peak measurement was performed. Because peak measurement result of unwanted emission is less than average limit (54dBuV/m).

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.687	45.13	PK	29.5	-39.5	0	35.13	-	-	74	-38.87	-	-	0-360	150	H
2	* 1.25	45.22	PK	28.3	-40.2	0	33.32	-	-	74	-40.68	-	-	0-360	250	V
3	10.479	30.63	PK	37.8	-27.7	0	40.73	-	-	-	-	68.2	-27.47	0-360	250	H
5	* 15.72	21.51	PK	40.4	-17.4	0	44.51	-	-	74	-29.49	-	-	0-360	150	H
4	10.48	31.34	PK	37.8	-27.7	0	41.44	-	-	-	-	68.2	-26.76	0-360	250	V
6	* 15.719	21.29	PK	40.4	-17.4	0	44.29	-	-	74	-29.71	-	-	0-360	150	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

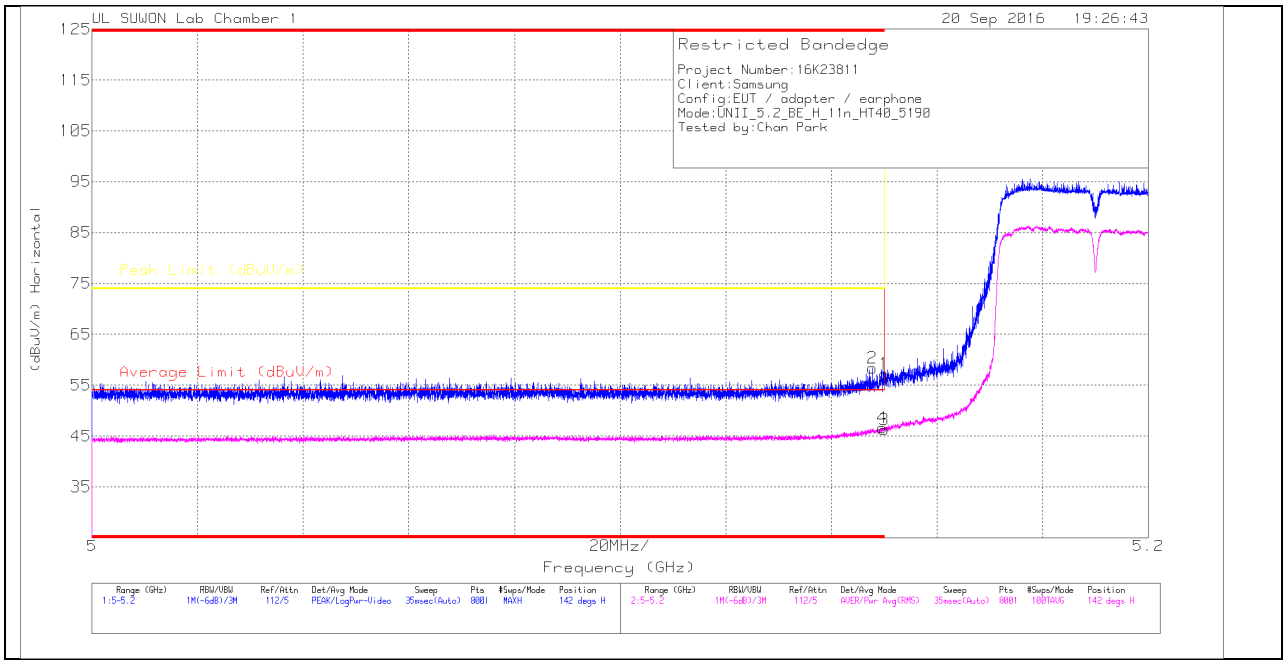
PK – Peak Detector

Note: Only peak measurement was performed. Because peak measurement result of unwanted emission is less than average limit (54dBuV/m).

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

11.1.3. TX Above 1GHz 802.11n HT40 MODE IN THE 5.2GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	47.09	Pk	34.2	-24.1	0	57.19	-	-	74	-16.81	142	100	H
2	* 5.148	48.25	Pk	34.2	-24.1	0	58.35	-	-	74	-15.65	142	100	H
3	* 5.15	35.47	RMS	34.2	-24.1	.63	46.2	54	-7.8	-	-	142	100	H
4	* 5.15	35.89	RMS	34.2	-24.1	.63	46.62	54	-7.38	-	-	142	100	H

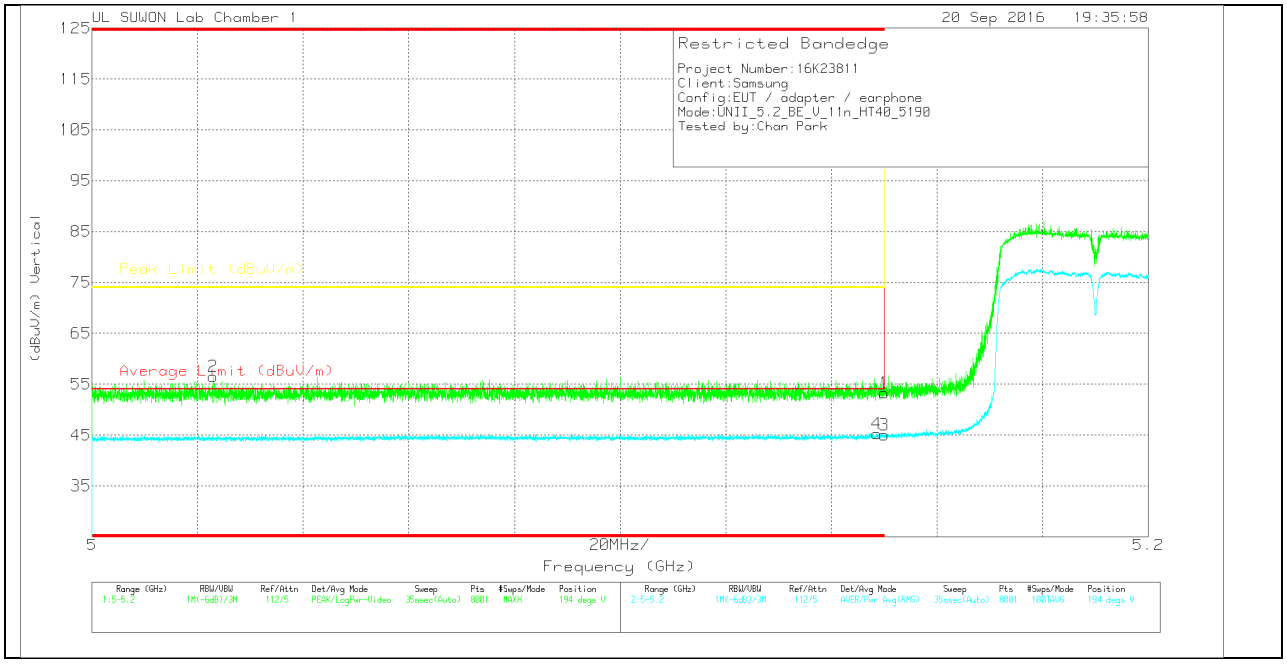
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	43.19	Pk	34.2	-24.1	0	53.29	-	-	74	-20.71	194	160	V
2	* 5.023	46.76	Pk	34.1	-24.3	0	56.56	-	-	74	-17.44	194	160	V
3	* 5.15	34.29	RMS	34.2	-24.1	.63	45.02	54	-8.98	-	-	194	160	V
4	* 5.149	34.55	RMS	34.2	-24.1	.63	45.28	54	-8.72	-	-	194	160	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

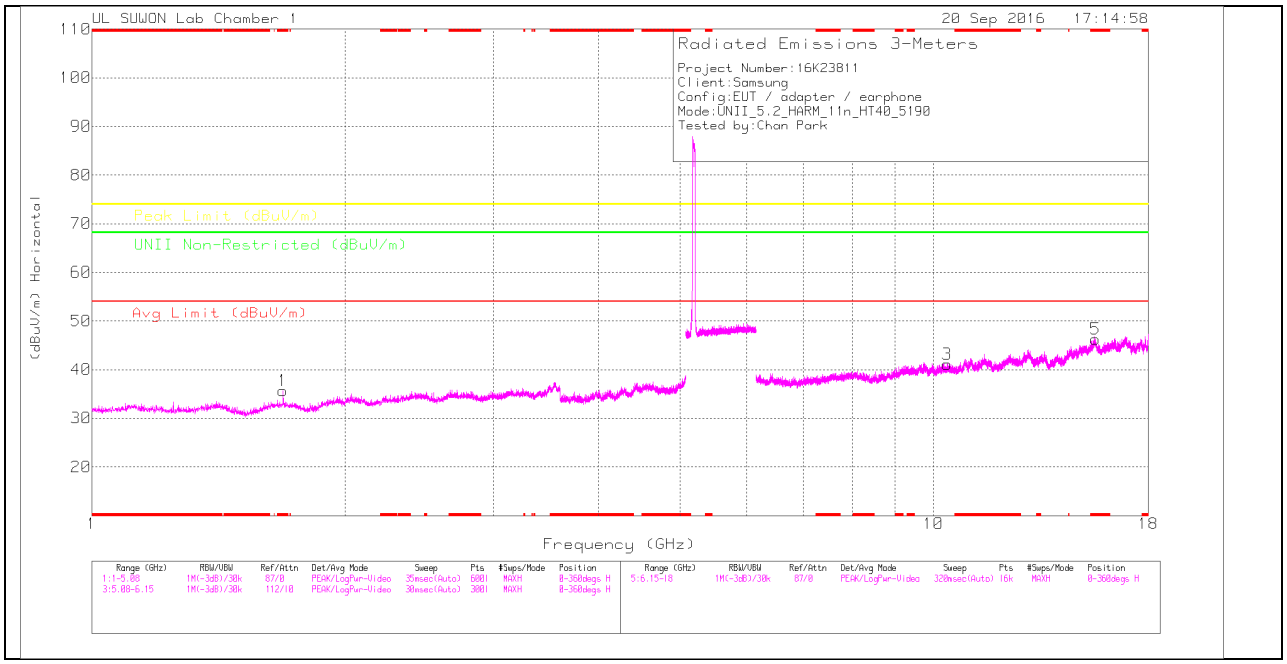
Pk - Peak detector

RMS - RMS detection

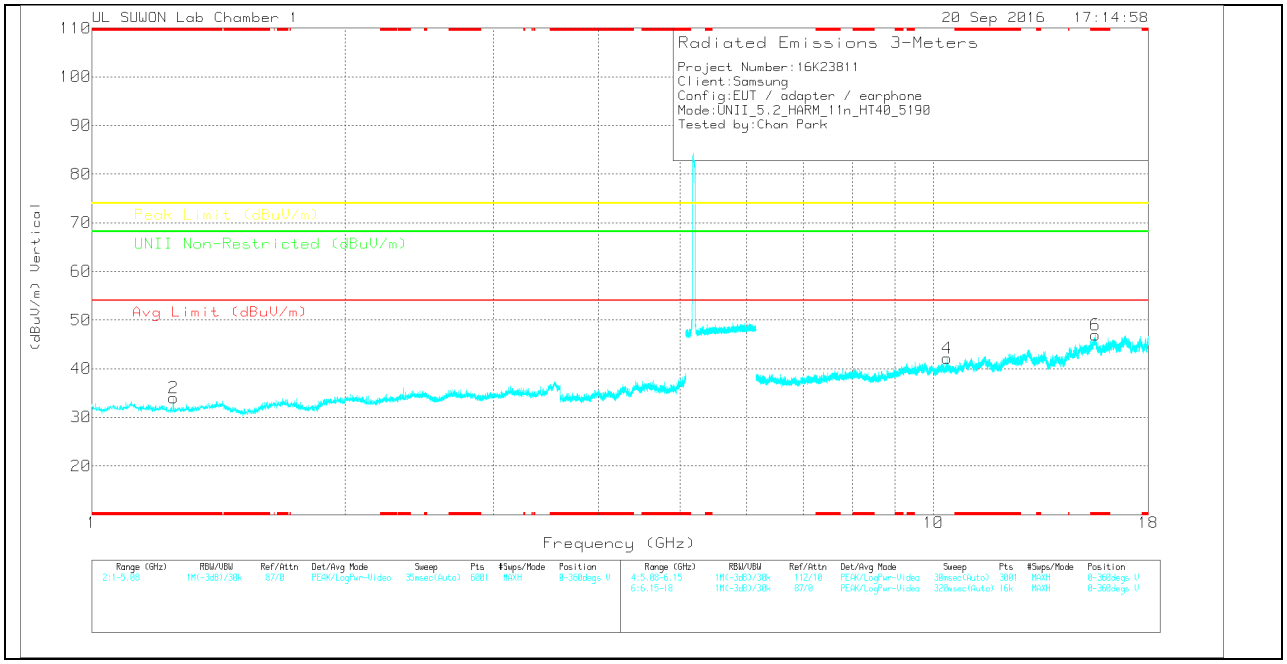
UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.687	45.63	PK	29.5	-39.5	0	35.63	-	-	74	-38.37	-	-	0-360	150	H
2	* 1.25	45.89	PK	28.3	-40.2	0	33.99	-	-	74	-40.01	-	-	0-360	250	V
3	10.38	30.34	PK	37.8	-27	0	41.14	-	-	-	-	68.2	-27.06	0-360	150	H
5	* 15.567	21.05	PK	40.3	-15.1	0	46.25	-	-	74	-27.75	-	-	0-360	150	H
4	10.379	31.34	PK	37.8	-27	0	42.14	-	-	-	-	68.2	-26.06	0-360	250	V
6	* 15.568	21.71	PK	40.3	-15.1	0	46.91	-	-	74	-27.09	-	-	0-360	250	V

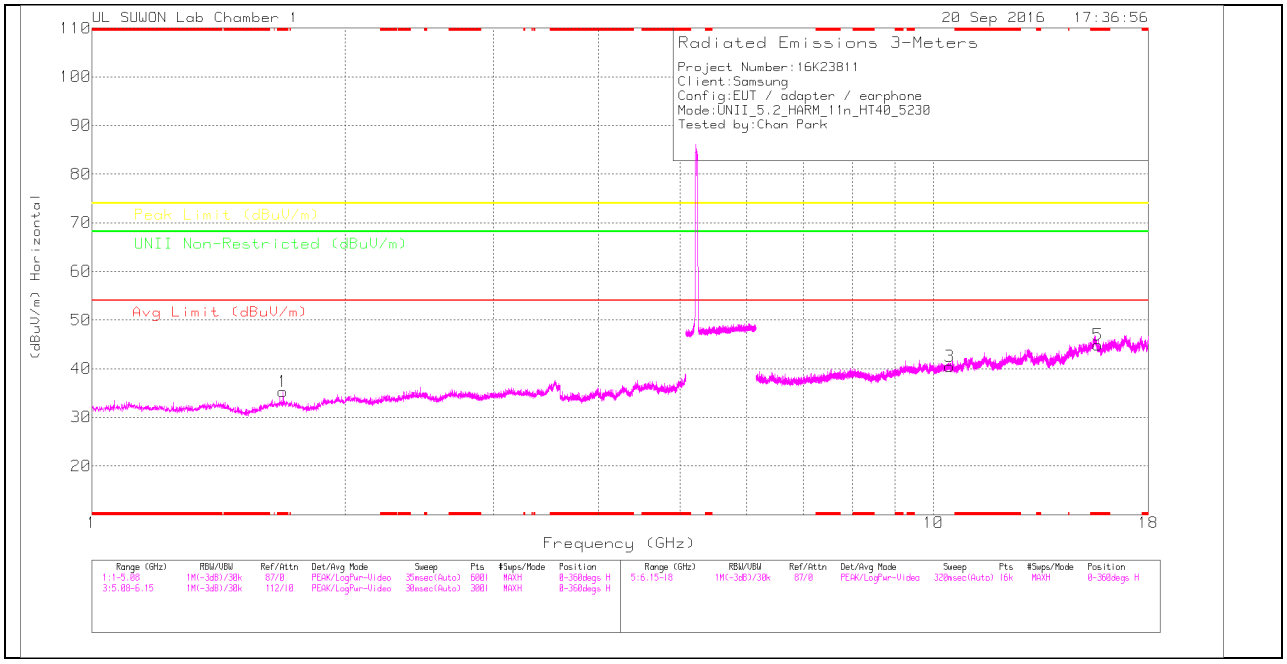
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

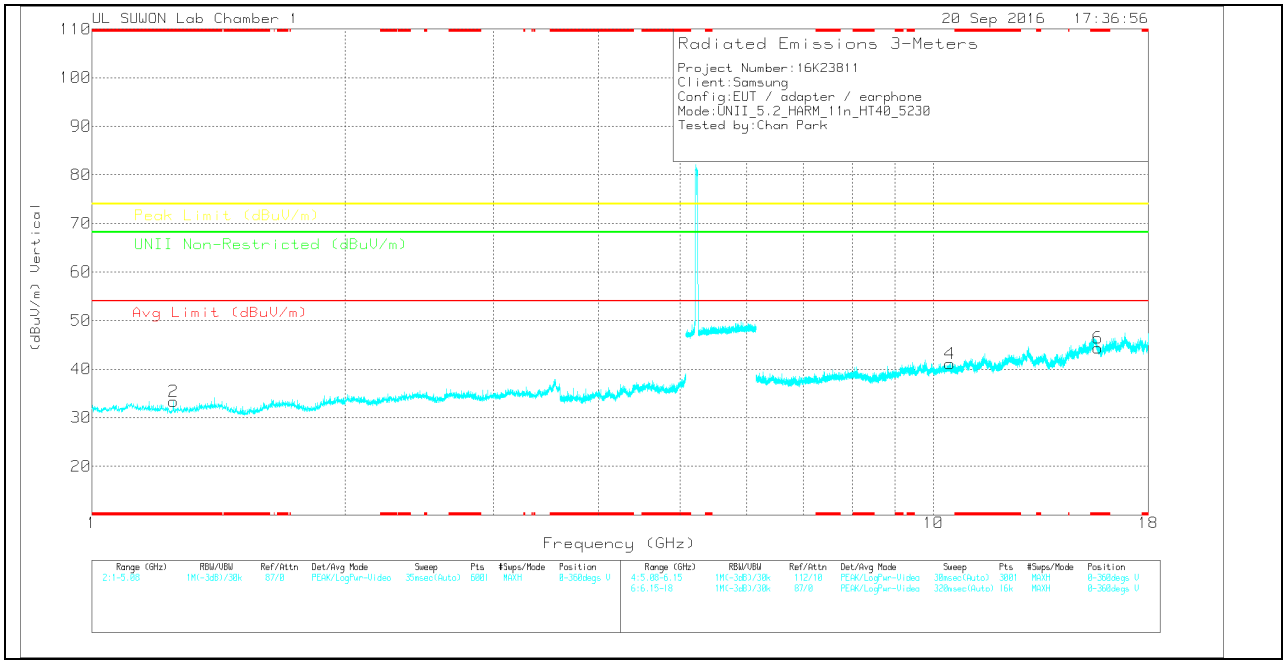
Note: Only peak measurement was performed. Because peak measurement result of unwanted emission is less than average limit (54dBuV/m).

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.687	45.24	PK	29.5	-39.5	0	35.24	-	-	74	-38.76	-	-	0-360	150	H
2	* 1.25	45.3	PK	28.3	-40.2	0	33.4	-	-	74	-40.6	-	-	0-360	250	V
3	10.46	30.19	PK	37.8	-27.5	0	40.49	-	-	-	-	68.2	-27.71	0-360	150	H
5	* 15.692	21.9	PK	40.4	-17.4	0	44.9	-	-	74	-29.1	-	-	0-360	150	H
4	10.461	30.85	PK	37.8	-27.5	0	41.15	-	-	-	-	68.2	-27.05	0-360	150	V
6	* 15.693	21.29	PK	40.4	-17.4	0	44.29	-	-	74	-29.71	-	-	0-360	250	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

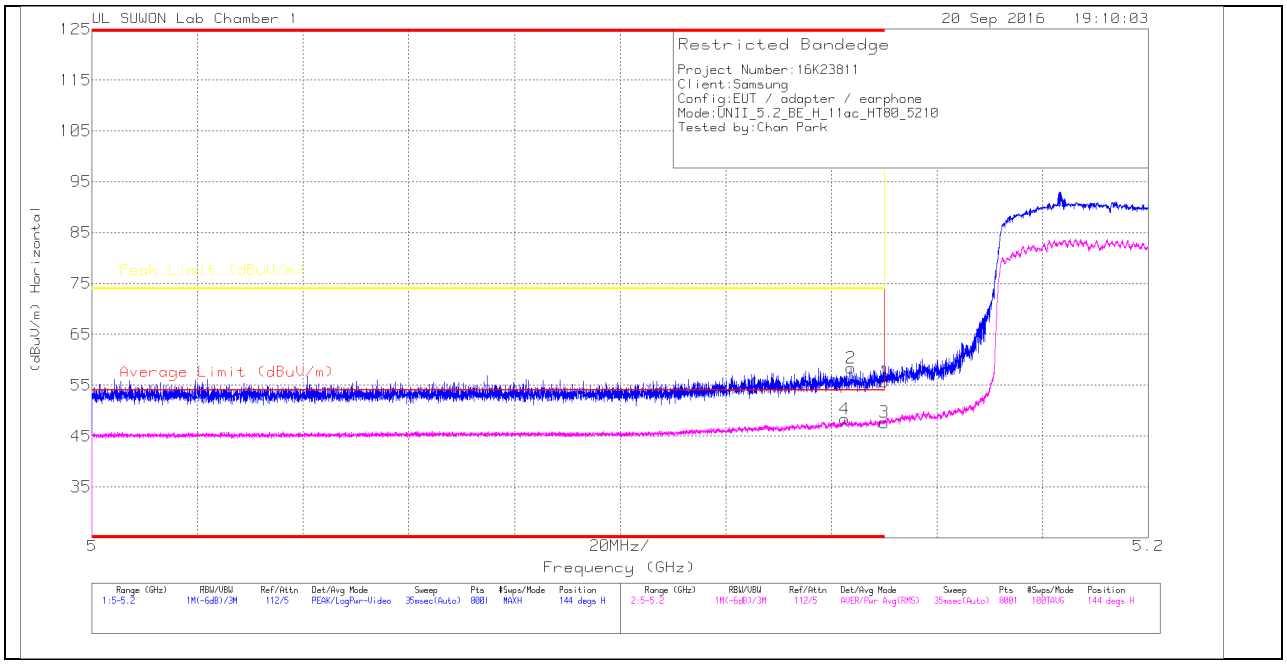
PK – Peak Detector

Note: Only peak measurement was performed. Because peak measurement result of unwanted emission is less than average limit (54dBuV/m).

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

11.1.4. TX ABOVE 1GHz 802.11ac VHT80 MODE IN THE 5.2GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	45.6	Pk	34.2	-24.1	0	55.7	-	-	74	-18.3	144	100	H
2	* 5.144	48.32	Pk	34.2	-24.1	0	58.42	-	-	74	-15.58	144	100	H
3	* 5.15	36.09	RMS	34.2	-24.1	1.48	47.67	54	-6.33	-	-	144	100	H
4	* 5.143	36.81	RMS	34.2	-24.1	1.48	48.39	54	-5.61	-	-	144	100	H

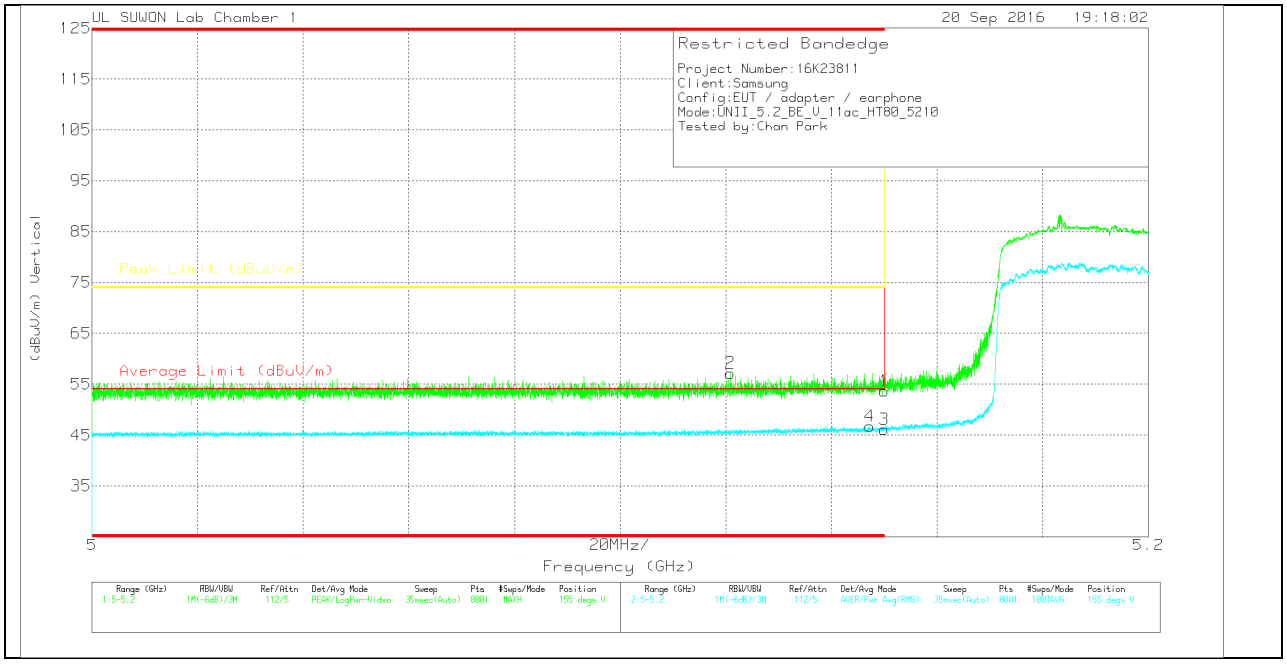
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	43.54	Pk	34.2	-24.1	0	53.64	-	-	74	-20.36	155	280	V
2	* 5.121	47.09	Pk	34.2	-24.1	0	57.19	-	-	74	-16.81	155	280	V
3	* 5.15	34.56	RMS	34.2	-24.1	1.48	46.14	54	-7.86	-	-	155	280	V
4	* 5.147	35.19	RMS	34.2	-24.1	1.48	46.77	54	-7.23	-	-	155	280	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

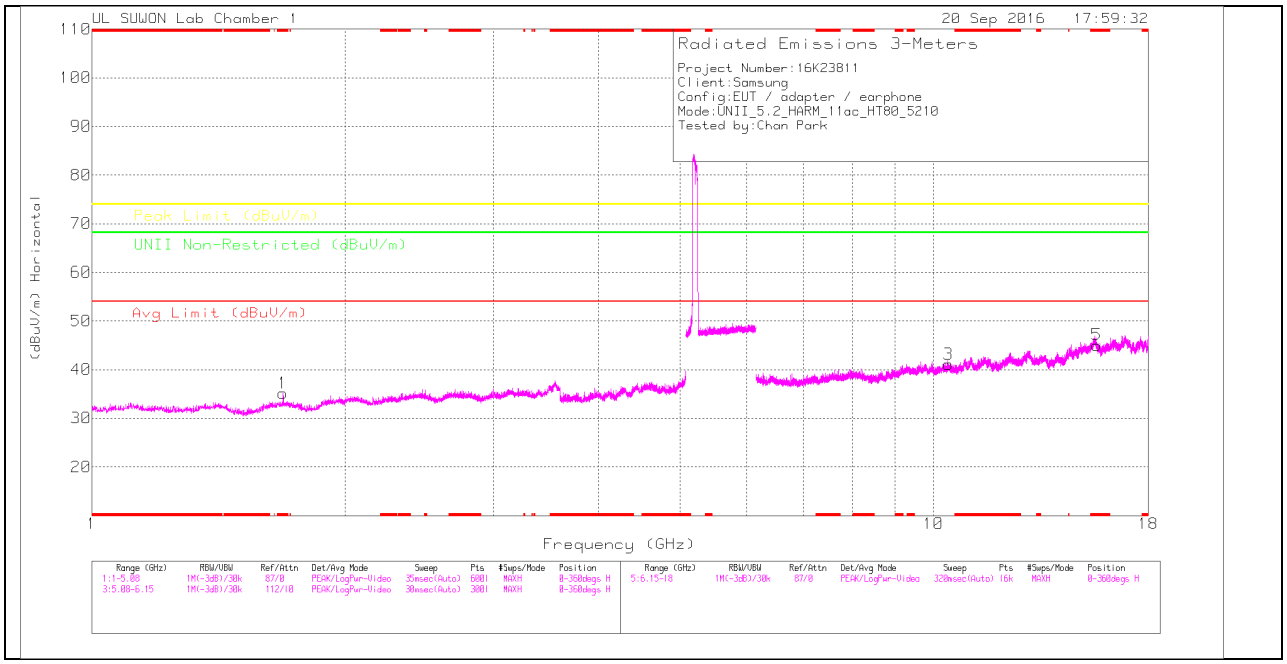
Pk - Peak detector

RMS - RMS detection

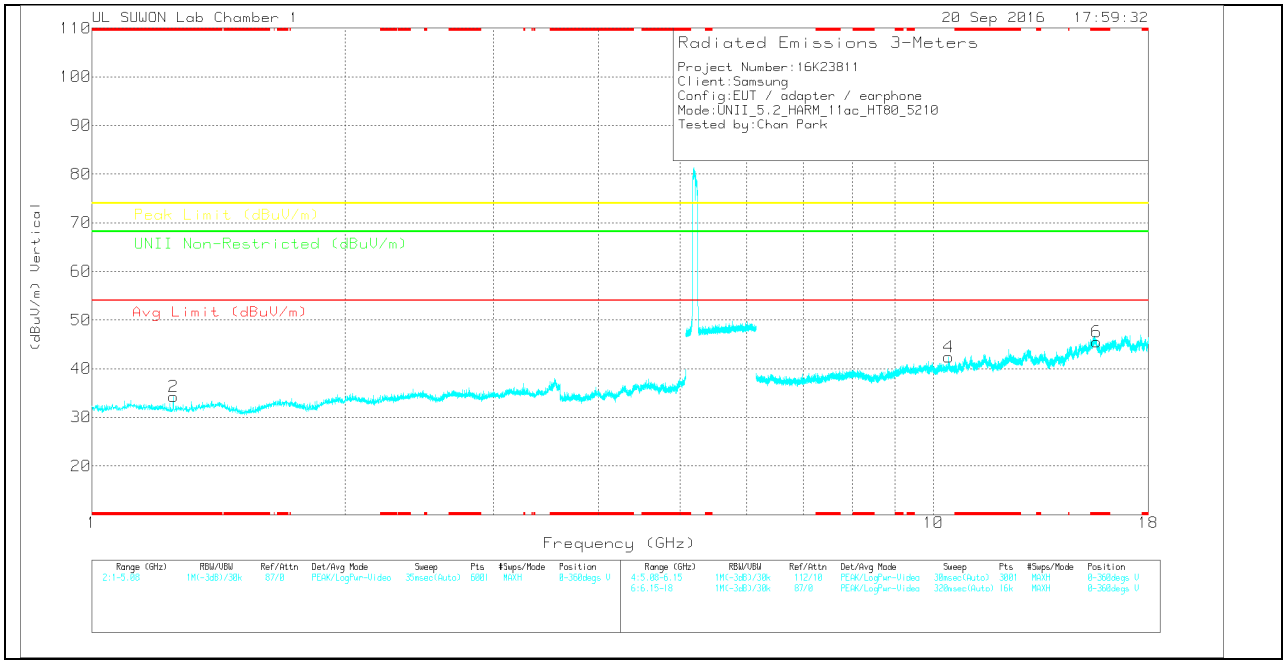
UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.687	45.17	PK	29.5	-39.5	0	35.17	-	-	74	-38.83	-	-	0-360	150	H
2	* 1.25	46.18	PK	28.3	-40.2	0	34.28	-	-	74	-39.72	-	-	0-360	250	V
3	10.42	30.01	PK	37.8	-26.7	0	41.11	-	-	-	-	68.2	-27.09	0-360	250	H
5	* 15.632	20.05	PK	40.3	-15.3	0	45.05	-	-	74	-28.95	-	-	0-360	250	H
4	10.425	31.28	PK	37.8	-26.7	0	42.38	-	-	-	-	68.2	-25.82	0-360	150	V
6	* 15.634	20.6	PK	40.3	-15.4	0	45.5	-	-	74	-28.5	-	-	0-360	250	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak detector

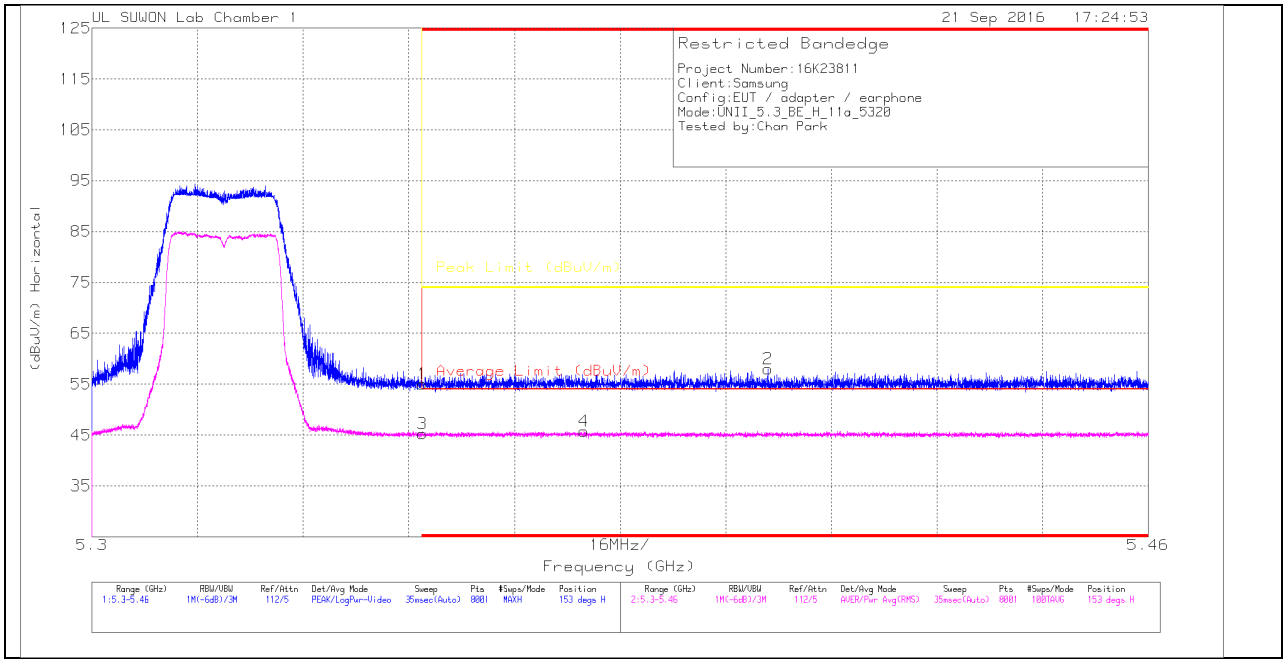
Note: Only peak measurement was performed. Because peak measurement result of unwanted emission is less than average limit (54dBuV/m).

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

11.2. 5.3 GHz

11.2.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	43.79	Pk	34.5	-23.3	0	54.99	-	-	74	-19.01	153	108	H
2	* 5.402	46.69	Pk	34.6	-23.3	0	57.99	-	-	74	-16.01	153	108	H
3	* 5.35	33.71	RMS	34.5	-23.3	.3	45.21	54	-8.79	-	-	153	108	H
4	* 5.375	34.27	RMS	34.5	-23.3	.3	45.77	54	-8.23	-	-	153	108	H

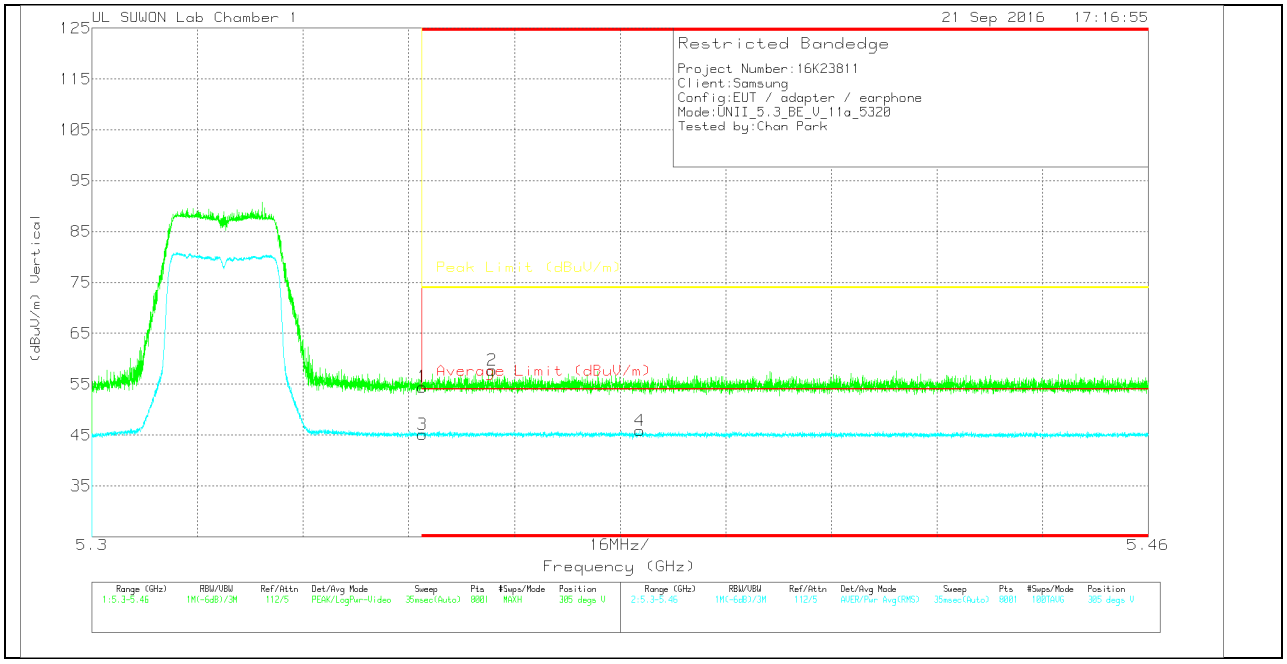
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	43.27	Pk	34.5	-23.3	0	54.47	-	-	74	-19.53	305	385	V
2	* 5.361	46.5	Pk	34.5	-23.3	0	57.7	-	-	74	-16.3	305	385	V
3	* 5.35	33.68	RMS	34.5	-23.3	.3	45.18	54	-8.82	-	-	305	385	V
4	* 5.383	34.36	RMS	34.5	-23.3	.3	45.86	54	-8.14	-	-	305	385	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

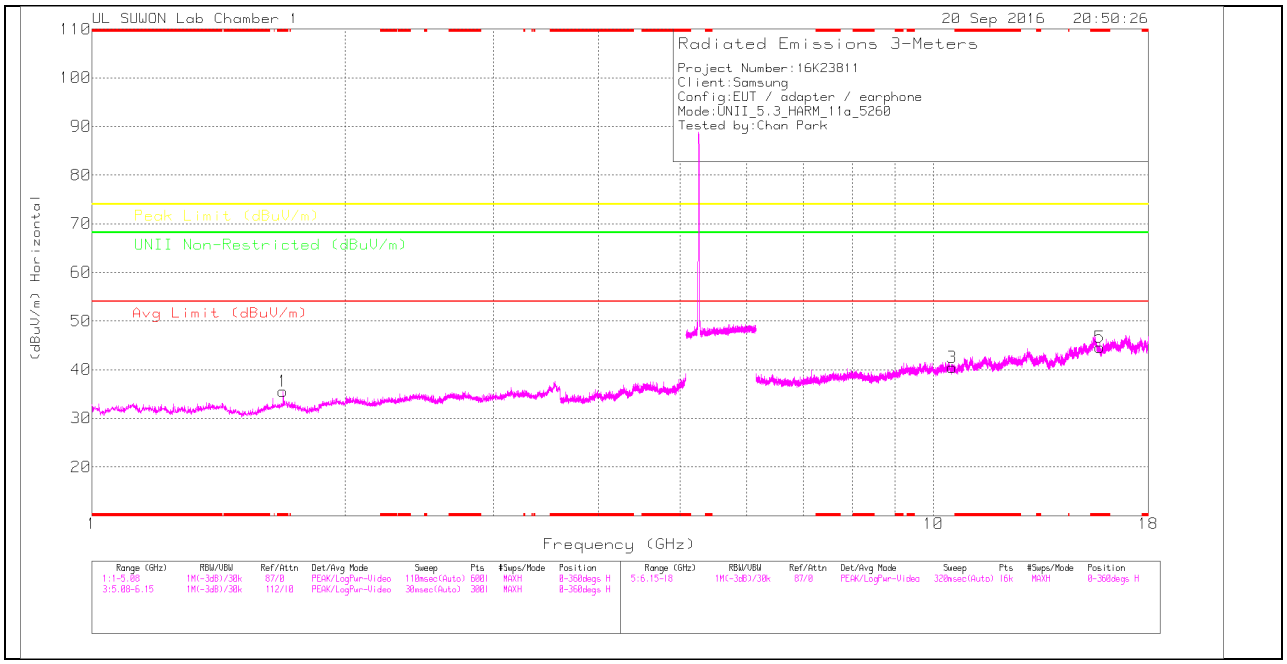
Pk - Peak detector

RMS - RMS detection

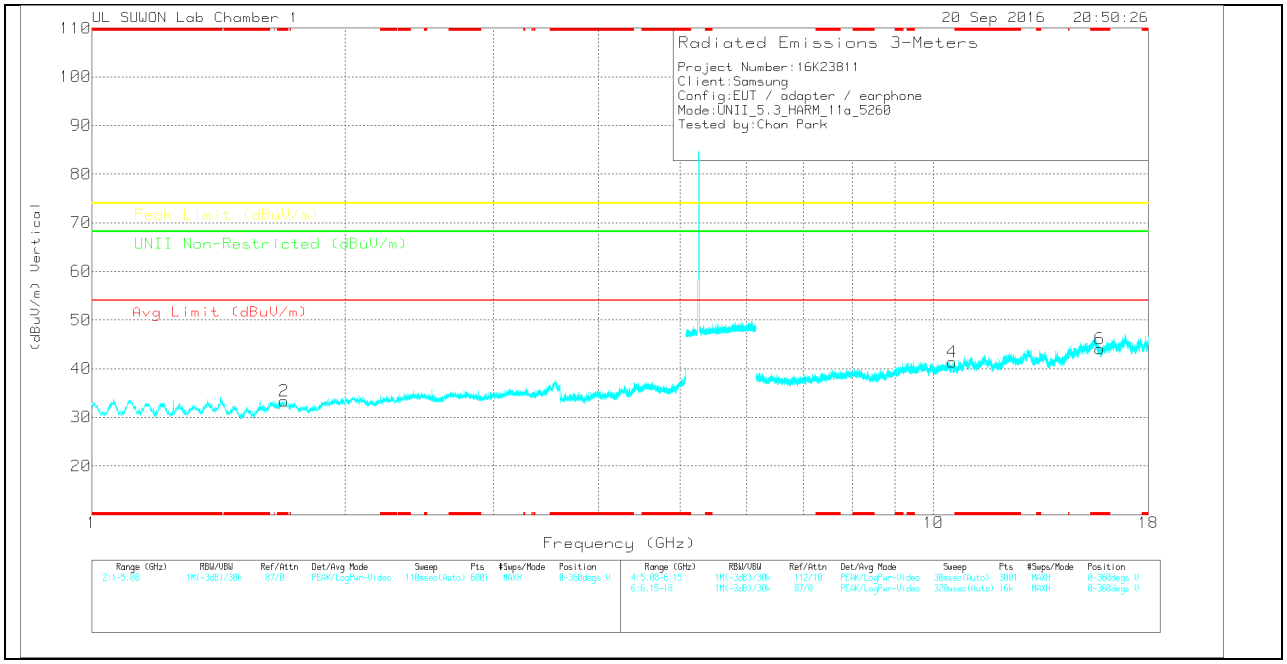
UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Trace Markers

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.687	45.51	PK	29.5	-39.5	0	35.51	-	-	74	-38.49	-	-	0-360	150	H
2	* 1.692	43.13	PK	29.6	-39.4	0	33.33	-	-	74	-40.67	-	-	0-360	149	V
3	10.521	29.73	PK	37.9	-27.2	0	40.43	-	-	-	-	68.2	-27.77	0-360	150	H
5	* 15.775	21.27	PK	40.4	-17.1	0	44.57	-	-	74	-29.43	-	-	0-360	250	H
4	10.519	30.69	PK	37.9	-27.2	0	41.39	-	-	-	-	68.2	-26.81	0-360	250	V
6	* 15.77	20.72	PK	40.4	-17	0	44.12	-	-	74	-29.88	-	-	0-360	250	V

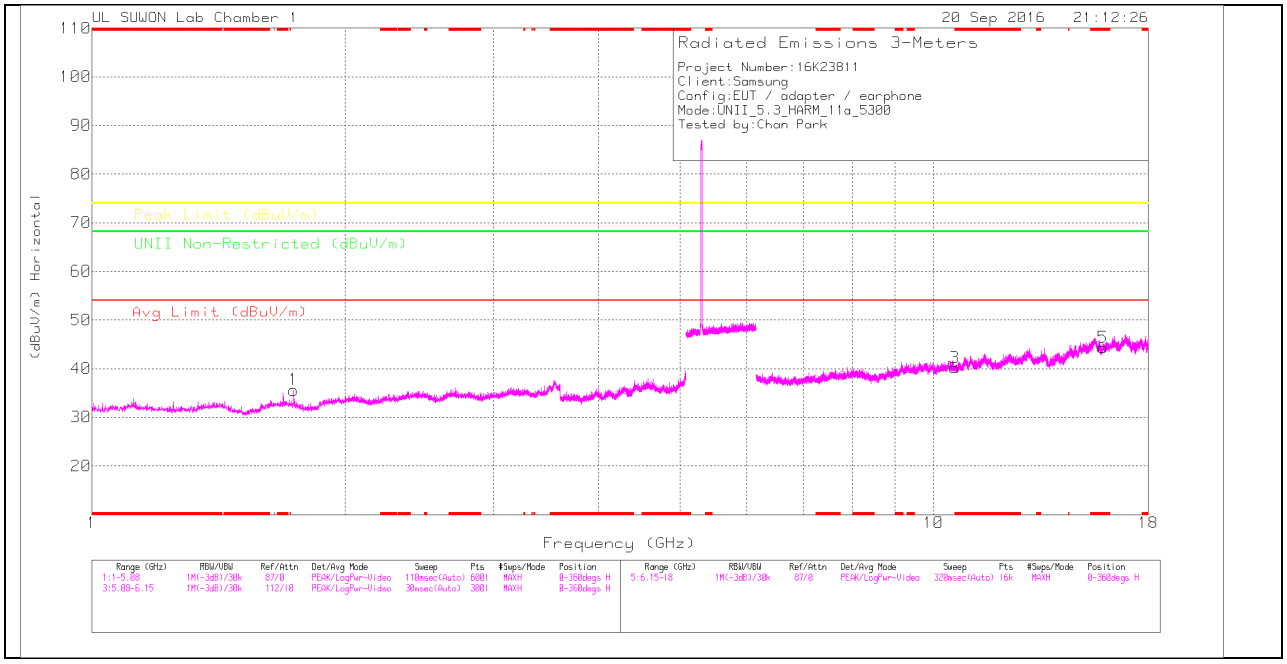
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk – Peak detector

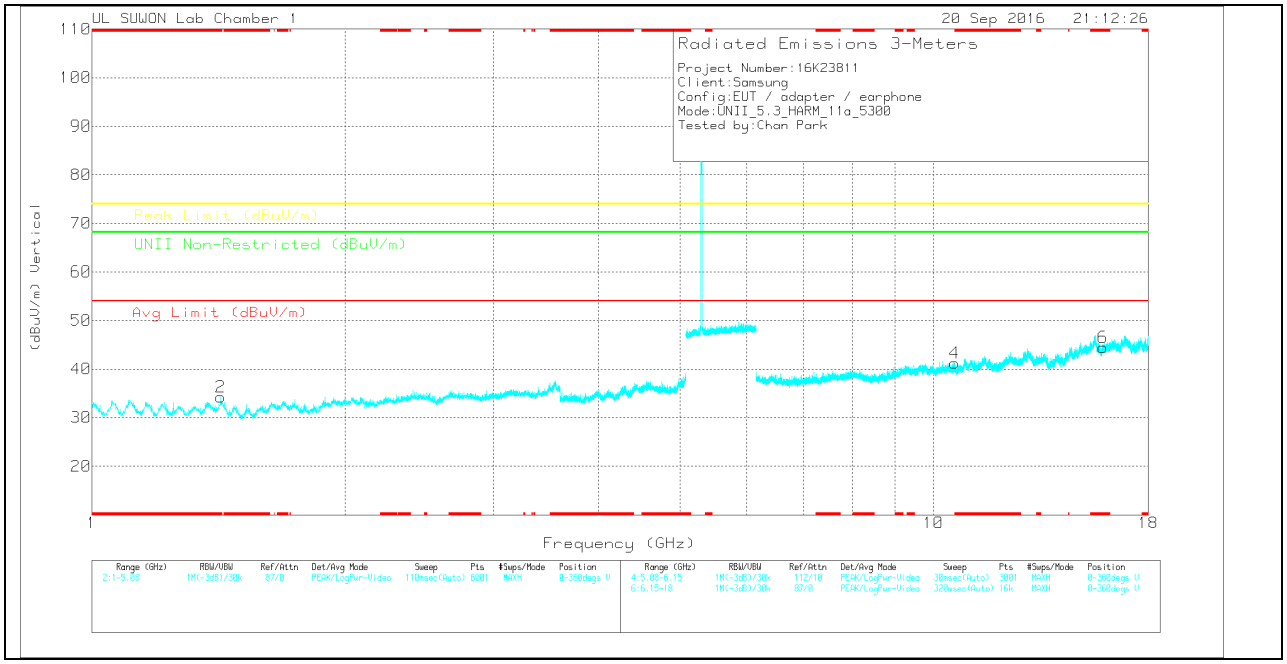
Note: Only peak measurement was performed. Because peak measurement result of unwanted emission is less than average limit (54dBuV/m).

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.736	45.11	PK	29.8	-39.3	0	35.61	-	-	-	-	68.2	-32.59	0-360	250	H
2	* 1.422	45.77	PK	28.5	-40	0	34.27	-	-	74	-39.73	-	-	0-360	250	V
3	10.599	29.31	PK	37.9	-27	0	40.21	-	-	-	-	68.2	-27.99	0-360	150	H
5	* 15.9	23.19	PK	40.5	-19.4	0	44.29	-	-	74	-29.71	-	-	0-360	150	H
4	10.599	30.29	PK	37.9	-27	0	41.19	-	-	-	-	68.2	-27.01	0-360	250	V
6	* 15.904	23.32	PK	40.5	-19.4	0	44.42	-	-	74	-29.58	-	-	0-360	250	V

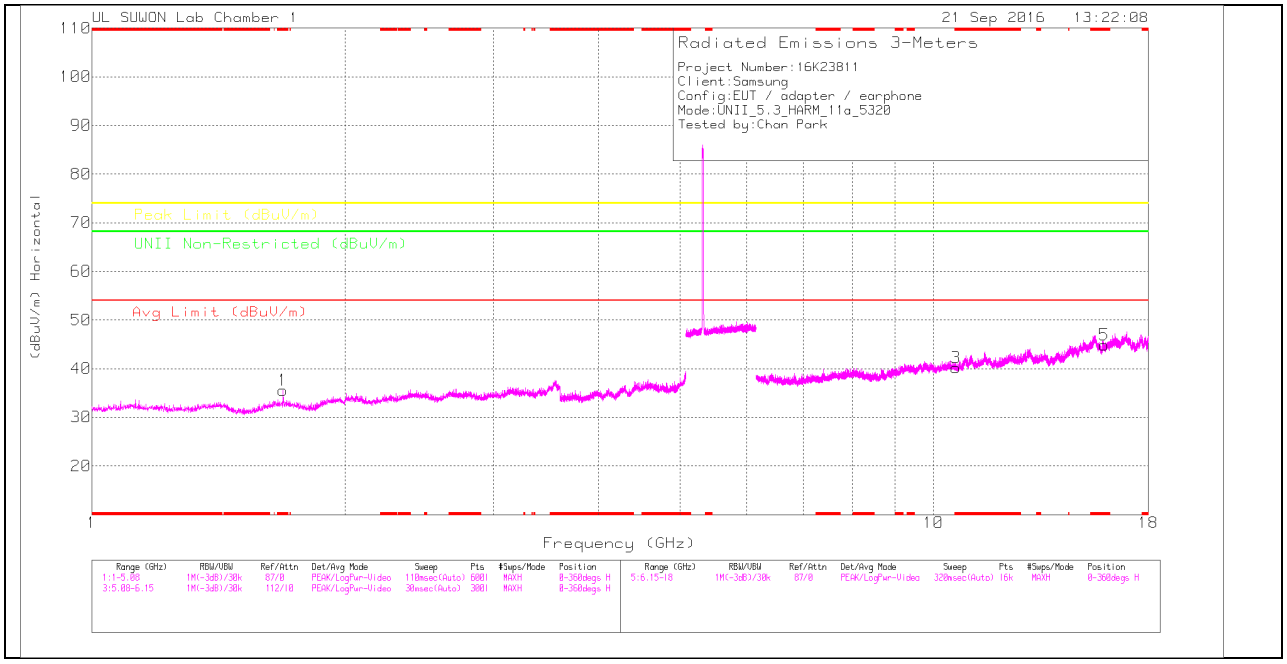
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk – Peak detector

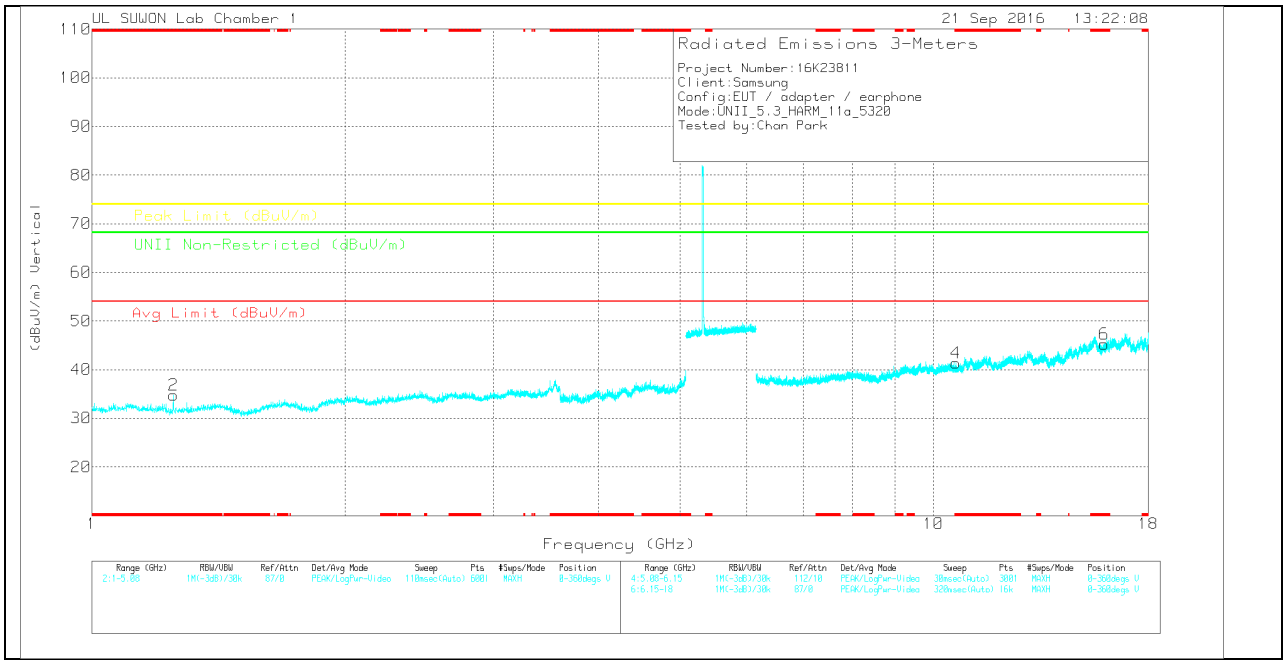
Note: Only peak measurement was performed. Because peak measurement result of unwanted emission is less than average limit (54dBuV/m).

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.687	45.5	PK	29.5	-39.5	0	35.5	-	-	74	-38.5	-	-	0-360	150	H
2	* 1.25	46.69	PK	28.3	-40.2	0	34.79	-	-	74	-39.21	-	-	0-360	250	V
3	* 10.642	29.85	PK	38	-27.6	0	40.25	-	-	74	-33.75	-	-	0-360	250	H
5	* 15.964	24.15	PK	40.6	-19.9	0	44.85	-	-	74	-29.15	-	-	0-360	250	H
4	* 10.639	31.04	PK	37.9	-27.6	0	41.34	-	-	74	-32.66	-	-	0-360	250	V
6	* 15.96	24.39	PK	40.6	-19.8	0	45.19	-	-	74	-28.81	-	-	0-360	150	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk – Peak detector

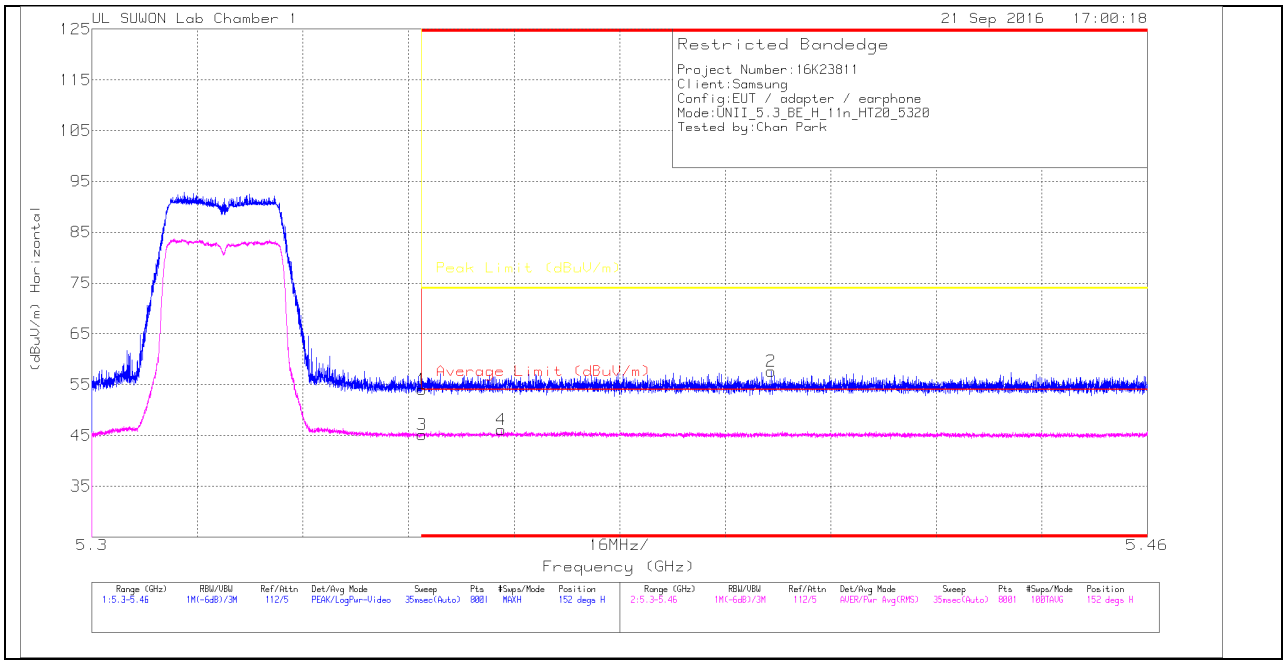
Note: Only peak measurement was performed. Because peak measurement result of unwanted emission is less than average limit (54dBuV/m).

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

11.2.2. TX ABOVE 1GHz 802.11n HT20 MODE IN THE 5.3GHz BAND

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	42.87	Pk	34.5	-23.3	0	54.07	-	-	74	-19.93	152	107	H
2	* 5.403	46.38	Pk	34.6	-23.3	0	57.68	-	-	74	-16.32	152	107	H
3	* 5.35	33.63	RMS	34.5	-23.3	.32	45.15	54	-8.85	-	-	152	107	H
4	* 5.362	34.6	RMS	34.5	-23.3	.32	46.12	54	-7.88	-	-	152	107	H

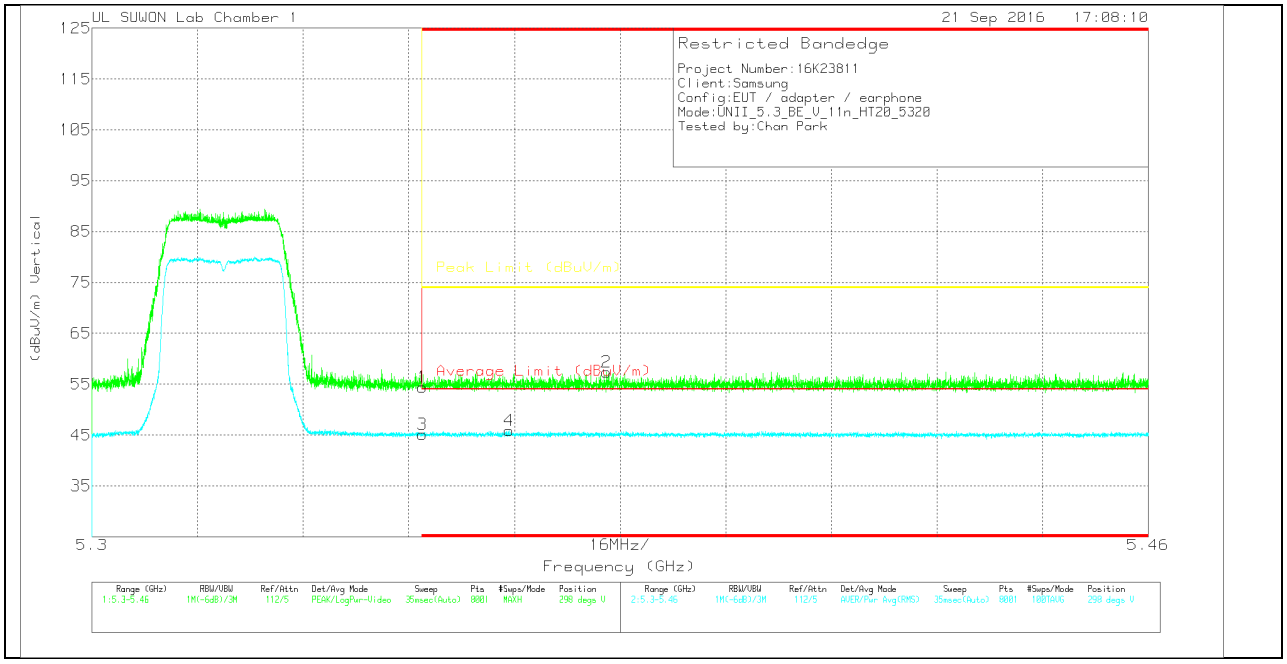
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	43.16	Pk	34.5	-23.3	0	54.36	-	-	74	-19.64	298	306	V
2	* 5.378	46.17	Pk	34.5	-23.3	0	57.37	-	-	74	-16.63	298	306	V
3	* 5.35	33.6	RMS	34.5	-23.3	.32	45.12	54	-8.88	-	-	298	306	V
4	* 5.363	34.3	RMS	34.5	-23.3	.32	45.82	54	-8.18	-	-	298	306	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

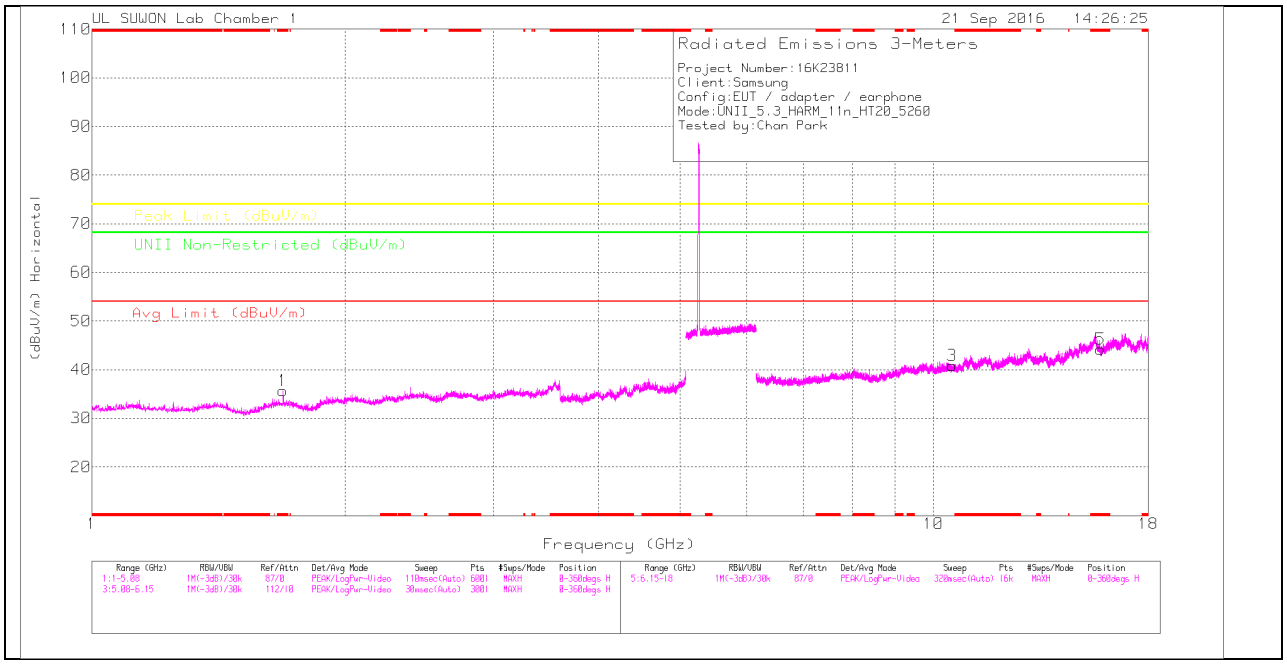
Pk - Peak detector

RMS - RMS detection

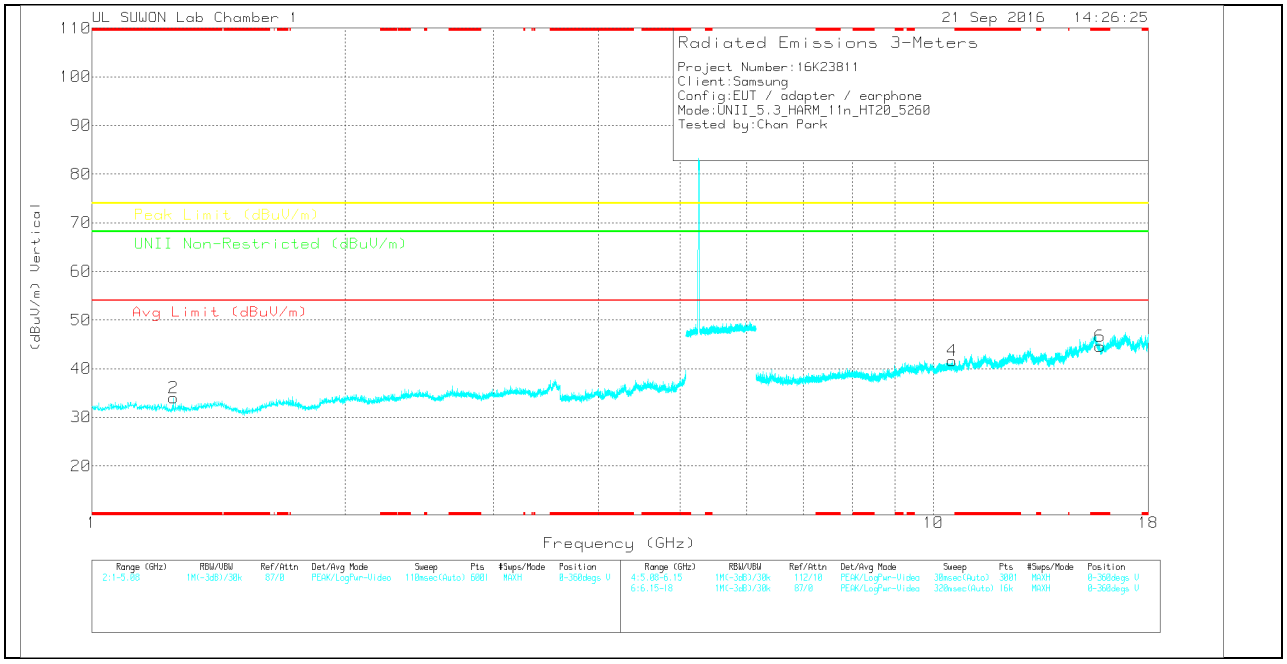
UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.687	45.69	PK	29.5	-39.5	0	35.69	-	-	74	-38.31	-	-	0-360	150	H
2	* 1.25	45.88	PK	28.3	-40.2	0	33.98	-	-	74	-40.02	-	-	0-360	250	V
3	10.52	30.19	PK	37.9	-27.2	0	40.89	-	-	-	-	68.2	-27.31	0-360	250	H
5	* 15.78	21.16	PK	40.4	-17.3	0	44.26	-	-	74	-29.74	-	-	0-360	250	H
4	10.52	30.92	PK	37.9	-27.2	0	41.62	-	-	-	-	68.2	-26.58	0-360	250	V
6	* 15.777	21.39	PK	40.4	-17.2	0	44.59	-	-	74	-29.41	-	-	0-360	250	V

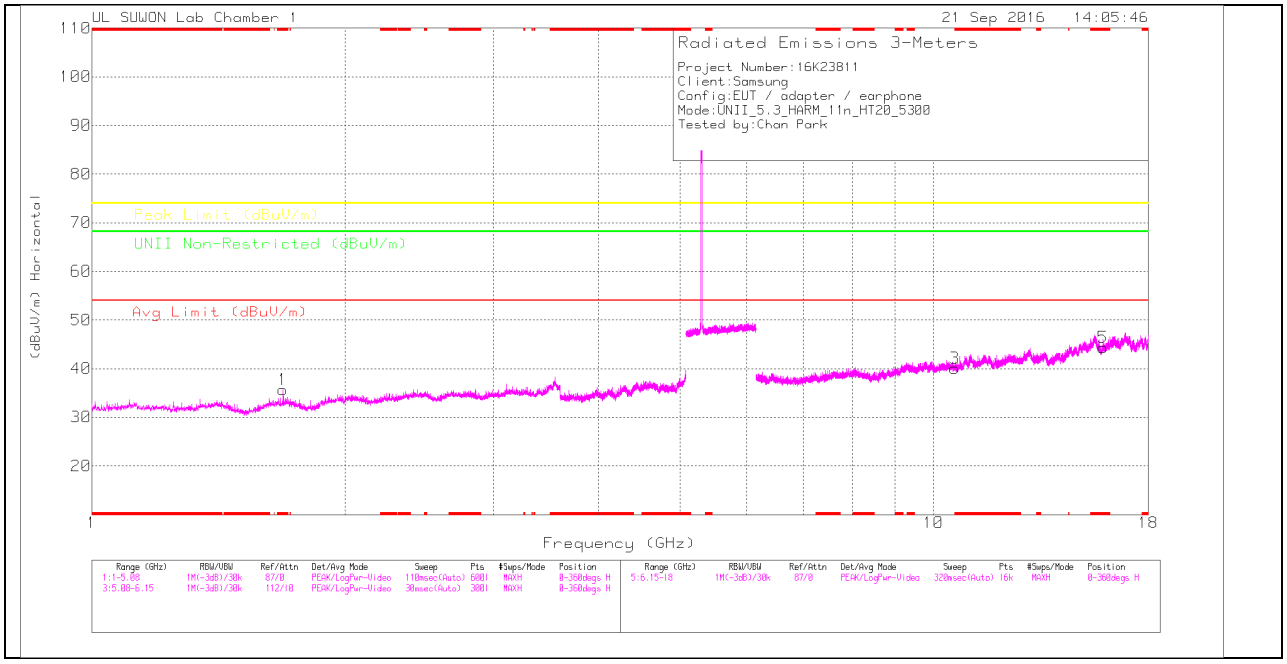
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk – Peak detector

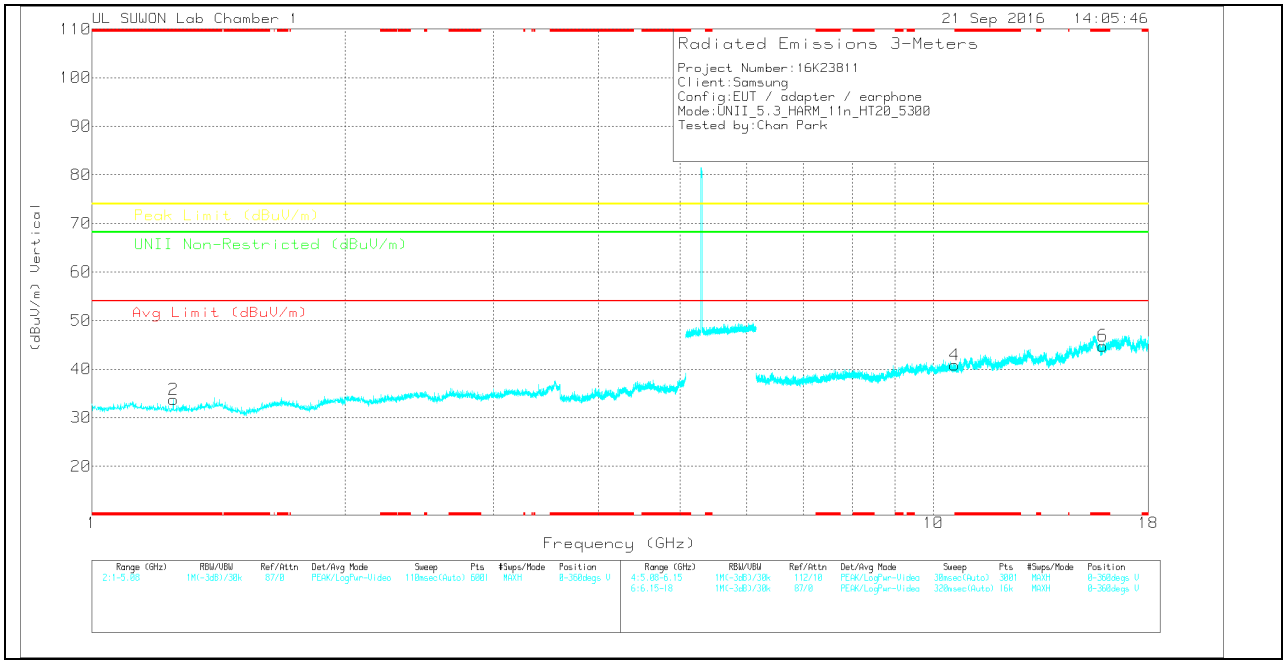
Note: Only peak measurement was performed. Because peak measurement result of unwanted emission is less than average limit (54dBuV/m).

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.687	45.71	PK	29.5	-39.5	0	35.71	-	-	74	-38.29	-	-	0-360	150	H
2	* 1.25	45.67	PK	28.3	-40.2	0	33.77	-	-	74	-40.23	-	-	0-360	250	V
3	* 10.602	29.22	PK	37.9	-27	0	40.12	-	-	74	-33.88	-	-	0-360	150	H
5	* 15.903	23.27	PK	40.5	-19.4	0	44.37	-	-	74	-29.63	-	-	0-360	150	H
4	10.599	29.97	PK	37.9	-27	0	40.87	-	-	-	-	68.2	-27.33	0-360	250	V
6	* 15.899	23.79	PK	40.5	-19.5	0	44.79	-	-	74	-29.21	-	-	0-360	250	V

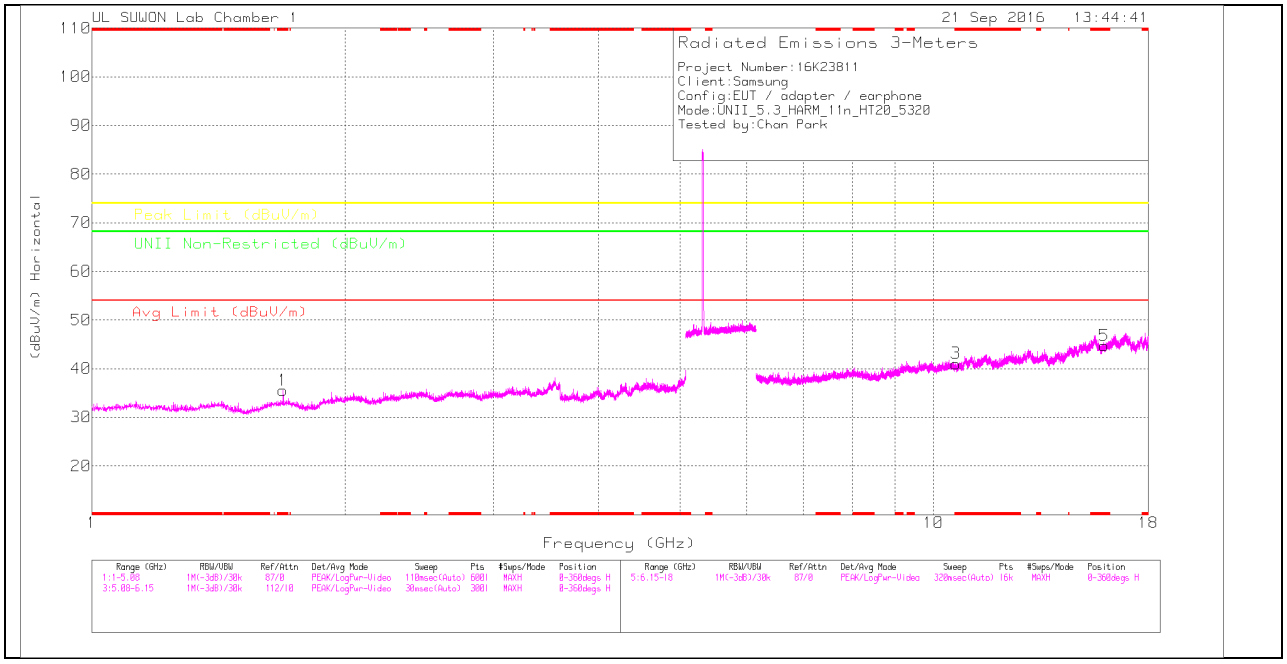
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk – Peak detector

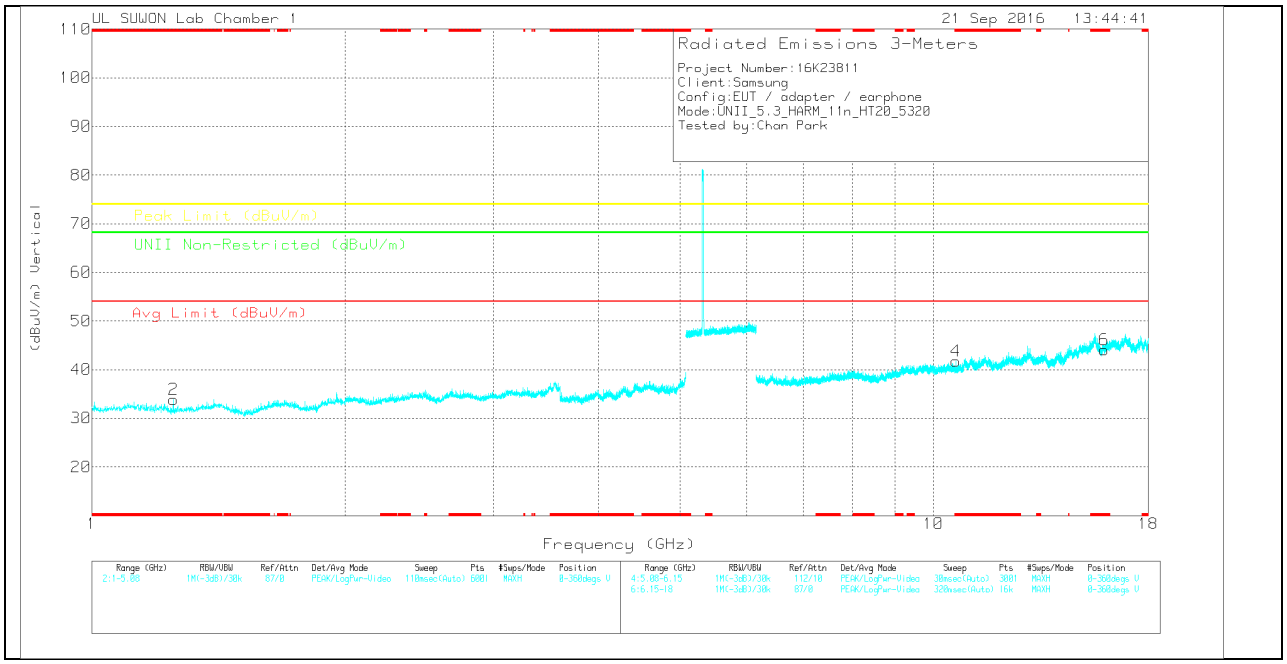
Note: Only peak measurement was performed. Because peak measurement result of unwanted emission is less than average limit (54dBuV/m).

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

UL Korea, Ltd. Confidential
This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.